

**BEFORE THE FLORIDA PUBLIC SERVICE
COMMISSION**

DOCKET NO. 100155-EG

**DEMAND-SIDE MANAGEMENT PLAN OF
FLORIDA POWER & LIGHT COMPANY FOR 2010-2019**

PLAN DOCUMENT APPENDIX A

MARCH 30, 2010

DOCUMENT NUMBER-DATE

02283 MAR 30 e

FPSC-COMMISSION CLERK

RESIDENTIAL LOW INCOME WEATHERIZATION

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Weatherization

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.29 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.39 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	788.59 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012, 2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

* INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Weatherization

NOM	9,860	13,632	0	23,492	48,519	0	21,920	0	0	21,920
NPV	2,367	4,000	0	6,367	9,135	0	5,371	0	0	5,371

* 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. REQ
PROGRAM NAME: Residential Low Income Weatherization

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	3,858	120	0	269	178	65	23	150	0	805	805	805	3,762
2020	3,707	115	0	259	122	62	24	150	49	781	718	1,523	3,856
2021	3,507	109	0	245	121	60	24	150	42	750	633	2,156	3,953
2022	3,315	103	0	231	120	57	25	150	35	721	558	2,714	4,051
2023	3,130	97	0	218	118	54	25	150	28	692	492	3,206	4,153
2024	2,951	92	0	206	116	51	26	150	22	664	434	3,640	4,256
2025	2,779	86	0	194	114	49	27	150	16	637	382	4,022	4,363
2026	2,612	81	0	182	112	46	27	150	11	611	336	4,358	4,472
2027	2,450	76	0	171	106	43	28	150	10	585	296	4,654	4,584
2028	2,290	71	0	160	99	41	29	150	10	560	260	4,914	4,698
2029	2,129	66	0	149	92	38	29	150	10	535	228	5,143	4,816
2030	1,968	61	0	137	85	35	30	150	10	509	200	5,342	4,936
2031	1,807	56	0	126	78	33	31	150	10	484	174	5,517	5,060
2032	1,646	51	0	115	71	30	32	150	10	459	152	5,668	5,186
2033	1,486	46	0	104	64	27	32	150	10	434	132	5,800	5,316
2034	1,325	41	0	92	57	24	33	150	10	409	114	5,914	5,449
2035	1,164	36	0	81	49	22	34	150	10	383	98	6,012	5,585
2036	1,003	31	0	70	42	19	35	150	10	358	84	6,096	5,724
2037	842	26	0	59	35	16	36	150	10	333	72	6,168	5,868
2038	682	21	0	48	28	14	37	150	10	308	61	6,230	6,014
2039	521	16	0	36	53	11	38	150	(21)	283	52	6,281	6,165
2040	391	12	0	27	79	8	39	150	(53)	263	44	6,325	6,319
2041	294	9	0	20	74	5	40	150	(53)	247	38	6,363	6,477
2042	196	6	0	14	70	3	40	150	(53)	231	33	6,395	6,639
2043	98	3	0	7	66	(0)	42	150	(53)	215	28	6,423	6,805

IN SERVICE COST (\$000)	3,762
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	137	137	150	150	136	136	0	351	0	0	0	0	(95)
2020	7.22%	264	401	150	301	136	273	49	351	0	0	0	49	(46)
2021	6.68%	244	646	150	451	136	409	42	351	0	0	0	42	(4)
2022	6.18%	226	872	150	602	136	546	35	351	0	0	0	35	30
2023	5.71%	209	1,081	150	752	136	682	28	351	0	0	0	28	58
2024	5.29%	193	1,274	150	903	136	819	22	351	0	0	0	22	80
2025	4.89%	179	1,453	150	1,053	136	955	16	351	0	0	0	16	97
2026	4.52%	165	1,618	150	1,204	136	1,092	11	351	0	0	0	11	108
2027	4.46%	163	1,782	150	1,354	136	1,228	10	351	0	0	0	10	118
2028	4.46%	163	1,945	150	1,505	136	1,364	10	351	0	0	0	10	128
2029	4.46%	163	2,108	150	1,655	136	1,501	10	351	0	0	0	10	139
2030	4.46%	163	2,271	150	1,806	136	1,637	10	351	0	0	0	10	149
2031	4.46%	163	2,434	150	1,956	136	1,774	10	351	0	0	0	10	159
2032	4.46%	163	2,598	150	2,107	136	1,910	10	351	0	0	0	10	170
2033	4.46%	163	2,761	150	2,257	136	2,047	10	351	0	0	0	10	180
2034	4.46%	163	2,924	150	2,408	136	2,183	10	351	0	0	0	10	190
2035	4.46%	163	3,087	150	2,558	136	2,319	10	351	0	0	0	10	201
2036	4.46%	163	3,250	150	2,709	136	2,456	10	351	0	0	0	10	211
2037	4.46%	163	3,414	150	2,859	136	2,592	10	351	0	0	0	10	221
2038	4.46%	163	3,577	150	3,010	136	2,729	10	351	0	0	0	10	232
2039	2.23%	82	3,659	150	3,160	136	2,865	(21)	351	0	0	0	(21)	211
2040	0.00%	0	3,659	150	3,311	136	3,002	(53)	351	0	0	0	(53)	158
2041	0.00%	0	3,659	150	3,461	136	3,138	(53)	351	0	0	0	(53)	105
2042	0.00%	0	3,659	150	3,612	136	3,275	(53)	351	0	0	0	(53)	53
2043	0.00%	0	3,659	150	3,762	136	3,411	(53)	351	0	0	0	(53)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(95)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	351
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	137	0	3,612	150	(95)	3,858	3,707	3,782
2020	7.22%	264	49	3,461	301	(46)	3,707	3,507	3,607
2021	6.68%	244	42	3,311	451	(4)	3,507	3,315	3,411
2022	6.18%	226	35	3,160	602	30	3,315	3,130	3,222
2023	5.71%	209	28	3,010	752	58	3,130	2,951	3,041
2024	5.29%	193	22	2,859	903	80	2,951	2,779	2,865
2025	4.89%	179	16	2,709	1,053	97	2,779	2,612	2,696
2026	4.52%	165	11	2,558	1,204	108	2,612	2,450	2,531
2027	4.46%	163	10	2,408	1,354	118	2,450	2,290	2,370
2028	4.46%	163	10	2,257	1,505	128	2,290	2,129	2,209
2029	4.46%	163	10	2,107	1,655	139	2,129	1,968	2,048
2030	4.46%	163	10	1,956	1,806	149	1,968	1,807	1,888
2031	4.46%	163	10	1,806	1,956	159	1,807	1,646	1,727
2032	4.46%	163	10	1,655	2,107	170	1,646	1,486	1,566
2033	4.46%	163	10	1,505	2,257	180	1,486	1,325	1,405
2034	4.46%	163	10	1,354	2,408	190	1,325	1,164	1,244
2035	4.46%	163	10	1,204	2,558	201	1,164	1,003	1,084
2036	4.46%	163	10	1,053	2,709	211	1,003	842	923
2037	4.46%	163	10	903	2,859	221	842	682	762
2038	4.46%	163	10	752	3,010	232	682	521	601
2039	2.23%	82	(21)	602	3,160	211	521	391	456
2040	0.00%	0	(53)	451	3,311	158	391	294	342
2041	0.00%	0	(53)	301	3,461	105	294	196	245
2042	0.00%	0	(53)	150	3,612	53	196	98	147
2043	0.00%	0	(53)	(0)	3,762	0	98	0	49

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

IN SERVICE YEAR	2019
PLANT COSTS	725 389 805.55
AFUDC RATE	8.48%

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS		BOOK BASIS FOR DEF TAX	TAX BASIS	
CONSTRUCTION CASH	3,208		3,208	3,208	
EQUITY AFUDC	351				
DEBT AFUDC	203		203		
CPI				451	
TOTAL	3,762		3,411	3,658	

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	1,000	1,000	6.41	8.81	6.74	0.00	1.00	1.00
2011	2,000	2,000	6.35	8.34	6.64	0.00	1.00	1.00
2012	3,000	3,000	6.43	8.30	6.69	0.00	1.00	1.00
2013	4,000	4,000	7.06	8.30	7.25	0.00	1.00	1.00
2014	5,000	5,000	7.53	8.57	7.70	0.00	1.00	1.00
2015	6,000	6,000	8.11	9.46	8.34	0.00	1.00	1.00
2016	7,000	7,000	9.00	11.34	9.35	0.00	1.00	1.00
2017	8,000	8,000	9.75	12.46	10.10	0.00	1.00	1.00
2018	9,000	9,000	10.52	13.30	10.90	0.00	1.00	1.00
2019	9,000	9,000	11.50	14.97	11.99	10.41	1.00	1.00
2020	9,000	9,000	12.08	15.61	12.63	10.50	1.00	1.00
2021	9,000	9,000	12.57	16.19	13.15	10.74	1.00	1.00
2022	9,000	9,000	13.06	16.78	13.65	10.81	1.00	1.00
2023	9,000	9,000	13.39	16.78	13.96	10.80	1.00	1.00
2024	9,000	9,000	13.95	17.45	14.52	10.84	1.00	1.00
2025	9,000	9,000	14.40	17.87	14.97	10.96	1.00	1.00
2026	9,000	9,000	14.70	17.97	15.24	11.05	1.00	1.00
2027	9,000	9,000	15.13	18.18	15.65	11.17	1.00	1.00
2028	9,000	9,000	15.60	18.53	16.10	11.36	1.00	1.00
2029	9,000	9,000	16.02	18.53	16.48	11.41	1.00	1.00
2030	9,000	9,000	16.52	18.95	16.96	11.59	1.00	1.00
2031	9,000	9,000	17.08	19.56	17.52	11.80	1.00	1.00
2032	9,000	9,000	17.50	19.39	17.87	11.88	1.00	1.00
2033	9,000	9,000	18.27	20.13	18.53	12.10	1.00	1.00
2034	9,000	9,000	18.73	19.93	18.88	12.14	1.00	1.00
2035	9,000	9,000	19.57	21.15	19.77	12.29	1.00	1.00
2036	9,000	9,000	20.40	22.15	20.57	12.55	1.00	1.00
2037	9,000	9,000	21.11	22.71	21.27	12.70	1.00	1.00
2038	9,000	9,000	22.02	23.65	22.19	13.04	1.00	1.00
2039	9,000	9,000	22.78	24.29	22.92	13.32	1.00	1.00
2040	9,000	9,000	23.59	24.86	23.70	13.44	1.00	1.00
2041	9,000	9,000	24.54	25.76	24.64	13.75	1.00	1.00
2042	9,000	9,000	25.50	26.71	25.61	14.10	1.00	1.00
2043	9,000	9,000	26.74	28.43	26.88	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	805	442	19	1,125	1,423	967
2020	781	453	27	1,657	2,019	899
2021	750	464	28	1,729	2,109	863
2022	721	476	30	1,830	2,199	858
2023	692	488	32	1,924	2,262	873
2024	664	500	33	2,033	2,347	883
2025	637	512	36	2,172	2,475	881
2026	611	525	38	2,321	2,608	887
2027	585	538	40	2,450	2,719	894
2028	560	552	42	2,515	2,778	890
2029	535	565	44	2,621	2,851	914
2030	509	580	46	2,743	2,965	913
2031	484	594	47	2,800	3,019	907
2032	459	609	49	2,899	3,081	935
2033	434	624	54	3,190	3,369	933
2034	409	640	56	3,320	3,449	976
2035	383	656	58	3,396	3,502	991
2036	358	672	60	3,497	3,606	982
2037	333	689	61	3,577	3,657	1,002
2038	308	706	63	3,666	3,769	974
2039	283	724	65	3,741	3,856	957
2040	263	742	66	3,827	3,900	999
2041	247	761	68	3,911	3,998	989
2042	231	780	70	4,000	4,109	972
2043	215	799	72	4,103	4,215	975
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	12,256	15,089	1,202	71,048	76,282	23,313
NPV	2,742	2,505	182	10,874	12,095	4,207

10

NOM	21,966	27,842	7,779	0	1,902
NPV	2,659	3,384	1,135	0	411

Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	1.80	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS BILLS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	53	0	297	0	350	304	0	0	304	46	42
2011	165	0	297	0	462	312	0	0	312	150	168
2012	290	0	297	0	587	320	0	0	320	267	375
2013	426	0	297	0	723	328	0	0	328	395	656
2014	581	0	357	0	938	404	0	0	404	534	1,005
2015	745	0	432	0	1,177	501	0	0	501	676	1,411
2016	910	0	432	0	1,342	514	0	0	514	828	1,867
2017	1,088	0	432	0	1,520	526	0	0	526	994	2,370
2018	1,267	0	492	0	1,759	614	0	0	614	1,145	2,902
2019	1,391	0	195	0	1,586	250	0	0	250	1,337	3,473
2020	1,396	0	432	0	1,828	567	0	0	567	1,261	3,967
2021	1,426	0	432	0	1,858	581	0	0	581	1,277	4,427
2022	1,467	0	492	0	1,959	678	0	0	678	1,281	4,850
2023	1,512	0	432	0	1,944	610	0	0	610	1,333	5,255
2024	1,579	0	357	0	1,936	517	0	0	517	1,419	5,651
2025	1,636	0	432	0	2,068	641	0	0	641	1,426	6,016
2026	1,701	0	492	0	2,193	749	0	0	749	1,445	6,356
2027	1,790	0	432	0	2,222	674	0	0	674	1,549	6,690
2028	1,863	0	432	0	2,295	691	0	0	691	1,605	7,009
2029	1,947	0	195	0	2,142	320	0	0	320	1,822	7,340
2030	2,042	0	492	0	2,534	826	0	0	826	1,707	7,626
2031	2,135	0	432	0	2,567	744	0	0	744	1,823	7,906
2032	2,261	0	432	0	2,693	762	0	0	762	1,931	8,179
2033	2,463	0	432	0	2,895	781	0	0	781	2,114	8,453
2034	2,509	0	417	0	2,926	773	0	0	773	2,153	8,709
2035	2,608	0	432	0	3,040	821	0	0	821	2,219	8,951
2036	2,795	0	432	0	3,227	841	0	0	841	2,385	9,191
2037	2,944	0	432	0	3,376	862	0	0	862	2,514	9,423
2038	3,072	0	492	0	3,564	1,007	0	0	1,007	2,557	9,639
2039	3,213	0	195	0	3,408	409	0	0	409	2,999	9,872
2040	3,363	0	432	0	3,795	929	0	0	929	2,866	10,077
2041	3,540	0	432	0	3,972	952	0	0	952	3,020	10,275
2042	3,730	0	492	0	4,222	1,111	0	0	1,111	3,111	10,462
2043	3,933	0	432	0	4,365	1,000	0	0	1,000	3,364	10,648
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	63,840	0	13,632	0	77,472	21,920	0	0	21,920	55,552	
NPV	12,019	0	4,000	0	16,019	5,371	0	0	5,371	10,648	

In Service of Gen Volt:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

2.98

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	120	297	40	0	458	38	0	0	0	38	(420)	(386)
2011	0	123	297	125	0	545	106	17	0	0	124	(422)	(741)
2012	0	126	297	220	0	643	175	35	0	1	211	(433)	(1,076)
2013	0	129	297	324	0	750	240	54	0	20	314	(437)	(1,387)
2014	0	170	357	442	0	969	316	71	0	29	416	(554)	(1,749)
2015	0	223	432	566	0	1,221	429	89	0	39	556	(665)	(2,148)
2016	0	229	432	691	0	1,352	619	106	0	52	778	(575)	(2,464)
2017	0	235	432	827	0	1,494	787	124	0	66	978	(516)	(2,725)
2018	0	282	492	963	0	1,738	950	142	0	82	1,174	(563)	(2,987)
2019	0	139	195	1,057	0	1,392	2,107	158	0	52	2,318	926	(2,592)
2020	0	253	432	1,061	0	1,745	2,087	154	0	42	2,283	537	(2,381)
2021	0	259	432	1,084	0	1,775	2,094	149	0	43	2,286	511	(2,197)
2022	0	312	492	1,115	0	1,919	2,132	145	0	46	2,323	404	(2,064)
2023	0	272	432	1,149	0	1,853	2,140	141	0	45	2,326	473	(1,920)
2024	0	218	357	1,200	0	1,775	2,200	137	0	48	2,385	610	(1,750)
2025	0	286	432	1,243	0	1,961	2,227	133	0	49	2,409	448	(1,635)
2026	0	344	492	1,293	0	2,129	2,236	129	0	49	2,414	285	(1,568)
2027	0	300	432	1,361	0	2,093	2,253	125	0	49	2,427	334	(1,496)
2028	0	308	432	1,416	0	2,156	2,271	121	0	53	2,445	289	(1,439)
2029	0	178	195	1,479	0	1,853	2,285	117	0	58	2,460	608	(1,328)
2030	0	380	492	1,552	0	2,423	2,313	113	0	58	2,484	61	(1,318)
2031	0	331	432	1,622	0	2,386	2,350	109	0	64	2,523	137	(1,297)
2032	0	340	432	1,718	0	2,490	2,353	105	0	68	2,526	36	(1,292)
2033	0	348	432	1,872	0	2,652	2,403	102	0	56	2,561	(91)	(1,304)
2034	0	341	417	1,907	0	2,665	2,418	99	0	56	2,572	(93)	(1,315)
2035	0	366	432	1,982	0	2,780	2,527	96	0	59	2,682	(98)	(1,326)
2036	0	375	432	2,124	0	2,931	2,593	93	0	62	2,748	(183)	(1,344)
2037	0	384	432	2,238	0	3,054	2,650	91	0	66	2,807	(247)	(1,367)
2038	0	463	492	2,335	0	3,289	2,689	88	0	70	2,847	(442)	(1,404)
2039	0	228	195	2,442	0	2,865	2,715	87	0	72	2,873	8	(1,403)
2040	0	414	432	2,556	0	3,402	2,792	85	0	76	2,952	(449)	(1,436)
2041	0	424	432	2,691	0	3,547	2,845	83	0	81	3,009	(538)	(1,471)
2042	0	511	492	2,835	0	3,838	2,894	82	0	123	3,099	(739)	(1,515)
2043	0	446	432	2,989	0	3,867	3,030	80	0	169	3,279	(588)	(1,548)
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	9,860	13,632	48,519	0	72,010	64,264	3,459	0	1,902	69,625	(2,385)	
NPV	0	2,367	4,000	9,135	0	15,502	12,591	953	0	411	13,954	(1,548)	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.90	

RESIDENTIAL POWER SAVERS ENERGY AUDIT PROGRAM

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Power Savers Energy Audit Program

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.04 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.05 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	493.26 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2010-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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: Residential Power Savers Energy Audit Program

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0
2011	1,261	285	0	1,546	392	0	299	0	0	299
2012	1,292	285	0	1,577	1,239	0	307	0	0	307
2013	1,325	285	0	1,610	2,170	0	315	0	0	315
2014	1,358	285	0	1,643	3,223	0	322	0	0	322
2015	1,392	285	0	1,677	4,344	0	331	0	0	331
2016	1,783	465	0	2,248	5,490	0	553	0	0	553
2017	1,828	465	0	2,293	6,724	0	567	0	0	567
2018	1,873	465	0	2,338	7,975	0	581	0	0	581
2019	384	180	0	564	8,819	0	230	0	0	230
2020	394	180	0	574	8,846	0	236	0	0	236
2021	1,614	405	0	2,019	9,039	0	545	0	0	545
2022	1,654	405	0	2,059	9,301	0	558	0	0	558
2023	1,696	405	0	2,101	9,583	0	572	0	0	572
2024	1,738	285	0	2,023	10,008	0	413	0	0	413
2025	1,781	285	0	2,066	10,368	0	423	0	0	423
2026	2,282	465	0	2,747	10,784	0	708	0	0	708
2027	2,339	465	0	2,804	11,348	0	725	0	0	725
2028	2,398	465	0	2,863	11,809	0	743	0	0	743
2029	983	240	0	1,223	12,338	0	393	0	0	393
2030	1,008	240	0	1,248	12,941	0	403	0	0	403
2031	2,582	465	0	3,047	13,531	0	801	0	0	801
2032	2,118	405	0	2,523	14,330	0	715	0	0	715
2033	2,170	405	0	2,575	15,612	0	733	0	0	733
2034	1,669	225	0	1,894	15,904	0	417	0	0	417
2035	1,710	225	0	1,935	16,530	0	428	0	0	428
2036	2,337	405	0	2,742	17,713	0	789	0	0	789
2037	2,995	465	0	3,460	18,661	0	928	0	0	928
2038	3,070	465	0	3,535	19,473	0	952	0	0	952
2039	1,259	240	0	1,499	20,365	0	503	0	0	503
2040	1,290	240	0	1,530	21,314	0	516	0	0	516
2041	3,306	465	0	3,771	22,440	0	1,025	0	0	1,025
2042	3,388	465	0	3,853	23,643	0	1,050	0	0	1,050
2043	3,473	465	0	3,938	24,927	0	1,077	0	0	1,077
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	61,749	11,775	0	73,524	401,184	0	19,157	0	0	19,157
NPV	15,210	3,293	0	18,502	73,690	0	4,489	0	0	4,489

* 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_REQ
PROGRAM NAME: Residential Power Savers Energy Audit Program

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,140	222	0	498	329	120	42	279	1	1,491	1,491	1,491	6,963
2020	6,861	213	0	479	226	115	44	279	91	1,446	1,328	2,819	7,137
2021	6,491	202	0	453	224	110	45	279	77	1,389	1,171	3,990	7,316
2022	6,136	191	0	428	221	105	46	279	64	1,334	1,033	5,023	7,499
2023	5,793	180	0	404	218	100	47	279	52	1,280	911	5,934	7,686
2024	5,463	170	0	381	215	95	48	279	41	1,229	803	6,737	7,878
2025	5,144	160	0	359	211	90	49	279	30	1,179	707	7,444	8,075
2026	4,835	150	0	337	208	85	50	279	21	1,130	623	8,067	8,277
2027	4,536	141	0	317	196	80	52	279	19	1,083	548	8,615	8,484
2028	4,238	132	0	296	183	75	53	279	19	1,036	482	9,096	8,696
2029	3,940	122	0	275	170	70	54	279	19	990	422	9,519	8,914
2030	3,643	113	0	254	157	65	56	279	19	943	370	9,888	9,136
2031	3,345	104	0	233	144	60	57	279	19	896	323	10,211	9,365
2032	3,047	95	0	213	131	55	59	279	19	849	281	10,492	9,599
2033	2,750	85	0	192	118	50	60	279	19	803	244	10,735	9,839
2034	2,452	76	0	171	105	45	62	279	19	756	211	10,946	10,085
2035	2,154	67	0	150	92	40	63	279	19	710	182	11,128	10,337
2036	1,857	58	0	130	79	35	65	279	19	663	156	11,284	10,596
2037	1,559	48	0	109	66	30	66	279	19	617	133	11,417	10,860
2038	1,261	39	0	88	53	25	68	279	19	570	113	11,530	11,132
2039	964	30	0	67	38	20	70	279	(39)	524	95	11,626	11,410
2040	724	23	0	51	145	15	71	279	(97)	486	81	11,707	11,695
2041	543	17	0	38	138	10	73	279	(97)	457	70	11,777	11,988
2042	362	11	0	25	130	5	75	279	(97)	427	60	11,837	12,288
2043	181	6	0	13	122	(0)	77	279	(97)	398	52	11,889	12,595

IN SERVICE COST (\$000)	6,963
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Power Savers Energy Audit

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	254	254	279	279	253	253	1	650	0	0	0	1	(176)
2020	7.22%	489	743	279	557	253	505	91	650	0	0	0	91	(85)
2021	6.68%	452	1,195	279	836	253	758	77	650	0	0	0	77	(8)
2022	6.18%	418	1,613	279	1,114	253	1,010	64	650	0	0	0	64	56
2023	5.71%	387	2,000	279	1,393	253	1,263	52	650	0	0	0	52	108
2024	5.29%	358	2,358	279	1,671	253	1,515	41	650	0	0	0	41	148
2025	4.89%	331	2,689	279	1,950	253	1,768	30	650	0	0	0	30	179
2026	4.52%	306	2,995	279	2,228	253	2,020	21	650	0	0	0	21	199
2027	4.46%	302	3,297	279	2,507	253	2,273	19	650	0	0	0	19	219
2028	4.46%	302	3,599	279	2,785	253	2,525	19	650	0	0	0	19	238
2029	4.46%	302	3,902	279	3,064	253	2,778	19	650	0	0	0	19	257
2030	4.46%	302	4,204	279	3,342	253	3,030	19	650	0	0	0	19	276
2031	4.46%	302	4,506	279	3,621	253	3,283	19	650	0	0	0	19	295
2032	4.46%	302	4,808	279	3,899	253	3,535	19	650	0	0	0	19	314
2033	4.46%	302	5,110	279	4,178	253	3,788	19	650	0	0	0	19	333
2034	4.46%	302	5,412	279	4,457	253	4,041	19	650	0	0	0	19	352
2035	4.46%	302	5,714	279	4,735	253	4,293	19	650	0	0	0	19	372
2036	4.46%	302	6,016	279	5,014	253	4,546	19	650	0	0	0	19	391
2037	4.46%	302	6,319	279	5,292	253	4,798	19	650	0	0	0	19	410
2038	4.46%	302	6,621	279	5,571	253	5,051	19	650	0	0	0	19	429
2039	2.23%	151	6,772	279	5,849	253	5,303	(39)	650	0	0	0	(39)	390
2040	0.00%	0	6,772	279	6,128	253	5,556	(97)	650	0	0	0	(97)	292
2041	0.00%	0	6,772	279	6,406	253	5,808	(97)	650	0	0	0	(97)	195
2042	0.00%	0	6,772	279	6,685	253	6,061	(97)	650	0	0	0	(97)	97
2043	0.00%	0	6,772	279	6,963	253	6,313	(97)	650	0	0	0	(97)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(177)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	650
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Power Savers Energy Audit Program

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(5a)* ACCUMULATED DEPRECIATION \$(000)	(5b)* ACCUMULATED DEF TAXES \$(000)	(6) BEGINNING YEAR RATE BASE \$(000)	(7) ENDING OF YEAR RATE BASE \$(000)	(8) MID-YEAR RATE BASE \$(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)						
2019	3.75%	254	1	6,685	279	(176)	7,140	6,861	7,000
2020	7.22%	489	91	6,406	557	(85)	6,861	6,491	6,676
2021	6.68%	452	77	6,128	836	(8)	6,491	6,136	6,314
2022	6.18%	418	64	5,849	1,114	56	6,136	5,793	5,964
2023	5.71%	387	52	5,571	1,393	108	5,793	5,463	5,628
2024	5.29%	358	41	5,292	1,671	148	5,463	5,144	5,303
2025	4.89%	331	30	5,014	1,950	179	5,144	4,835	4,989
2026	4.52%	306	21	4,735	2,228	199	4,835	4,536	4,685
2027	4.46%	302	19	4,457	2,507	219	4,536	4,238	4,387
2028	4.46%	302	19	4,178	2,785	238	4,238	3,940	4,089
2029	4.46%	302	19	3,899	3,064	257	3,940	3,643	3,792
2030	4.46%	302	19	3,621	3,342	276	3,643	3,345	3,494
2031	4.46%	302	19	3,342	3,621	295	3,345	3,047	3,196
2032	4.46%	302	19	3,064	3,899	314	3,047	2,750	2,899
2033	4.46%	302	19	2,785	4,178	333	2,750	2,452	2,601
2034	4.46%	302	19	2,507	4,457	352	2,452	2,154	2,303
2035	4.46%	302	19	2,228	4,735	372	2,154	1,857	2,006
2036	4.46%	302	19	1,950	5,014	391	1,857	1,559	1,708
2037	4.46%	302	19	1,671	5,292	410	1,559	1,261	1,410
2038	4.46%	302	19	1,393	5,571	429	1,261	964	1,113
2039	2.23%	151	(39)	1,114	5,849	390	964	724	844
2040	0.00%	0	(97)	836	6,128	292	724	543	634
2041	0.00%	0	(97)	557	6,406	195	543	362	453
2042	0.00%	0	(97)	279	6,685	97	362	181	272
2043	0.00%	0	(97)	(0)	6,963	0	181	0	90

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO.YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	5,937	5,937	5,937
EQUITY AFUDC	650		
DEBT AFUDC	376	376	
CPI			834
TOTAL	6,963	6,313	6,771

* Column not specified in workbook

INPUT DATA -- PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Residential Power Savers Energy Audit Program

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	15,000	15,000	6.35	6.35	10.38	0.00	1.00	1.00
2012	30,000	30,000	6.43	6.43	13.34	0.00	1.00	1.00
2013	45,000	45,000	7.06	7.06	9.99	0.00	1.00	1.00
2014	60,000	60,000	7.53	7.53	10.61	0.00	1.00	1.00
2015	75,000	75,000	8.11	8.11	13.20	0.00	1.00	1.00
2016	90,000	90,000	9.00	9.00	13.90	0.00	1.00	1.00
2017	105,000	105,000	9.75	9.75	15.09	0.00	1.00	1.00
2018	120,000	120,000	10.52	10.52	15.46	0.00	1.00	1.00
2019	120,000	120,000	11.50	11.50	21.44	10.41	1.00	1.00
2020	120,000	120,000	12.08	12.08	20.17	10.50	1.00	1.00
2021	120,000	120,000	12.57	12.57	21.76	10.74	1.00	1.00
2022	120,000	120,000	13.06	13.06	23.66	10.81	1.00	1.00
2023	120,000	120,000	13.39	13.39	20.91	10.80	1.00	1.00
2024	120,000	120,000	13.95	13.95	22.19	10.84	1.00	1.00
2025	120,000	120,000	14.40	14.40	22.20	10.96	1.00	1.00
2026	120,000	120,000	14.70	14.70	22.41	11.05	1.00	1.00
2027	120,000	120,000	15.13	15.13	23.05	11.17	1.00	1.00
2028	120,000	120,000	15.60	15.60	23.70	11.36	1.00	1.00
2029	120,000	120,000	16.02	16.02	22.95	11.41	1.00	1.00
2030	120,000	120,000	16.52	16.52	23.78	11.59	1.00	1.00
2031	120,000	120,000	17.08	17.08	24.53	11.80	1.00	1.00
2032	120,000	120,000	17.50	17.50	24.55	11.88	1.00	1.00
2033	120,000	120,000	18.27	18.27	25.51	12.10	1.00	1.00
2034	120,000	120,000	18.73	18.73	25.89	12.14	-1.00	1.00
2035	120,000	120,000	19.57	19.57	27.04	12.29	1.00	1.00
2036	120,000	120,000	20.40	20.40	28.26	12.55	1.00	1.00
2037	120,000	120,000	21.11	21.11	29.22	12.70	1.00	1.00
2038	120,000	120,000	22.02	22.02	30.23	13.04	1.00	1.00
2039	120,000	120,000	22.78	22.78	31.29	13.32	1.00	1.00
2040	120,000	120,000	23.59	23.59	32.02	13.44	1.00	1.00
2041	120,000	120,000	24.54	24.54	33.28	13.75	1.00	1.00
2042	120,000	120,000	25.50	25.50	34.66	14.10	1.00	1.00
2043	120,000	120,000	26.74	26.74	36.49	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT CAPACITY COST \$(000)	AVOIDED GEN UNIT FIXED O&M \$(000)	AVOIDED GEN UNIT VARIABLE O&M \$(000)	AVOIDED GEN UNIT FUEL COST \$(000)	REPLACEMENT FUEL COST \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	1,491	818	34	2,082	2,634	1,791
2020	1,446	838	50	3,068	3,737	1,665
2021	1,389	859	52	3,201	3,903	1,597
2022	1,334	881	55	3,388	4,070	1,588
2023	1,280	903	58	3,562	4,187	1,616
2024	1,229	925	62	3,762	4,344	1,634
2025	1,179	948	66	4,020	4,582	1,631
2026	1,130	972	71	4,296	4,826	1,642
2027	1,083	996	75	4,534	5,033	1,655
2028	1,036	1,021	77	4,655	5,142	1,648
2029	990	1,047	81	4,851	5,277	1,691
2030	943	1,073	85	5,078	5,488	1,691
2031	896	1,100	87	5,183	5,587	1,678
2032	849	1,127	90	5,366	5,702	1,730
2033	803	1,155	99	5,904	6,235	1,726
2034	756	1,184	104	6,145	6,383	1,807
2035	710	1,214	107	6,285	6,481	1,834
2036	663	1,244	110	6,473	6,674	1,817
2037	617	1,275	113	6,620	6,770	1,856
2038	570	1,307	117	6,785	6,976	1,803
2039	524	1,340	120	6,924	7,136	1,772
2040	486	1,373	123	7,084	7,218	1,848
2041	457	1,408	126	7,239	7,400	1,830
2042	427	1,443	130	7,404	7,606	1,798
2043	398	1,479	134	7,595	7,801	1,804
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	22,685	27,929	2,225	131,504	141,192	43,151
NPV	5,074	4,637	336	20,127	22,387	7,788

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

AVOIDED GENERATING EMISSION IMPACT
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Power Savers Energy Audit Program

YEAR	(2) AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	(3) REPLACEMENT EMISSION COST \$(000)	(4) PROGRAM EMISSION BENEFIT \$(000)	(5) OFF-PEAK EMISSION PAYBACK COST \$(000)	(6) NET EMISSION BENEFIT \$(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	1	0	1
2012	0	0	2	0	2
2013	0	0	133	0	133
2014	0	0	206	0	206
2015	0	0	293	0	293
2016	0	0	398	0	398
2017	0	0	516	0	516
2018	0	0	647	0	647
2019	249	326	752	0	676
2020	379	491	814	0	702
2021	418	541	879	0	755
2022	488	631	989	0	846
2023	538	696	1,056	0	899
2024	620	799	1,174	0	995
2025	715	920	1,297	0	1,093
2026	793	1,014	1,372	0	1,151
2027	897	1,145	1,500	0	1,253
2028	984	1,254	1,636	0	1,366
2029	1,125	1,429	1,827	0	1,524
2030	1,248	1,583	1,976	0	1,641
2031	1,356	1,719	2,148	0	1,785
2032	1,493	1,889	2,330	0	1,934
2033	1,740	2,200	2,527	0	2,067
2034	1,926	2,433	2,738	0	2,231
2035	2,092	2,644	2,967	0	2,415
2036	2,284	2,886	3,211	0	2,609
2037	2,475	3,127	3,471	0	2,820
2038	2,683	3,389	3,748	0	3,042
2039	2,898	3,664	4,049	0	3,283
2040	3,132	3,959	4,364	0	3,536
2041	3,374	4,266	4,692	0	3,801
2042	3,374	4,266	5,043	0	4,152
2043	3,374	4,266	5,423	0	4,532
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	40,656	51,533	64,177	0	53,301
NPV	4,922	6,263	9,220	0	7,879

Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	3.62	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	22.33	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.77	

RESIDENTIAL POWER SAVERS ENERGY EFFICIENCY PROGRAM

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Power Savers Energy Efficiency Program

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.62 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.83 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	1,588.27 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
° (8) INCREASED SUPPLY COSTS	^ ^ \$/CUST/YR
^ (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
^ (11) UTILITY AFUDC RATE	8.48 %
° (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

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

[illegible]

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Power Savers Energy Efficiency Program

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	CHARGES	FIXED	CHARGES	FOR
										\$(000)	\$(000)	\$(000)	PROPERTY INSURANCE
2019	36,026	1,119	0	2,514	1,659	607	214	1,405	3	7,521	7,521	7,521	35,134
2020	34,617	1,075	0	2,416	1,140	582	220	1,405	460	7,298	6,702	14,223	36,012
2021	32,752	1,017	0	2,286	1,129	557	225	1,405	388	7,008	5,911	20,134	36,913
2022	30,958	962	0	2,161	1,116	531	231	1,405	323	6,729	5,212	25,346	37,835
2023	29,230	908	0	2,040	1,102	506	237	1,405	261	6,459	4,595	29,941	38,781
2024	27,563	856	0	1,924	1,085	481	242	1,405	205	6,199	4,050	33,991	39,751
2025	25,953	806	0	1,811	1,067	455	249	1,405	153	5,946	3,568	37,558	40,745
2026	24,395	758	0	1,702	1,047	430	255	1,405	104	5,702	3,142	40,700	41,763
2027	22,885	711	0	1,597	989	405	261	1,405	97	5,465	2,765	43,466	42,807
2028	21,383	664	0	1,492	923	379	268	1,405	96	5,229	2,430	45,896	43,877
2029	19,881	618	0	1,387	857	354	274	1,405	97	4,993	2,131	48,027	44,974
2030	18,379	571	0	1,283	791	329	281	1,405	96	4,757	1,865	49,891	46,099
2031	16,878	524	0	1,178	726	304	288	1,405	97	4,521	1,628	51,519	47,251
2032	15,376	478	0	1,073	660	278	295	1,405	96	4,286	1,417	52,936	48,433
2033	13,874	431	0	968	594	253	303	1,405	97	4,051	1,230	54,166	49,643
2034	12,372	384	0	863	528	228	310	1,405	96	3,816	1,064	55,230	50,884
2035	10,870	338	0	759	462	202	318	1,405	97	3,581	917	56,147	52,157
2036	9,368	291	0	654	397	177	326	1,405	96	3,346	787	56,934	53,460
2037	7,867	244	0	549	331	152	334	1,405	97	3,112	672	57,606	54,797
2038	6,365	198	0	444	265	126	343	1,405	96	2,878	571	58,177	56,167
2039	4,863	151	0	339	493	101	351	1,405	(197)	2,644	482	58,659	57,571
2040	3,655	114	0	255	734	76	360	1,405	(492)	2,452	410	59,069	59,010
2041	2,741	85	0	191	694	51	369	1,405	(492)	2,304	354	59,423	60,486
2042	1,827	57	0	128	654	25	378	1,405	(492)	2,156	304	59,727	61,998
2043	913	28	0	64	614	0	388	1,405	(492)	2,008	260	59,987	63,548

IN SERVICE COST (\$000)	35,134
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Power Savers Energy Effct

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	1,281	1,281	1,405	1,405	1,274	1,274	3	3,279	0	0	0	3	(889)
2020	7.22%	2,466	3,748	1,405	2,811	1,274	2,548	460	3,279	0	0	0	460	(429)
2021	6.68%	2,281	6,029	1,405	4,216	1,274	3,823	388	3,279	0	0	0	388	(40)
2022	6.18%	2,111	8,140	1,405	5,621	1,274	5,097	323	3,279	0	0	0	323	283
2023	5.71%	1,952	10,092	1,405	7,027	1,274	6,371	261	3,279	0	0	0	261	544
2024	5.29%	1,806	11,898	1,405	8,432	1,274	7,645	205	3,279	0	0	0	205	749
2025	4.89%	1,670	13,568	1,405	9,838	1,274	8,919	153	3,279	0	0	0	153	902
2026	4.52%	1,545	15,113	1,405	11,243	1,274	10,193	104	3,279	0	0	0	104	1,006
2027	4.46%	1,524	16,637	1,405	12,648	1,274	11,468	97	3,279	0	0	0	97	1,103
2028	4.46%	1,524	18,162	1,405	14,054	1,274	12,742	96	3,279	0	0	0	96	1,199
2029	4.46%	1,524	19,686	1,405	15,459	1,274	14,016	97	3,279	0	0	0	97	1,296
2030	4.46%	1,524	21,210	1,405	16,864	1,274	15,290	96	3,279	0	0	0	96	1,392
2031	4.46%	1,524	22,735	1,405	18,270	1,274	16,564	97	3,279	0	0	0	97	1,489
2032	4.46%	1,524	24,259	1,405	19,675	1,274	17,839	96	3,279	0	0	0	96	1,585
2033	4.46%	1,524	25,783	1,405	21,080	1,274	19,113	97	3,279	0	0	0	97	1,682
2034	4.46%	1,524	27,307	1,405	22,486	1,274	20,387	96	3,279	0	0	0	96	1,778
2035	4.46%	1,524	28,832	1,405	23,891	1,274	21,661	97	3,279	0	0	0	97	1,875
2036	4.46%	1,524	30,356	1,405	25,296	1,274	22,935	96	3,279	0	0	0	96	1,971
2037	4.46%	1,524	31,880	1,405	26,702	1,274	24,209	97	3,279	0	0	0	97	2,068
2038	4.46%	1,524	33,405	1,405	28,107	1,274	25,484	96	3,279	0	0	0	96	2,164
2039	2.23%	762	34,167	1,405	29,513	1,274	26,758	(197)	3,279	0	0	0	(197)	1,966
2040	0.00%	0	34,167	1,405	30,918	1,274	28,032	(492)	3,279	0	0	0	(492)	1,475
2041	0.00%	0	34,167	1,405	32,323	1,274	29,306	(492)	3,279	0	0	0	(492)	983
2042	0.00%	0	34,167	1,405	33,729	1,274	30,580	(492)	3,279	0	0	0	(492)	492
2043	0.00%	0	34,167	1,405	35,134	1,274	31,855	(492)	3,279	0	0	0	(492)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(892)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	3,279
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Power Savers Energy Efficiency Program

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	1,281	3	33,729	1,405	(889)	36,026	34,617	35,321
2020	7.22%	2,466	460	32,323	2,811	(429)	34,617	32,752	33,685
2021	6.68%	2,281	388	30,918	4,216	(40)	32,752	30,958	31,855
2022	6.18%	2,111	323	29,513	5,621	283	30,958	29,230	30,094
2023	5.71%	1,952	261	28,107	7,027	544	29,230	27,563	28,397
2024	5.29%	1,806	205	26,702	8,432	749	27,563	25,953	26,758
2025	4.89%	1,670	153	25,296	9,838	902	25,953	24,395	25,174
2026	4.52%	1,545	104	23,891	11,243	1,006	24,395	22,885	23,640
2027	4.46%	1,524	97	22,486	12,648	1,103	22,885	21,383	22,134
2028	4.46%	1,524	96	21,080	14,054	1,199	21,383	19,881	20,632
2029	4.46%	1,524	97	19,675	15,459	1,296	19,881	18,379	19,130
2030	4.46%	1,524	96	18,270	16,864	1,392	18,379	16,878	17,628
2031	4.46%	1,524	97	16,864	18,270	1,489	16,878	15,376	16,127
2032	4.46%	1,524	96	15,459	19,675	1,585	15,376	13,874	14,625
2033	4.46%	1,524	97	14,054	21,080	1,682	13,874	12,372	13,123
2034	4.46%	1,524	96	12,648	22,486	1,778	12,372	10,870	11,621
2035	4.46%	1,524	97	11,243	23,891	1,875	10,870	9,368	10,119
2036	4.46%	1,524	96	9,838	25,296	1,971	9,368	7,867	8,617
2037	4.46%	1,524	97	8,432	26,702	2,068	7,867	6,365	7,116
2038	4.46%	1,524	96	7,027	28,107	2,164	6,365	4,863	5,614
2039	2.23%	762	(197)	5,621	29,513	1,966	4,863	3,655	4,259
2040	0.00%	0	(492)	4,216	30,918	1,475	3,655	2,741	3,198
2041	0.00%	0	(492)	2,811	32,323	983	2,741	1,827	2,284
2042	0.00%	0	(492)	1,405	33,729	492	1,827	913	1,370
2043	0.00%	0	(492)	0	35,134	0	913	0	457

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO.YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASE	29,958	29,958	29,958		
EQUITY AFUDC	3,279				
DEBT AFUDC	1,897	1,897			
CPI			4,208		
TOTAL	35,134	31,855	34,166		

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Power Savers Energy Efficiency Program

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	5,000	5,000	6.35	8.20	6.68	0.00	1.00	1.00
2012	10,000	10,000	6.43	8.15	6.73	0.00	1.00	1.00
2013	15,000	15,000	7.06	8.21	7.27	0.00	1.00	1.00
2014	20,000	20,000	7.53	8.49	7.72	0.00	1.00	1.00
2015	25,000	25,000	8.11	9.34	8.36	0.00	1.00	1.00
2016	30,000	30,000	9.00	11.13	9.39	0.00	1.00	1.00
2017	35,000	35,000	9.75	12.22	10.15	0.00	1.00	1.00
2018	40,000	40,000	10.52	13.07	10.94	0.00	1.00	1.00
2019	40,000	40,000	11.50	14.68	12.05	10.41	1.00	1.00
2020	40,000	40,000	12.08	15.35	12.69	10.50	1.00	1.00
2021	40,000	40,000	12.57	15.89	13.21	10.74	1.00	1.00
2022	40,000	40,000	13.06	16.45	13.70	10.81	1.00	1.00
2023	40,000	40,000	13.39	16.48	14.02	10.80	1.00	1.00
2024	40,000	40,000	13.95	17.12	14.58	10.84	1.00	1.00
2025	40,000	40,000	14.40	17.54	15.03	10.96	1.00	1.00
2026	40,000	40,000	14.70	17.67	15.30	11.05	1.00	1.00
2027	40,000	40,000	15.13	17.88	15.70	11.17	1.00	1.00
2028	40,000	40,000	15.60	18.23	16.15	11.36	1.00	1.00
2029	40,000	40,000	16.02	18.29	16.53	11.41	1.00	1.00
2030	40,000	40,000	16.52	18.70	17.01	11.59	1.00	1.00
2031	40,000	40,000	17.08	19.32	17.56	11.80	1.00	1.00
2032	40,000	40,000	17.50	19.20	17.91	11.88	1.00	1.00
2033	40,000	40,000	18.27	19.94	18.56	12.10	1.00	1.00
2034	40,000	40,000	18.73	19.81	18.90	12.14	1.00	1.00
2035	40,000	40,000	19.57	20.59	19.80	12.29	1.00	1.00
2036	40,000	40,000	20.40	21.98	20.61	12.55	1.00	1.00
2037	40,000	40,000	21.11	22.55	21.30	12.70	1.00	1.00
2038	40,000	40,000	22.02	23.48	22.21	13.04	1.00	1.00
2039	40,000	40,000	22.78	24.12	22.94	13.32	1.00	1.00
2040	40,000	40,000	23.59	24.73	23.73	13.44	1.00	1.00
2041	40,000	40,000	24.54	25.65	24.67	13.75	1.00	1.00
2042	40,000	40,000	25.50	26.60	25.63	14.10	1.00	1.00
2043	40,000	40,000	26.74	28.27	26.91	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Residential Power Savers Energy Efficiency Program

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	7,521	4,126	174	10,506	13,292	9,035
2020	7,298	4,229	251	15,479	18,857	8,399
2021	7,008	4,334	263	16,150	19,695	8,060
2022	6,729	4,443	279	17,093	20,533	8,011
2023	6,459	4,554	294	17,971	21,124	8,155
2024	6,199	4,668	312	18,984	21,916	8,246
2025	5,946	4,784	333	20,284	23,118	8,230
2026	5,702	4,904	357	21,676	24,352	8,286
2027	5,465	5,027	378	22,879	25,395	8,353
2028	5,229	5,152	389	23,486	25,942	8,314
2029	4,993	5,281	407	24,475	26,624	8,532
2030	4,757	5,413	427	25,621	27,689	8,530
2031	4,521	5,548	438	26,149	28,191	8,466
2032	4,286	5,687	455	27,073	28,770	8,731
2033	4,051	5,829	501	29,789	31,460	8,710
2034	3,816	5,975	524	31,006	32,206	9,115
2035	3,581	6,124	538	31,712	32,703	9,253
2036	3,346	6,277	557	32,659	33,673	9,166
2037	3,112	6,434	572	33,401	34,157	9,362
2038	2,878	6,595	588	34,234	35,199	9,097
2039	2,644	6,760	604	34,938	36,007	8,938
2040	2,452	6,929	620	35,743	36,419	9,326
2041	2,304	7,102	637	36,527	37,335	9,235
2042	2,156	7,280	654	37,359	38,376	9,073
2043	2,008	7,462	674	38,320	39,362	9,101
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	114,458	140,918	11,227	663,513	712,393	217,722
NPV	25,604	23,396	1,695	101,551	112,953	39,293

* 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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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	1.75	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0
2011	553	0	6,096	0	6,649	6,405	0	0	6,405	245	206
2012	1,750	0	6,096	0	7,846	6,565	0	0	6,565	1,281	1,199
2013	3,065	0	6,096	0	9,161	6,729	0	0	6,729	2,432	2,929
2014	4,552	0	6,096	0	10,648	6,897	0	0	6,897	3,751	5,379
2015	6,135	0	6,396	0	12,531	7,417	0	0	7,417	5,114	8,448
2016	7,753	0	6,396	0	14,149	7,603	0	0	7,603	6,546	12,054
2017	9,497	0	6,396	0	15,893	7,793	0	0	7,793	8,100	16,153
2018	11,262	0	6,396	0	17,658	7,988	0	0	7,988	9,670	20,648
2019	12,454	0	600	0	13,054	768	0	0	768	12,286	25,892
2020	12,493	0	600	0	13,093	787	0	0	787	12,306	30,715
2021	12,765	0	1,410	0	14,175	1,896	0	0	1,896	12,279	35,135
2022	13,135	0	1,410	0	14,545	1,944	0	0	1,944	12,602	39,302
2023	13,533	0	1,410	0	14,943	1,992	0	0	1,992	12,951	43,234
2024	14,134	0	1,410	0	15,544	2,042	0	0	2,042	13,502	46,999
2025	14,642	0	3,910	0	18,552	5,804	0	0	5,804	12,747	50,263
2026	15,230	0	3,910	0	19,140	5,950	0	0	5,950	13,191	53,366
2027	16,026	0	3,910	0	19,936	6,098	0	0	6,098	13,838	56,355
2028	16,678	0	3,910	0	20,588	6,251	0	0	6,251	14,337	59,199
2029	17,424	0	3,100	0	20,524	5,080	0	0	5,080	15,444	62,012
2030	18,276	0	3,100	0	21,376	5,207	0	0	5,207	16,170	64,717
2031	19,109	0	5,440	0	24,549	9,365	0	0	9,365	15,184	67,050
2032	20,238	0	5,440	0	25,678	9,600	0	0	9,600	16,078	69,319
2033	22,048	0	2,940	0	24,988	5,318	0	0	5,318	19,670	71,868
2034	22,461	0	2,940	0	25,401	5,451	0	0	5,451	19,950	74,243
2035	23,345	0	2,940	0	26,285	5,587	0	0	5,587	20,698	76,505
2036	25,015	0	3,896	0	28,911	7,589	0	0	7,589	21,322	78,646
2037	26,354	0	3,896	0	30,250	7,778	0	0	7,778	22,471	80,717
2038	27,501	0	3,896	0	31,397	7,973	0	0	7,973	23,424	82,700
2039	28,760	0	4,056	0	32,816	8,508	0	0	8,508	24,309	84,591
2040	30,100	0	4,056	0	34,156	8,720	0	0	8,720	25,436	86,407
2041	31,691	0	4,866	0	36,557	10,723	0	0	10,723	25,834	88,101
2042	33,390	0	4,866	0	38,256	10,992	0	0	10,992	27,264	89,743
2043	35,203	0	4,866	0	40,069	11,266	0	0	11,266	28,803	91,336
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	566,572	0	132,746	0	699,318	210,085	0	0	210,085	489,233	
NPV	104,069	0	43,887	0	147,956	56,619	0	0	56,619	91,336	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

2.61

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.90	

RESIDENTIAL SOLAR WATER HEATING

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Solar Water Heating

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.25 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.33 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	1,514.54 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.09
(7) CUSTOMER kWh INCREASE AT METER	0.09 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
~ (10) UTILITY DISCOUNT RATE	8.89 %
~ (11) UTILITY AFUDC RATE	8.48 %
* (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
* (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
~ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	12.38 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Solar Water Heating

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,507	233	0	524	346	127	45	293	1	1,567	1,567	1,567	7,321
2020	7,214	224	0	503	237	121	46	293	96	1,521	1,397	2,964	7,504
2021	6,825	212	0	476	235	116	47	293	81	1,460	1,232	4,195	7,692
2022	6,451	200	0	450	233	111	48	293	67	1,402	1,086	5,282	7,884
2023	6,091	189	0	425	230	105	49	293	54	1,346	957	6,239	8,081
2024	5,744	178	0	401	226	100	51	293	43	1,292	844	7,083	8,283
2025	5,408	168	0	377	222	95	52	293	32	1,239	743	7,826	8,496
2026	5,083	158	0	355	218	90	53	293	22	1,188	655	8,481	8,703
2027	4,769	148	0	333	206	84	54	293	20	1,139	576	9,057	8,920
2028	4,456	138	0	311	192	79	56	293	20	1,090	506	9,564	9,143
2029	4,143	129	0	289	179	74	57	293	20	1,040	444	10,008	9,372
2030	3,830	119	0	267	165	69	59	293	20	991	389	10,396	9,606
2031	3,517	109	0	245	151	63	60	293	20	942	339	10,735	9,846
2032	3,204	100	0	224	137	58	62	293	20	893	295	11,031	10,092
2033	2,891	90	0	202	124	53	63	293	20	844	256	11,287	10,345
2034	2,578	80	0	180	110	47	65	293	20	795	222	11,509	10,603
2035	2,265	70	0	158	96	42	66	293	20	746	191	11,700	10,868
2036	1,952	61	0	136	83	37	68	293	20	697	164	11,864	11,140
2037	1,639	51	0	114	69	32	70	293	20	648	140	12,004	11,419
2038	1,326	41	0	93	55	26	71	293	20	600	119	12,123	11,704
2039	1,013	31	0	71	103	21	73	293	(41)	551	100	12,223	11,997
2040	762	24	0	53	153	16	75	293	(102)	511	85	12,309	12,296
2041	571	18	0	40	145	11	77	293	(102)	480	74	12,382	12,604
2042	381	12	0	27	136	5	79	293	(102)	449	63	12,446	12,919
2043	190	6	0	13	128	(0)	81	293	(102)	418	54	12,500	13,242

IN SERVICE COST (\$000)	7,321
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	%
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} =$$

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	267	267	293	293	266	266	1	683	0	0	0	1	(185)
2020	7.22%	514	781	293	586	266	531	96	683	0	0	0	96	(89)
2021	6.68%	475	1,256	293	879	266	797	81	683	0	0	0	81	(8)
2022	6.18%	440	1,696	293	1,171	266	1,062	67	683	0	0	0	67	59
2023	5.71%	407	2,103	293	1,464	266	1,328	54	683	0	0	0	54	113
2024	5.29%	376	2,479	293	1,757	266	1,593	43	683	0	0	0	43	156
2025	4.89%	348	2,827	293	2,050	266	1,859	32	683	0	0	0	32	188
2026	4.52%	322	3,149	293	2,343	266	2,124	22	683	0	0	0	22	210
2027	4.46%	318	3,467	293	2,636	266	2,390	20	683	0	0	0	20	230
2028	4.46%	318	3,784	293	2,928	266	2,655	20	683	0	0	0	20	250
2029	4.46%	318	4,102	293	3,221	266	2,921	20	683	0	0	0	20	270
2030	4.46%	318	4,420	293	3,514	266	3,186	20	683	0	0	0	20	290
2031	4.46%	318	4,737	293	3,807	266	3,452	20	683	0	0	0	20	310
2032	4.46%	318	5,055	293	4,100	266	3,717	20	683	0	0	0	20	330
2033	4.46%	318	5,373	293	4,393	266	3,983	20	683	0	0	0	20	350
2034	4.46%	318	5,690	293	4,686	266	4,248	20	683	0	0	0	20	370
2035	4.46%	318	6,008	293	4,978	266	4,514	20	683	0	0	0	20	391
2036	4.46%	318	6,326	293	5,271	266	4,779	20	683	0	0	0	20	411
2037	4.46%	318	6,643	293	5,564	266	5,045	20	683	0	0	0	20	431
2038	4.46%	318	6,961	293	5,857	266	5,310	20	683	0	0	0	20	451
2039	2.23%	159	7,120	293	6,150	266	5,576	(41)	683	0	0	0	(41)	410
2040	0.00%	0	7,120	293	6,443	266	5,841	(102)	683	0	0	0	(102)	307
2041	0.00%	0	7,120	293	6,735	266	6,107	(102)	683	0	0	0	(102)	205
2042	0.00%	0	7,120	293	7,028	266	6,372	(102)	683	0	0	0	(102)	103
2043	0.00%	0	7,120	293	7,321	266	6,638	(102)	683	0	0	0	(102)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(186)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	683
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Solar Water Heating

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(5a)* ACCUMULATED DEPRECIATION \$(000)	(5b)* ACCUMULATED DEF TAXES \$(000)	(6) BEGINNING YEAR RATE BASE \$(000)	(7) ENDING OF YEAR RATE BASE \$(000)	(8) MID-YEAR RATE BASE \$(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)						
2019	3.75%	267	1	7,028	293	(185)	7,507	7,214	7,360
2020	7.22%	514	96	6,735	586	(89)	7,214	6,825	7,019
2021	6.68%	475	81	6,443	879	(8)	6,825	6,451	6,638
2022	6.18%	440	67	6,150	1,171	59	6,451	6,091	6,271
2023	5.71%	407	54	5,857	1,464	113	6,091	5,744	5,917
2024	5.29%	376	43	5,564	1,757	156	5,744	5,408	5,576
2025	4.89%	348	32	5,271	2,050	188	5,408	5,083	5,246
2026	4.52%	322	22	4,978	2,343	210	5,083	4,769	4,926
2027	4.46%	318	20	4,686	2,636	230	4,769	4,456	4,612
2028	4.46%	318	20	4,393	2,928	250	4,456	4,143	4,299
2029	4.46%	318	20	4,100	3,221	270	4,143	3,830	3,986
2030	4.46%	318	20	3,807	3,514	290	3,830	3,517	3,673
2031	4.46%	318	20	3,514	3,807	310	3,517	3,204	3,360
2032	4.46%	318	20	3,221	4,100	330	3,204	2,891	3,047
2033	4.46%	318	20	2,928	4,393	350	2,891	2,578	2,735
2034	4.46%	318	20	2,636	4,686	370	2,578	2,265	2,422
2035	4.46%	318	20	2,343	4,978	391	2,265	1,952	2,109
2036	4.46%	318	20	2,050	5,271	411	1,952	1,639	1,796
2037	4.46%	318	20	1,757	5,564	431	1,639	1,326	1,483
2038	4.46%	318	20	1,464	5,857	451	1,326	1,013	1,170
2039	2.23%	159	(41)	1,171	6,150	410	1,013	762	887
2040	0.00%	0	(102)	879	6,443	307	762	571	666
2041	0.00%	0	(102)	586	6,735	205	571	381	476
2042	0.00%	0	(102)	293	7,028	103	381	190	286
2043	0.00%	0	(102)	(0)	7,321	0	190	0	95

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
YEAR												
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASH	6,243	6,243	6,243		
EQUITY AFUDC	683				
DEBT AFUDC	395	395			
CPI			877		
TOTAL	7,321	6,638	7,119		

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	1,366	1,366	6.41	6.76	8.72	0.00	1.00	1.00
2011	5,955	5,955	6.35	6.66	8.26	0.00	1.00	1.00
2012	10,837	10,837	6.43	6.71	8.22	0.00	1.00	1.00
2013	15,811	15,811	7.06	7.26	8.26	0.00	1.00	1.00
2014	20,781	20,781	7.53	7.71	8.53	0.00	1.00	1.00
2015	20,781	20,781	8.11	8.35	9.39	0.00	1.00	1.00
2016	20,781	20,781	9.00	9.37	11.23	0.00	1.00	1.00
2017	20,781	20,781	9.75	10.12	12.34	0.00	1.00	1.00
2018	20,781	20,781	10.52	10.92	13.19	0.00	1.00	1.00
2019	20,781	20,781	11.50	12.02	14.81	10.41	1.00	1.00
2020	20,781	20,781	12.08	12.66	15.48	10.50	1.00	1.00
2021	20,781	20,781	12.57	13.18	16.03	10.74	1.00	1.00
2022	20,781	20,781	13.06	13.68	16.60	10.81	1.00	1.00
2023	20,781	20,781	13.39	13.99	16.61	10.80	1.00	1.00
2024	20,781	20,781	13.95	14.55	17.27	10.84	1.00	1.00
2025	20,781	20,781	14.40	15.00	17.69	10.96	1.00	1.00
2026	20,781	20,781	14.70	15.28	17.81	11.05	1.00	1.00
2027	20,781	20,781	15.13	15.67	18.02	11.17	1.00	1.00
2028	20,781	20,781	15.60	16.12	18.37	11.36	1.00	1.00
2029	20,781	20,781	16.02	16.51	18.40	11.41	1.00	1.00
2030	20,781	20,781	16.52	16.98	18.82	11.59	1.00	1.00
2031	20,781	20,781	17.08	17.54	19.43	11.80	1.00	1.00
2032	20,781	20,781	17.50	17.89	19.29	11.88	1.00	1.00
2033	20,781	20,781	18.27	18.55	20.02	12.10	1.00	1.00
2034	20,781	20,781	18.73	18.89	19.87	12.14	1.00	1.00
2035	20,781	20,781	19.57	19.79	21.06	12.29	1.00	1.00
2036	20,781	20,781	20.40	20.59	22.06	12.55	1.00	1.00
2037	20,781	20,781	21.11	21.28	22.63	12.70	1.00	1.00
2038	20,781	20,781	22.02	22.20	23.55	13.04	1.00	1.00
2039	20,781	20,781	22.78	22.93	24.20	13.32	1.00	1.00
2040	20,781	20,781	23.59	23.72	24.79	13.44	1.00	1.00
2041	20,781	20,781	24.54	24.66	25.71	13.75	1.00	1.00
2042	20,781	20,781	25.50	25.62	26.65	14.10	1.00	1.00
2043	20,781	20,781	26.74	26.89	28.34	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT CAPACITY COST \$(000)	AVOIDED GEN UNIT FIXED O&M \$(000)	AVOIDED GEN UNIT VARIABLE O&M \$(000)	AVOIDED GEN UNIT FUEL COST \$(000)	REPLACEMENT FUEL COST \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)
YEAR						
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	1,567	860	36	2,189	2,770	1,883
2020	1,521	881	52	3,225	3,929	1,750
2021	1,460	903	55	3,365	4,104	1,679
2022	1,402	926	58	3,562	4,279	1,669
2023	1,346	949	61	3,745	4,402	1,699
2024	1,292	973	65	3,956	4,567	1,718
2025	1,239	997	69	4,227	4,817	1,715
2026	1,188	1,022	74	4,517	5,074	1,727
2027	1,139	1,047	79	4,768	5,292	1,741
2028	1,090	1,074	81	4,894	5,406	1,732
2029	1,040	1,100	85	5,100	5,548	1,778
2030	991	1,128	89	5,339	5,770	1,777
2031	942	1,156	91	5,449	5,874	1,764
2032	893	1,185	95	5,641	5,995	1,819
2033	844	1,215	104	6,207	6,556	1,815
2034	795	1,245	109	6,461	6,711	1,899
2035	746	1,276	112	6,608	6,815	1,928
2036	697	1,308	116	6,805	7,017	1,910
2037	648	1,341	119	6,960	7,118	1,951
2038	600	1,374	123	7,134	7,335	1,896
2039	551	1,409	126	7,280	7,503	1,863
2040	511	1,444	129	7,448	7,589	1,943
2041	480	1,480	133	7,611	7,780	1,924
2042	449	1,517	136	7,785	7,997	1,891
2043	418	1,555	140	7,985	8,202	1,896
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	23,851	29,364	2,339	138,262	148,447	45,369
NPV	5,335	4,875	353	21,161	23,537	8,188

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	71	0
2011	17	1	18	1	0	1	375	0
2012	75	6	81	4	2	5	864	0
2013	137	16	153	7	3	10	1,477	0
2014	200	22	222	10	4	14	2,153	0
2015	262	22	285	13	6	19	2,651	0
2016	253	23	276	13	6	19	2,984	0
2017	244	24	268	12	6	19	3,223	0
2018	236	24	260	12	6	18	3,476	0
2019	227	25	252	11	7	18	3,834	0
2020	219	25	245	11	7	18	4,043	0
2021	212	26	238	11	7	18	4,207	0
2022	204	27	231	10	7	17	4,366	0
2023	196	27	224	10	7	17	4,462	0
2024	189	28	217	9	8	17	4,639	0
2025	181	29	210	9	8	17	4,782	0
2026	174	29	203	9	8	17	4,865	0
2027	166	30	196	8	8	16	4,987	0
2028	158	31	189	8	8	16	5,127	0
2029	151	32	183	8	8	16	5,243	0
2030	143	33	176	7	9	16	5,391	0
2031	136	33	169	7	9	16	5,567	0
2032	129	34	163	6	9	16	5,669	0
2033	122	35	157	6	9	15	5,864	0
2034	116	36	152	6	10	15	5,962	0
2035	111	37	148	6	10	15	6,249	0
2036	107	38	145	5	10	15	6,499	0
2037	103	39	142	5	10	16	6,714	0
2038	99	40	139	5	11	16	7,004	0
2039	95	41	136	5	11	16	7,231	0
2040	92	42	133	5	11	16	7,476	0
2041	88	43	130	4	11	16	7,773	0
2042	84	44	127	4	12	16	8,075	0
2043	80	45	125	4	12	16	8,480	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	5,006	986	5,992	250	261	511	161,781	0
NPV	1,613	222	1,835	81	57	138	33,370	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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	PARTICIPANT PROGRAM COSTS	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT BENEFITS	AVOIDED T&D BENEFITS	PROGRAM FUEL SAVINGS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	144	5,291	0	5,435	0	71	71	0	71	(5,364)	(4,926)
2011	0	497	18,213	0	18,709	0	19	375	1	395	(18,314)	(20,373)
2012	0	542	19,863	0	20,405	0	86	864	3	953	(19,452)	(35,440)
2013	0	566	20,743	0	21,309	0	163	1,477	175	1,815	(19,494)	(49,308)
2014	0	579	21,245	0	21,824	0	236	2,153	266	2,655	(19,169)	(61,832)
2015	0	0	0	0	0	0	304	2,651	334	3,289	(59,859)	(59,859)
2016	0	0	0	0	0	0	295	2,984	372	3,651	(57,847)	(57,847)
2017	0	0	0	0	0	0	286	3,223	408	3,917	(55,865)	(55,865)
2018	0	0	0	0	0	0	278	3,476	443	4,198	(53,914)	(53,914)
2019	0	0	0	0	0	1,883	270	3,834	403	6,390	(51,186)	(51,186)
2020	0	0	0	0	0	1,750	263	4,043	405	6,460	(48,654)	(48,654)
2021	0	0	0	0	0	1,679	255	4,207	435	6,577	(46,287)	(46,287)
2022	0	0	0	0	0	1,669	248	4,366	485	6,768	(44,049)	(44,049)
2023	0	0	0	0	0	1,699	241	4,462	513	6,914	(41,949)	(41,949)
2024	0	0	0	0	0	1,718	234	4,639	567	7,158	(39,953)	(39,953)
2025	0	0	0	0	0	1,715	227	4,782	620	7,343	(38,073)	(38,073)
2026	0	0	0	0	0	1,727	220	4,865	650	7,461	(36,318)	(36,318)
2027	0	0	0	0	0	1,741	213	4,987	704	7,645	(34,667)	(34,667)
2028	0	0	0	0	0	1,732	206	5,127	767	7,832	(33,113)	(33,113)
2029	0	0	0	0	0	1,778	199	5,243	854	8,073	(31,643)	(31,643)
2030	0	0	0	0	0	1,777	192	5,391	916	8,276	(30,258)	(30,258)
2031	0	0	0	0	0	1,764	185	5,567	996	8,512	(28,950)	(28,950)
2032	0	0	0	0	0	1,819	178	5,669	1,078	8,745	(27,716)	(27,716)
2033	0	0	0	0	0	1,815	173	5,864	1,137	8,989	(26,551)	(26,551)
2034	0	0	0	0	0	1,899	168	5,962	1,222	9,250	(25,450)	(25,450)
2035	0	0	0	0	0	1,928	164	6,249	1,322	9,662	(24,394)	(24,394)
2036	0	0	0	0	0	1,910	160	6,499	1,426	9,996	(23,391)	(23,391)
2037	0	0	0	0	0	1,951	158	6,714	1,540	10,362	(22,436)	(22,436)
2038	0	0	0	0	0	1,896	155	7,004	1,661	10,715	(21,528)	(21,528)
2039	0	0	0	0	0	1,863	152	7,231	1,788	11,033	(20,670)	(20,670)
2040	0	0	0	0	0	1,943	149	7,476	1,925	11,494	(19,850)	(19,850)
2041	0	0	0	0	0	1,924	146	7,773	2,069	11,912	(19,068)	(19,068)

0.73

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS BILLS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	140	1,617	1,366	0	3,123	5,291	0	0	5,291	(2,168)	(1,991)
2011	772	5,560	4,588	0	10,921	18,213	0	0	18,213	(7,292)	(8,142)
2012	1,868	6,058	4,882	0	12,808	19,863	0	0	19,863	(7,055)	(13,607)
2013	3,115	6,320	4,974	0	14,409	20,743	0	0	20,743	(6,334)	(18,113)
2014	4,538	5,467	4,970	0	15,974	21,245	0	0	21,245	(5,271)	(21,556)
2015	5,403	0	0	0	5,403	0	0	0	0	5,403	(18,314)
2016	5,586	0	0	0	5,586	0	0	0	0	5,586	(15,236)
2017	5,790	0	0	0	5,790	0	0	0	0	5,790	(12,306)
2018	5,951	0	0	0	5,951	0	0	0	0	5,951	(9,540)
2019	6,170	0	0	0	6,170	0	0	0	0	6,170	(6,906)
2020	6,189	0	0	0	6,189	0	0	0	0	6,189	(4,480)
2021	6,324	0	0	0	6,324	0	0	0	0	6,324	(2,204)
2022	6,507	0	0	0	6,507	0	0	0	0	6,507	(53)
2023	6,704	0	0	0	6,704	0	0	0	0	6,704	1,983
2024	7,002	0	0	0	7,002	0	0	0	0	7,002	3,936
2025	7,253	0	0	0	7,253	0	0	0	0	7,253	5,793
2026	7,545	0	0	0	7,545	0	0	0	0	7,545	7,568
2027	7,939	0	0	0	7,939	0	0	0	0	7,939	9,283
2028	8,262	0	0	0	8,262	0	0	0	0	8,262	10,921
2029	8,632	0	0	0	8,632	0	0	0	0	8,632	12,494
2030	9,054	2,606	0	0	11,660	0	0	0	0	11,660	14,445
2031	9,467	8,964	0	0	18,431	0	0	0	0	18,431	17,277
2032	10,026	9,770	0	0	19,796	0	0	0	0	19,796	20,070
2033	10,922	10,197	0	0	21,119	0	0	0	0	21,119	22,807
2034	11,127	10,437	0	0	21,565	0	0	0	0	21,565	25,374
2035	11,565	0	0	0	11,565	0	0	0	0	11,565	26,638
2036	12,392	0	0	0	12,392	0	0	0	0	12,392	27,882
2037	13,056	0	0	0	13,056	0	0	0	0	13,056	29,085
2038	13,624	0	0	0	13,624	0	0	0	0	13,624	30,239
2039	14,248	0	0	0	14,248	0	0	0	0	14,248	31,347
2040	14,912	0	0	0	14,912	0	0	0	0	14,912	32,412
2041	15,700	0	0	0	15,700	0	0	0	0	15,700	33,441
2042	16,541	0	0	0	16,541	0	0	0	0	16,541	34,438
2043	17,440	0	0	0	17,440	0	0	0	0	17,440	35,402
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0										

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89

%

1.55

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
YEAR													
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	144	1,366	106	0	1,617	71	0	0	0	71	(1,545)	(1,419)
2011	0	497	4,588	587	0	5,672	375	19	0	1	395	(5,277)	(5,870)
2012	0	542	4,882	1,420	0	6,843	864	86	0	3	953	(5,890)	(10,433)
2013	0	566	4,974	2,368	0	7,907	1,477	163	0	175	1,815	(6,093)	(14,767)
2014	0	579	4,970	3,449	0	8,998	2,153	236	0	266	2,655	(6,343)	(18,911)
2015	0	0	0	4,106	0	4,106	2,651	304	0	334	3,289	(818)	(19,401)
2016	0	0	0	4,246	0	4,246	2,984	295	0	372	3,651	(595)	(19,729)
2017	0	0	0	4,401	0	4,401	3,223	286	0	408	3,917	(483)	(19,974)
2018	0	0	0	4,523	0	4,523	3,476	278	0	443	4,198	(325)	(20,125)
2019	0	0	0	4,689	0	4,689	5,717	270	0	403	6,390	1,701	(19,399)
2020	0	0	0	4,704	0	4,704	5,793	263	0	405	6,460	1,757	(18,710)
2021	0	0	0	4,806	0	4,806	5,887	255	0	435	6,577	1,771	(18,073)
2022	0	0	0	4,945	0	4,945	6,036	248	0	485	6,768	1,823	(17,470)
2023	0	0	0	5,095	0	5,095	6,161	241	0	513	6,914	1,819	(16,918)
2024	0	0	0	5,322	0	5,322	6,357	234	0	567	7,158	1,837	(16,406)
2025	0	0	0	5,513	0	5,513	6,497	227	0	620	7,343	1,831	(15,937)
2026	0	0	0	5,734	0	5,734	6,591	220	0	650	7,461	1,727	(15,531)
2027	0	0	0	6,034	0	6,034	6,728	213	0	704	7,645	1,611	(15,183)
2028	0	0	0	6,279	0	6,279	6,859	206	0	767	7,832	1,552	(14,875)
2029	0	0	0	6,560	0	6,560	7,021	199	0	854	8,073	1,513	(14,600)
2030	0	0	0	6,881	0	6,881	7,168	192	0	916	8,276	1,395	(14,366)
2031	0	0	0	7,195	0	7,195	7,331	185	0	996	8,512	1,318	(14,164)
2032	0	0	0	7,620	0	7,620	7,489	178	0	1,078	8,745	1,125	(14,005)
2033	0	0	0	8,301	0	8,301	7,679	173	0	1,137	8,989	688	(13,916)
2034	0	0	0	8,457	0	8,457	7,861	168	0	1,222	9,250	794	(13,822)
2035	0	0	0	8,789	0	8,789	8,177	164	0	1,322	9,662	873	(13,726)
2036	0	0	0	9,418	0	9,418	8,410	160	0	1,426	9,996	578	(13,668)
2037	0	0	0	9,922	0	9,922	8,665	158	0	1,540	10,362	440	(13,628)
2038	0	0	0	10,354	0	10,354	8,900	155	0	1,661	10,715	361	(13,597)
2039	0	0	0	10,828	0	10,828	9,093	152	0	1,788	11,033	205	(13,581)
2040	0	0	0	11,333	0	11,333	9,420	149	0	1,925	11,494	161	(13,570)
2041	0	0	0	11,932	0	11,932	9,697	146	0	2,069	11,912	(20)	(13,571)
2042	0	0	0	12,571	0	12,571	9,966	143	0	2,294	12,402	(169)	(13,581)
2043	0	0	0	13,254	0	13,254	10,376	141	0	2,537	13,054	(201)	(13,592)
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	2,327	20,781	221,742	0	244,850	207,150	6,503	0	30,313	243,966	(884)	
NPV	0	1,752	15,692	44,544	0	61,987	41,558	1,973	0	4,864	48,395	(13,592)	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.78	

**RESIDENTIAL SOLAR WATER HEATING
(LOW INCOME NEW CONSTRUCTION)**

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.25 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.33 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	1,514.54 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2010-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	120	0	0	120	2	0	0	0	0	0
2011	1,230	0	0	1,230	19	0	0	0	0	0
2012	1,261	0	0	1,261	54	0	0	0	0	0
2013	1,293	0	0	1,293	92	0	0	0	0	0
2014	1,325	0	0	1,325	136	0	0	0	0	0
2015	0	0	0	0	162	0	0	0	0	0
2016	0	0	0	0	168	0	0	0	0	0
2017	0	0	0	0	174	0	0	0	0	0
2018	0	0	0	0	178	0	0	0	0	0
2019	0	0	0	0	185	0	0	0	0	0
2020	0	0	0	0	186	0	0	0	0	0
2021	0	0	0	0	190	0	0	0	0	0
2022	0	0	0	0	195	0	0	0	0	0
2023	0	0	0	0	201	0	0	0	0	0
2024	0	0	0	0	210	0	0	0	0	0
2025	0	0	0	0	218	0	0	0	0	0
2026	0	0	0	0	226	0	0	0	0	0
2027	0	0	0	0	238	0	0	0	0	0
2028	0	0	0	0	248	0	0	0	0	0
2029	0	0	0	0	259	0	0	0	0	0
2030	0	0	0	0	272	0	0	0	0	0
2031	0	0	0	0	284	0	0	0	0	0
2032	0	0	0	0	301	0	0	0	0	0
2033	0	0	0	0	328	0	0	0	0	0
2034	0	0	0	0	334	0	0	0	0	0
2035	0	0	0	0	347	0	0	0	0	0
2036	0	0	0	0	372	0	0	0	0	0
2037	0	0	0	0	392	0	0	0	0	0
2038	0	0	0	0	409	0	0	0	0	0
2039	0	0	0	0	427	0	0	0	0	0
2040	0	0	0	0	447	0	0	0	0	0
2041	0	0	0	0	471	0	0	0	0	0
2042	0	0	0	0	496	0	0	0	0	0
2043	0	0	0	0	523	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	5,230	0	0	5,230	8,740	0	0	0	0	0
NPV	3,911	0	0	3,911	1,750	0	0	0	0	0

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	296	9	0	21	14	5	2	12	0	62	62	62	289
2020	285	9	0	20	9	5	2	12	4	60	55	117	296
2021	269	8	0	19	9	5	2	12	3	58	49	166	304
2022	255	8	0	18	9	4	2	12	3	55	43	208	311
2023	240	7	0	17	9	4	2	12	2	53	38	246	319
2024	227	7	0	16	9	4	2	12	2	51	33	279	327
2025	213	7	0	15	9	4	2	12	1	49	29	309	335
2026	201	6	0	14	9	4	2	12	1	47	26	335	343
2027	188	6	0	13	8	3	2	12	1	45	23	357	352
2028	176	5	0	12	8	3	2	12	1	43	20	377	361
2029	163	5	0	11	7	3	2	12	1	41	18	395	370
2030	151	5	0	11	7	3	2	12	1	39	15	410	379
2031	139	4	0	10	6	2	2	12	1	37	13	424	389
2032	126	4	0	9	5	2	2	12	1	35	12	435	398
2033	114	4	0	8	5	2	2	12	1	33	10	445	408
2034	102	3	0	7	4	2	3	12	1	31	9	454	418
2035	89	3	0	6	4	2	3	12	1	29	8	462	429
2036	77	2	0	5	3	1	3	12	1	28	6	468	440
2037	65	2	0	5	3	1	3	12	1	26	6	474	451
2038	52	2	0	4	2	1	3	12	1	24	5	478	462
2039	40	1	0	3	4	1	3	12	(2)	22	4	482	473
2040	30	1	0	2	6	1	3	12	(4)	20	3	486	485
2041	23	1	0	2	6	0	3	12	(4)	19	3	489	497
2042	15	0	0	1	5	0	3	12	(4)	18	3	491	510
2043	8	0	0	1	5	0	3	12	(4)	17	2	493	523

IN SERVICE COST (\$000)	289
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFECT. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Solar Water Heating (Low 1)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	11	11	12	12	10	10	0	27	0	0	0	0	(7)
2020	7.22%	20	31	12	23	10	21	4	27	0	0	0	4	(4)
2021	6.68%	19	50	12	35	10	31	3	27	0	0	0	3	(0)
2022	6.18%	17	67	12	46	10	42	3	27	0	0	0	3	2
2023	5.71%	16	83	12	58	10	52	2	27	0	0	0	2	4
2024	5.29%	15	98	12	69	10	63	2	27	0	0	0	2	6
2025	4.89%	14	112	12	81	10	73	1	27	0	0	0	1	7
2026	4.52%	13	124	12	92	10	84	1	27	0	0	0	1	8
2027	4.46%	13	137	12	104	10	94	1	27	0	0	0	1	9
2028	4.46%	13	149	12	116	10	105	1	27	0	0	0	1	10
2029	4.46%	13	162	12	127	10	115	1	27	0	0	0	1	11
2030	4.46%	13	174	12	139	10	126	1	27	0	0	0	1	11
2031	4.46%	13	187	12	150	10	136	1	27	0	0	0	1	12
2032	4.46%	13	199	12	162	10	147	1	27	0	0	0	1	13
2033	4.46%	13	212	12	173	10	157	1	27	0	0	0	1	14
2034	4.46%	13	225	12	185	10	168	1	27	0	0	0	1	15
2035	4.46%	13	237	12	196	10	178	1	27	0	0	0	1	15
2036	4.46%	13	250	12	208	10	189	1	27	0	0	0	1	16
2037	4.46%	13	262	12	220	10	199	1	27	0	0	0	1	17
2038	4.46%	13	275	12	231	10	210	1	27	0	0	0	1	18
2039	2.23%	6	281	12	243	10	220	(2)	27	0	0	0	(2)	16
2040	0.00%	0	281	12	254	10	230	(4)	27	0	0	0	(4)	12
2041	0.00%	0	281	12	266	10	241	(4)	27	0	0	0	(4)	8
2042	0.00%	0	281	12	277	10	251	(4)	27	0	0	0	(4)	4
2043	0.00%	0	281	12	289	10	262	(4)	27	0	0	0	(4)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(7)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	27
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	11	0	277	12	(7)	296	285	290
2020	7.22%	20	4	266	23	(4)	285	269	277
2021	6.68%	19	3	254	35	(0)	269	255	262
2022	6.18%	17	3	243	46	2	255	240	247
2023	5.71%	16	2	231	58	4	240	227	233
2024	5.29%	15	2	220	69	6	227	213	220
2025	4.89%	14	1	208	81	7	213	201	207
2026	4.52%	13	1	196	92	8	201	188	194
2027	4.46%	13	1	185	104	9	188	176	182
2028	4.46%	13	1	173	116	10	176	163	170
2029	4.46%	13	1	162	127	11	163	151	157
2030	4.46%	13	1	150	139	11	151	139	145
2031	4.46%	13	1	139	150	12	139	126	133
2032	4.46%	13	1	127	162	13	126	114	120
2033	4.46%	13	1	116	173	14	114	102	108
2034	4.46%	13	1	104	185	15	102	89	96
2035	4.46%	13	1	92	196	15	89	77	83
2036	4.46%	13	1	81	208	16	77	65	71
2037	4.46%	13	1	69	220	17	65	52	59
2038	4.46%	13	1	58	231	18	52	40	46
2039	2.23%	6	(2)	46	243	16	40	30	35
2040	0.00%	0	(4)	35	254	12	30	23	26
2041	0.00%	0	(4)	23	266	8	23	15	19
2042	0.00%	0	(4)	12	277	4	15	8	11
2043	0.00%	0	(4)	0	289	0	8	0	4

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

57.47

156.84

127.50

(27.02)

1,064.61

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	246	246	246
EQUITY AFUDC	27		
DEBT AFUDC	16	16	
CPI			35
TOTAL	289	262	281

* Column not specified in workbook

INPUT DATA -- PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	20	20	6.41	6.76	8.72	0.00	1.00	1.00
2011	220	220	6.35	6.66	8.26	0.00	1.00	1.00
2012	420	420	6.43	6.71	8.22	0.00	1.00	1.00
2013	620	620	7.06	7.26	8.26	0.00	1.00	1.00
2014	820	820	7.53	7.71	8.53	0.00	1.00	1.00
2015	820	820	8.11	8.35	9.39	0.00	1.00	1.00
2016	820	820	9.00	9.37	11.23	0.00	1.00	1.00
2017	820	820	9.75	10.12	12.34	0.00	1.00	1.00
2018	820	820	10.52	10.92	13.19	0.00	1.00	1.00
2019	820	820	11.50	12.02	14.81	10.41	1.00	1.00
2020	820	820	12.08	12.66	15.48	10.50	1.00	1.00
2021	820	820	12.57	13.18	16.03	10.74	1.00	1.00
2022	820	820	13.06	13.68	16.60	10.81	1.00	1.00
2023	820	820	13.39	13.99	16.61	10.80	1.00	1.00
2024	820	820	13.95	14.55	17.27	10.84	1.00	1.00
2025	820	820	14.40	15.00	17.69	10.96	1.00	1.00
2026	820	820	14.70	15.28	17.81	11.05	1.00	1.00
2027	820	820	15.13	15.67	18.02	11.17	1.00	1.00
2028	820	820	15.60	16.12	18.37	11.36	1.00	1.00
2029	820	820	16.02	16.51	18.40	11.41	1.00	1.00
2030	820	820	16.52	16.98	18.82	11.59	1.00	1.00
2031	820	820	17.08	17.54	19.43	11.80	1.00	1.00
2032	820	820	17.50	17.89	19.29	11.88	1.00	1.00
2033	820	820	18.27	18.55	20.02	12.10	1.00	1.00
2034	820	820	18.73	18.89	19.87	12.14	1.00	1.00
2035	820	820	19.57	19.79	21.06	12.29	1.00	1.00
2036	820	820	20.40	20.59	22.06	12.55	1.00	1.00
2037	820	820	21.11	21.28	22.63	12.70	1.00	1.00
2038	820	820	22.02	22.20	23.55	13.04	1.00	1.00
2039	820	820	22.78	22.93	24.20	13.32	1.00	1.00
2040	820	820	23.59	23.72	24.79	13.44	1.00	1.00
2041	820	820	24.54	24.66	25.71	13.75	1.00	1.00
2042	820	820	25.50	25.62	26.65	14.10	1.00	1.00
2043	820	820	26.74	26.89	28.34	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT	AVOIDED GEN UNIT	AVOIDED GEN UNIT	AVOIDED GEN UNIT	REPLACEMENT	AVOIDED GEN UNIT
YEAR	CAPACITY COST \$(000)	FIXED O&M \$(000)	VARIABLE O&M \$(000)	FUEL COST \$(000)	FUEL COST \$(000)	BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	62	34	1	86	109	74
2020	60	35	2	127	155	69
2021	58	36	2	133	162	66
2022	55	37	2	141	169	66
2023	53	37	2	148	174	67
2024	51	38	3	156	180	68
2025	49	39	3	167	190	68
2026	47	40	3	178	200	68
2027	45	41	3	188	209	69
2028	43	42	3	193	213	68
2029	41	43	3	201	219	70
2030	39	45	4	211	228	70
2031	37	46	4	215	232	70
2032	35	47	4	223	237	72
2033	33	48	4	245	259	72
2034	31	49	4	255	265	75
2035	29	50	4	261	269	76
2036	28	52	5	269	277	75
2037	26	53	5	275	281	77
2038	24	54	5	281	289	75
2039	22	56	5	287	296	73
2040	20	57	5	294	299	77
2041	19	58	5	300	307	76
2042	18	60	5	307	316	75
2043	17	61	6	315	324	75
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	941	1,159	92	5,456	5,858	1,790
NPV	211	192	14	835	929	323

PSC FORM CE 2.2
PAGE 1 OF 1

* 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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[illegible]

Benefit/Cost Ratio (Col(11) / Col(6)) :

8.89	%
0.48	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	Infinite	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.33	

BUSINESS SOLAR WATER HEATING

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Solar Water Heating

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.86 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.15 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	3,927.00 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
* (10) UTILITY DISCOUNT RATE	8.89 %
* (11) UTILITY AFUDC RATE	8.48 %
* (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
* (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
* (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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
0	0	0	0	0	0	0
17	2	1	73	0	0	73
68	9	5	291	0	0	291
82	24	13	361	0	0	361
98	43	23	441	0	0	441
119	70	36	547	0	0	547
0	87	44	0	0	0	0
0	91	45	0	0	0	0
0	95	47	0	0	0	0
0	98	47	0	0	0	0
0	103	46	0	0	0	0
0	104	45	0	0	0	0
0	108	44	0	0	0	0
0	112	43	0	0	0	0
0	117	44	0	0	0	0
0	124	44	0	0	0	0
0	131	43	0	0	0	0
0	137	43	0	0	0	0
0	147	43	0	0	0	0
0	154	44	0	0	0	0
0	163	44	0	0	0	0
0	173	44	0	0	0	0
0	182	45	0	0	0	0
0	195	46	0	0	0	0
0	216	47	0	0	0	0
0	220	48	0	0	0	0
0	232	47	0	0	0	0
0	251	48	0	0	0	0
0	266	49	0	0	0	0
0	280	49	0	0	0	0
0	295	49	0	0	0	0
0	311	49	0	0	0	0
0	330	50	0	0	0	0
0	350	50	0	0	0	0
0	372	50	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
385	5,592	1,412	1,713	0	0	1,713
285	1,035	358	1,263	0	0	1,263

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

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Business Solar Water Heating

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	305	9	0	21	14	5	2	12	0	64	64	64	297
2020	293	9	0	20	10	5	2	12	4	62	57	120	305
2021	277	9	0	19	10	5	2	12	3	59	50	170	312
2022	262	8	0	18	9	4	2	12	3	57	44	215	320
2023	247	8	0	17	9	4	2	12	2	55	39	253	328
2024	233	7	0	16	9	4	2	12	2	52	34	288	336
2025	220	7	0	15	9	4	2	12	1	50	30	318	345
2026	206	6	0	14	9	4	2	12	1	48	27	345	354
2027	194	6	0	14	8	3	2	12	1	46	23	368	362
2028	181	6	0	13	8	3	2	12	1	44	21	388	371
2029	168	5	0	12	7	3	2	12	1	42	18	407	381
2030	156	5	0	11	7	3	2	12	1	40	16	422	390
2031	143	4	0	10	6	3	2	12	1	38	14	436	400
2032	130	4	0	9	6	2	3	12	1	36	12	448	410
2033	117	4	0	8	5	2	3	12	1	34	10	459	420
2034	105	3	0	7	4	2	3	12	1	32	9	468	431
2035	92	3	0	6	4	2	3	12	1	30	8	475	441
2036	79	2	0	6	3	1	3	12	1	28	7	482	453
2037	67	2	0	5	3	1	3	12	1	26	6	488	464
2038	54	2	0	4	2	1	3	12	1	24	5	492	475
2039	41	1	0	3	4	1	3	12	(2)	22	4	497	487
2040	31	1	0	2	6	1	3	12	(4)	21	3	500	500
2041	23	1	0	2	6	0	3	12	(4)	20	3	503	512
2042	15	0	0	1	6	0	3	12	(4)	18	3	506	525
2043	8	0	0	1	5	0	3	12	(4)	17	2	508	538

IN SERVICE COST	(\$000)	297
IN SERVICE YEAR		2019
BOOK LIFE (YRS)		25
EFFEC. TAX RATE		38.575
DISCOUNT RATE		8.9%
PROPERTY TAX		1.80%
PROPERTY INSURANCE		0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = CPWFC / IN\text{-}SVC\text{ COST} =$$

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: **Business Solar Water Heating**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	11	11	12	12	11	11	0	28	0	0	0	0	(8)
2020	7.22%	21	32	12	24	11	22	4	28	0	0	0	4	(4)
2021	6.68%	19	51	12	36	11	32	3	28	0	0	0	3	(0)
2022	6.18%	18	69	12	48	11	43	3	28	0	0	0	3	2
2023	5.71%	17	85	12	59	11	54	2	28	0	0	0	2	5
2024	5.29%	15	101	12	71	11	65	2	28	0	0	0	2	6
2025	4.89%	14	115	12	83	11	75	1	28	0	0	0	1	8
2026	4.52%	13	128	12	95	11	86	1	28	0	0	0	1	9
2027	4.46%	13	141	12	107	11	97	1	28	0	0	0	1	9
2028	4.46%	13	154	12	119	11	108	1	28	0	0	0	1	10
2029	4.46%	13	167	12	131	11	119	1	28	0	0	0	1	11
2030	4.46%	13	180	12	143	11	129	1	28	0	0	0	1	12
2031	4.46%	13	192	12	155	11	140	1	28	0	0	0	1	13
2032	4.46%	13	205	12	167	11	151	1	28	0	0	0	1	13
2033	4.46%	13	218	12	178	11	162	1	28	0	0	0	1	14
2034	4.46%	13	231	12	190	11	173	1	28	0	0	0	1	15
2035	4.46%	13	244	12	202	11	183	1	28	0	0	0	1	16
2036	4.46%	13	257	12	214	11	194	1	28	0	0	0	1	17
2037	4.46%	13	270	12	226	11	205	1	28	0	0	0	1	18
2038	4.46%	13	283	12	238	11	216	1	28	0	0	0	1	18
2039	2.23%	6	289	12	250	11	226	(2)	28	0	0	0	(2)	17
2040	0.00%	0	289	12	262	11	237	(4)	28	0	0	0	(4)	12
2041	0.00%	0	289	12	274	11	248	(4)	28	0	0	0	(4)	8
2042	0.00%	0	289	12	286	11	259	(4)	28	0	0	0	(4)	4
2043	0.00%	0	289	12	297	11	270	(4)	28	0	0	0	(4)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(8)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	28
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Solar Water Heating

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	11	0	286	12	(8)	305	293	299
2020	7.22%	21	4	274	24	(4)	293	277	285
2021	6.68%	19	3	262	36	(0)	277	262	270
2022	6.18%	18	3	250	48	2	262	247	255
2023	5.71%	17	2	238	59	5	247	233	240
2024	5.29%	15	2	226	71	6	233	220	227
2025	4.89%	14	1	214	83	8	220	206	213
2026	4.52%	13	1	202	95	9	206	194	200
2027	4.46%	13	1	190	107	9	194	181	187
2028	4.46%	13	1	178	119	10	181	168	175
2029	4.46%	13	1	167	131	11	168	156	162
2030	4.46%	13	1	155	143	12	156	143	149
2031	4.46%	13	1	143	155	13	143	130	137
2032	4.46%	13	1	131	167	13	130	117	124
2033	4.46%	13	1	119	178	14	117	105	111
2034	4.46%	13	1	107	190	15	105	92	98
2035	4.46%	13	1	95	202	16	92	79	86
2036	4.46%	13	1	83	214	17	79	67	73
2037	4.46%	13	1	71	226	18	67	54	60
2038	4.46%	13	1	59	238	18	54	41	48
2039	2.23%	6	(2)	48	250	17	41	31	36
2040	0.00%	0	(4)	36	262	12	31	23	27
2041	0.00%	0	(4)	24	274	8	23	15	19
2042	0.00%	0	(4)	12	286	4	15	8	12
2043	0.00%	0	(4)	0	297	0	8	0	4

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

57.47

156.84

127.50

(27.02)

1,064.61

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	254	254	254
EQUITY AFUDC	28		
DEBT AFUDC	16	16	
CPI			36
TOTAL	297	270	289

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME : Business Solar Water Heating

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	11	11	6.41	8.55	6.80	0.00	1.00	1.00
2011	54	54	6.35	8.15	6.70	0.00	1.00	1.00
2012	106	106	6.43	8.09	6.74	0.00	1.00	1.00
2013	168	168	7.06	8.17	7.28	0.00	1.00	1.00
2014	243	243	7.53	8.46	7.73	0.00	1.00	1.00
2015	243	243	8.11	9.29	8.37	0.00	1.00	1.00
2016	243	243	9.00	11.04	9.41	0.00	1.00	1.00
2017	243	243	9.75	12.12	10.17	0.00	1.00	1.00
2018	243	243	10.52	12.96	10.97	0.00	1.00	1.00
2019	243	243	11.50	14.57	12.08	10.41	1.00	1.00
2020	243	243	12.08	15.21	12.73	10.50	1.00	1.00
2021	243	243	12.57	15.76	13.24	10.74	1.00	1.00
2022	243	243	13.06	16.30	13.73	10.81	1.00	1.00
2023	243	243	13.39	16.34	14.04	10.80	1.00	1.00
2024	243	243	13.95	16.98	14.61	10.84	1.00	1.00
2025	243	243	14.40	17.40	15.06	10.96	1.00	1.00
2026	243	243	14.70	17.53	15.33	11.05	1.00	1.00
2027	243	243	15.13	17.74	15.73	11.17	1.00	1.00
2028	243	243	15.60	18.09	16.17	11.36	1.00	1.00
2029	243	243	16.02	18.18	16.55	11.41	1.00	1.00
2030	243	243	16.52	18.60	17.03	11.59	1.00	1.00
2031	243	243	17.08	19.21	17.59	11.80	1.00	1.00
2032	243	243	17.50	19.14	17.93	11.88	1.00	1.00
2033	243	243	18.27	19.86	18.58	12.10	1.00	1.00
2034	243	243	18.73	19.76	18.91	12.14	1.00	1.00
2035	243	243	19.57	20.92	19.82	12.29	1.00	1.00
2036	243	243	20.40	21.89	20.62	12.55	1.00	1.00
2037	243	243	21.11	22.47	21.31	12.70	1.00	1.00
2038	243	243	22.02	23.40	22.23	13.04	1.00	1.00
2039	243	243	22.78	24.05	22.95	13.32	1.00	1.00
2040	243	243	23.59	24.67	23.74	13.44	1.00	1.00
2041	243	243	24.54	25.60	24.68	13.75	1.00	1.00
2042	243	243	25.50	26.54	25.65	14.10	1.00	1.00
2043	243	243	26.74	28.19	26.92	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	64	35	1	89	113	76
2020	62	36	2	131	160	71
2021	59	37	2	137	167	68
2022	57	38	2	145	174	68
2023	55	38	2	152	179	69
2024	52	39	3	161	186	70
2025	50	40	3	172	196	69
2026	48	41	3	183	206	70
2027	46	42	3	194	215	70
2028	44	44	3	199	220	70
2029	42	45	3	207	225	72
2030	40	46	4	217	234	72
2031	38	47	4	221	239	71
2032	36	48	4	229	244	74
2033	34	49	4	252	266	74
2034	32	50	4	262	273	77
2035	30	52	5	268	277	78
2036	28	53	5	276	285	77
2037	26	54	5	283	289	79
2038	24	56	5	290	298	77
2039	22	57	5	296	305	75
2040	21	59	5	303	308	79
2041	19	60	5	309	316	78
2042	18	61	6	316	325	77
2043	17	63	6	324	333	77
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	966	1,190	95	5,616	6,030	1,837
NPV	216	198	14	860	956	332

* 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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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	1.30	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	1.87	

[illegible]

Discount Rate

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89	%
0.997	

RESIDENTIAL PHOTOVOLTAICS

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Photovoltaics (PV)

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	1.45 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.94 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	5,771.49 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
~ (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
~ (9) SUPPLY COSTS ESCALATION RATES	*** %**
~ (10) UTILITY DISCOUNT RATE	8.89 %
~ (11) UTILITY AFUDC RATE	8.48 %
~ (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
~ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
~ (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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2013-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

* 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_REQ
PROGRAM NAME: Residential Photovoltaics (PV)

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
BEG-YEAR	RATE BASE	DEBT	PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY	DEPREC.	DEFERRED	TOTAL	PRESENT	REPLACEMENT
YEAR	\$(000)	\$(000)	STOCK	EQUITY	TAXES	TAX	INSURANCE	\$(000)	TAXES	FIXED	WORTH	COST BASIS
			\$(000)	\$(000)	\$(000)	\$(000)	\$(000)		\$(000)	CHARGES	FIXED	FOR
										\$(000)	CHARGES	PROPERTY INSURANCE
											\$(000)	\$(000)
2019	3,120	97	0	218	144	53	19	122	0	651	651	3,042
2020	2,998	93	0	209	99	50	19	122	40	632	580	3,119
2021	2,836	88	0	198	98	48	19	122	34	607	512	3,197
2022	2,681	83	0	187	97	46	20	122	28	583	451	3,276
2023	2,531	79	0	177	95	44	20	122	23	559	398	3,358
2024	2,387	74	0	167	94	42	21	122	18	537	351	3,442
2025	2,247	70	0	157	92	39	22	122	13	515	309	3,528
2026	2,113	66	0	147	91	37	22	122	9	494	272	3,617
2027	1,982	62	0	138	86	35	23	122	8	473	239	3,707
2028	1,852	58	0	129	80	33	23	122	8	453	210	3,800
2029	1,722	53	0	120	74	31	24	122	8	432	185	3,895
2030	1,592	49	0	111	69	28	24	122	8	412	161	3,992
2031	1,462	45	0	102	63	26	25	122	8	392	141	4,092
2032	1,331	41	0	93	57	24	26	122	8	371	123	4,194
2033	1,201	37	0	84	51	22	26	122	8	351	107	4,299
2034	1,071	33	0	75	46	20	27	122	8	330	92	4,406
2035	941	29	0	66	40	18	28	122	8	310	79	4,517
2036	811	25	0	57	34	15	28	122	8	290	68	4,629
2037	681	21	0	48	29	13	29	122	8	269	58	4,745
2038	551	17	0	38	23	11	30	122	8	249	49	4,864
2039	421	13	0	29	43	9	30	122	(17)	229	42	4,985
2040	317	10	0	22	64	7	31	122	(43)	212	36	5,110
2041	237	7	0	17	60	4	32	122	(43)	200	31	5,238
2042	158	5	0	11	57	2	33	122	(43)	187	26	5,369
2043	79	2	0	6	53	(0)	34	122	(43)	174	23	5,503

IN SERVICE COST (\$000)	3,042
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	111	111	122	122	110	110	0	284	0	0	0	0	(77)
2020	7.22%	214	325	122	243	110	221	40	284	0	0	0	40	(37)
2021	6.68%	198	522	122	365	110	331	34	284	0	0	0	34	(4)
2022	6.18%	183	705	122	487	110	441	28	284	0	0	0	28	24
2023	5.71%	169	874	122	608	110	552	23	284	0	0	0	23	47
2024	5.29%	156	1,030	122	730	110	662	18	284	0	0	0	18	65
2025	4.89%	145	1,175	122	852	110	772	13	284	0	0	0	13	78
2026	4.52%	134	1,309	122	974	110	883	9	284	0	0	0	9	87
2027	4.46%	132	1,441	122	1,095	110	993	8	284	0	0	0	8	95
2028	4.46%	132	1,573	122	1,217	110	1,103	8	284	0	0	0	8	104
2029	4.46%	132	1,705	122	1,339	110	1,214	8	284	0	0	0	8	112
2030	4.46%	132	1,837	122	1,460	110	1,324	8	284	0	0	0	8	121
2031	4.46%	132	1,969	122	1,582	110	1,434	8	284	0	0	0	8	129
2032	4.46%	132	2,101	122	1,704	110	1,545	8	284	0	0	0	8	137
2033	4.46%	132	2,233	122	1,825	110	1,655	8	284	0	0	0	8	146
2034	4.46%	132	2,365	122	1,947	110	1,765	8	284	0	0	0	8	154
2035	4.46%	132	2,497	122	2,069	110	1,876	8	284	0	0	0	8	162
2036	4.46%	132	2,629	122	2,191	110	1,986	8	284	0	0	0	8	171
2037	4.46%	132	2,761	122	2,312	110	2,096	8	284	0	0	0	8	179
2038	4.46%	132	2,893	122	2,434	110	2,207	8	284	0	0	0	8	187
2039	2.23%	66	2,959	122	2,556	110	2,317	(17)	284	0	0	0	(17)	170
2040	0.00%	0	2,959	122	2,677	110	2,427	(43)	284	0	0	0	(43)	128
2041	0.00%	0	2,959	122	2,799	110	2,538	(43)	284	0	0	0	(43)	85
2042	0.00%	0	2,959	122	2,921	110	2,648	(43)	284	0	0	0	(43)	43
2043	0.00%	0	2,959	122	3,042	110	2,758	(43)	284	0	0	0	(43)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(77)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	284
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	111	0	2,921	122	(77)	3,120	2,998	3,059
2020	7.22%	214	40	2,799	243	(37)	2,998	2,836	2,917
2021	6.68%	198	34	2,677	365	(4)	2,836	2,681	2,759
2022	6.18%	183	28	2,556	487	24	2,681	2,531	2,606
2023	5.71%	169	23	2,434	608	47	2,531	2,387	2,459
2024	5.29%	156	18	2,312	730	65	2,387	2,247	2,317
2025	4.89%	145	13	2,191	852	78	2,247	2,113	2,180
2026	4.52%	134	9	2,069	974	87	2,113	1,982	2,047
2027	4.46%	132	8	1,947	1,095	95	1,982	1,852	1,917
2028	4.46%	132	8	1,825	1,217	104	1,852	1,722	1,787
2029	4.46%	132	8	1,704	1,339	112	1,722	1,592	1,657
2030	4.46%	132	8	1,582	1,460	121	1,592	1,462	1,527
2031	4.46%	132	8	1,460	1,582	129	1,462	1,331	1,397
2032	4.46%	132	8	1,339	1,704	137	1,331	1,201	1,266
2033	4.46%	132	8	1,217	1,825	146	1,201	1,071	1,136
2034	4.46%	132	8	1,095	1,947	154	1,071	941	1,006
2035	4.46%	132	8	974	2,069	162	941	811	876
2036	4.46%	132	8	852	2,191	171	811	681	746
2037	4.46%	132	8	730	2,312	179	681	551	616
2038	4.46%	132	8	608	2,434	187	551	421	486
2039	2.23%	66	(17)	487	2,556	170	421	317	369
2040	0.00%	0	(43)	365	2,677	128	317	237	277
2041	0.00%	0	(43)	243	2,799	85	237	158	198
2042	0.00%	0	(43)	122	2,921	43	158	79	119
2043	0.00%	0	(43)	(0)	3,042	0	79	0	40

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	2,594	2,594	2,594
EQUITY AFUDC	284		
DEBT AFUDC	164	164	
CPI			364
TOTAL	3,042	2,758	2,959

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	0.99	0.99
2010	113	113	6.41	8.02	6.98	0.00	0.99	0.99
2011	453	453	6.35	7.75	6.86	0.00	0.98	0.98
2012	793	793	6.43	7.77	6.88	0.00	0.97	0.97
2013	1,133	1,133	7.06	7.94	7.38	0.00	0.97	0.97
2014	1,473	1,473	7.53	8.28	7.80	0.00	0.96	0.96
2015	1,473	1,473	8.11	9.05	8.45	0.00	0.96	0.96
2016	1,473	1,473	9.00	10.60	9.54	0.00	0.95	0.95
2017	1,473	1,473	9.75	11.66	10.31	0.00	0.94	0.94
2018	1,473	1,473	10.52	12.51	11.12	0.00	0.94	0.94
2019	1,473	1,473	11.50	14.01	12.28	10.41	0.93	0.93
2020	1,473	1,473	12.08	14.63	12.92	10.50	0.92	0.92
2021	1,473	1,473	12.57	15.24	13.43	10.74	0.92	0.92
2022	1,473	1,473	13.06	15.79	13.87	10.81	0.91	0.91
2023	1,473	1,473	13.39	15.87	14.16	10.80	0.91	0.91
2024	1,473	1,473	13.95	16.47	14.74	10.84	0.90	0.90
2025	1,473	1,473	14.40	16.90	15.19	10.96	0.90	0.90
2026	1,473	1,473	14.70	17.06	15.45	11.05	0.89	0.89
2027	1,473	1,473	15.13	17.30	15.84	11.17	0.88	0.88
2028	1,473	1,473	15.60	17.77	16.26	11.36	0.88	0.88
2029	1,473	1,473	16.02	17.90	16.62	11.41	0.87	0.87
2030	1,473	1,473	16.52	18.19	17.15	11.59	1.00	1.00
2031	1,473	1,473	17.08	18.66	17.77	11.80	0.99	0.99
2032	1,473	1,473	17.50	18.74	18.07	11.88	0.99	0.99
2033	1,473	1,473	18.27	19.43	18.74	12.10	0.98	0.98
2034	1,473	1,473	18.73	19.53	19.02	12.14	0.97	0.97
2035	1,473	1,473	19.57	20.59	19.94	12.29	0.97	0.97
2036	1,473	1,473	20.40	21.53	20.75	12.55	0.96	0.96
2037	1,473	1,473	21.11	22.14	21.43	12.70	0.96	0.96
2038	1,473	1,473	22.02	23.06	22.36	13.04	1.00	1.00
2039	1,473	1,473	22.78	23.71	23.11	13.32	0.99	0.99
2040	1,473	1,473	23.59	24.40	23.89	13.44	0.99	0.99
2041	1,473	1,473	24.54	25.33	24.82	13.75	0.98	0.98
2042	1,473	1,473	25.50	26.30	25.75	14.10	0.97	0.97
2043	1,473	1,473	26.74	27.84	27.07	14.40	0.97	0.97
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Residential Photovoltaics (PV)

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	622	341	14	910	1,151	736
2020	599	347	21	1,340	1,633	674
2021	572	354	21	1,399	1,706	640
2022	545	360	23	1,480	1,778	630
2023	520	367	24	1,556	1,829	637
2024	496	373	25	1,644	1,898	640
2025	473	380	26	1,756	2,002	634
2026	450	387	28	1,877	2,109	634
2027	429	394	30	1,981	2,199	635
2028	407	401	30	2,034	2,246	627
2029	387	409	32	2,119	2,306	641
2030	366	416	33	2,219	2,398	636
2031	347	426	34	2,264	2,441	631
2032	335	444	36	2,344	2,491	668
2033	325	468	40	2,580	2,724	689
2034	315	493	43	2,685	2,789	747
2035	303	518	46	2,746	2,832	781
2036	286	536	48	2,828	2,916	781
2037	264	546	49	2,892	2,958	793
2038	242	556	50	2,965	3,048	764
2039	222	567	51	3,026	3,118	747
2040	206	582	52	3,095	3,154	782
2041	195	600	54	3,163	3,233	779
2042	183	618	56	3,235	3,323	769
2043	171	637	58	3,318	3,409	776
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	9,259	11,522	920	57,458	61,691	17,468
NPV	2,066	1,893	137	8,794	9,781	3,110

PSC FORM CE 2.2
PAGE 1 OF 1

* 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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT COSTS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
YEAR												
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	12	4,550	0	4,562	0	0	27	0	28	(4,534)	(4,164)
2011	0	37	14,204	0	14,241	0	10	131	0	141	(14,099)	(16,056)
2012	0	38	14,952	0	14,990	0	39	287	1	327	(14,663)	(27,414)
2013	0	39	15,730	0	15,768	0	71	442	39	552	(15,217)	(38,238)
2014	0	40	16,537	0	16,577	0	100	616	58	774	(15,802)	(48,562)
2015	0	0	1,510	0	1,510	0	127	759	72	958	(552)	(48,893)
2016	0	0	1,548	0	1,548	0	124	896	81	1,100	(448)	(49,140)
2017	0	0	1,587	0	1,587	0	120	983	88	1,190	(396)	(49,341)
2018	0	0	1,626	0	1,626	0	116	1,046	96	1,259	(368)	(49,512)
2019	0	0	1,667	0	1,667	736	113	1,171	70	2,089	422	(39,331)
2020	0	0	1,709	0	1,709	674	110	1,213	62	2,060	351	(49,194)
2021	0	0	1,751	0	1,751	640	106	1,256	64	2,067	315	(49,080)
2022	0	0	1,795	0	1,795	630	103	1,292	70	2,096	301	(48,981)
2023	0	0	1,840	0	1,840	637	100	1,284	72	2,093	253	(48,904)
2024	0	0	1,886	0	1,886	640	97	1,322	76	2,136	250	(48,834)
2025	0	0	1,933	0	1,933	634	94	1,346	80	2,153	220	(48,778)
2026	0	0	1,981	0	1,981	634	91	1,346	81	2,151	170	(48,738)
2027	0	0	2,031	0	2,031	635	88	1,351	84	2,157	126	(48,711)
2028	0	0	2,082	0	2,082	627	85	1,377	90	2,179	97	(48,691)
2029	0	0	2,134	0	2,134	641	82	1,371	98	2,191	57	(48,681)
2030	0	0	10,075	0	10,075	636	79	1,592	139	2,445	(7,630)	(49,957)
2031	0	0	26,687	0	26,687	631	76	1,618	149	2,473	(24,214)	(53,678)
2032	0	0	27,477	0	27,477	668	73	1,605	158	2,504	(24,972)	(57,202)
2033	0	0	28,290	0	28,290	689	71	1,650	156	2,566	(25,723)	(60,536)
2034	0	0	29,126	0	29,126	747	69	1,638	162	2,617	(26,510)	(63,691)
2035	0	0	2,474	0	2,474	781	68	1,721	172	2,742	268	(63,661)
2036	0	0	2,536	0	2,536	781	67	1,789	182	2,820	283	(63,633)
2037	0	0	2,600	0	2,600	793	66	1,825	193	2,876	276	(63,608)
2038	0	0	2,665	0	2,665	764	64	1,989	231	3,048	384	(63,575)
2039	0	0	2,731	0	2,731	747	63	2,028	243	3,081	349	(63,548)
2040	0	0	2,800	0	2,800	782	62	2,068	257	3,169	369	(63,521)
2041	0	0	2,870	0	2,870	779	61	2,132	271	3,243	373	(63,497)
2042	0	0	2,941	0	2,941	769	60	2,199	316	3,344	402	(63,473)
2043	0	0	3,015	0	3,015	776	59	2,319	364	3,518	503	(63,445)
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0			

Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)):	0.18	

[illegible]

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89

%

0.69

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL LOSSES BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
YEAR													
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	12	913	33	0	958	27	0	0	0	28	(931)	(855)
2011	0	37	2,747	173	0	2,957	131	10	0	0	141	(2,816)	(3,230)
2012	0	38	2,747	402	0	3,186	287	39	0	1	327	(2,859)	(5,445)
2013	0	39	2,747	652	0	3,438	442	71	0	39	552	(2,886)	(7,498)
2014	0	40	2,747	936	0	3,723	616	100	0	58	774	(2,948)	(9,424)
2015	0	0	0	1,109	0	1,109	759	127	0	72	958	(151)	(9,515)
2016	0	0	0	1,147	0	1,147	896	124	0	81	1,100	(47)	(9,541)
2017	0	0	0	1,189	0	1,189	983	120	0	88	1,190	2	(9,540)
2018	0	0	0	1,145	0	1,145	1,046	116	0	96	1,259	114	(9,487)
2019	0	0	0	1,179	0	1,179	1,906	113	0	70	2,089	910	(9,098)
2020	0	0	0	1,175	0	1,175	1,888	110	0	62	2,060	885	(8,751)
2021	0	0	0	1,193	0	1,193	1,896	106	0	64	2,067	874	(8,437)
2022	0	0	0	1,219	0	1,219	1,922	103	0	70	2,096	876	(8,147)
2023	0	0	0	1,248	0	1,248	1,921	100	0	72	2,093	845	(7,891)
2024	0	0	0	1,295	0	1,295	1,962	97	0	76	2,136	841	(7,656)
2025	0	0	0	1,333	0	1,333	1,979	94	0	80	2,153	821	(7,446)
2026	0	0	0	1,377	0	1,377	1,979	91	0	81	2,151	774	(7,264)
2027	0	0	0	1,440	0	1,440	1,985	88	0	84	2,157	717	(7,109)
2028	0	0	0	1,489	0	1,489	2,004	85	0	90	2,179	690	(6,972)
2029	0	0	0	1,545	0	1,545	2,011	82	0	98	2,191	646	(6,855)
2030	0	0	0	1,930	0	1,930	2,228	79	0	139	2,445	515	(6,769)
2031	0	0	0	2,154	0	2,154	2,249	76	0	149	2,473	320	(6,719)
2032	0	0	0	2,266	0	2,266	2,273	73	0	158	2,504	238	(6,686)
2033	0	0	0	2,453	0	2,453	2,339	71	0	156	2,566	114	(6,671)
2034	0	0	0	2,482	0	2,482	2,385	69	0	162	2,617	134	(6,655)
2035	0	0	0	2,298	0	2,298	2,502	68	0	172	2,742	444	(6,607)
2036	0	0	0	2,446	0	2,446	2,571	67	0	182	2,820	373	(6,569)
2037	0	0	0	2,561	0	2,561	2,617	66	0	193	2,876	315	(6,540)
2038	0	0	0	2,797	0	2,797	2,753	64	0	231	3,048	252	(6,519)
2039	0	0	0	2,906	0	2,906	2,775	63	0	243	3,081	175	(6,505)
2040	0	0	0	3,022	0	3,022	2,850	62	0	257	3,169	147	(6,495)
2041	0	0	0	3,161	0	3,161	2,911	61	0	271	3,243	82	(6,489)
2042	0	0	0	3,308	0	3,308	2,968	60	0	316	3,344	35	(6,487)
2043	0	0	0	3,465	0	3,465	3,095	59	0	364	3,518	53	(6,484)
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0							

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.69	

BUSINESS PHOTOVOLTAICS

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Photovoltaics (PV)

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.86 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.15 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	3,394.93 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER.....	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES.....	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE.....	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Business Photovoltaics (PV)

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
YEAR													
2019	374	12	0	26	17	6	2	15	0	78	78	78	365
2020	359	11	0	25	12	6	2	15	5	76	70	148	374
2021	340	11	0	24	12	6	2	15	4	73	61	209	383
2022	321	10	0	22	12	6	2	15	3	70	54	263	393
2023	303	9	0	21	11	5	2	15	3	67	48	311	403
2024	286	9	0	20	11	5	3	15	2	64	42	353	413
2025	269	8	0	19	11	5	3	15	2	62	37	390	423
2026	253	8	0	18	11	4	3	15	1	59	33	423	434
2027	238	7	0	17	10	4	3	15	1	57	29	451	444
2028	222	7	0	15	10	4	3	15	1	54	25	476	455
2029	206	6	0	14	9	4	3	15	1	52	22	499	467
2030	191	6	0	13	8	3	3	15	1	49	19	518	479
2031	175	5	0	12	8	3	3	15	1	47	17	535	491
2032	160	5	0	11	7	3	3	15	1	44	15	550	503
2033	144	4	0	10	6	3	3	15	1	42	13	562	515
2034	128	4	0	9	5	2	3	15	1	40	11	573	528
2035	113	4	0	8	5	2	3	15	1	37	10	583	541
2036	97	3	0	7	4	2	3	15	1	35	8	591	555
2037	82	3	0	6	3	2	3	15	1	32	7	598	569
2038	66	2	0	5	3	1	4	15	1	30	6	604	583
2039	50	2	0	4	5	1	4	15	(2)	27	5	609	598
2040	38	1	0	3	8	1	4	15	(5)	25	4	613	613
2041	28	1	0	2	7	1	4	15	(5)	24	4	617	628
2042	19	1	0	1	7	0	4	15	(5)	22	3	620	644
2043	9	0	0	1	6	(0)	4	15	(5)	21	3	623	660

IN SERVICE COST (\$000)	365
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03
P/S	0%	0.00
C/S	56%	12.50

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	13	13	15	15	13	13	0	34	0	0	0	0	(9)
2020	7.22%	26	39	15	29	13	26	5	34	0	0	0	5	(4)
2021	6.68%	24	63	15	44	13	40	4	34	0	0	0	4	(0)
2022	6.18%	22	85	15	58	13	53	3	34	0	0	0	3	3
2023	5.71%	20	105	15	73	13	66	3	34	0	0	0	3	6
2024	5.29%	19	124	15	88	13	79	2	34	0	0	0	2	8
2025	4.89%	17	141	15	102	13	93	2	34	0	0	0	2	9
2026	4.52%	16	157	15	117	13	106	1	34	0	0	0	1	10
2027	4.46%	16	173	15	131	13	119	1	34	0	0	0	1	11
2028	4.46%	16	189	15	146	13	132	1	34	0	0	0	1	12
2029	4.46%	16	204	15	160	13	145	1	34	0	0	0	1	13
2030	4.46%	16	220	15	175	13	159	1	34	0	0	0	1	14
2031	4.46%	16	236	15	190	13	172	1	34	0	0	0	1	15
2032	4.46%	16	252	15	204	13	185	1	34	0	0	0	1	16
2033	4.46%	16	268	15	219	13	198	1	34	0	0	0	1	17
2034	4.46%	16	283	15	233	13	212	1	34	0	0	0	1	18
2035	4.46%	16	299	15	248	13	225	1	34	0	0	0	1	19
2036	4.46%	16	315	15	263	13	238	1	34	0	0	0	1	20
2037	4.46%	16	331	15	277	13	251	1	34	0	0	0	1	21
2038	4.46%	16	347	15	292	13	265	1	34	0	0	0	1	22
2039	2.23%	8	355	15	306	13	278	(2)	34	0	0	0	(2)	20
2040	0.00%	0	355	15	321	13	291	(5)	34	0	0	0	(5)	15
2041	0.00%	0	355	15	336	13	304	(5)	34	0	0	0	(5)	10
2042	0.00%	0	355	15	350	13	317	(5)	34	0	0	0	(5)	5
2043	0.00%	0	355	15	365	13	331	(5)	34	0	0	0	(5)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(9)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	34
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	13	0	350	15	(9)	374	359	367
2020	7.22%	26	5	336	29	(4)	359	340	350
2021	6.68%	24	4	321	44	(0)	340	321	331
2022	6.18%	22	3	306	58	3	321	303	312
2023	5.71%	20	3	292	73	6	303	286	295
2024	5.29%	19	2	277	88	8	286	269	278
2025	4.89%	17	2	263	102	9	269	253	261
2026	4.52%	16	1	248	117	10	253	238	245
2027	4.46%	16	1	233	131	11	238	222	230
2028	4.46%	16	1	219	146	12	222	206	214
2029	4.46%	16	1	204	160	13	206	191	199
2030	4.46%	16	1	190	175	14	191	175	183
2031	4.46%	16	1	175	190	15	175	160	167
2032	4.46%	16	1	160	204	16	160	144	152
2033	4.46%	16	1	146	219	17	144	128	136
2034	4.46%	16	1	131	233	18	128	113	121
2035	4.46%	16	1	117	248	19	113	97	105
2036	4.46%	16	1	102	263	20	97	82	89
2037	4.46%	16	1	88	277	21	82	66	74
2038	4.46%	16	1	73	292	22	66	50	58
2039	2.23%	8	(2)	58	306	20	50	38	44
2040	0.00%	0	(5)	44	321	15	38	28	33
2041	0.00%	0	(5)	29	336	10	28	19	24
2042	0.00%	0	(5)	15	350	5	19	9	14
2043	0.00%	0	(5)	(0)	365	0	9	0	5

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

57.47		156.84		127.50		(27.02)		1,064.61	
		BOOK BASIS		BOOK BASIS FOR DEF TAX		TAX BASIS			
CONSTRUCTION CASH		311		311		311			
EQUITY AFUDC		34							
DEBT AFUDC		20		20					
CPI						44			
TOTAL		365		331		355			

* Column not specified in workbook

INPUT DATA -- PART 2
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	0.00	0.00
2010	20	20	6.41	16.51	6.41	0.00	0.00	0.00
2011	83	83	6.35	10.38	6.35	0.00	0.00	0.00
2012	149	149	6.43	8.54	6.65	0.00	1.00	1.00
2013	220	220	7.06	7.97	7.36	0.00	0.99	0.99
2014	299	299	7.53	8.34	7.78	0.00	0.99	0.99
2015	299	299	8.11	9.11	8.43	0.00	0.98	0.98
2016	299	299	9.00	10.73	9.50	0.00	0.97	0.97
2017	299	299	9.75	11.74	10.28	0.00	0.97	0.97
2018	299	299	10.52	12.59	11.09	0.00	0.96	0.96
2019	299	299	11.50	14.21	12.20	10.41	0.96	0.96
2020	299	299	12.08	14.84	12.84	10.50	0.95	0.95
2021	299	299	12.57	15.45	13.35	10.74	0.94	0.94
2022	299	299	13.06	15.91	13.83	10.81	0.94	0.94
2023	299	299	13.39	15.98	14.13	10.80	0.93	0.93
2024	299	299	13.95	16.58	14.71	10.84	0.92	0.92
2025	299	299	14.40	17.12	15.12	10.96	0.92	0.92
2026	299	299	14.70	17.27	15.39	11.05	0.91	0.91
2027	299	299	15.13	17.51	15.78	11.17	0.91	0.91
2028	299	299	15.60	17.87	16.23	11.36	0.90	0.90
2029	299	299	16.02	17.98	16.60	11.41	0.90	0.90
2030	299	299	16.52	18.42	17.08	11.59	0.89	0.89
2031	299	299	17.08	19.10	17.61	11.80	0.88	0.88
2032	299	299	17.50	19.08	17.94	11.88	0.88	0.88
2033	299	299	18.27	19.78	18.60	12.10	0.87	0.87
2034	299	299	18.73	19.71	18.93	12.14	0.87	0.87
2035	299	299	19.57	20.85	19.84	12.29	0.86	0.86
2036	299	299	20.40	21.83	20.64	12.55	0.86	0.86
2037	299	299	21.11	22.47	21.31	12.70	0.85	0.85
2038	299	299	22.02	23.40	22.23	13.04	0.84	0.84
2039	299	299	22.78	24.05	22.95	13.32	0.84	0.84
2040	299	299	23.59	24.67	23.74	13.44	0.83	0.83
2041	299	299	24.54	25.60	24.68	13.75	0.83	0.83
2042	299	299	25.50	26.54	25.65	14.10	0.82	0.82
2043	299	299	26.74	28.27	26.91	14.40	0.82	0.82
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Business Photovoltaics (PV)

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	77	42	2	109	138	92
2020	74	43	3	161	196	85
2021	71	44	3	168	204	80
2022	67	45	3	177	213	79
2023	64	45	3	187	219	80
2024	61	46	3	197	228	80
2025	58	47	3	211	240	79
2026	56	48	3	225	253	79
2027	53	49	4	238	264	79
2028	50	50	4	244	269	78
2029	48	51	4	254	276	80
2030	45	52	4	266	287	79
2031	43	52	4	271	293	78
2032	40	53	4	281	299	80
2033	38	54	5	309	327	80
2034	35	55	5	322	334	83
2035	33	56	5	329	339	84
2036	31	57	5	339	350	83
2037	28	59	5	347	355	84
2038	26	60	5	355	365	81
2039	24	61	5	363	374	79
2040	22	62	6	371	378	82
2041	20	63	6	379	388	81
2042	19	64	6	388	398	78
2043	18	65	6	398	409	78
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	1,103	1,323	105	6,888	7,395	2,023
NPV	252	226	16	1,054	1,173	376

* 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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[illegible]

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

0.23

[illegible]

In Service of Gen Unit:
Discount Rate :
Benefit/Cost Ratio (Col(6) / Col(10))

2019	
8.89	%
6.74	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	2	86	77	0	165	0	0	0	0	0	(165)	(152)
2011	0	7	269	401	0	677	0	0	0	0	0	(677)	(723)
2012	0	7	282	938	0	1,227	35	0	0	0	35	(1,192)	(1,646)
2013	0	8	303	1,587	0	1,898	51	0	0	4	56	(1,843)	(2,957)
2014	0	9	337	2,386	0	2,733	74	1	0	7	82	(2,651)	(4,689)
2015	0	0	0	2,902	0	2,902	93	3	0	9	105	(2,797)	(6,367)
2016	0	0	0	3,050	0	3,050	110	3	0	10	123	(2,927)	(7,980)
2017	0	0	0	3,179	0	3,179	119	4	0	11	134	(3,045)	(9,521)
2018	0	0	0	3,280	0	3,280	127	4	0	12	143	(3,137)	(10,979)
2019	0	0	0	3,452	0	3,452	235	4	0	9	248	(3,205)	(12,347)
2020	0	0	0	3,474	0	3,474	233	4	0	8	245	(3,229)	(13,612)
2021	0	0	0	3,588	0	3,588	234	4	0	8	246	(3,343)	(14,816)
2022	0	0	0	3,753	0	3,753	236	4	0	9	248	(3,505)	(15,974)
2023	0	0	0	3,906	0	3,906	236	4	0	9	249	(3,658)	(17,085)
2024	0	0	0	4,136	0	4,136	241	3	0	10	254	(3,882)	(18,168)
2025	0	0	0	4,363	0	4,363	244	3	0	10	258	(4,105)	(19,219)
2026	0	0	0	4,589	0	4,589	244	3	0	10	258	(4,331)	(20,237)
2027	0	0	0	4,900	0	4,900	245	3	0	11	259	(4,641)	(21,240)
2028	0	0	0	5,149	0	5,149	246	3	0	11	261	(4,889)	(22,210)
2029	0	0	0	5,444	0	5,444	247	3	0	12	263	(5,181)	(23,153)
2030	0	0	0	5,777	0	5,777	249	3	0	13	265	(5,511)	(24,076)
2031	0	0	0	6,106	0	6,106	253	3	0	14	270	(5,836)	(24,972)
2032	0	0	0	6,536	0	6,536	253	3	0	15	271	(6,265)	(25,856)
2033	0	0	0	7,220	0	7,220	257	3	0	14	275	(6,946)	(26,756)
2034	0	0	0	7,363	0	7,363	258	3	0	14	276	(7,088)	(27,600)
2035	0	0	0	7,756	0	7,756	269	3	0	15	287	(7,469)	(28,416)
2036	0	0	0	8,413	0	8,413	275	3	0	16	294	(8,120)	(29,231)
2037	0	0	0	8,918	0	8,918	280	3	0	17	300	(8,618)	(30,026)
2038	0	0	0	9,380	0	9,380	284	3	0	17	305	(9,075)	(30,794)
2039	0	0	0	9,886	0	9,886	286	3	0	18	307	(9,579)	(31,539)
2040	0	0	0	10,426	0	10,426	293	3	0	19	315	(10,111)	(32,261)
2041	0	0	0	11,066	0	11,066	298	3	0	20	321	(10,745)	(32,966)
2042	0	0	0	11,749	0	11,749	302	3	0	24	329	(11,420)	(33,654)
2043	0	0	0	12,479	0	12,479	315	3	0	29	348	(12,131)	(34,325)
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	34	1,278	187,630	0	188,941	7,124	97	0	405	7,626	(181,315)	
NPV	0	25	961	34,938	0	35,924	1,493	24	0	83	1,599	(34,325)	

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89	%
0.04	

BUSINESS PHOTOVOLTAICS FOR SCHOOLS

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Photovoltaics for Schools

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.86 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.15 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	3,394.93 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
^ (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
^ (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
^ (11) UTILITY AFUDC RATE	8.48 %
^ (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

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

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Business Photovoltaics for Schools

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	263	8	0	18	12	4	2	10	0	55	55	55	257
2020	253	8	0	18	8	4	2	10	3	53	49	104	263
2021	239	7	0	17	8	4	2	10	3	51	43	147	270
2022	226	7	0	16	8	4	2	10	2	49	38	185	276
2023	213	7	0	15	8	4	2	10	2	47	34	219	283
2024	201	6	0	14	8	4	2	10	1	45	30	248	290
2025	190	6	0	13	8	3	2	10	1	43	26	274	298
2026	178	6	0	12	8	3	2	10	1	42	23	297	305
2027	167	5	0	12	7	3	2	10	1	40	20	317	313
2028	156	5	0	11	7	3	2	10	1	38	18	335	320
2029	145	5	0	10	6	3	2	10	1	36	16	351	328
2030	134	4	0	9	6	2	2	10	1	35	14	364	337
2031	123	4	0	9	5	2	2	10	1	33	12	376	345
2032	112	3	0	8	5	2	2	10	1	31	10	387	354
2033	101	3	0	7	4	2	2	10	1	30	9	396	363
2034	90	3	0	6	4	2	2	10	1	28	8	403	372
2035	79	2	0	6	3	1	2	10	1	26	7	410	381
2036	68	2	0	5	3	1	2	10	1	24	6	416	390
2037	57	2	0	4	2	1	2	10	1	23	5	421	400
2038	46	1	0	3	2	1	3	10	1	21	4	425	410
2039	36	1	0	2	4	1	3	10	(1)	19	4	428	420
2040	27	1	0	2	5	1	3	10	(4)	18	3	431	431
2041	20	1	0	1	5	0	3	10	(4)	17	3	434	442
2042	13	0	0	1	5	0	3	10	(4)	16	2	436	453
2043	7	0	0	0	4	(0)	3	10	(4)	15	2	438	464

IN SERVICE COST (\$000)	257
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Photovoltaics for Schools

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	9	9	10	10	9	9	0	24	0	0	0	0	(6)
2020	7.22%	18	27	10	21	9	19	3	24	0	0	0	3	(3)
2021	6.68%	17	44	10	31	9	28	3	24	0	0	0	3	(0)
2022	6.18%	15	59	10	41	9	37	2	24	0	0	0	2	2
2023	5.71%	14	74	10	51	9	47	2	24	0	0	0	2	4
2024	5.29%	13	87	10	62	9	56	1	24	0	0	0	1	5
2025	4.89%	12	99	10	72	9	65	1	24	0	0	0	1	7
2026	4.52%	11	110	10	82	9	74	1	24	0	0	0	1	7
2027	4.46%	11	121	10	92	9	84	1	24	0	0	0	1	8
2028	4.46%	11	133	10	103	9	93	1	24	0	0	0	1	9
2029	4.46%	11	144	10	113	9	102	1	24	0	0	0	1	9
2030	4.46%	11	155	10	123	9	112	1	24	0	0	0	1	10
2031	4.46%	11	166	10	133	9	121	1	24	0	0	0	1	11
2032	4.46%	11	177	10	144	9	130	1	24	0	0	0	1	12
2033	4.46%	11	188	10	154	9	140	1	24	0	0	0	1	12
2034	4.46%	11	199	10	164	9	149	1	24	0	0	0	1	13
2035	4.46%	11	211	10	174	9	158	1	24	0	0	0	1	14
2036	4.46%	11	222	10	185	9	167	1	24	0	0	0	1	14
2037	4.46%	11	233	10	195	9	177	1	24	0	0	0	1	15
2038	4.46%	11	244	10	205	9	186	1	24	0	0	0	1	16
2039	2.23%	6	249	10	216	9	195	(1)	24	0	0	0	(1)	14
2040	0.00%	0	249	10	226	9	205	(4)	24	0	0	0	(4)	11
2041	0.00%	0	249	10	236	9	214	(4)	24	0	0	0	(4)	7
2042	0.00%	0	249	10	246	9	223	(4)	24	0	0	0	(4)	4
2043	0.00%	0	249	10	257	9	233	(4)	24	0	0	0	(4)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(7)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	24
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Photovoltaics for Schools

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	9	0	246	10	(6)	263	253	258
2020	7.22%	18	3	236	21	(3)	253	239	246
2021	6.68%	17	3	226	31	(0)	239	226	233
2022	6.18%	15	2	216	41	2	226	213	220
2023	5.71%	14	2	205	51	4	213	201	207
2024	5.29%	13	1	195	62	5	201	190	195
2025	4.89%	12	1	185	72	7	190	178	184
2026	4.52%	11	1	174	82	7	178	167	173
2027	4.46%	11	1	164	92	8	167	156	162
2028	4.46%	11	1	154	103	9	156	145	151
2029	4.46%	11	1	144	113	9	145	134	140
2030	4.46%	11	1	133	123	10	134	123	129
2031	4.46%	11	1	123	133	11	123	112	118
2032	4.46%	11	1	113	144	12	112	101	107
2033	4.46%	11	1	103	154	12	101	90	96
2034	4.46%	11	1	92	164	13	90	79	85
2035	4.46%	11	1	82	174	14	79	68	74
2036	4.46%	11	1	72	185	14	68	57	63
2037	4.46%	11	1	62	195	15	57	46	52
2038	4.46%	11	1	51	205	16	46	36	41
2039	2.23%	6	(1)	41	216	14	36	27	31
2040	0.00%	0	(4)	31	226	11	27	20	23
2041	0.00%	0	(4)	21	236	7	20	13	17
2042	0.00%	0	(4)	10	246	4	13	7	10
2043	0.00%	0	(4)	(0)	257	0	7	0	3

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	219	219	219
EQUITY AFUDC	24		
DEBT AFUDC	14	14	
CPI			31
TOTAL	257	233	249

* Column not specified in workbook

INPUT DATA -- PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Business Photovoltaics for Schools

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	0.00	0.00
2010	8	8	6.41	16.51	6.41	0.00	0.00	0.00
2011	84	84	6.35	10.38	6.35	0.00	0.00	0.00
2012	126	126	6.43	13.34	6.43	0.00	0.00	0.00
2013	168	168	7.06	9.99	7.06	0.00	0.00	0.00
2014	210	210	7.53	10.61	7.53	0.00	0.00	0.00
2015	210	210	8.11	13.20	8.11	0.00	0.00	0.00
2016	210	210	9.00	13.90	9.00	0.00	0.00	0.00
2017	210	210	9.75	15.09	9.75	0.00	0.00	0.00
2018	210	210	10.52	14.04	10.75	0.00	1.00	1.00
2019	210	210	11.50	14.01	12.28	10.41	0.99	0.99
2020	210	210	12.08	14.73	12.88	10.50	0.99	0.99
2021	210	210	12.57	15.34	13.39	10.74	0.98	0.98
2022	210	210	13.06	15.79	13.87	10.81	0.97	0.97
2023	210	210	13.39	15.87	14.16	10.80	0.97	0.97
2024	210	210	13.95	16.47	14.74	10.84	0.96	0.96
2025	210	210	14.40	17.01	15.15	10.96	0.96	0.96
2026	210	210	14.70	17.16	15.42	11.05	0.95	0.95
2027	210	210	15.13	17.40	15.81	11.17	0.94	0.94
2028	210	210	15.60	17.77	16.26	11.36	0.94	0.94
2029	210	210	16.02	17.90	16.62	11.41	0.93	0.93
2030	210	210	16.52	18.34	17.10	11.59	0.92	0.92
2031	210	210	17.08	19.02	17.63	11.80	0.92	0.92
2032	210	210	17.50	19.00	17.96	11.88	0.91	0.91
2033	210	210	18.27	19.71	18.62	12.10	0.91	0.91
2034	210	210	18.73	19.67	18.95	12.14	0.90	0.90
2035	210	210	19.57	20.79	19.86	12.29	0.90	0.90
2036	210	210	20.40	21.75	20.66	12.55	0.89	0.89
2037	210	210	21.11	22.40	21.32	12.70	0.88	0.88
2038	210	210	22.02	23.21	22.28	13.04	1.00	1.00
2039	210	210	22.78	23.79	23.05	13.32	0.99	0.99
2040	210	210	23.59	24.49	23.81	13.44	0.99	0.99
2041	210	210	24.54	25.43	24.75	13.75	0.98	0.98
2042	210	210	25.50	26.37	25.71	14.10	0.97	0.97
2043	210	210	26.74	27.93	27.01	14.40	0.97	0.97
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	1	1	0	77	97	(19)
2020	12	7	0	113	138	(6)
2021	26	16	1	118	144	17
2022	34	23	1	125	150	33
2023	42	30	2	131	154	51
2024	45	34	2	139	160	59
2025	43	34	2	148	169	59
2026	41	35	3	158	178	59
2027	39	36	3	167	185	59
2028	37	36	3	172	189	58
2029	35	37	3	179	194	59
2030	33	38	3	187	202	59
2031	31	38	3	191	206	58
2032	29	39	3	198	210	59
2033	28	40	3	218	230	59
2034	26	40	4	226	235	61
2035	24	41	4	232	239	62
2036	22	42	4	238	246	61
2037	21	43	4	244	249	62
2038	19	44	4	250	257	59
2039	17	44	4	255	263	58
2040	16	47	4	261	266	62
2041	16	49	4	267	273	64
2042	15	51	5	273	280	64
2043	14	54	5	280	287	65
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	667	897	73	4,845	5,202	1,280
NPV	128	133	10	742	825	189

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)*
	AVOIDED TRANSMISSION CAP COST	AVOIDED TRANSMISSION O&M COST	TOTAL AVOIDED TRANSMISSION COST	AVOIDED DISTRIBUTION CAP COST	AVOIDED DISTRIBUTION O&M COST	TOTAL AVOIDED DISTRIBUTION COST	PROGRAM FUEL SAVINGS	PROGRAM OFF-PEAK PAYBACK
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	105	0
2019	0	0	0	0	0	0	103	0
2020	0	0	0	0	0	0	108	0
2021	0	0	0	0	0	0	111	0
2022	0	1	1	0	0	0	114	0
2023	0	1	1	0	0	0	113	0
2024	0	1	1	0	0	0	117	0
2025	0	1	1	0	0	0	120	0
2026	0	1	1	0	0	0	120	0
2027	0	1	1	0	0	0	120	0
2028	0	1	1	0	0	0	122	0
2029	0	1	1	0	0	0	122	0
2030	0	1	1	0	0	0	124	0
2031	0	1	1	0	0	0	127	0
2032	0	1	1	0	0	0	126	0
2033	0	1	1	0	0	0	130	0
2034	0	1	1	0	0	0	128	0
2035	0	1	1	0	0	0	135	0
2036	0	1	1	0	0	0	140	0
2037	0	1	1	0	0	0	143	0
2038	0	1	1	0	0	0	168	0
2039	0	1	1	0	0	0	170	0
2040	0	1	1	0	0	0	174	0
2041	0	1	1	0	0	0	179	0
2042	0	1	1	0	0	0	185	0
2043	0	2	2	0	0	0	195	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	0	26	26	0	7	7	3,497	0
NPV	0	4	4	0	1	1	616	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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	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)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	251	0	0	251	0	0	0	0	0	(251)	(230)
2011	0	2,312	0	0	2,312	0	0	0	0	0	(2,312)	(2,180)
2012	0	1,317	0	0	1,317	0	0	0	0	0	(1,317)	(3,200)
2013	0	1,349	0	0	1,349	0	0	0	0	0	(1,349)	(4,160)
2014	0	1,383	0	0	1,383	0	0	0	0	0	(1,383)	(5,064)
2015	0	0	0	0	0	0	0	0	0	0	0	(5,064)
2016	0	0	0	0	0	0	0	0	0	0	0	(5,064)
2017	0	0	0	0	0	0	0	0	0	0	0	(5,064)
2018	0	0	0	0	0	0	0	105	9	114	114	(5,011)
2019	0	0	0	0	0	(19)	0	103	6	91	91	(4,972)
2020	0	0	0	0	0	(6)	0	108	6	108	108	(4,930)
2021	0	0	0	0	0	17	1	111	6	135	135	(4,881)
2022	0	0	0	0	0	33	1	114	7	155	155	(4,830)
2023	0	0	0	0	0	51	1	113	7	172	172	(4,778)
2024	0	0	0	0	0	59	1	117	7	185	185	(4,726)
2025	0	0	0	0	0	59	1	120	8	187	187	(4,678)
2026	0	0	0	0	0	59	1	120	8	187	187	(4,634)
2027	0	0	0	0	0	59	1	120	8	188	188	(4,594)
2028	0	0	0	0	0	58	1	122	9	190	190	(4,556)
2029	0	0	0	0	0	59	1	122	9	191	191	(4,521)
2030	0	0	0	0	0	59	1	124	10	193	193	(4,489)
2031	0	0	0	0	0	58	1	127	11	197	197	(4,458)
2032	0	0	0	0	0	59	1	126	11	198	198	(4,430)
2033	0	0	0	0	0	59	1	130	11	200	200	(4,405)
2034	0	0	0	0	0	61	1	128	11	202	202	(4,381)
2035	0	0	0	0	0	62	2	135	12	210	210	(4,358)
2036	0	0	0	0	0	61	2	140	12	215	215	(4,336)
2037	0	0	0	0	0	62	2	143	13	219	219	(4,316)
2038	0	0	0	0	0	59	2	168	19	248	248	(4,295)
2039	0	0	0	0	0	58	2	170	20	250	250	(4,275)
2040	0	0	0	0	0	62	2	174	21	259	259	(4,257)
2041	0	0	0	0	0	64	2	179	23	267	267	(4,239)
2042	0	0	0	0	0	64	2	185	26	277	277	(4,223)
2043	0	0	0	0	0	65	2	195	31	293	293	(4,206)
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0										

Discount Rate:

Benefit/Cost Ratio (Col(11) / Col(6)) :

8.89 %

0.17

In Service of Gen Unit:
Discount Rate :
Benefit/Cost Ratio (Col(6) / Col(10))

2019	
8.89	%
Infinite	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	0.15	

RESIDENTIAL AIR CONDITIONING

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Air-Conditioning

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.47 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.63 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	1,039.39 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.03 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
* (10) UTILITY DISCOUNT RATE	8.89 %
* (11) UTILITY AFUDC RATE	8.48 %
* (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
* (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
* (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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.73 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

* 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_REQ
PROGRAM NAME: Residential Air-Conditioning

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC, \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	514,111	15,970	0	35,879	23,669	8,664	3,058	20,056	39	107,334	107,334	107,334	501,388
2020	494,017	15,346	0	34,476	16,263	8,303	3,135	20,056	6,563	104,143	95,643	202,977	513,923
2021	467,398	14,519	0	32,619	16,116	7,942	3,213	20,056	5,544	100,009	84,350	287,328	526,771
2022	441,799	13,724	0	30,832	15,929	7,581	3,294	20,056	4,609	96,024	74,380	361,708	539,940
2023	417,134	12,958	0	29,111	15,726	7,220	3,376	20,056	3,731	92,177	65,573	427,280	553,438
2024	393,348	12,219	0	27,451	15,489	6,859	3,460	20,056	2,926	88,459	57,792	485,072	567,274
2025	370,367	11,505	0	25,847	15,228	6,498	3,547	20,056	2,179	84,860	50,916	535,988	581,456
2026	348,132	10,814	0	24,295	14,942	6,137	3,636	20,056	1,491	81,371	44,837	580,825	595,993
2027	326,586	10,145	0	22,792	14,111	5,776	3,726	20,056	1,378	77,983	39,464	620,289	610,892
2028	305,153	9,479	0	21,296	13,173	5,415	3,820	20,056	1,376	74,615	34,677	654,966	626,165
2029	283,721	8,814	0	19,800	12,232	5,054	3,915	20,056	1,378	71,248	30,410	685,376	641,919
2030	262,288	8,148	0	18,304	11,285	4,693	4,013	20,056	1,376	67,884	26,610	711,986	657,864
2031	240,856	7,482	0	16,809	10,354	4,332	4,113	20,056	1,378	64,523	23,228	735,214	674,311
2032	219,423	6,816	0	15,313	9,416	3,971	4,216	20,056	1,376	61,164	20,222	755,435	691,169
2033	197,991	6,150	0	13,817	8,475	3,610	4,322	20,056	1,378	57,808	17,552	772,987	708,448
2034	176,558	5,485	0	12,322	7,538	3,249	4,430	20,056	1,376	54,454	15,184	788,172	726,159
2035	155,126	4,819	0	10,826	6,596	2,888	4,540	20,056	1,378	51,103	13,087	801,259	744,313
2036	133,693	4,153	0	9,330	5,659	2,527	4,654	20,056	1,376	47,754	11,231	812,490	762,921
2037	112,261	3,487	0	7,834	4,718	2,166	4,770	20,056	1,378	44,409	9,592	822,082	781,994
2038	90,828	2,821	0	6,339	3,780	1,805	4,889	20,056	1,376	41,066	8,146	830,228	801,544
2039	69,397	2,156	0	4,843	2,835	1,444	5,012	20,056	(2,818)	37,727	6,873	837,101	821,582
2040	52,159	1,620	0	3,640	10,476	1,083	5,137	20,056	(7,014)	34,997	5,855	842,956	842,122
2041	39,118	1,215	0	2,730	9,904	722	5,265	20,056	(7,014)	32,878	5,052	848,008	863,175
2042	26,077	810	0	1,820	9,333	361	5,397	20,056	(7,014)	30,762	4,341	852,349	884,754
2043	13,036	405	0	910	8,761	0	5,532	20,056	(7,014)	28,649	3,713	856,062	906,873

IN SERVICE COST (\$000)	501,388
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	18,284	18,284	20,056	20,056	18,184	18,184	39	46,799	0	0	0	39	(12,685)
2020	7.22%	35,198	53,482	20,056	40,111	18,184	36,367	6,563	46,799	0	0	0	6,563	(6,121)
2021	6.68%	32,555	86,037	20,056	60,167	18,184	54,551	5,544	46,799	0	0	0	5,544	(578)
2022	6.18%	30,132	116,169	20,056	80,222	18,184	72,734	4,609	46,799	0	0	0	4,609	4,032
2023	5.71%	27,855	144,024	20,056	100,278	18,184	90,918	3,731	46,799	0	0	0	3,731	7,762
2024	5.29%	25,768	169,792	20,056	120,333	18,184	109,101	2,926	46,799	0	0	0	2,926	10,688
2025	4.89%	23,833	193,625	20,056	140,389	18,184	127,285	2,179	46,799	0	0	0	2,179	12,867
2026	4.52%	22,048	215,673	20,056	160,444	18,184	145,468	1,491	46,799	0	0	0	1,491	14,358
2027	4.46%	21,755	237,428	20,056	180,500	18,184	163,652	1,378	46,799	0	0	0	1,378	15,736
2028	4.46%	21,751	259,179	20,056	200,555	18,184	181,835	1,376	46,799	0	0	0	1,376	17,112
2029	4.46%	21,755	280,934	20,056	220,611	18,184	200,019	1,378	46,799	0	0	0	1,378	18,490
2030	4.46%	21,751	302,685	20,056	240,666	18,184	218,202	1,376	46,799	0	0	0	1,376	19,866
2031	4.46%	21,755	324,440	20,056	260,722	18,184	236,386	1,378	46,799	0	0	0	1,378	21,243
2032	4.46%	21,751	346,191	20,056	280,777	18,184	254,570	1,376	46,799	0	0	0	1,376	22,619
2033	4.46%	21,755	367,946	20,056	300,833	18,184	272,753	1,378	46,799	0	0	0	1,378	23,997
2034	4.46%	21,751	389,697	20,056	320,888	18,184	290,937	1,376	46,799	0	0	0	1,376	25,373
2035	4.46%	21,755	411,452	20,056	340,944	18,184	309,120	1,378	46,799	0	0	0	1,378	26,751
2036	4.46%	21,751	433,203	20,056	360,999	18,184	327,304	1,376	46,799	0	0	0	1,376	28,127
2037	4.46%	21,755	454,958	20,056	381,055	18,184	345,487	1,378	46,799	0	0	0	1,378	29,505
2038	4.46%	21,751	476,709	20,056	401,110	18,184	363,671	1,376	46,799	0	0	0	1,376	30,881
2039	2.23%	10,878	487,587	20,056	421,166	18,184	381,854	(2,818)	46,799	0	0	0	(2,818)	28,063
2040	0.00%	0	487,587	20,056	441,221	18,184	400,038	(7,014)	46,799	0	0	0	(7,014)	21,049
2041	0.00%	0	487,587	20,056	461,277	18,184	418,221	(7,014)	46,799	0	0	0	(7,014)	14,034
2042	0.00%	0	487,587	20,056	481,332	18,184	436,405	(7,014)	46,799	0	0	0	(7,014)	7,020
2043	0.00%	0	487,587	20,056	501,388	18,184	454,588	(7,014)	46,799	0	0	0	(7,014)	6

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(12,723)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	46,799
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	18,284	39	481,332	20,056	(12,685)	514,111	494,017	504,064
2020	7.22%	35,198	6,563	461,277	40,111	(6,121)	494,017	467,398	480,708
2021	6.68%	32,555	5,544	441,221	60,167	(578)	467,398	441,799	454,599
2022	6.18%	30,132	4,609	421,166	80,222	4,032	441,799	417,134	429,467
2023	5.71%	27,855	3,731	401,110	100,278	7,762	417,134	393,348	405,241
2024	5.29%	25,768	2,926	381,055	120,333	10,688	393,348	370,367	381,857
2025	4.89%	23,833	2,179	360,999	140,389	12,867	370,367	348,132	359,249
2026	4.52%	22,048	1,491	340,944	160,444	14,358	348,132	326,586	337,359
2027	4.46%	21,755	1,378	320,888	180,500	15,736	326,586	305,153	315,869
2028	4.46%	21,751	1,376	300,833	200,555	17,112	305,153	283,721	294,437
2029	4.46%	21,755	1,378	280,777	220,611	18,490	283,721	262,288	273,004
2030	4.46%	21,751	1,376	260,722	240,666	19,866	262,288	240,856	251,572
2031	4.46%	21,755	1,378	240,666	260,722	21,243	240,856	219,423	230,139
2032	4.46%	21,751	1,376	220,611	280,777	22,619	219,423	197,991	208,707
2033	4.46%	21,755	1,378	200,555	300,833	23,997	197,991	176,558	187,275
2034	4.46%	21,751	1,376	180,500	320,888	25,373	176,558	155,126	165,842
2035	4.46%	21,755	1,378	160,444	340,944	26,751	155,126	133,693	144,410
2036	4.46%	21,751	1,376	140,389	360,999	28,127	133,693	112,261	122,977
2037	4.46%	21,755	1,378	120,333	381,055	29,505	112,261	90,828	101,545
2038	4.46%	21,751	1,376	100,278	401,110	30,881	90,828	69,397	80,112
2039	2.23%	10,878	(2,818)	80,222	421,166	28,063	69,397	52,159	60,778
2040	0.00%	0	(7,014)	60,167	441,221	21,049	52,159	39,118	45,639
2041	0.00%	0	(7,014)	40,111	461,277	14,034	39,118	26,077	32,597
2042	0.00%	0	(7,014)	20,056	481,332	7,020	26,077	13,036	19,556
2043	0.00%	0	(7,014)	0	501,388	6	13,036	-6	6,515

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

				100.00%		907.77							
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO. YEARS	CUMULATIVE	DEBT	CUMULATIVE	YEARLY	CUMULATIVE	CONSTRUCTION			CUMULATIVE	INCREMENTAL	CUMULATIVE	
	BEFORE	SPENDING	AFUDC	DEBT	TOTAL	TOTAL	PERIOD		DEFERRED	DEFERRED	YEAR-END	YEAR-END	
YEAR	IN-SERVICE	WITH AFUDC	AFUDC	AFUDC	AFUDC	AFUDC	INTEREST	CUMULATIVE	TAXES	TAXES	BOOK VALUE	BOOK VALUE	
		(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	CPI	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	427,524	427,524	427,524
EQUITY AFUDC	46,799		
DEBT AFUDC	27,065	27,065	
CPI			60,048
TOTAL	501,388	454,588	487,572

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	88,838	88,838	6.41	9.10	6.68	0.00	1.00	1.00
2011	163,618	163,618	6.35	8.56	6.59	0.00	1.00	1.00
2012	248,020	248,020	6.43	8.54	6.65	0.00	1.00	1.00
2013	338,570	338,570	7.06	8.47	7.22	0.00	1.00	1.00
2014	433,047	433,047	7.53	8.73	7.68	0.00	1.00	1.00
2015	526,254	526,254	8.11	9.69	8.31	0.00	1.00	1.00
2016	614,310	614,310	9.00	11.66	9.30	0.00	1.00	1.00
2017	687,146	687,146	9.75	12.83	10.04	0.00	1.00	1.00
2018	752,219	752,219	10.52	13.64	10.84	0.00	1.00	1.00
2019	752,219	752,219	11.50	15.40	11.91	10.41	1.00	1.00
2020	752,219	752,219	12.08	16.04	12.54	10.50	1.00	1.00
2021	752,219	752,219	12.57	16.70	13.05	10.74	1.00	1.00
2022	752,219	752,219	13.06	17.33	13.57	10.81	1.00	1.00
2023	752,219	752,219	13.39	17.36	13.89	10.80	1.00	1.00
2024	752,219	752,219	13.95	18.01	14.45	10.84	1.00	1.00
2025	752,219	752,219	14.40	18.44	14.90	10.96	1.00	1.00
2026	752,219	752,219	14.70	18.49	15.17	11.05	1.00	1.00
2027	752,219	752,219	15.13	18.74	15.58	11.17	1.00	1.00
2028	752,219	752,219	15.60	19.12	16.04	11.36	1.00	1.00
2029	752,219	752,219	16.02	19.04	16.42	11.41	1.00	1.00
2030	752,219	752,219	16.52	19.44	16.90	11.59	1.00	1.00
2031	752,219	752,219	17.08	20.04	17.45	11.80	1.00	1.00
2032	752,219	752,219	17.50	19.76	17.82	11.88	1.00	1.00
2033	752,219	752,219	18.27	20.52	18.49	12.10	1.00	1.00
2034	752,219	752,219	18.73	20.17	18.85	12.14	1.00	1.00
2035	752,219	752,219	19.57	21.50	19.73	12.29	1.00	1.00
2036	752,219	752,219	20.40	22.53	20.53	12.55	1.00	1.00
2037	752,219	752,219	21.11	23.05	21.23	12.70	1.00	1.00
2038	752,219	752,219	22.02	24.00	22.15	13.04	1.00	1.00
2039	752,219	752,219	22.78	24.61	22.88	13.32	1.00	1.00
2040	752,219	752,219	23.59	25.14	23.67	13.44	1.00	1.00
2041	752,219	752,219	24.54	26.03	24.61	13.75	1.00	1.00
2042	752,219	752,219	25.50	26.94	25.58	14.10	1.00	1.00
2043	752,219	752,219	26.74	28.80	26.84	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT CAPACITY COST	AVOIDED GEN UNIT FIXED O&M	AVOIDED GEN UNIT VARIABLE O&M	AVOIDED GEN UNIT FUEL COST	REPLACEMENT FUEL COST	AVOIDED GEN UNIT BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	107,334	58,874	2483	149,929	189,683	128,938
2020	104,143	60,346	3582	220,895	269,110	119,855
2021	100,009	61,855	3748	230,474	281,065	115,020
2022	96,024	63,401	3981	243,935	293,021	114,319
2023	92,177	64,986	4201	256,458	301,451	116,371
2024	88,459	66,611	4451	270,911	312,762	117,670
2025	84,860	68,276	4757	289,463	329,905	117,450
2026	81,371	69,983	5096	309,327	347,524	118,252
2027	77,983	71,732	5390	326,502	362,406	119,202
2028	74,615	73,526	5548	335,168	370,214	118,643
2029	71,248	75,364	5810	349,282	379,947	121,757
2030	67,884	77,248	6099	365,634	395,139	121,727
2031	64,523	79,179	6249	373,169	402,305	120,815
2032	61,164	81,158	6493	386,352	410,569	124,598
2033	57,808	83,187	7145	425,109	448,954	124,295
2034	54,454	85,267	7477	442,478	459,597	130,079
2035	51,103	87,399	7683	452,548	466,690	132,043
2036	47,754	89,584	7944	466,062	480,533	130,810
2037	44,409	91,823	8162	476,655	487,445	133,604
2038	41,066	94,119	8397	488,547	502,315	129,815
2039	37,727	96,472	8615	498,593	513,848	127,559
2040	34,997	98,884	8853	510,075	519,720	133,089
2041	32,878	101,356	9092	521,268	532,802	131,792
2042	30,762	103,890	9340	533,138	547,648	129,482
2043	28,649	106,487	9620	546,852	561,732	129,876
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	1,633,403	2,011,005	160,217	9,468,824	10,166,388	3,107,062
NPV	365,384	333,878	24,192	1,449,205	1,611,924	560,735

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	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)
YEAR												
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	4,619	109,460	0	114,079	0	4,596	4,596	38	4,634	(109,445)	(100,513)
2011	0	4,090	91,997	0	96,086	0	2,465	12,147	46	14,658	(81,428)	(169,192)
2012	0	4,731	108,126	0	112,857	0	4,538	19,681	73	24,292	(88,565)	(237,794)
2013	0	5,203	118,416	0	123,618	0	7,068	27,179	2,217	36,465	(87,153)	(299,792)
2014	0	5,537	125,904	0	131,441	0	9,625	36,542	3,234	49,401	(82,040)	(353,390)
2015	0	5,610	128,797	0	134,407	0	12,302	50,761	4,473	67,536	(66,871)	(393,513)
2016	0	5,410	122,460	0	127,870	0	14,939	74,110	6,040	95,089	(32,781)	(411,576)
2017	0	4,571	109,236	0	113,807	0	17,397	93,383	7,597	118,377	4,570	(409,263)
2018	0	4,197	100,236	0	104,433	0	19,367	109,404	9,122	137,893	33,460	(393,712)
2019	0	0	0	0	0	128,938	20,951	129,978	4,947	284,815	284,815	(272,147)
2020	0	0	0	0	0	119,855	20,350	135,183	3,255	278,643	278,643	(162,924)
2021	0	0	0	0	0	115,020	19,760	140,733	3,278	278,791	278,791	(62,561)
2022	0	0	0	0	0	114,319	19,189	146,030	3,410	282,948	282,948	30,985
2023	0	0	0	0	0	116,371	18,634	145,516	3,120	283,642	283,642	117,107
2024	0	0	0	0	0	117,670	18,091	150,890	3,235	289,885	289,885	197,941
2025	0	6,689	158,531	0	165,220	117,450	17,557	154,147	2,929	292,083	126,862	230,429
2026	0	5,923	133,239	0	139,161	118,252	17,028	153,924	2,743	291,948	152,786	266,362
2027	0	6,852	156,599	0	163,451	119,202	16,502	155,475	2,397	293,577	130,126	294,469
2028	0	7,535	171,501	0	179,036	118,643	15,979	158,187	2,581	295,390	116,354	317,549
2029	0	8,019	182,347	0	190,366	121,757	15,457	156,291	2,646	296,151	105,784	336,821
2030	0	8,125	186,536	0	194,661	121,727	14,936	159,162	2,257	298,083	103,422	354,124
2031	0	7,835	177,358	0	185,194	120,815	14,425	164,044	2,552	301,836	116,642	372,046
2032	0	6,620	158,206	0	164,826	124,598	13,938	160,047	2,498	301,080	136,254	391,273
2033	0	6,079	145,171	0	151,250	124,295	13,479	166,006	486	304,267	153,017	411,103
2034	0	0	0	0	0	130,079	13,053	161,286	(185)	304,233	304,233	447,313
2035	0	0	0	0	0	132,043	12,661	172,817	(345)	317,176	317,176	481,981
2036	0	0	0	0	0	130,810	12,307	181,450	(686)	323,881	323,881	514,494
2037	0	0	0	0	0	133,604	11,990	184,945	(850)	329,689	329,689	544,888
2038	0	0	0	0	0	129,815	11,710	192,537	(1,080)	332,983	332,983	573,080
2039	0	0	0	0	0	127,559	11,462	196,932	(1,572)	334,381	334,381	599,080
2040	0	9,688	229,600	0	239,288	133,089	11,238	200,407	(1,962)	342,772	103,484	606,470
2041	0	8,578	192,969	0	201,547	131,792	11,023	207,244	(2,201)	347,857	146,310	616,065
2042	0	9,924	226,802	0	236,725	129,482	10,810	214,175	2,431	356,899	120,173	623,303
2043	0	10,913	248,385	0	259,298	129,876	10,600	230,292	7,449	378,217	118,919	629,881
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0				

Discount Rate:

Benefit/Cost Ratio (Col(11) / Col(6)) :

8.89 %

1.60

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Air-Conditioning

(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)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	6,057	0	69,300	0	75,356	109,460	0	0	109,460	(34,104)	(31,320)
2011	17,902	0	54,505	0	72,406	91,997	0	0	91,997	(19,590)	(47,844)
2012	31,054	0	63,410	0	94,465	108,126	0	0	108,126	(13,661)	(58,426)
2013	46,725	0	67,500	0	114,226	118,416	0	0	118,416	(4,190)	(61,406)
2014	65,295	0	69,762	0	135,057	125,904	0	0	125,904	9,152	(55,427)
2015	85,160	0	68,777	0	153,936	128,797	0	0	128,797	25,140	(40,343)
2016	104,707	0	63,783	0	168,490	122,460	0	0	122,460	46,030	(14,979)
2017	123,934	0	52,590	0	176,524	109,236	0	0	109,236	67,288	19,072
2018	141,239	0	47,238	0	188,477	100,236	0	0	100,236	88,241	60,082
2019	153,268	0	0	0	153,268	0	0	0	0	153,268	125,500
2020	153,747	0	0	0	153,747	0	0	0	0	153,747	185,767
2021	157,094	0	0	0	157,094	0	0	0	0	157,094	242,319
2022	161,652	0	0	0	161,652	0	0	0	0	161,652	295,763
2023	166,550	0	0	0	166,550	0	0	0	0	166,550	346,333
2024	173,946	0	0	0	173,946	0	0	0	0	173,946	394,837
2025	180,190	0	69,300	0	249,489	158,531	0	0	158,531	90,958	418,131
2026	187,431	0	54,505	0	241,936	133,239	0	0	133,239	108,697	443,695
2027	197,231	0	63,410	0	260,641	156,599	0	0	156,599	104,043	466,168
2028	205,246	0	67,500	0	272,747	171,501	0	0	171,501	101,245	486,251
2029	214,433	0	69,762	0	284,195	182,347	0	0	182,347	101,848	504,806
2030	224,922	0	68,777	0	293,699	186,536	0	0	186,536	107,163	522,735
2031	235,168	0	63,783	0	298,952	177,358	0	0	177,358	121,593	541,418
2032	249,060	0	52,590	0	301,650	158,206	0	0	158,206	143,444	561,659
2033	271,332	0	47,238	0	318,570	145,171	0	0	145,171	173,399	584,131
2034	276,421	0	0	0	276,421	0	0	0	0	276,421	617,030
2035	287,294	0	0	0	287,294	0	0	0	0	287,294	648,432
2036	307,850	0	0	0	307,850	0	0	0	0	307,850	679,335
2037	324,326	0	0	0	324,326	0	0	0	0	324,326	709,235
2038	338,441	0	0	0	338,441	0	0	0	0	338,441	737,890
2039	353,945	0	0	0	353,945	0	0	0	0	353,945	765,411
2040	370,435	0	69,300	0	439,735	229,600	0	0	229,600	210,134	780,417
2041	390,016	0	54,505	0	444,521	192,969	0	0	192,969	251,552	796,914
2042	410,919	0	63,410	0	474,329	226,802	0	0	226,802	247,528	811,822
2043	433,236	0	67,500	0	500,736	248,385	0	0	248,385	252,351	825,781
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	7,046,224	0	1,368,446	0	8,414,670	3,381,875	0	0	3,381,875	5,032,795	
NPV	1,331,220	0	498,593	0	1,829,813	1,004,032	0	0	1,004,032	825,781	

In Service of Gen Unit:

Discount Rate :

2019

8.89

%

Benefit/Cost Ratio (Col(6) / Col(10))

1.82

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.08	

RESIDENTIAL DUCT SYSTEM TESTING & REPAIR

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Duct System Testing and Repair

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.19 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.25 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	374.32 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
v (11) UTILITY AFUDC RATE	8.48 %
* (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
* (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2010-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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: Residential Duct System Testing and Repair

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	1,744	3,362	0	5,106	418	0	5,423	0	0	5,423
2011	2,255	4,241	0	6,497	1,406	0	7,014	0	0	7,014
2012	3,241	5,947	0	9,188	2,859	0	10,079	0	0	10,079
2013	3,931	7,036	0	10,967	4,842	0	12,224	0	0	12,224
2014	4,311	7,527	0	11,838	7,321	0	13,405	0	0	13,405
2015	4,599	7,839	0	12,438	10,079	0	14,302	0	0	14,302
2016	4,981	8,283	0	13,264	13,016	0	15,488	0	0	15,488
2017	4,669	7,583	0	12,252	16,228	0	14,518	0	0	14,518
2018	4,410	6,997	0	11,408	19,447	0	13,714	0	0	13,714
2019	0	0	0	0	21,585	0	0	0	0	0
2020	0	0	0	0	21,653	0	0	0	0	0
2021	0	0	0	0	22,124	0	0	0	0	0
2022	0	0	0	0	22,766	0	0	0	0	0
2023	0	0	0	0	23,456	0	0	0	0	0
2024	0	0	0	0	24,498	0	0	0	0	0
2025	0	0	0	0	25,377	0	0	0	0	0
2026	0	0	0	0	26,397	0	0	0	0	0
2027	0	0	0	0	27,777	0	0	0	0	0
2028	0	0	0	0	28,906	0	0	0	0	0
2029	0	0	0	0	30,199	0	0	0	0	0
2030	0	0	0	0	31,677	0	0	0	0	0
2031	0	0	0	0	33,120	0	0	0	0	0
2032	0	0	0	0	35,076	0	0	0	0	0
2033	0	0	0	0	38,213	0	0	0	0	0
2034	0	0	0	0	38,929	0	0	0	0	0
2035	3,233	3,362	0	6,595	40,461	0	10,054	0	0	10,054
2036	4,182	4,241	0	8,423	43,356	0	13,003	0	0	13,003
2037	6,009	5,947	0	11,956	45,676	0	18,686	0	0	18,686
2038	7,288	7,036	0	14,324	47,664	0	22,663	0	0	22,663
2039	7,992	7,527	0	15,519	49,848	0	24,852	0	0	24,852
2040	8,527	7,839	0	16,366	52,170	0	26,514	0	0	26,514
2041	9,234	8,283	0	17,517	54,928	0	28,714	0	0	28,714
2042	8,656	7,583	0	16,239	57,871	0	26,916	0	0	26,916
2043	8,177	6,997	0	15,174	61,014	0	25,426	0	0	25,426
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
NOM	97,440	117,631	0	215,071	980,356	0	302,994	0	0	302,994
NPV	26,298	42,020	0	68,318	179,578	0	81,774	0	0	81,774

* 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_REQ
 PROGRAM NAME: Residential Duct System Testing and Repair

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	CHARGES	FIXED	CHARGES	FOR
										\$(000)	CHARGES	\$(000)	PROPERTY INSURANCE
													\$(000)
2019	105,424	3,275	0	7,357	4,854	1,777	627	4,113	8	22,010	22,010	22,010	102,815
2020	101,303	3,147	0	7,070	3,335	1,703	643	4,113	1,346	21,356	19,613	41,623	105,385
2021	95,845	2,977	0	6,689	3,305	1,629	659	4,113	1,137	20,508	17,297	58,920	108,020
2022	90,596	2,814	0	6,322	3,266	1,555	675	4,113	945	19,691	15,252	74,172	110,720
2023	85,538	2,657	0	5,969	3,225	1,481	692	4,113	765	18,902	13,446	87,618	113,488
2024	80,660	2,506	0	5,629	3,176	1,407	710	4,113	600	18,140	11,851	99,469	116,326
2025	75,948	2,359	0	5,300	3,123	1,332	727	4,113	447	17,401	10,441	109,910	119,234
2026	71,388	2,218	0	4,982	3,064	1,258	746	4,113	306	16,686	9,194	119,104	122,215
2027	66,970	2,080	0	4,674	2,894	1,184	764	4,113	283	15,991	8,092	127,197	125,270
2028	62,575	1,944	0	4,367	2,701	1,110	783	4,113	282	15,301	7,111	134,308	128,402
2029	58,180	1,807	0	4,060	2,508	1,036	803	4,113	283	14,610	6,236	140,544	131,612
2030	53,785	1,671	0	3,754	2,316	962	823	4,113	282	13,920	5,457	146,000	134,902
2031	49,390	1,534	0	3,447	2,123	888	843	4,113	283	13,231	4,763	150,763	138,275
2032	44,995	1,398	0	3,140	1,931	814	865	4,113	282	12,542	4,147	154,910	141,731
2033	40,600	1,261	0	2,833	1,738	740	886	4,113	283	11,854	3,599	158,509	145,275
2034	36,205	1,125	0	2,527	1,546	666	908	4,113	282	11,166	3,114	161,623	148,907
2035	31,810	988	0	2,220	1,353	592	931	4,113	283	10,479	2,684	164,306	152,629
2036	27,415	852	0	1,913	1,160	518	954	4,113	282	9,793	2,303	166,610	156,445
2037	23,020	715	0	1,607	967	444	978	4,113	283	9,107	1,967	168,577	160,356
2038	18,625	579	0	1,300	775	370	1,003	4,113	282	8,421	1,670	170,247	164,365
2039	14,230	442	0	993	1,443	296	1,028	4,113	(578)	7,736	1,409	171,656	168,474
2040	10,696	332	0	746	2,148	222	1,053	4,113	(1,438)	7,177	1,201	172,857	172,686
2041	8,022	249	0	560	2,031	148	1,080	4,113	(1,438)	6,742	1,036	173,893	177,003
2042	5,347	166	0	373	1,914	74	1,107	4,113	(1,438)	6,308	890	174,783	181,428
2043	2,673	83	0	187	1,797	0	1,134	4,113	(1,438)	5,875	761	175,544	185,964

IN SERVICE COST	(\$000)	102,815
IN SERVICE YEAR		2019
BOOK LIFE (YRS)		25
EFFEC. TAX RATE		38.575
DISCOUNT RATE		8.9%
PROPERTY TAX		1.80%
PROPERTY INSURANCE		0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Duct System Testing and Re

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,749	3,749	4,113	4,113	3,729	3,729	8	9,597	0	0	0	8	(2,601)
2020	7.22%	7,218	10,967	4,113	8,225	3,729	7,457	1,346	9,597	0	0	0	1,346	(1,255)
2021	6.68%	6,676	17,643	4,113	12,338	3,729	11,186	1,137	9,597	0	0	0	1,137	(118)
2022	6.18%	6,179	23,822	4,113	16,450	3,729	14,915	945	9,597	0	0	0	945	827
2023	5.71%	5,712	29,534	4,113	20,563	3,729	18,644	765	9,597	0	0	0	765	1,592
2024	5.29%	5,284	34,818	4,113	24,676	3,729	22,372	600	9,597	0	0	0	600	2,192
2025	4.89%	4,887	39,705	4,113	28,788	3,729	26,101	447	9,597	0	0	0	447	2,639
2026	4.52%	4,521	44,226	4,113	32,901	3,729	29,830	306	9,597	0	0	0	306	2,944
2027	4.46%	4,461	48,687	4,113	37,013	3,729	33,559	283	9,597	0	0	0	283	3,227
2028	4.46%	4,460	53,147	4,113	41,126	3,729	37,287	282	9,597	0	0	0	282	3,509
2029	4.46%	4,461	57,609	4,113	45,239	3,729	41,016	283	9,597	0	0	0	283	3,791
2030	4.46%	4,460	62,069	4,113	49,351	3,729	44,745	282	9,597	0	0	0	282	4,074
2031	4.46%	4,461	66,530	4,113	53,464	3,729	48,473	283	9,597	0	0	0	283	4,356
2032	4.46%	4,460	70,990	4,113	57,576	3,729	52,202	282	9,597	0	0	0	282	4,638
2033	4.46%	4,461	75,451	4,113	61,689	3,729	55,931	283	9,597	0	0	0	283	4,921
2034	4.46%	4,460	79,911	4,113	65,801	3,729	59,660	282	9,597	0	0	0	282	5,203
2035	4.46%	4,461	84,373	4,113	69,914	3,729	63,388	283	9,597	0	0	0	283	5,486
2036	4.46%	4,460	88,833	4,113	74,027	3,729	67,117	282	9,597	0	0	0	282	5,768
2037	4.46%	4,461	93,294	4,113	78,139	3,729	70,846	283	9,597	0	0	0	283	6,050
2038	4.46%	4,460	97,754	4,113	82,252	3,729	74,574	282	9,597	0	0	0	282	6,332
2039	2.23%	2,231	99,985	4,113	86,364	3,729	78,303	(578)	9,597	0	0	0	(578)	5,755
2040	0.00%	0	99,985	4,113	90,477	3,729	82,032	(1,438)	9,597	0	0	0	(1,438)	4,316
2041	0.00%	0	99,985	4,113	94,590	3,729	85,761	(1,438)	9,597	0	0	0	(1,438)	2,878
2042	0.00%	0	99,985	4,113	98,702	3,729	89,489	(1,438)	9,597	0	0	0	(1,438)	1,440
2043	0.00%	0	99,985	4,113	102,815	3,729	93,218	(1,438)	9,597	0	0	0	(1,438)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,609)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	9,597
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Duct System Testing and Repair

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,749	8	98,702	4,113	(2,601)	105,424	101,303	103,364
2020	7.22%	7,218	1,346	94,590	8,225	(1,255)	101,303	95,845	98,574
2021	6.68%	6,676	1,137	90,477	12,338	(118)	95,845	90,596	93,220
2022	6.18%	6,179	945	86,364	16,450	827	90,596	85,538	88,067
2023	5.71%	5,712	765	82,252	20,563	1,592	85,538	80,660	83,099
2024	5.29%	5,284	600	78,139	24,676	2,192	80,660	75,948	78,304
2025	4.89%	4,887	447	74,027	28,788	2,639	75,948	71,388	73,668
2026	4.52%	4,521	306	69,914	32,901	2,944	71,388	66,970	69,179
2027	4.46%	4,461	283	65,801	37,013	3,227	66,970	62,575	64,772
2028	4.46%	4,460	282	61,689	41,126	3,509	62,575	58,180	60,377
2029	4.46%	4,461	283	57,576	45,239	3,791	58,180	53,785	55,982
2030	4.46%	4,460	282	53,464	49,351	4,074	53,785	49,390	51,587
2031	4.46%	4,461	283	49,351	53,464	4,356	49,390	44,995	47,192
2032	4.46%	4,460	282	45,239	57,576	4,638	44,995	40,600	42,798
2033	4.46%	4,461	283	41,126	61,689	4,921	40,600	36,205	38,403
2034	4.46%	4,460	282	37,013	65,801	5,203	36,205	31,810	34,008
2035	4.46%	4,461	283	32,901	69,914	5,486	31,810	27,415	29,613
2036	4.46%	4,460	282	28,788	74,027	5,768	27,415	23,020	25,218
2037	4.46%	4,461	283	24,676	78,139	6,050	23,020	18,625	20,823
2038	4.46%	4,460	282	20,563	82,252	6,332	18,625	14,230	16,428
2039	2.23%	2,231	(578)	16,450	86,364	5,755	14,230	10,696	12,463
2040	0.00%	0	(1,438)	12,338	90,477	4,316	10,696	8,022	9,359
2041	0.00%	0	(1,438)	8,225	94,590	2,878	8,022	5,347	6,684
2042	0.00%	0	(1,438)	4,113	98,702	1,440	5,347	2,673	4,010
2043	0.00%	0	(1,438)	0	102,815	1	2,673	-1	1,336

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
YEAR												
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	87,668	87,668	87,668
EQUITY AFUDC	9,597		
DEBT AFUDC	5,550	5,550	
CPI			12,314
TOTAL	102,815	93,218	99,982

* Column not specified in workbook

INPUT DATA – PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Residential Duct System Testing and Repair

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	22,138	22,138	6.41	9.01	6.70	0.00	1.00	1.00
2011	50,069	50,069	6.35	8.48	6.61	0.00	1.00	1.00
2012	89,230	89,230	6.43	8.45	6.66	0.00	1.00	1.00
2013	135,567	135,567	7.06	8.41	7.23	0.00	1.00	1.00
2014	185,139	185,139	7.53	8.67	7.68	0.00	1.00	1.00
2015	236,738	236,738	8.11	9.61	8.31	0.00	1.00	1.00
2016	291,255	291,255	9.00	11.55	9.31	0.00	1.00	1.00
2017	341,111	341,111	9.75	12.72	10.06	0.00	1.00	1.00
2018	387,059	387,059	10.52	13.53	10.86	0.00	1.00	1.00
2019	387,059	387,059	11.50	15.25	11.94	10.41	1.00	1.00
2020	387,059	387,059	12.08	15.88	12.57	10.50	1.00	1.00
2021	387,059	387,059	12.57	16.53	13.08	10.74	1.00	1.00
2022	387,059	387,059	13.06	17.14	13.59	10.81	1.00	1.00
2023	387,059	387,059	13.39	17.16	13.92	10.89	1.00	1.00
2024	387,059	387,059	13.95	17.82	14.47	10.84	1.00	1.00
2025	387,059	387,059	14.40	18.22	14.92	10.96	1.00	1.00
2026	387,059	387,059	14.70	18.32	15.19	11.05	1.00	1.00
2027	387,059	387,059	15.13	18.54	15.60	11.17	1.00	1.00
2028	387,059	387,059	15.60	18.91	16.05	11.36	1.00	1.00
2029	387,059	387,059	16.02	18.85	16.44	11.41	1.00	1.00
2030	387,059	387,059	16.52	19.26	16.92	11.59	1.00	1.00
2031	387,059	387,059	17.08	19.86	17.47	11.80	1.00	1.00
2032	387,059	387,059	17.50	19.62	17.84	11.88	1.00	1.00
2033	387,059	387,059	18.27	20.38	18.50	12.10	1.00	1.00
2034	387,059	387,059	18.73	20.08	18.86	12.14	1.00	1.00
2035	387,059	387,059	19.57	21.37	19.75	12.29	1.00	1.00
2036	387,059	387,059	20.40	22.39	20.54	12.55	1.00	1.00
2037	387,059	387,059	21.11	22.91	21.24	12.70	1.00	1.00
2038	387,059	387,059	22.02	23.86	22.16	13.04	1.00	1.00
2039	387,059	387,059	22.78	24.49	22.89	13.32	1.00	1.00
2040	387,059	387,059	23.59	25.04	23.68	13.44	1.00	1.00
2041	387,059	387,059	24.54	25.93	24.62	13.75	1.00	1.00
2042	387,059	387,059	25.50	26.84	25.59	14.10	1.00	1.00
2043	387,059	387,059	26.74	28.65	26.85	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT CAPACITY COST	AVOIDED GEN UNIT FIXED O&M	AVOIDED GEN UNIT VARIABLE O&M	AVOIDED GEN UNIT FUEL COST	REPLACEMENT FUEL COST	AVOIDED GEN UNIT BENEFITS
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	22,010	12,073	509	30,745	38,896	26,440
2020	21,356	12,375	735	45,297	55,184	24,577
2021	20,508	12,684	769	47,261	57,635	23,586
2022	19,691	13,001	816	50,021	60,087	23,442
2023	18,902	13,326	861	52,589	61,816	23,863
2024	18,140	13,659	913	55,553	64,135	24,129
2025	17,401	14,001	975	59,357	67,650	24,084
2026	16,686	14,351	1045	63,431	71,264	24,249
2027	15,991	14,709	1105	66,953	74,315	24,444
2028	15,301	15,077	1138	68,730	75,916	24,329
2029	14,610	15,454	1191	71,624	77,912	24,968
2030	13,920	15,840	1251	74,977	81,027	24,961
2031	13,231	16,236	1281	76,522	82,497	24,774
2032	12,542	16,642	1331	79,226	84,192	25,550
2033	11,854	17,058	1465	87,173	92,063	25,488
2034	11,166	17,485	1533	90,735	94,245	26,674
2035	10,479	17,922	1575	92,800	95,700	27,077
2036	9,793	18,370	1629	95,571	98,538	26,824
2037	9,107	18,829	1674	97,743	99,956	27,397
2038	8,421	19,300	1722	100,182	103,005	26,620
2039	7,736	19,783	1767	102,242	105,370	26,157
2040	7,177	20,277	1815	104,596	106,574	27,291
2041	6,742	20,784	1864	106,892	109,257	27,025
2042	6,308	21,304	1915	109,326	112,301	26,552
2043	5,875	21,836	1973	112,138	115,189	26,632
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	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	334,947	412,378	32,854	1,941,682	2,084,724	637,136
NPV	74,926	68,465	4,961	297,175	330,542	114,985

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	PARTICIPANT PROGRAM COSTS	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT BENEFITS	AVOIDED T&D BENEFITS	PROGRAM FUEL SAVINGS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	1,744	5,423	0	7,167	0	0	407	3	410	(6,757)	(6,206)
2011	0	2,255	7,014	0	9,269	0	245	1,236	5	1,486	(7,783)	(12,770)
2012	0	3,241	10,079	0	13,320	0	556	2,370	9	2,926	(10,385)	(20,814)
2013	0	3,931	12,224	0	16,155	0	1,036	3,719	306	5,061	(11,094)	(28,707)
2014	0	4,311	13,405	0	17,716	0	1,570	5,422	482	7,475	(10,241)	(35,397)
2015	0	4,599	14,302	0	18,901	0	2,145	7,956	705	10,806	(8,095)	(40,254)
2016	0	4,981	15,488	0	20,469	0	2,749	12,209	1,007	15,965	(4,504)	(42,736)
2017	0	4,669	14,518	0	19,187	0	3,386	16,161	1,329	20,876	1,690	(41,881)
2018	0	4,410	13,714	0	18,125	0	3,964	19,742	1,662	25,368	7,243	(38,514)
2019	0	0	0	0	0	26,440	4,452	23,813	808	55,514	55,514	(14,820)
2020	0	0	0	0	0	24,577	4,324	24,743	444	54,089	54,089	6,382
2021	0	0	0	0	0	23,586	4,198	25,762	431	53,977	53,977	25,813
2022	0	0	0	0	0	23,442	4,077	26,699	401	54,619	54,619	43,871
2023	0	0	0	0	0	23,863	3,959	26,578	354	54,754	54,754	60,496
2024	0	0	0	0	0	24,129	3,845	27,582	318	55,874	55,874	76,077
2025	0	0	0	0	0	24,084	3,733	28,152	252	56,221	56,221	90,474
2026	0	0	0	0	0	24,249	3,622	28,196	195	56,262	56,262	103,706
2027	0	0	0	0	0	24,444	3,512	28,423	92	56,470	56,470	115,903
2028	0	0	0	0	0	24,329	3,402	28,908	95	56,734	56,734	127,158
2029	0	0	0	0	0	24,968	3,293	28,594	53	56,908	56,908	137,525
2030	0	0	0	0	0	24,961	3,184	29,155	57	57,242	57,242	147,102
2031	0	0	0	0	0	24,774	3,076	30,053	(55)	57,849	57,849	155,990
2032	0	0	0	0	0	25,550	2,971	29,393	(100)	57,814	57,814	164,149
2033	0	0	0	0	0	25,488	2,871	30,492	(568)	58,283	58,283	171,702
2034	0	0	0	0	0	26,674	2,776	29,710	(758)	58,402	58,402	178,653
2035	0	3,233	10,054	0	13,288	27,077	2,688	31,775	(852)	60,688	47,400	183,834
2036	0	4,182	13,003	0	17,184	26,824	2,608	33,356	(983)	61,805	44,621	188,313
2037	0	6,009	18,686	0	24,695	27,397	2,537	34,018	(1,084)	62,867	38,172	191,832
2038	0	7,288	22,663	0	29,951	26,620	2,474	35,416	(1,203)	63,306	33,355	194,656
2039	0	7,992	24,852	0	32,844	26,157	2,420	36,256	(1,388)	63,445	30,602	197,036
2040	0	8,527	26,514	0	35,041	27,291	2,372	36,944	(1,541)	65,066	30,026	199,180
2041	0	9,234	28,714	0	37,948	27,025	2,327	38,208	(1,676)	65,884	27,937	201,012
2042	0	8,656	26,916	0	35,571	26,552	2,282	39,503	(817)	67,519	31,948	202,936
2043	0	8,177	25,426	0	33,603	26,632	2,238	42,386	113	71,369	37,767	205,025
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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	2.90	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	3.40	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.26	

RESIDENTIAL BUILDING ENVELOPE

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Building Envelope

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.35 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.47 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	850.43 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.08
(7) CUSTOMER kWh INCREASE AT METER	0.03 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
^ (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
^ (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
^ (11) UTILITY AFUDC RATE	8.48 %
^ (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

[illegible]

* 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_REQ
PROGRAM NAME: Residential Building Envelope

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	REG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	164,063	5,096	0	11,450	7,553	2,765	976	6,400	12	34,253	34,253	34,253	160,003
2020	157,651	4,897	0	11,002	5,190	2,650	1,000	6,400	2,094	33,234	30,522	64,774	164,003
2021	149,156	4,633	0	10,409	5,143	2,534	1,025	6,400	1,769	31,915	26,918	91,692	168,103
2022	140,987	4,380	0	9,839	5,083	2,419	1,051	6,400	1,471	30,643	23,736	115,428	172,306
2023	133,116	4,135	0	9,290	5,019	2,304	1,077	6,400	1,191	29,416	20,926	136,354	176,613
2024	125,525	3,899	0	8,760	4,943	2,189	1,104	6,400	934	28,229	18,443	154,796	181,028
2025	118,191	3,672	0	8,248	4,860	2,074	1,132	6,400	695	27,081	16,248	171,044	185,554
2026	111,096	3,451	0	7,753	4,768	1,958	1,160	6,400	476	25,967	14,308	185,353	190,193
2027	104,220	3,238	0	7,273	4,503	1,843	1,189	6,400	440	24,886	12,594	197,946	194,948
2028	97,380	3,025	0	6,796	4,204	1,728	1,219	6,400	439	23,811	11,066	209,013	199,822
2029	90,541	2,813	0	6,319	3,904	1,613	1,249	6,400	440	22,737	9,705	218,717	204,817
2030	83,701	2,600	0	5,841	3,604	1,498	1,281	6,400	439	21,663	8,492	227,209	209,938
2031	76,862	2,388	0	5,364	3,304	1,382	1,313	6,400	440	20,591	7,412	234,621	215,186
2032	70,022	2,175	0	4,887	3,005	1,267	1,345	6,400	439	19,519	6,453	241,074	220,566
2033	63,183	1,963	0	4,409	2,705	1,152	1,379	6,400	440	18,448	5,601	246,676	226,080
2034	56,343	1,750	0	3,932	2,405	1,037	1,414	6,400	439	17,377	4,846	251,521	231,732
2035	49,504	1,538	0	3,455	2,105	922	1,449	6,400	440	16,308	4,176	255,697	237,525
2036	42,664	1,325	0	2,977	1,806	806	1,485	6,400	439	15,239	3,584	259,282	243,463
2037	35,825	1,113	0	2,500	1,506	691	1,522	6,400	440	14,172	3,061	262,343	249,550
2038	28,985	900	0	2,023	1,206	576	1,560	6,400	439	13,105	2,600	264,942	255,789
2039	22,146	688	0	1,546	2,245	461	1,599	6,400	(899)	12,039	2,193	267,136	262,183
2040	16,645	517	0	1,162	3,343	346	1,639	6,400	(2,238)	11,168	1,869	269,004	268,738
2041	12,483	388	0	871	3,161	230	1,680	6,400	(2,238)	10,492	1,612	270,616	275,456
2042	8,322	259	0	581	2,978	115	1,722	6,400	(2,238)	9,817	1,385	272,001	282,343
2043	4,160	129	0	290	2,796	(0)	1,765	6,400	(2,238)	9,142	1,185	273,186	289,401

IN SERVICE COST (\$000)	160,003
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03%
P/S	0%	0.00%
C/S	56%	12.50%

$$K\text{-FACTOR} = CPWFC / IN\text{-}SVC\text{-}COST = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	5,835	5,835	6,400	6,400	5,803	5,803	12	14,935	0	0	0	12	(4,048)
2020	7.22%	11,232	17,067	6,400	12,800	5,803	11,605	2,094	14,935	0	0	0	2,094	(1,953)
2021	6.68%	10,389	27,456	6,400	19,200	5,803	17,408	1,769	14,935	0	0	0	1,769	(184)
2022	6.18%	9,616	37,072	6,400	25,600	5,803	23,211	1,471	14,935	0	0	0	1,471	1,287
2023	5.71%	8,889	45,961	6,400	32,001	5,803	29,014	1,191	14,935	0	0	0	1,191	2,477
2024	5.29%	8,223	54,184	6,400	38,401	5,803	34,816	934	14,935	0	0	0	934	3,411
2025	4.89%	7,605	61,789	6,400	44,801	5,803	40,619	695	14,935	0	0	0	695	4,106
2026	4.52%	7,036	68,825	6,400	51,201	5,803	46,422	476	14,935	0	0	0	476	4,582
2027	4.46%	6,943	75,768	6,400	57,601	5,803	52,225	440	14,935	0	0	0	440	5,022
2028	4.46%	6,941	82,709	6,400	64,001	5,803	58,027	439	14,935	0	0	0	439	5,461
2029	4.46%	6,943	89,652	6,400	70,401	5,803	63,830	440	14,935	0	0	0	440	5,900
2030	4.46%	6,941	96,593	6,400	76,801	5,803	69,633	439	14,935	0	0	0	439	6,340
2031	4.46%	6,943	103,535	6,400	83,201	5,803	75,435	440	14,935	0	0	0	440	6,779
2032	4.46%	6,941	110,476	6,400	89,602	5,803	81,238	439	14,935	0	0	0	439	7,218
2033	4.46%	6,943	117,419	6,400	96,002	5,803	87,041	440	14,935	0	0	0	440	7,658
2034	4.46%	6,941	124,360	6,400	102,402	5,803	92,844	439	14,935	0	0	0	439	8,097
2035	4.46%	6,943	131,303	6,400	108,802	5,803	98,646	440	14,935	0	0	0	440	8,537
2036	4.46%	6,941	138,244	6,400	115,202	5,803	104,449	439	14,935	0	0	0	439	8,976
2037	4.46%	6,943	145,186	6,400	121,602	5,803	110,252	440	14,935	0	0	0	440	9,416
2038	4.46%	6,941	152,127	6,400	128,002	5,803	116,055	439	14,935	0	0	0	439	9,855
2039	2.23%	3,471	155,599	6,400	134,402	5,803	121,857	(899)	14,935	0	0	0	(899)	8,955
2040	0.00%	0	155,599	6,400	140,802	5,803	127,660	(2,238)	14,935	0	0	0	(2,238)	6,717
2041	0.00%	0	155,599	6,400	147,203	5,803	133,463	(2,238)	14,935	0	0	0	(2,238)	4,479
2042	0.00%	0	155,599	6,400	153,603	5,803	139,265	(2,238)	14,935	0	0	0	(2,238)	2,240
2043	0.00%	0	155,599	6,400	160,003	5,803	145,068	(2,238)	14,935	0	0	0	(2,238)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(4,060)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	14,935
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5) END OF YEAR NET	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	5,835	12	153,603	6,400	(4,048)	164,063	157,651	160,857
2020	7.22%	11,232	2,094	147,203	12,800	(1,953)	157,651	149,156	153,403
2021	6.68%	10,389	1,769	140,802	19,200	(184)	149,156	140,987	145,071
2022	6.18%	9,616	1,471	134,402	25,600	1,287	140,987	133,116	137,051
2023	5.71%	8,889	1,191	128,002	32,001	2,477	133,116	125,525	129,320
2024	5.29%	8,223	934	121,602	38,401	3,411	125,525	118,191	121,858
2025	4.89%	7,605	695	115,202	44,801	4,106	118,191	111,096	114,644
2026	4.52%	7,036	476	108,802	51,201	4,582	111,096	104,220	107,658
2027	4.46%	6,943	440	102,402	57,601	5,022	104,220	97,380	100,800
2028	4.46%	6,941	439	96,002	64,001	5,461	97,380	90,541	93,961
2029	4.46%	6,943	440	89,602	70,401	5,900	90,541	83,701	87,121
2030	4.46%	6,941	439	83,201	76,801	6,340	83,701	76,862	80,282
2031	4.46%	6,943	440	76,801	83,201	6,779	76,862	70,022	73,442
2032	4.46%	6,941	439	70,401	89,602	7,218	70,022	63,183	66,603
2033	4.46%	6,943	440	64,001	96,002	7,658	63,183	56,343	59,763
2034	4.46%	6,941	439	57,601	102,402	8,097	56,343	49,504	52,923
2035	4.46%	6,943	440	51,201	108,802	8,537	49,504	42,664	46,084
2036	4.46%	6,941	439	44,801	115,202	8,976	42,664	35,825	39,244
2037	4.46%	6,943	440	38,401	121,602	9,416	35,825	28,985	32,405
2038	4.46%	6,941	439	32,001	128,002	9,855	28,985	22,146	25,565
2039	2.23%	3,471	(899)	25,600	134,402	8,955	22,146	16,645	19,395
2040	0.00%	0	(2,238)	19,200	140,802	6,717	16,645	12,483	14,564
2041	0.00%	0	(2,238)	12,800	147,203	4,479	12,483	8,322	10,402
2042	0.00%	0	(2,238)	6,400	153,603	2,240	8,322	4,160	6,241
2043	0.00%	0	(2,238)	(0)	160,003	2	4,160	-2	2,079

* Column not specified to workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO. YEARS	CUMULATIVE	DEBT	CUMULATIVE	YEARLY	CUMULATIVE	CONSTRUCTION			CUMULATIVE	INCREMENTAL	CUMULATIVE
	BEFORE	SPENDING	AFUDC	DEBT	TOTAL	AFUDC	PERIOD			DEFERRED	YEAR-END	YEAR-END
YEAR	IN-SERVICE	WITH AFUDC	AFUDC	AFUDC	AFUDC	AFUDC	INTEREST	CUMULATIVE	DEFERRED	TAXES	BOOK VALUE	BOOK VALUE
		(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	CPI	TAXES	TAXES	(\$/kW)	(\$/kW)
								(\$/kW)	(\$/kW)	(\$/kW)		
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

156.84		127.50	
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	136,431	136,431	136,431
EQUITY AFUDC	14,935		
DEBT AFUDC	8,637	8,637	
CPI			19,163
TOTAL	160,003	145,068	155,594

* Column not specified in workbook

INPUT DATA -- PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	12,685	12,685	6.41	8.81	6.74	0.00	1.00	1.00
2011	40,619	40,619	6.35	8.34	6.64	0.00	1.00	1.00
2012	73,880	73,880	6.43	8.30	6.69	0.00	1.00	1.00
2013	112,287	112,287	7.06	8.30	7.25	0.00	1.00	1.00
2014	154,869	154,869	7.53	8.57	7.70	0.00	1.00	1.00
2015	200,125	200,125	8.11	9.46	8.34	0.00	1.00	1.00
2016	242,472	242,472	9.00	11.34	9.35	0.00	1.00	1.00
2017	283,759	283,759	9.75	12.46	10.10	0.00	1.00	1.00
2018	320,342	320,342	10.52	13.30	10.90	0.00	1.00	1.00
2019	320,342	320,342	11.50	14.97	11.99	10.41	1.00	1.00
2020	320,342	320,342	12.08	15.61	12.63	10.50	1.00	1.00
2021	320,342	320,342	12.57	16.19	13.15	10.74	1.00	1.00
2022	320,342	320,342	13.06	16.78	13.65	10.81	1.00	1.00
2023	320,342	320,342	13.39	16.78	13.96	10.80	1.00	1.00
2024	320,342	320,342	13.95	17.45	14.52	10.84	1.00	1.00
2025	320,342	320,342	14.40	17.87	14.97	10.96	1.00	1.00
2026	320,342	320,342	14.70	17.97	15.24	11.05	1.00	1.00
2027	320,342	320,342	15.13	18.18	15.65	11.17	1.00	1.00
2028	320,342	320,342	15.60	18.53	16.10	11.36	1.00	1.00
2029	320,342	320,342	16.02	18.53	16.48	11.41	1.00	1.00
2030	320,342	320,342	16.52	18.95	16.96	11.59	1.00	1.00
2031	320,342	320,342	17.08	19.56	17.52	11.80	1.00	1.00
2032	320,342	320,342	17.50	19.39	17.87	11.88	1.00	1.00
2033	320,342	320,342	18.27	20.13	18.53	12.10	1.00	1.00
2034	320,342	320,342	18.73	19.93	18.88	12.14	1.00	1.00
2035	320,342	320,342	19.57	21.15	19.77	12.29	1.00	1.00
2036	320,342	320,342	20.40	22.15	20.57	12.55	1.00	1.00
2037	320,342	320,342	21.11	22.71	21.27	12.70	1.00	1.00
2038	320,342	320,342	22.02	23.65	22.19	13.04	1.00	1.00
2039	320,342	320,342	22.78	24.29	22.92	13.32	1.00	1.00
2040	320,342	320,342	23.59	24.86	23.70	13.44	1.00	1.00
2041	320,342	320,342	24.54	25.76	24.64	13.75	1.00	1.00
2042	320,342	320,342	25.50	26.71	25.61	14.10	1.00	1.00
2043	320,342	320,342	26.74	28.43	26.88	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT CAPACITY COST \$(000)	AVOIDED GEN UNIT FIXED O&M \$(000)	AVOIDED GEN UNIT VARIABLE O&M \$(000)	AVOIDED GEN UNIT FUEL COST \$(000)	REPLACEMENT FUEL COST \$(000)	AVOIDED GEN UNIT BENEFITS \$(000)
YEAR						
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	34,253	18,788	793	47,845	60,532	41,147
2020	33,234	19,258	1143	70,492	85,878	38,248
2021	31,915	19,739	1196	73,549	89,694	36,705
2022	30,643	20,232	1270	77,844	93,509	36,482
2023	29,416	20,738	1341	81,841	96,199	37,136
2024	28,229	21,257	1420	86,453	99,809	37,551
2025	27,081	21,788	1518	92,373	105,279	37,481
2026	25,967	22,333	1626	98,712	110,902	37,736
2027	24,886	22,891	1720	104,193	115,651	38,040
2028	23,811	23,463	1771	106,959	118,143	37,861
2029	22,737	24,050	1854	111,463	121,249	38,855
2030	21,663	24,651	1946	116,681	126,097	38,845
2031	20,591	25,268	1994	119,085	128,383	38,554
2032	19,519	25,899	2072	123,293	131,021	39,762
2033	18,448	26,547	2280	135,661	143,270	39,665
2034	17,377	27,210	2386	141,204	146,666	41,511
2035	16,308	27,891	2452	144,417	148,930	42,137
2036	15,239	28,588	2535	148,730	153,348	41,744
2037	14,172	29,303	2605	152,110	155,553	42,636
2038	13,105	30,035	2680	155,905	160,299	41,427
2039	12,039	30,786	2749	159,111	163,979	40,706
2040	11,168	31,556	2825	162,775	165,853	42,471
2041	10,492	32,345	2901	166,347	170,028	42,057
2042	9,817	33,153	2981	170,135	174,765	41,320
2043	9,142	33,982	3070	174,511	179,260	41,446
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	521,251	641,752	51,128	3,021,689	3,244,296	991,525
NPV	116,601	106,547	7,720	462,470	514,397	178,942

* 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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	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)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	293	16,210	0	16,503	0	0	516	3	519	(15,984)	(14,679)
2011	0	1,185	22,040	0	23,225	0	264	2,032	8	2,303	(20,921)	(32,325)
2012	0	1,470	28,673	0	30,143	0	855	4,325	17	5,197	(24,946)	(51,648)
2013	0	1,776	37,032	0	38,808	0	1,621	6,883	576	9,079	(29,729)	(72,796)
2014	0	2,057	44,067	0	46,124	0	2,456	10,114	913	13,483	(32,642)	(94,122)
2015	0	2,283	48,757	0	51,040	0	3,388	14,918	1,347	19,654	(31,386)	(112,953)
2016	0	1,974	53,489	0	55,462	0	4,379	22,727	1,918	29,024	(26,439)	(127,522)
2017	0	2,012	56,768	0	58,780	0	5,303	29,784	2,513	37,601	(21,179)	(138,239)
2018	0	2,022	58,512	0	60,534	0	6,199	36,423	3,133	45,755	(14,779)	(145,108)
2019	0	0	0	0	0	41,147	6,923	43,748	1,838	93,656	93,656	(105,134)
2020	0	129	16,283	0	16,412	38,248	6,724	45,577	1,370	91,919	75,507	(75,535)
2021	0	945	19,464	0	20,408	36,705	6,528	47,234	1,357	91,824	71,416	(49,827)
2022	0	1,178	26,069	0	27,247	36,482	6,340	48,907	1,440	93,168	65,921	(28,033)
2023	0	1,431	34,885	0	36,316	37,136	6,157	48,645	1,379	93,317	57,002	(10,725)
2024	0	1,656	42,175	0	43,830	37,551	5,979	50,547	1,456	95,533	51,702	3,692
2025	0	1,823	46,801	0	48,623	37,481	5,805	51,658	1,431	96,375	47,752	15,921
2026	0	1,325	51,939	0	53,264	37,736	5,632	51,770	1,384	96,523	43,259	26,095
2027	0	1,301	55,810	0	57,111	38,040	5,461	52,168	1,328	96,996	39,886	34,710
2028	0	1,341	59,865	0	61,207	37,861	5,291	52,998	1,440	97,591	36,384	41,927
2029	0	0	0	0	0	38,855	5,121	52,652	1,550	98,178	98,178	59,813
2030	0	454	26,412	0	26,866	38,845	4,951	53,717	1,484	98,998	72,132	71,881
2031	0	1,723	34,800	0	36,523	38,554	4,783	55,406	1,625	100,369	63,846	81,691
2032	0	2,126	45,285	0	47,411	39,762	4,619	54,441	1,706	100,527	53,116	89,186
2033	0	2,552	58,528	0	61,080	39,665	4,462	56,429	1,126	101,683	40,603	94,448
2034	0	2,926	69,535	0	72,461	41,511	4,315	55,335	1,000	102,161	29,700	97,983
2035	0	3,200	76,645	0	79,845	42,137	4,178	58,973	1,032	106,321	26,476	100,877
2036	0	2,591	83,787	0	86,378	41,744	4,055	61,870	1,017	108,685	22,308	103,116
2037	0	2,549	88,531	0	91,080	42,636	3,944	63,250	1,067	110,897	19,817	104,943
2038	0	2,461	90,762	0	93,223	41,427	3,847	65,824	1,106	112,204	18,981	106,550
2039	0	0	0	0	0	40,706	3,764	67,463	1,052	112,986	112,986	115,336
2040	0	243	26,876	0	27,119	42,471	3,690	68,823	1,064	116,048	88,929	121,686
2041	0	1,828	33,576	0	35,405	42,057	3,619	71,248	1,115	118,039	82,634	127,105
2042	0	2,292	44,891	0	47,183	41,320	3,550	73,794	2,729	121,393	74,210	131,575
2043	0	2,803	59,919	0	62,722	41,446	3,481	78,896	4,478	128,301	65,579	135,202
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

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

8.89	%
1.33	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	849	0	7,476	0	8,325	16,210	0	0	16,210	(7,885)	(7,242)
2011	3,079	0	10,547	0	13,626	22,040	0	0	22,040	(8,414)	(14,338)
2012	6,394	0	13,212	0	19,605	28,673	0	0	28,673	(9,067)	(21,362)
2013	10,816	0	16,371	0	27,187	37,032	0	0	37,032	(9,845)	(28,365)
2014	16,635	0	18,845	0	35,479	44,067	0	0	44,067	(8,588)	(33,976)
2015	23,459	0	20,281	0	43,739	48,757	0	0	48,757	(5,017)	(36,986)
2016	30,892	0	21,435	0	52,327	53,489	0	0	53,489	(1,162)	(37,626)
2017	39,186	0	22,030	0	61,216	56,768	0	0	56,768	4,448	(35,375)
2018	47,763	0	21,757	0	69,521	58,512	0	0	58,512	11,009	(30,259)
2019	53,405	0	0	0	53,405	0	0	0	0	53,405	(7,465)
2020	53,572	0	5,070	0	58,642	16,283	0	0	16,283	42,359	9,139
2021	54,738	0	6,039	0	60,777	19,464	0	0	19,464	41,313	24,012
2022	56,326	0	7,876	0	64,203	26,069	0	0	26,069	38,134	36,619
2023	58,033	0	10,260	0	68,293	34,885	0	0	34,885	33,408	46,763
2024	60,610	0	12,089	0	72,699	42,175	0	0	42,175	30,525	55,275
2025	62,786	0	13,084	0	75,870	46,801	0	0	46,801	29,069	62,719
2026	65,309	0	14,042	0	79,351	51,939	0	0	51,939	27,411	69,166
2027	68,724	0	14,716	0	83,440	55,810	0	0	55,810	27,629	75,134
2028	71,517	0	15,394	0	86,911	59,865	0	0	59,865	27,045	80,498
2029	74,717	0	0	0	74,717	0	0	0	0	74,717	94,110
2030	78,372	0	7,435	0	85,807	26,412	0	0	26,412	59,395	104,047
2031	81,943	0	10,132	0	92,075	34,800	0	0	34,800	57,275	112,848
2032	86,783	0	12,688	0	99,471	45,285	0	0	45,285	54,186	120,494
2033	94,544	0	15,722	0	110,266	58,528	0	0	58,528	51,737	127,199
2034	96,317	0	18,056	0	114,373	69,535	0	0	69,535	44,838	132,536
2035	100,105	0	19,344	0	119,449	76,645	0	0	76,645	42,805	137,214
2036	107,268	0	20,347	0	127,615	83,787	0	0	83,787	43,828	141,614
2037	113,009	0	20,792	0	133,801	88,531	0	0	88,531	45,270	145,787
2038	117,927	0	20,378	0	138,305	90,762	0	0	90,762	47,543	149,813
2039	123,329	0	0	0	123,329	0	0	0	0	123,329	159,402
2040	129,075	0	5,112	0	134,187	26,876	0	0	26,876	107,312	167,065
2041	135,898	0	6,454	0	142,352	33,576	0	0	33,576	108,775	174,199
2042	143,182	0	8,400	0	151,582	44,891	0	0	44,891	106,691	180,625
2043	150,958	0	10,909	0	161,867	59,919	0	0	59,919	101,948	186,264
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	2,417,518	0	426,292	0	2,843,810	1,458,383	0	0	1,458,383	1,385,427	
NPV	439,209	0	139,804	0	579,013	392,749	0	0	392,749	186,264	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

1.47

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS		REVENUE LOSSES	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT & FUEL BENEFITS	AVOIDED T&D COSTS	REVENUE GAINS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	INCENTIVES \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	293	7,476	645	0	8,414	516	0	3	519	(7,895)	(7,251)	(7,251)
2011	0	1,185	10,547	2,340	0	14,072	2,032	264	0	8	2,303	(11,769)	(17,177)
2012	0	1,470	13,212	4,859	0	18,541	4,325	855	0	17	5,197	(14,344)	(28,288)
2013	0	1,776	16,371	8,220	0	26,367	6,883	1,621	0	576	9,079	(17,288)	(40,586)
2014	0	2,057	18,845	12,642	0	33,544	10,114	2,456	0	913	13,483	(20,062)	(53,692)
2015	0	2,283	20,281	17,829	0	40,393	14,918	3,388	0	1,347	19,654	(20,739)	(66,135)
2016	0	1,974	21,435	23,478	0	46,887	22,727	4,379	0	1,918	29,024	(17,863)	(75,978)
2017	0	2,012	22,030	29,781	0	53,823	29,784	5,303	0	2,513	37,601	(16,222)	(84,188)
2018	0	2,022	21,757	36,300	0	60,080	36,423	6,199	0	3,133	45,755	(14,325)	(90,845)
2019	0	0	0	40,588	0	40,588	84,895	6,923	0	1,838	93,656	53,068	(68,195)
2020	0	129	5,070	40,715	0	45,914	83,825	6,724	0	1,370	91,919	46,006	(50,161)
2021	0	945	6,039	41,601	0	48,585	83,940	6,528	0	1,357	91,824	43,240	(34,595)
2022	0	1,178	7,876	42,808	0	51,862	85,389	6,340	0	1,440	93,168	41,306	(20,939)
2023	0	1,431	10,260	44,105	0	55,796	85,781	6,157	0	1,379	93,317	37,521	(9,546)
2024	0	1,656	12,089	46,064	0	59,809	88,098	5,979	0	1,456	95,533	35,724	415
2025	0	1,823	13,084	47,717	0	62,624	89,139	5,805	0	1,431	96,375	33,751	9,059
2026	0	1,325	14,042	49,635	0	65,001	89,507	5,632	0	1,384	96,523	31,522	16,472
2027	0	1,301	14,716	52,230	0	68,247	90,208	5,461	0	1,328	96,996	28,750	22,682
2028	0	1,341	15,394	54,353	0	71,088	90,860	5,291	0	1,440	97,591	26,503	27,939
2029	0	0	0	56,785	0	56,785	91,507	5,121	0	1,550	98,178	41,392	35,480
2030	0	454	7,435	59,563	0	67,452	92,563	4,951	0	1,484	98,998	31,546	40,758
2031	0	1,723	10,132	62,276	0	74,132	93,961	4,783	0	1,625	100,369	26,237	44,789
2032	0	2,126	12,688	65,955	0	80,769	94,203	4,619	0	1,706	100,527	19,758	47,577
2033	0	2,552	15,722	71,853	0	90,127	96,095	4,462	0	1,126	101,683	11,556	49,075
2034	0	2,926	18,056	73,201	0	94,183	96,846	4,315	0	1,000	102,161	7,978	50,024
2035	0	3,200	19,344	76,080	0	98,624	101,110	4,178	0	1,032	106,321	7,697	50,866
2036	0	2,591	20,347	81,524	0	104,461	103,614	4,055	0	1,017	108,685	4,224	51,290
2037	0	2,549	20,792	85,887	0	109,227	105,886	3,944	0	1,067	110,897	1,670	51,444
2038	0	2,461	20,378	89,625	0	112,464	107,251	3,847	0	1,106	112,204	(259)	51,422
2039	0	0	0	93,730	0	93,730	108,170	3,764	0	1,052	112,986	19,255	52,919
2040	0	243	5,112	98,097	0	103,452	111,294	3,690	0	1,064	116,048	12,595	53,818
2041	0	1,828	6,454	103,283	0	111,565	113,305	3,619	0	1,115	118,039	6,475	54,243
2042	0	2,292	8,400	108,818	0	119,510	115,114	3,550	0	2,729	121,393	1,883	54,356
2043	0	2,803	10,909	114,728	0	128,440	120,342	3,481	0	4,478	128,301	(140)	54,349
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	0	0	0	0	0	0	0	0	0	0	0	0	

Discount Rate

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89 %

1.11

RESIDENTIAL NEW CONSTRUCTION

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential New Construction - Bulldmart

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.83 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.11 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	1,545.21 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2013-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	704	2,982	0	3,687	216	0	3,974	0	0	3,974
2011	1,395	5,764	0	7,160	878	0	7,873	0	0	7,873
2012	1,841	7,485	0	9,327	1,977	0	10,500	0	0	10,500
2013	2,267	9,090	0	11,357	3,468	0	13,085	0	0	13,085
2014	2,772	11,003	0	13,775	5,476	0	16,259	0	0	16,259
2015	2,694	10,612	0	13,306	7,776	0	16,100	0	0	16,100
2016	2,800	10,762	0	13,562	10,128	0	16,737	0	0	16,737
2017	2,901	10,878	0	13,780	12,689	0	17,341	0	0	17,341
2018	3,041	11,125	0	14,166	15,332	0	18,177	0	0	18,177
2019	0	0	0	0	17,096	0	0	0	0	0
2020	0	0	0	0	17,149	0	0	0	0	0
2021	0	0	0	0	17,523	0	0	0	0	0
2022	0	0	0	0	18,031	0	0	0	0	0
2023	0	0	0	0	18,577	0	0	0	0	0
2024	0	0	0	0	19,402	0	0	0	0	0
2025	0	0	0	0	20,099	0	0	0	0	0
2026	0	0	0	0	20,906	0	0	0	0	0
2027	0	0	0	0	21,999	0	0	0	0	0
2028	0	0	0	0	22,893	0	0	0	0	0
2029	0	0	0	0	23,918	0	0	0	0	0
2030	0	0	0	0	25,088	0	0	0	0	0
2031	0	0	0	0	26,231	0	0	0	0	0
2032	0	0	0	0	27,780	0	0	0	0	0
2033	0	0	0	0	30,265	0	0	0	0	0
2034	0	0	0	0	30,832	0	0	0	0	0
2035	0	0	0	0	32,045	0	0	0	0	0
2036	0	0	0	0	34,338	0	0	0	0	0
2037	0	0	0	0	36,176	0	0	0	0	0
2038	0	0	0	0	37,750	0	0	0	0	0
2039	0	0	0	0	39,480	0	0	0	0	0
2040	1,477	2,982	0	4,460	41,319	0	8,335	0	0	8,335
2041	2,927	5,764	0	8,691	43,503	0	16,513	0	0	16,513
2042	3,862	7,485	0	11,348	45,834	0	22,025	0	0	22,025
2043	4,754	9,090	0	13,845	48,324	0	27,447	0	0	27,447
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	33,438	105,024	0	138,462	774,501	0	194,366	0	0	194,366
NPV	13,508	51,571	0	65,079	140,890	0	78,982	0	0	78,982

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GENK-FACTOR
PROGRAM METHOD SELECTED REV. REQ
PROGRAM NAME: Residential New Construction - Bulldsmart

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR	DEBT	PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY	DEPREC.	DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	\$(000)	STOCK	EQUITY	TAXES	TAX	INSURANCE		TAXES	FIXED	WORTH	PW FIXED	COST BASIS
YEAR	\$(000)		\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	CHARGES	FIXED	CHARGES	FOR
										\$(000)	CHARGES	\$(000)	PROPERTY INSURANCE
													\$(000)
2019	89,648	2,785	0	6,256	4,127	1,511	533	3,497	7	18,716	18,716	18,716	87,429
2020	86,144	2,676	0	6,012	2,836	1,448	547	3,497	1,144	18,160	16,678	35,394	89,615
2021	81,502	2,532	0	5,688	2,810	1,385	560	3,497	967	17,439	14,709	50,103	91,855
2022	77,038	2,393	0	5,376	2,778	1,322	574	3,497	804	16,744	12,970	63,072	94,152
2023	72,737	2,260	0	5,076	2,742	1,259	589	3,497	651	16,073	11,434	74,507	96,505
2024	68,590	2,131	0	4,787	2,701	1,196	603	3,497	510	15,425	10,077	84,584	98,918
2025	64,582	2,006	0	4,507	2,655	1,133	618	3,497	380	14,797	8,878	93,462	101,391
2026	60,705	1,886	0	4,236	2,606	1,070	634	3,497	260	14,189	7,818	101,281	103,926
2027	56,948	1,769	0	3,974	2,461	1,007	650	3,497	240	13,598	6,881	108,162	106,524
2028	53,211	1,653	0	3,713	2,297	944	666	3,497	240	13,011	6,047	114,209	109,187
2029	49,474	1,537	0	3,453	2,133	881	683	3,497	240	12,424	5,303	119,512	111,917
2030	45,736	1,421	0	3,192	1,970	818	700	3,497	240	11,837	4,640	124,152	114,715
2031	41,999	1,305	0	2,931	1,805	755	717	3,497	240	11,251	4,050	128,202	117,582
2032	38,262	1,189	0	2,670	1,642	692	735	3,497	240	10,665	3,526	131,728	120,522
2033	34,525	1,072	0	2,409	1,478	629	754	3,497	240	10,080	3,061	134,789	123,535
2034	30,787	956	0	2,149	1,314	567	772	3,497	240	9,495	2,648	137,437	126,623
2035	27,050	840	0	1,888	1,150	504	792	3,497	240	8,911	2,282	139,719	129,789
2036	23,313	724	0	1,627	987	441	812	3,497	240	8,327	1,958	141,677	133,034
2037	19,575	608	0	1,366	823	378	832	3,497	240	7,744	1,673	143,350	136,360
2038	15,838	492	0	1,105	659	315	853	3,497	240	7,161	1,420	144,770	139,769
2039	12,101	376	0	844	1,227	252	874	3,497	(491)	6,579	1,198	145,969	143,263
2040	9,095	283	0	635	1,827	189	896	3,497	(1,223)	6,103	1,021	146,990	146,844
2041	6,821	212	0	476	1,727	126	918	3,497	(1,223)	5,733	881	147,871	150,515
2042	4,547	141	0	317	1,627	63	941	3,497	(1,223)	5,364	757	148,628	154,278
2043	2,273	71	0	159	1,528	0	965	3,497	(1,223)	4,996	647	149,275	158,135

IN SERVICE COST (\$000)	87,429
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03 %
P/S	0%	0.00 %
C/S	56%	12.50 %

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential New Construction - Buldism

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,188	3,188	3,497	3,497	3,171	3,171	7	8,161	0	0	0	7	(2,212)
2020	7.22%	6,138	9,326	3,497	6,994	3,171	6,341	1,144	8,161	0	0	0	1,144	(1,067)
2021	6.58%	5,677	15,003	3,497	10,491	3,171	9,512	967	8,161	0	0	0	967	(101)
2022	6.18%	5,254	20,257	3,497	13,989	3,171	12,683	804	8,161	0	0	0	804	703
2023	5.71%	4,857	25,114	3,497	17,486	3,171	15,854	651	8,161	0	0	0	651	1,354
2024	5.29%	4,493	29,607	3,497	20,983	3,171	19,024	510	8,161	0	0	0	510	1,864
2025	4.89%	4,156	33,763	3,497	24,480	3,171	22,195	380	8,161	0	0	0	380	2,244
2026	4.52%	3,845	37,608	3,497	27,977	3,171	25,366	260	8,161	0	0	0	260	2,504
2027	4.46%	3,794	41,401	3,497	31,474	3,171	28,537	240	8,161	0	0	0	240	2,744
2028	4.46%	3,793	45,194	3,497	34,972	3,171	31,707	240	8,161	0	0	0	240	2,984
2029	4.46%	3,794	48,988	3,497	38,469	3,171	34,878	240	8,161	0	0	0	240	3,224
2030	4.46%	3,793	52,780	3,497	41,966	3,171	38,049	240	8,161	0	0	0	240	3,464
2031	4.46%	3,794	56,574	3,497	45,463	3,171	41,220	240	8,161	0	0	0	240	3,704
2032	4.46%	3,793	60,367	3,497	48,960	3,171	44,390	240	8,161	0	0	0	240	3,944
2033	4.46%	3,794	64,160	3,497	52,457	3,171	47,561	240	8,161	0	0	0	240	4,185
2034	4.46%	3,793	67,953	3,497	55,955	3,171	50,732	240	8,161	0	0	0	240	4,424
2035	4.46%	3,794	71,747	3,497	59,452	3,171	53,903	240	8,161	0	0	0	240	4,665
2036	4.46%	3,793	75,539	3,497	62,949	3,171	57,073	240	8,161	0	0	0	240	4,905
2037	4.46%	3,794	79,333	3,497	66,446	3,171	60,244	240	8,161	0	0	0	240	5,145
2038	4.46%	3,793	83,126	3,497	69,943	3,171	63,415	240	8,161	0	0	0	240	5,385
2039	2.23%	1,897	85,023	3,497	73,440	3,171	66,586	(491)	8,161	0	0	0	(491)	4,893
2040	0.00%	0	85,023	3,497	76,938	3,171	69,756	(1,223)	8,161	0	0	0	(1,223)	3,670
2041	0.00%	0	85,023	3,497	80,435	3,171	72,927	(1,223)	8,161	0	0	0	(1,223)	2,447
2042	0.00%	0	85,023	3,497	83,932	3,171	76,098	(1,223)	8,161	0	0	0	(1,223)	1,224
2043	0.00%	0	85,023	3,497	87,429	3,171	79,268	(1,223)	8,161	0	0	0	(1,223)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,219)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	8,161
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential New Construction - Bulldsmart

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,188	7	83,932	3,497	(2,212)	89,648	86,144	87,896
2020	7.22%	6,138	1,144	80,435	6,994	(1,067)	86,144	81,502	83,823
2021	6.68%	5,677	967	76,938	10,491	(101)	81,502	77,038	79,270
2022	6.18%	5,254	804	73,440	13,989	703	77,038	72,737	74,888
2023	5.71%	4,857	651	69,943	17,486	1,354	72,737	68,590	70,664
2024	5.29%	4,493	510	66,446	20,983	1,864	68,590	64,582	66,586
2025	4.85%	4,156	380	62,949	24,480	2,244	64,582	60,705	62,644
2026	4.52%	3,845	260	59,452	27,977	2,504	60,705	56,948	58,827
2027	4.46%	3,794	240	55,955	31,474	2,744	56,948	53,211	55,079
2028	4.46%	3,793	240	52,457	34,972	2,984	53,211	49,474	51,342
2029	4.46%	3,794	240	48,960	38,469	3,224	49,474	45,736	47,605
2030	4.46%	3,793	240	45,463	41,966	3,464	45,736	41,999	43,868
2031	4.46%	3,794	240	41,966	45,463	3,704	41,999	38,262	40,130
2032	4.46%	3,793	240	38,469	48,960	3,944	38,262	34,525	36,393
2033	4.46%	3,794	240	34,972	52,457	4,185	34,525	30,787	32,656
2034	4.46%	3,793	240	31,474	55,955	4,424	30,787	27,050	28,919
2035	4.46%	3,794	240	27,977	59,452	4,665	27,050	23,313	25,181
2036	4.46%	3,793	240	24,480	62,949	4,905	23,313	19,575	21,444
2037	4.46%	3,794	240	20,983	66,446	5,145	19,575	15,838	17,707
2038	4.46%	3,793	240	17,486	69,943	5,385	15,838	12,101	13,970
2039	2.23%	1,897	(491)	13,989	73,440	4,893	12,101	9,095	10,598
2040	0.00%	0	(1,223)	10,491	76,938	3,670	9,095	6,821	7,958
2041	0.00%	0	(1,223)	6,994	80,435	2,447	6,821	4,547	5,684
2042	0.00%	0	(1,223)	3,497	83,932	1,224	4,547	2,273	3,410
2043	0.00%	0	(1,223)	0	87,429	1	2,273	-1	1,136

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77												
YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805\$
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	74,549	74,549	74,549
EQUITY AFUDC	8,161		
DEBT AFUDC	4,719	4,719	
CPI			10,471
TOTAL	87,429	79,268	85,020

* Column not specified in workbook

INPUT DATA -- PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Residential New Construction - Bulldsmart

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE SYSTEM PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	2,879	2,879	6.41	9.41	6.63	0.00	1.00	1.00
2011	8,443	8,443	6.35	8.82	6.54	0.00	1.00	1.00
2012	15,608	15,608	6.43	8.81	6.60	0.00	1.00	1.00
2013	24,211	24,211	7.06	8.66	7.18	0.00	1.00	1.00
2014	34,477	34,477	7.53	8.94	7.65	0.00	1.00	1.00
2015	44,209	44,209	8.11	9.98	8.28	0.00	1.00	1.00
2016	54,080	54,080	9.00	12.06	9.25	0.00	1.00	1.00
2017	64,057	64,057	9.75	13.17	9.98	0.00	1.00	1.00
2018	74,261	74,261	10.52	13.94	10.77	0.00	1.00	1.00
2019	74,261	74,261	11.50	15.78	11.83	10.41	1.00	1.00
2020	74,261	74,261	12.08	16.43	12.45	10.50	1.00	1.00
2021	74,261	74,261	12.57	17.12	12.96	10.74	1.00	1.00
2022	74,261	74,261	13.06	17.90	13.47	10.81	1.00	1.00
2023	74,261	74,261	13.39	17.89	13.80	10.80	1.00	1.00
2024	74,261	74,261	13.95	18.59	14.37	10.84	1.00	1.00
2025	74,261	74,261	14.40	19.04	14.82	10.96	1.00	1.00
2026	74,261	74,261	14.70	19.13	15.10	11.05	1.00	1.00
2027	74,261	74,261	15.13	19.41	15.51	11.17	1.00	1.00
2028	74,261	74,261	15.60	19.86	15.97	11.36	1.00	1.00
2029	74,261	74,261	16.02	19.66	16.37	11.41	1.00	1.00
2030	74,261	74,261	16.52	20.03	16.85	11.59	1.00	1.00
2031	74,261	74,261	17.08	20.68	17.40	11.80	1.00	1.00
2032	74,261	74,261	17.50	20.32	17.78	11.88	1.00	1.00
2033	74,261	74,261	18.27	21.08	18.45	12.10	1.00	1.00
2034	74,261	74,261	18.73	20.55	18.83	12.14	1.00	1.00
2035	74,261	74,261	19.57	21.99	19.70	12.29	1.00	1.00
2036	74,261	74,261	20.40	23.09	20.49	12.55	1.00	1.00
2037	74,261	74,261	21.11	23.55	21.20	12.70	1.00	1.00
2038	74,261	74,261	22.02	24.51	22.13	13.04	1.00	1.00
2039	74,261	74,261	22.78	25.06	22.86	13.32	1.00	1.00
2040	74,261	74,261	23.59	25.57	23.65	13.44	1.00	1.00
2041	74,261	74,261	24.54	26.44	24.58	13.75	1.00	1.00
2042	74,261	74,261	25.50	27.34	25.55	14.10	1.00	1.00
2043	74,261	74,261	26.74	29.33	26.82	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Residential New Construction - Bulldsmart

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	18,716	10,266	433	26,144	33,076	22,483
2020	18,160	10,523	625	38,518	46,926	20,900
2021	17,439	10,786	654	40,189	49,011	20,056
2022	16,744	11,055	694	42,536	51,095	19,934
2023	16,073	11,332	732	44,720	52,565	20,292
2024	15,425	11,615	776	47,240	54,538	20,519
2025	14,797	11,906	829	50,475	57,527	20,480
2026	14,189	12,203	889	53,939	60,599	20,620
2027	13,598	12,508	940	56,933	63,194	20,786
2028	13,011	12,821	967	58,445	64,556	20,688
2029	12,424	13,141	1013	60,906	66,253	21,231
2030	11,837	13,470	1064	63,757	68,902	21,226
2031	11,251	13,807	1090	65,071	70,152	21,067
2032	10,665	14,152	1132	67,370	71,593	21,727
2033	10,080	14,506	1246	74,128	78,286	21,674
2034	9,495	14,868	1304	77,157	80,142	22,682
2035	8,911	15,240	1340	78,913	81,379	23,025
2036	8,327	15,621	1385	81,269	83,793	22,810
2037	7,744	16,012	1423	83,116	84,998	23,297
2038	7,161	16,412	1464	85,190	87,591	22,636
2039	6,579	16,822	1502	86,942	89,602	22,243
2040	6,103	17,243	1544	88,944	90,626	23,207
2041	5,733	17,674	1585	90,896	92,907	22,981
2042	5,364	18,116	1629	92,965	95,496	22,578
2043	4,996	18,569	1678	95,357	97,952	22,647
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	284,823	350,667	27,938	1,651,118	1,772,755	541,791
NPV	63,714	58,220	4,219	252,704	281,078	97,778

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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	2.81	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	3.00	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL LOSSES \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	704	2,982	216	0	3,903	230	0	2	232	(3,371)	(3,371)	(3,371)
2011	0	1,395	5,764	878	0	8,037	840	141	0	4	985	(7,052)	(9,320)
2012	0	1,841	7,485	1,977	0	11,304	1,777	418	0	9	2,204	(9,100)	(16,368)
2013	0	2,267	9,090	3,468	0	14,825	2,819	809	0	225	3,852	(10,972)	(24,174)
2014	0	2,772	11,003	5,476	0	19,251	4,254	1,253	0	368	5,876	(13,375)	(32,912)
2015	0	2,694	10,612	7,776	0	21,082	6,426	1,783	0	545	8,754	(12,328)	(40,308)
2016	0	2,800	10,762	10,128	0	23,691	9,893	2,286	0	786	12,965	(10,726)	(46,218)
2017	0	2,901	10,878	12,689	0	26,469	13,006	2,799	0	1,042	16,847	(9,622)	(51,087)
2018	0	3,041	11,125	15,332	0	29,498	16,048	3,321	0	1,323	20,693	(8,806)	(55,180)
2019	0	0	0	17,096	0	17,096	42,144	3,818	0	601	46,564	29,468	(42,602)
2020	0	0	0	17,149	0	17,149	41,331	3,709	0	284	45,324	28,175	(31,558)
2021	0	0	0	17,523	0	17,523	41,345	3,601	0	262	45,208	27,685	(21,592)
2022	0	0	0	18,031	0	18,031	42,231	3,497	0	245	45,973	27,942	(12,354)
2023	0	0	0	18,577	0	18,577	42,455	3,396	0	165	46,016	27,439	(4,023)
2024	0	0	0	19,402	0	19,402	43,533	3,298	0	143	46,974	27,571	3,666
2025	0	0	0	20,099	0	20,099	44,014	3,202	0	67	47,283	27,184	10,627
2026	0	0	0	20,906	0	20,906	44,182	3,107	0	(17)	47,272	26,366	16,828
2027	0	0	0	21,999	0	21,999	44,604	3,013	0	(125)	47,492	25,492	22,334
2028	0	0	0	22,893	0	22,893	45,022	2,919	0	(143)	47,798	24,905	27,275
2029	0	0	0	23,918	0	23,918	45,104	2,826	0	(202)	47,729	23,810	31,612
2030	0	0	0	25,088	0	25,088	45,477	2,733	0	(325)	47,885	22,797	35,426
2031	0	0	0	26,231	0	26,231	46,110	2,640	0	(342)	48,409	22,178	38,834
2032	0	0	0	27,780	0	27,780	46,061	2,550	0	(413)	48,198	20,418	41,715
2033	0	0	0	30,265	0	30,265	46,873	2,463	0	(831)	48,505	18,240	44,079
2034	0	0	0	30,832	0	30,832	46,924	2,381	0	(1,027)	48,279	17,446	46,155
2035	0	0	0	32,045	0	32,045	49,127	2,305	0	(1,141)	50,292	18,247	48,150
2036	0	0	0	34,338	0	34,338	50,274	2,236	0	(1,286)	51,225	16,886	49,845
2037	0	0	0	36,176	0	36,176	51,198	2,174	0	(1,410)	51,962	15,786	51,300
2038	0	0	0	37,750	0	37,750	51,665	2,120	0	(1,555)	52,230	14,479	52,526
2039	0	0	0	39,480	0	39,480	51,824	2,073	0	(1,744)	52,153	12,674	53,512
2040	0	1,477	2,982	41,319	0	45,779	53,270	2,031	0	(1,934)	53,368	7,589	54,054
2041	0	2,927	5,764	43,503	0	52,194	54,005	1,993	0	(2,095)	53,902	1,708	54,166
2042	0	3,862	7,485	45,834	0	57,182	54,612	1,954	0	(1,415)	55,151	(2,031)	54,043
2043	0	4,754	9,090	48,324	0	62,168	57,250	1,917	0	(679)	58,488	(3,680)	53,840
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0										

Discount Rate

8.89 %

Benefit/Cost Ratio (Col(12) / Col(7)) :

1.26

RESIDENTIAL LOAD MANAGEMENT

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	1.13 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.50 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	52.32 kWh ****
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	29.71 kWh ****

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	12.38 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

**** THIS IS A LOAD SHIFTING PROGRAM. VALUE SHOWN IN ITEM (4) IS ANNUAL KWH/CUST SHIFTED AWAY FROM PEAK HRS. VALUE SHOWN IN ITEM (7) IS ANNUAL KWH/CUST THAT IS PAID BACK DURING OFF-PEAK.

* INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	515	216	0	731	10	0	0	0	0	0
2011	1,168	649	0	1,817	31	0	0	0	0	0
2012	1,811	1,082	0	2,893	55	0	0	0	0	0
2013	2,062	1,366	0	3,427	73	0	0	0	0	0
2014	2,197	1,501	0	3,698	85	0	0	0	0	0
2015	2,144	1,636	0	3,780	97	0	0	0	0	0
2016	1,892	1,771	0	3,663	108	0	0	0	0	0
2017	1,658	1,906	0	3,563	121	0	0	0	0	0
2018	1,577	2,041	0	3,618	133	0	0	0	0	0
2019	1,459	2,108	0	3,568	142	0	0	0	0	0
2020	1,291	2,108	0	3,399	143	0	0	0	0	0
2021	1,129	2,108	0	3,237	146	0	0	0	0	0
2022	976	2,108	0	3,084	150	0	0	0	0	0
2023	830	2,108	0	2,938	155	0	0	0	0	0
2024	765	2,108	0	2,873	162	0	0	0	0	0
2025	784	2,108	0	2,892	167	0	0	0	0	0
2026	803	2,108	0	2,911	174	0	0	0	0	0
2027	823	2,108	0	2,931	183	0	0	0	0	0
2028	844	2,108	0	2,952	191	0	0	0	0	0
2029	865	2,108	0	2,973	199	0	0	0	0	0
2030	887	2,108	0	2,995	209	0	0	0	0	0
2031	909	2,108	0	3,017	219	0	0	0	0	0
2032	932	2,108	0	3,040	231	0	0	0	0	0
2033	955	2,108	0	3,063	252	0	0	0	0	0
2034	979	2,108	0	3,087	257	0	0	0	0	0
2035	1,003	2,108	0	3,111	267	0	0	0	0	0
2036	1,028	2,108	0	3,136	286	0	0	0	0	0
2037	1,054	2,108	0	3,162	301	0	0	0	0	0
2038	1,080	2,108	0	3,188	314	0	0	0	0	0
2039	1,107	2,108	0	3,215	329	0	0	0	0	0
2040	1,533	2,108	0	3,641	344	0	0	0	0	0
2041	1,571	2,108	0	3,679	362	0	0	0	0	0
2042	1,611	2,108	0	3,719	382	0	0	0	0	0
2043	1,356	2,108	0	3,464	403	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	41,599	64,866	0	106,465	6,681	0	0	0	0	0
NPV	14,412	17,117	0	31,529	1,330	0	0	0	0	0

* 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_REQ
PROGRAM NAME: Residential Load Management Program

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	76,844	2,387	0	5,363	3,538	1,295	457	2,998	6	16,043	16,043	16,043	74,942
2020	73,840	2,294	0	5,153	2,431	1,241	469	2,998	981	15,566	14,296	30,339	76,815
2021	69,861	2,170	0	4,875	2,409	1,187	480	2,998	829	14,948	12,608	42,947	78,736
2022	66,035	2,051	0	4,608	2,381	1,133	492	2,998	689	14,353	11,117	54,064	80,704
2023	62,349	1,937	0	4,351	2,351	1,079	505	2,998	558	13,778	9,801	63,865	82,722
2024	58,793	1,826	0	4,103	2,315	1,025	517	2,998	437	13,222	8,638	72,503	84,790
2025	55,358	1,720	0	3,863	2,276	971	530	2,998	326	12,684	7,610	80,113	86,910
2026	52,035	1,616	0	3,631	2,233	917	543	2,998	223	12,162	6,702	86,815	89,082
2027	48,814	1,516	0	3,407	2,109	863	557	2,998	206	11,656	5,899	92,714	91,309
2028	45,611	1,417	0	3,183	1,969	809	571	2,998	206	11,153	5,183	97,897	93,592
2029	42,407	1,317	0	2,960	1,828	755	585	2,998	206	10,649	4,545	102,442	95,932
2030	39,204	1,218	0	2,736	1,688	701	600	2,998	206	10,147	3,977	106,420	98,330
2031	36,000	1,118	0	2,512	1,548	647	615	2,998	206	9,644	3,472	109,892	100,788
2032	32,797	1,019	0	2,289	1,407	594	630	2,998	206	9,142	3,022	112,914	103,308
2033	29,594	919	0	2,065	1,267	540	646	2,998	206	8,640	2,623	115,537	105,891
2034	26,390	820	0	1,842	1,127	486	662	2,998	206	8,139	2,270	117,807	108,538
2035	23,187	720	0	1,618	986	432	679	2,998	206	7,638	1,956	119,763	111,252
2036	19,983	621	0	1,395	846	378	696	2,998	206	7,138	1,679	121,442	114,033
2037	16,780	521	0	1,171	705	324	713	2,998	206	6,638	1,434	122,876	116,884
2038	13,576	422	0	947	565	270	731	2,998	206	6,138	1,218	124,093	119,806
2039	10,373	322	0	724	1,052	216	749	2,998	(421)	5,639	1,027	125,120	122,801
2040	7,796	242	0	544	1,566	162	768	2,998	(1,048)	5,231	875	125,996	125,871
2041	5,847	182	0	408	1,480	108	787	2,998	(1,048)	4,914	755	126,751	129,018
2042	3,898	121	0	272	1,395	54	807	2,998	(1,048)	4,598	649	127,400	132,243
2043	1,948	61	0	136	1,310	0	827	2,998	(1,048)	4,282	555	127,955	135,549

IN SERVICE COST (\$000)	74,942
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.5%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	2,733	2,733	2,998	2,998	2,718	2,718	6	6,995	0	0	0	6	(1,896)
2020	7.22%	5,261	7,994	2,998	5,995	2,718	5,436	981	6,995	0	0	0	981	(915)
2021	6.68%	4,866	12,860	2,998	8,993	2,718	8,154	829	6,995	0	0	0	829	(86)
2022	6.18%	4,504	17,364	2,998	11,991	2,718	10,871	689	6,995	0	0	0	689	603
2023	5.71%	4,163	21,527	2,998	14,988	2,718	13,589	558	6,995	0	0	0	558	1,160
2024	5.29%	3,852	25,379	2,998	17,986	2,718	16,307	437	6,995	0	0	0	437	1,598
2025	4.89%	3,562	28,941	2,998	20,984	2,718	19,025	326	6,995	0	0	0	326	1,923
2026	4.52%	3,295	32,236	2,998	23,981	2,718	21,743	223	6,995	0	0	0	223	2,146
2027	4.46%	3,252	35,488	2,998	26,979	2,718	24,461	206	6,995	0	0	0	206	2,352
2028	4.46%	3,251	38,739	2,998	29,977	2,718	27,179	206	6,995	0	0	0	206	2,558
2029	4.46%	3,252	41,991	2,998	32,974	2,718	29,897	206	6,995	0	0	0	206	2,764
2030	4.46%	3,251	45,242	2,998	35,972	2,718	32,614	206	6,995	0	0	0	206	2,969
2031	4.46%	3,252	48,494	2,998	38,970	2,718	35,332	206	6,995	0	0	0	206	3,175
2032	4.46%	3,251	51,745	2,998	41,967	2,718	38,050	206	6,995	0	0	0	206	3,381
2033	4.46%	3,252	54,996	2,998	44,965	2,718	40,768	206	6,995	0	0	0	206	3,587
2034	4.46%	3,251	58,248	2,998	47,963	2,718	43,486	206	6,995	0	0	0	206	3,793
2035	4.46%	3,252	61,499	2,998	50,960	2,718	46,204	206	6,995	0	0	0	206	3,998
2036	4.46%	3,251	64,750	2,998	53,958	2,718	48,922	206	6,995	0	0	0	206	4,204
2037	4.46%	3,252	68,002	2,998	56,956	2,718	51,640	206	6,995	0	0	0	206	4,410
2038	4.46%	3,251	71,253	2,998	59,953	2,718	54,357	206	6,995	0	0	0	206	4,616
2039	2.23%	1,626	72,879	2,998	62,951	2,718	57,075	(421)	6,995	0	0	0	(421)	4,195
2040	0.00%	0	72,879	2,998	65,949	2,718	59,793	(1,048)	6,995	0	0	0	(1,048)	3,146
2041	0.00%	0	72,879	2,998	68,946	2,718	62,511	(1,048)	6,995	0	0	0	(1,048)	2,098
2042	0.00%	0	72,879	2,998	71,944	2,718	65,229	(1,048)	6,995	0	0	0	(1,048)	1,049
2043	0.00%	0	72,879	2,998	74,942	2,718	67,947	(1,048)	6,995	0	0	0	(1,048)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,902)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	6,995
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5) END OF YEAR NET	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	2,733	6	71,944	2,998	(1,896)	76,844	73,840	75,342
2020	7.22%	5,261	981	68,946	5,995	(915)	73,840	69,861	71,851
2021	6.68%	4,866	829	65,949	8,993	(86)	69,861	66,035	67,948
2022	6.18%	4,504	689	62,951	11,991	603	66,035	62,349	64,192
2023	5.71%	4,163	558	59,953	14,988	1,160	62,349	58,793	60,571
2024	5.29%	3,852	437	56,956	17,986	1,598	58,793	55,358	57,076
2025	4.89%	3,562	326	53,958	20,984	1,923	55,358	52,035	53,697
2026	4.52%	3,295	223	50,960	23,981	2,146	52,035	48,814	50,425
2027	4.46%	3,252	206	47,963	26,979	2,352	48,814	45,611	47,213
2028	4.46%	3,251	206	44,965	29,977	2,558	45,611	42,407	44,009
2029	4.46%	3,252	206	41,967	32,974	2,764	42,407	39,204	40,806
2030	4.46%	3,251	206	38,970	35,972	2,969	39,204	36,000	37,602
2031	4.46%	3,252	206	35,972	38,970	3,175	36,000	32,797	34,399
2032	4.46%	3,251	206	32,974	41,967	3,381	32,797	29,594	31,195
2033	4.46%	3,252	206	29,977	44,965	3,587	29,594	26,390	27,992
2034	4.46%	3,251	206	26,979	47,963	3,793	26,390	23,187	24,788
2035	4.46%	3,252	206	23,981	50,960	3,998	23,187	19,983	21,585
2036	4.46%	3,251	206	20,984	53,958	4,204	19,983	16,780	18,381
2037	4.46%	3,252	206	17,986	56,956	4,410	16,780	13,576	15,178
2038	4.46%	3,251	206	14,988	59,953	4,616	13,576	10,373	11,974
2039	2.23%	1,626	(421)	11,991	62,951	4,195	10,373	7,796	9,084
2040	0.00%	0	(1,048)	8,993	65,949	3,146	7,796	5,847	6,822
2041	0.00%	0	(1,048)	5,995	68,946	2,098	5,847	3,898	4,872
2042	0.00%	0	(1,048)	2,998	71,944	1,049	3,898	1,948	2,923
2043	0.00%	0	(1,048)	0	74,942	1	1,948	-1	974

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC	DEBT AFUDC	CUMULATIVE DEBT AFUDC	YEARLY TOTAL AFUDC	CUMULATIVE TOTAL AFUDC	CONSTRUCTION PERIOD INTEREST	CUMULATIVE CPI	DEFERRED TAXES	CUMULATIVE DEFERRED TAXES	INCREMENTAL YEAR-END BOOK VALUE	CUMULATIVE YEAR-END BOOK VALUE
YEAR		(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASE	63,901	63,901	63,901
EQUITY AFUDC	6,995		
DEBT AFUDC	4,045	4,045	
CPI			8,975
TOTAL	74,942	67,947	72,877

* Column not specified in workbook

INPUT DATA -- PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Residential Load Management Program

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	9,615	9,615	6.41	16.51	6.41	0.00	1.00	1.00
2011	19,230	19,230	6.35	10.38	6.35	0.00	1.00	1.00
2012	28,845	28,845	6.43	13.34	6.43	0.00	1.00	1.00
2013	31,845	31,845	7.06	9.99	7.06	0.00	1.00	1.00
2014	34,845	34,845	7.53	10.61	7.53	0.00	1.00	1.00
2015	37,845	37,845	8.11	13.20	8.11	0.00	1.00	1.00
2016	40,845	40,845	9.00	13.90	9.00	0.00	1.00	1.00
2017	43,845	43,845	9.75	15.09	9.75	0.00	1.00	1.00
2018	46,845	46,845	10.52	15.46	10.52	0.00	1.00	1.00
2019	46,845	46,845	11.50	21.44	11.50	10.41	1.00	1.00
2020	46,845	46,845	12.08	20.17	12.08	10.50	1.00	1.00
2021	46,845	46,845	12.57	21.76	12.57	10.74	1.00	1.00
2022	46,845	46,845	13.06	23.66	13.06	10.81	1.00	1.00
2023	46,845	46,845	13.39	20.91	13.39	10.80	1.00	1.00
2024	46,845	46,845	13.95	22.19	13.95	10.84	1.00	1.00
2025	46,845	46,845	14.40	22.20	14.40	10.96	1.00	1.00
2026	46,845	46,845	14.70	22.41	14.70	11.05	1.00	1.00
2027	46,845	46,845	15.13	23.05	15.13	11.17	1.00	1.00
2028	46,845	46,845	15.60	23.70	15.60	11.36	1.00	1.00
2029	46,845	46,845	16.02	22.95	16.02	11.41	1.00	1.00
2030	46,845	46,845	16.52	23.78	16.52	11.59	1.00	1.00
2031	46,845	46,845	17.08	24.53	17.08	11.80	1.00	1.00
2032	46,845	46,845	17.50	24.55	17.50	11.88	1.00	1.00
2033	46,845	46,845	18.27	25.51	18.27	12.10	1.00	1.00
2034	46,845	46,845	18.73	25.89	18.73	12.14	1.00	1.00
2035	46,845	46,845	19.57	27.04	19.57	12.29	1.00	1.00
2036	46,845	46,845	20.40	28.26	20.40	12.55	1.00	1.00
2037	46,845	46,845	21.11	29.22	21.11	12.70	1.00	1.00
2038	46,845	46,845	22.02	30.23	22.02	13.04	1.00	1.00
2039	46,845	46,845	22.78	31.29	22.78	13.32	1.00	1.00
2040	46,845	46,845	23.59	32.02	23.59	13.44	1.00	1.00
2041	46,845	46,845	24.54	33.28	24.54	13.75	1.00	1.00
2042	46,845	46,845	25.50	34.66	25.50	14.10	1.00	1.00
2043	46,845	46,845	26.74	36.49	26.74	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	16,043	8,800	371	22,410	28,352	19,272
2020	15,566	9,020	535	33,017	40,224	17,915
2021	14,948	9,245	560	34,449	42,011	17,192
2022	14,353	9,476	595	36,461	43,798	17,087
2023	13,778	9,713	628	38,332	45,057	17,394
2024	13,222	9,956	665	40,493	46,748	17,588
2025	12,684	10,205	711	43,266	49,311	17,555
2026	12,162	10,460	762	46,235	51,944	17,675
2027	11,656	10,722	806	48,802	54,168	17,817
2028	11,153	10,990	829	50,097	55,335	17,733
2029	10,649	11,265	868	52,207	56,790	18,199
2030	10,147	11,546	912	54,651	59,061	18,194
2031	9,644	11,835	934	55,777	60,132	18,058
2032	9,142	12,131	970	57,748	61,367	18,624
2033	8,640	12,434	1068	63,541	67,105	18,578
2034	8,139	12,745	1118	66,137	68,695	19,443
2035	7,638	13,063	1148	67,642	69,756	19,736
2036	7,138	13,390	1187	69,662	71,825	19,552
2037	6,638	13,725	1220	71,245	72,858	19,970
2038	6,138	14,068	1255	73,023	75,080	19,403
2039	5,639	14,420	1288	74,524	76,804	19,066
2040	5,231	14,780	1323	76,240	77,682	19,893
2041	4,914	15,150	1359	77,913	79,637	19,699
2042	4,598	15,528	1396	79,687	81,856	19,354
2043	4,282	15,916	1438	81,737	83,961	19,412
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	244,143	300,583	23,947	1,415,294	1,519,558	464,409
NPV	54,614	49,904	3,616	216,611	240,932	83,812

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
	AVOIDED TRANSMISSION CAP COST	AVOIDED TRANSMISSION O&M COST	TOTAL AVOIDED TRANSMISSION COST	AVOIDED DISTRIBUTION CAP COST	AVOIDED DISTRIBUTION O&M COST	TOTAL AVOIDED DISTRIBUTION COST	PROGRAM FUEL SAVINGS	PROGRAM OFF-PEAK PAYBACK
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	50	10
2011	541	43	584	27	11	38	88	29
2012	1,082	88	1,169	54	23	78	155	49
2013	1,620	149	1,769	81	36	117	173	68
2014	1,750	167	1,916	87	41	128	202	80
2015	1,878	186	2,064	94	46	140	282	94
2016	2,008	206	2,214	100	51	151	318	113
2017	2,140	226	2,366	107	56	163	372	132
2018	2,273	248	2,521	114	62	176	404	152
2019	2,408	254	2,662	120	68	188	602	172
2020	2,324	260	2,584	116	70	186	557	181
2021	2,241	267	2,507	112	71	183	604	188
2022	2,159	273	2,432	108	73	181	662	195
2023	2,078	280	2,358	104	75	179	571	200
2024	1,998	287	2,285	100	77	177	608	209
2025	1,919	294	2,213	96	79	175	605	215
2026	1,840	302	2,142	92	81	173	609	220
2027	1,761	309	2,071	88	83	171	626	226
2028	1,683	317	2,000	84	85	169	643	233
2029	1,604	325	1,929	80	87	167	616	240
2030	1,526	333	1,859	76	89	165	639	247
2031	1,449	341	1,790	72	91	164	659	255
2032	1,378	350	1,728	69	94	163	656	262
2033	1,314	359	1,672	66	96	162	681	273
2034	1,256	368	1,624	63	98	161	690	280
2035	1,202	377	1,579	60	101	161	721	293
2036	1,150	386	1,537	57	103	161	754	305
2037	1,101	396	1,497	55	106	161	779	316
2038	1,055	406	1,461	53	109	161	804	329
2039	1,011	416	1,428	51	111	162	833	341
2040	970	426	1,397	48	114	163	850	353
2041	929	437	1,366	46	117	163	883	367
2042	889	448	1,337	44	120	164	920	381
2043	848	459	1,307	42	123	165	970	400
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
NOM.	51,385	9,985	61,370	2,568	2,648	5,216	19,625	7,408
NPV	16,280	2,213	18,493	814	578	1,392	4,232	1,497

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

AVOIDED GENERATING EMISSION IMPACT
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Load Management Program

	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT	REPLACEMENT EMISSION COST	PROGRAM EMISSION BENEFIT	OFF-PEAK EMISSION PAYBACK COST	NET EMISSION BENEFIT
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	3	0	2
2012	0	0	4	1	3
2013	0	0	18	8	11
2014	0	0	22	9	12
2015	0	0	28	11	17
2016	0	0	34	14	20
2017	0	0	41	16	25
2018	0	0	46	19	27
2019	2,679	3,504	54	21	(791)
2020	4,080	5,284	59	23	(1,168)
2021	4,495	5,827	62	24	(1,294)
2022	5,249	6,789	71	28	(1,497)
2023	5,793	7,488	71	30	(1,654)
2024	6,670	8,600	79	33	(1,885)
2025	7,698	9,897	85	36	(2,151)
2026	8,537	10,910	84	38	(2,327)
2027	9,657	12,324	90	41	(2,618)
2028	10,589	13,491	97	45	(2,850)
2029	12,112	15,374	112	50	(3,200)
2030	13,430	17,036	119	53	(3,540)
2031	14,596	18,502	129	58	(3,835)
2032	16,072	20,332	136	62	(4,186)
2033	18,727	23,676	147	67	(4,869)
2034	20,729	26,184	150	72	(5,378)
2035	22,515	28,453	167	78	(5,849)
2036	24,579	31,055	179	85	(6,381)
2037	26,640	33,649	193	91	(6,906)
2038	28,878	36,470	205	98	(7,485)
2039	31,188	39,437	219	106	(8,136)
2040	33,703	42,612	218	114	(8,805)
2041	36,314	45,907	234	122	(9,481)
2042	36,314	45,907	252	131	(9,473)
2043	36,314	45,907	271	141	(9,463)
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	437,558	554,617	3,678	1,725	(115,106)
NPV	52,977	67,409	592	260	(14,100)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	PARTICIPANT PROGRAM COSTS	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT BENEFITS	AVOIDED T&D BENEFITS	PROGRAM FUEL SAVINGS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	0
2010	515	515	0	0	515	0	0	40	0	40	(475)	(436)
2011	0	1,168	0	0	1,168	0	622	59	2	683	(485)	(845)
2012	0	1,811	0	0	1,811	0	1,247	146	3	1,396	(415)	(1,167)
2013	0	2,062	0	0	2,062	0	1,886	105	11	2,001	(60)	(1,210)
2014	0	2,197	0	0	2,197	0	2,045	122	12	2,179	(19)	(1,222)
2015	0	2,144	0	0	2,144	0	2,204	187	17	2,408	263	(1,064)
2016	0	1,892	0	0	1,892	0	2,365	205	20	2,590	698	(679)
2017	0	1,658	0	0	1,658	0	2,530	240	25	2,795	1,137	(104)
2018	0	1,577	0	0	1,577	0	2,697	252	27	2,975	1,398	546
2019	0	1,459	0	0	1,459	19,272	2,851	430	(791)	21,762	20,303	9,212
2020	0	1,291	0	0	1,291	17,915	2,770	376	(1,168)	19,893	18,602	16,503
2021	0	1,129	0	0	1,129	17,192	2,691	417	(1,294)	19,005	17,875	22,938
2022	0	976	0	0	976	17,087	2,613	467	(1,497)	18,670	17,695	28,788
2023	0	830	0	0	830	17,394	2,537	370	(1,654)	18,648	17,818	34,198
2024	0	765	0	0	765	17,588	2,462	399	(1,885)	18,564	17,800	39,162
2025	0	784	0	0	784	17,555	2,388	389	(2,151)	18,181	17,398	43,617
2026	0	803	0	0	803	17,675	2,315	389	(2,327)	18,051	17,248	47,674
2027	0	823	0	0	823	17,817	2,242	400	(2,618)	17,841	17,017	51,349
2028	0	844	0	0	844	17,733	2,169	410	(2,850)	17,463	16,619	54,646
2029	0	865	0	0	865	18,199	2,097	377	(3,200)	17,472	16,607	57,671
2030	0	887	0	0	887	18,194	2,024	392	(3,540)	17,070	16,184	60,379
2031	0	909	0	0	909	18,058	1,954	404	(3,835)	16,581	15,672	62,787
2032	0	932	0	0	932	18,624	1,890	395	(4,186)	16,722	15,791	65,015
2033	0	955	0	0	955	18,578	1,834	408	(4,869)	15,951	14,996	66,959
2034	0	979	0	0	979	19,443	1,785	410	(5,378)	16,260	15,281	68,777
2035	0	1,003	0	0	1,003	19,736	1,740	428	(5,849)	16,054	15,051	70,422
2036	0	1,028	0	0	1,028	19,552	1,697	449	(6,381)	15,317	14,289	71,857
2037	0	1,054	0	0	1,054	19,970	1,658	463	(6,906)	15,185	14,131	73,160
2038	0	1,080	0	0	1,080	19,403	1,622	475	(7,485)	14,016	12,935	74,255
2039	0	1,107	0	0	1,107	19,066	1,589	492	(8,136)	13,011	11,904	75,180
2040	0	1,533	0	0	1,533	19,893	1,559	497	(8,805)	13,144	11,611	76,009
2041	0	1,571	0	0	1,571	19,699	1,530	517	(9,481)	12,264	10,693	76,711
2042	0	1,611	0	0	1,611	19,354	1,501	539	(9,473)	11,921	10,310	77,332
2043	0	1,356	0	0	1,356	19,412	1,473	570	(9,463)	11,992	10,636	77,920
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

6.41

[illegible]

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

Infinite

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
YEAR													
2009	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	515	216	10	0	741	40	0	0	0	40	(701)	(644)
2011	0	1,168	649	31	0	1,848	59	622	0	2	683	(1,165)	(1,627)
2012	0	1,811	1,082	55	0	2,948	146	1,247	0	3	1,396	(1,552)	(2,829)
2013	0	2,062	1,366	73	0	3,500	105	1,886	0	11	2,001	(1,499)	(3,895)
2014	0	2,197	1,501	85	0	3,783	122	2,045	0	12	2,179	(1,604)	(4,942)
2015	0	2,144	1,636	97	0	3,877	187	2,204	0	17	2,408	(1,469)	(5,824)
2016	0	1,892	1,771	108	0	3,771	205	2,365	0	20	2,590	(1,181)	(6,474)
2017	0	1,658	1,906	121	0	3,684	240	2,530	0	25	2,795	(889)	(6,924)
2018	0	1,577	2,041	133	0	3,751	252	2,697	0	27	2,975	(776)	(7,285)
2019	0	1,459	2,108	142	0	3,710	19,702	2,851	0	(791)	21,762	18,052	420
2020	0	1,291	2,108	143	0	3,542	18,291	2,770	0	(1,168)	19,893	16,351	6,830
2021	0	1,129	2,108	146	0	3,383	17,608	2,691	0	(1,294)	19,005	15,621	12,453
2022	0	976	2,108	150	0	3,234	17,554	2,613	0	(1,497)	18,670	15,436	17,557
2023	0	830	2,108	155	0	3,093	17,764	2,537	0	(1,654)	18,648	15,555	22,279
2024	0	765	2,108	162	0	3,034	17,987	2,462	0	(1,885)	18,564	15,530	26,610
2025	0	784	2,108	167	0	3,059	17,944	2,388	0	(2,151)	18,181	15,122	30,483
2026	0	803	2,108	174	0	3,085	18,064	2,315	0	(2,327)	18,051	14,966	34,002
2027	0	823	2,108	183	0	3,115	18,217	2,242	0	(2,618)	17,841	14,726	37,183
2028	0	844	2,108	191	0	3,143	18,144	2,169	0	(2,850)	17,463	14,320	40,024
2029	0	865	2,108	199	0	3,172	18,575	2,097	0	(3,200)	17,472	14,300	42,629
2030	0	887	2,108	209	0	3,204	18,586	2,024	0	(3,540)	17,070	13,867	44,949
2031	0	909	2,108	219	0	3,235	18,462	1,954	0	(3,835)	16,581	13,346	46,999
2032	0	932	2,108	231	0	3,271	19,018	1,890	0	(4,186)	16,722	13,451	48,898
2033	0	955	2,108	252	0	3,315	18,986	1,834	0	(4,869)	15,951	12,636	50,535
2034	0	979	2,108	257	0	3,344	19,853	1,785	0	(5,378)	16,260	12,916	52,072
2035	0	1,003	2,108	267	0	3,378	20,164	1,740	0	(5,849)	16,054	12,676	53,458
2036	0	1,028	2,108	286	0	3,422	20,001	1,697	0	(6,381)	15,317	11,895	54,652
2037	0	1,054	2,108	301	0	3,463	20,433	1,658	0	(6,906)	15,185	11,721	55,733
2038	0	1,080	2,108	314	0	3,503	19,879	1,622	0	(7,485)	14,016	10,513	56,623
2039	0	1,107	2,108	329	0	3,544	19,558	1,589	0	(8,136)	13,011	9,467	57,359
2040	0	1,533	2,108	344	0	3,985	20,390	1,559	0	(8,805)	13,144	9,159	58,013
2041	0	1,571	2,108	362	0	4,042	20,215	1,530	0	(9,481)	12,264	8,222	58,552
2042	0	1,611	2,108	382	0	4,100	19,893	1,501	0	(9,473)	11,921	7,821	59,023
2043	0	1,356	2,108	403	0	3,867	19,983	1,473	0	(9,463)	11,992	8,125	59,473
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	2.81	

RESIDENTIAL AC TUNE-UP AND MAINTENANCE

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.25 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.34 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	567.99 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.60 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
* (10) UTILITY DISCOUNT RATE	8.89 %
* (11) UTILITY AFUDC RATE	8.48 %
* (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
* (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
* (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012, 2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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: Residential AC Tune-up and Maintenance

[illegible]

* 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 REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	CHARGES	FIXED	CHARGES	FOR
													PROPERTY INSURANCE
													\$(000)
2019	23,391	727	0	1,632	1,077	394	139	912	2	4,884	4,884	4,884	22,812
2020	22,477	698	0	1,569	740	378	143	912	299	4,738	4,352	9,235	23,383
2021	21,266	661	0	1,484	733	361	146	912	252	4,550	3,838	13,073	23,967
2022	20,101	624	0	1,403	725	345	150	912	210	4,369	3,384	16,457	24,566
2023	18,979	590	0	1,324	716	328	154	912	170	4,194	2,983	19,441	25,181
2024	17,897	556	0	1,249	705	312	157	912	133	4,025	2,629	22,070	25,810
2025	16,851	523	0	1,176	693	296	161	912	99	3,861	2,317	24,387	26,455
2026	15,839	492	0	1,105	680	279	165	912	68	3,702	2,040	26,427	27,117
2027	14,859	462	0	1,037	642	263	170	912	63	3,548	1,796	28,222	27,795
2028	13,884	431	0	969	599	246	174	912	63	3,395	1,578	29,800	28,490
2029	12,909	401	0	901	557	230	178	912	63	3,242	1,384	31,184	29,202
2030	11,934	371	0	833	514	214	183	912	63	3,089	1,211	32,394	29,932
2031	10,959	340	0	765	471	197	187	912	63	2,936	1,057	33,451	30,680
2032	9,983	310	0	697	428	181	192	912	63	2,783	920	34,371	31,447
2033	9,008	280	0	629	386	164	197	912	63	2,630	799	35,170	32,233
2034	8,033	250	0	561	343	148	202	912	63	2,478	691	35,861	33,039
2035	7,058	219	0	493	300	131	207	912	63	2,325	595	36,456	33,865
2036	6,083	189	0	425	257	115	212	912	63	2,173	511	36,967	34,712
2037	5,108	159	0	356	215	99	217	912	63	2,021	436	37,404	35,580
2038	4,133	128	0	288	172	82	222	912	63	1,868	371	37,774	36,469
2039	3,157	98	0	220	320	66	228	912	(128)	1,717	313	38,087	37,381
2040	2,373	74	0	166	477	49	234	912	(319)	1,592	266	38,353	38,315
2041	1,780	55	0	124	451	33	240	912	(319)	1,496	230	38,583	39,273
2042	1,186	37	0	83	425	16	246	912	(319)	1,400	198	38,781	40,255
2043	593	18	0	41	399	0	252	912	(319)	1,303	169	38,950	41,261

IN SERVICE COST (\$000)	22,812
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} =$$

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential AC Tune-up and Maintenance

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	832	832	912	912	827	827	2	2,129	0	0	0	2	(577)
2020	7.22%	1,601	2,433	912	1,825	827	1,655	299	2,129	0	0	0	299	(279)
2021	6.68%	1,481	3,915	912	2,737	827	2,481	252	2,129	0	0	0	252	(26)
2022	6.18%	1,371	5,286	912	3,650	827	3,309	210	2,129	0	0	0	210	183
2023	5.71%	1,267	6,553	912	4,562	827	4,137	170	2,129	0	0	0	170	353
2024	5.29%	1,172	7,725	912	5,475	827	4,964	133	2,129	0	0	0	133	486
2025	4.89%	1,084	8,810	912	6,387	827	5,791	99	2,129	0	0	0	99	585
2026	4.52%	1,003	9,813	912	7,300	827	6,619	68	2,129	0	0	0	68	653
2027	4.46%	990	10,803	912	8,212	827	7,446	63	2,129	0	0	0	63	716
2028	4.46%	990	11,792	912	9,125	827	8,273	63	2,129	0	0	0	63	779
2029	4.46%	990	12,782	912	10,037	827	9,101	63	2,129	0	0	0	63	841
2030	4.46%	990	13,772	912	10,950	827	9,928	63	2,129	0	0	0	63	904
2031	4.46%	990	14,762	912	11,862	827	10,755	63	2,129	0	0	0	63	967
2032	4.46%	990	15,751	912	12,775	827	11,583	63	2,129	0	0	0	63	1,029
2033	4.46%	990	16,741	912	13,687	827	12,410	63	2,129	0	0	0	63	1,092
2034	4.46%	990	17,731	912	14,600	827	13,237	63	2,129	0	0	0	63	1,154
2035	4.46%	990	18,720	912	15,512	827	14,065	63	2,129	0	0	0	63	1,217
2036	4.46%	990	19,710	912	16,425	827	14,892	63	2,129	0	0	0	63	1,280
2037	4.46%	990	20,700	912	17,337	827	15,719	63	2,129	0	0	0	63	1,342
2038	4.46%	990	21,690	912	18,250	827	16,546	63	2,129	0	0	0	63	1,405
2039	2.23%	495	22,184	912	19,162	827	17,374	(128)	2,129	0	0	0	(128)	1,277
2040	0.00%	0	22,184	912	20,075	827	18,201	(319)	2,129	0	0	0	(319)	958
2041	0.00%	0	22,184	912	20,987	827	19,028	(319)	2,129	0	0	0	(319)	639
2042	0.00%	0	22,184	912	21,900	827	19,856	(319)	2,129	0	0	0	(319)	319
2043	0.00%	0	22,184	912	22,812	827	20,683	(319)	2,129	0	0	0	(319)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(579)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	2,129
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential AC Tune-up and Maintenance

(1)	(2)	(3)	(4)	(5) END OF YEAR NET	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	832	2	21,900	912	(577)	23,391	22,477	22,934
2020	7.22%	1,601	299	20,987	1,825	(279)	22,477	21,266	21,871
2021	6.68%	1,481	252	20,075	2,737	(26)	21,266	20,101	20,684
2022	6.18%	1,371	210	19,162	3,650	183	20,101	18,979	19,540
2023	5.71%	1,267	170	18,250	4,562	353	18,979	17,897	18,438
2024	5.29%	1,172	133	17,337	5,475	486	17,897	16,851	17,374
2025	4.89%	1,084	99	16,425	6,387	585	16,851	15,839	16,345
2026	4.52%	1,003	68	15,512	7,300	653	15,839	14,859	15,349
2027	4.46%	990	63	14,600	8,212	716	14,859	13,884	14,372
2028	4.46%	990	63	13,687	9,125	779	13,884	12,909	13,396
2029	4.46%	990	63	12,775	10,037	841	12,909	11,934	12,421
2030	4.46%	990	63	11,862	10,950	904	11,934	10,959	11,446
2031	4.46%	990	63	10,950	11,862	967	10,959	9,983	10,471
2032	4.46%	990	63	10,037	12,775	1,029	9,983	9,008	9,496
2033	4.46%	990	63	9,125	13,687	1,092	9,008	8,033	8,521
2034	4.46%	990	63	8,212	14,600	1,154	8,033	7,058	7,546
2035	4.46%	990	63	7,300	15,512	1,217	7,058	6,083	6,570
2036	4.46%	990	63	6,387	16,425	1,280	6,083	5,108	5,595
2037	4.46%	990	63	5,475	17,337	1,342	5,108	4,133	4,620
2038	4.46%	990	63	4,562	18,250	1,405	4,133	3,157	3,645
2039	2.23%	495	(128)	3,650	19,162	1,277	3,157	2,373	2,765
2040	0.00%	0	(319)	2,737	20,075	958	2,373	1,780	2,076
2041	0.00%	0	(319)	1,825	20,987	639	1,780	1,186	1,483
2042	0.00%	0	(319)	912	21,900	319	1,186	593	890
2043	0.00%	0	(319)	0	22,812	0	593	0	296

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.50%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASH	19,452	19,452	19,452		
EQUITY AFUDC	2,129				
DEBT AFUDC	1,231	1,231			
CPI			2,732		
TOTAL	22,812	20,683	22,184		

* Column not specified in workbook

INPUT DATA – PART 2
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	5.79	9.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	5,436	5,436	6.35	8.64	6.58	0.00	1.00	1.00
2012	11,449	11,449	6.43	8.62	6.63	0.00	1.00	1.00
2013	18,096	18,096	7.06	8.53	7.20	0.00	1.00	1.00
2014	25,434	25,434	7.53	8.80	7.67	0.00	1.00	1.00
2015	33,527	33,527	8.11	9.77	8.29	0.00	1.00	1.00
2016	42,440	42,440	9.00	11.78	9.28	0.00	1.00	1.00
2017	52,246	52,246	9.75	12.96	10.02	0.00	1.00	1.00
2018	63,017	63,017	10.52	13.73	10.81	0.00	1.00	1.00
2019	63,017	63,017	11.50	15.53	11.89	10.41	1.00	1.00
2020	63,017	63,017	12.08	16.18	12.51	10.50	1.00	1.00
2021	63,017	63,017	12.57	16.83	13.02	10.74	1.00	1.00
2022	63,017	63,017	13.06	17.52	13.54	10.81	1.00	1.00
2023	63,017	63,017	13.39	17.56	13.86	10.80	1.00	1.00
2024	63,017	63,017	13.95	18.19	14.42	10.84	1.00	1.00
2025	63,017	63,017	14.40	18.66	14.87	10.96	1.00	1.00
2026	63,017	63,017	14.70	18.69	15.15	11.05	1.00	1.00
2027	63,017	63,017	15.13	18.94	15.56	11.17	1.00	1.00
2028	63,017	63,017	15.60	19.36	16.02	11.36	1.00	1.00
2029	63,017	63,017	16.02	19.22	16.40	11.41	1.00	1.00
2030	63,017	63,017	16.52	19.60	16.88	11.59	1.00	1.00
2031	63,017	63,017	17.08	20.24	17.44	11.80	1.00	1.00
2032	63,017	63,017	17.50	19.92	17.81	11.88	1.00	1.00
2033	63,017	63,017	18.27	20.69	18.47	12.10	1.00	1.00
2034	63,017	63,017	18.73	20.28	18.84	12.14	1.00	1.00
2035	63,017	63,017	19.57	21.64	19.72	12.29	1.00	1.00
2036	63,017	63,017	20.40	22.69	20.51	12.55	1.00	1.00
2037	63,017	63,017	21.11	23.18	21.22	12.70	1.00	1.00
2038	63,017	63,017	22.02	24.15	22.14	13.04	1.00	1.00
2039	63,017	63,017	22.78	24.74	22.87	13.32	1.00	1.00
2040	63,017	63,017	23.59	25.27	23.66	13.44	1.00	1.00
2041	63,017	63,017	24.54	26.14	24.60	13.75	1.00	1.00
2042	63,017	63,017	25.50	27.05	25.57	14.10	1.00	1.00
2043	63,017	63,017	26.74	28.95	26.83	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Residential AC Tune-up and Maintenance

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	4,884	2,679	113	6,822	8,630	5,866
2020	4,738	2,746	163	10,050	12,244	5,453
2021	4,550	2,814	171	10,486	12,788	5,233
2022	4,369	2,885	181	11,099	13,332	5,201
2023	4,194	2,957	191	11,668	13,716	5,295
2024	4,025	3,031	203	12,326	14,230	5,354
2025	3,861	3,106	216	13,170	15,010	5,344
2026	3,702	3,184	232	14,074	15,812	5,380
2027	3,548	3,264	245	14,855	16,489	5,423
2028	3,395	3,345	252	15,250	16,844	5,398
2029	3,242	3,429	264	15,892	17,287	5,540
2030	3,089	3,515	278	16,636	17,978	5,538
2031	2,936	3,603	284	16,979	18,304	5,497
2032	2,783	3,693	295	17,578	18,680	5,669
2033	2,630	3,785	325	19,342	20,427	5,655
2034	2,478	3,880	340	20,132	20,911	5,918
2035	2,325	3,977	350	20,590	21,234	6,008
2036	2,173	4,076	361	21,205	21,864	5,952
2037	2,021	4,178	371	21,687	22,178	6,079
2038	1,868	4,282	382	22,228	22,855	5,906
2039	1,717	4,389	392	22,685	23,379	5,804
2040	1,592	4,499	403	23,208	23,646	6,055
2041	1,496	4,612	414	23,717	24,242	5,996
2042	1,400	4,727	425	24,257	24,917	5,891
2043	1,303	4,845	438	24,881	25,558	5,909
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
NOM	74,317	91,498	7,290	430,817	462,556	141,367
NPV	16,624	15,191	1,101	65,937	73,340	25,513

* 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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS	PARTICIPANT PROGRAM COSTS	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT BENEFITS	AVOIDED T&D BENEFITS	PROGRAM FUEL SAVINGS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	456	1,025	0	1,481	0	0	145	1	145	(1,336)	(1,127)
2012	0	517	1,162	0	1,680	0	84	447	2	533	(1,147)	(2,016)
2013	0	586	1,317	0	1,903	0	185	755	61	1,001	(902)	(2,657)
2014	0	663	1,490	0	2,153	0	291	1,137	100	1,527	(626)	(3,066)
2015	0	1,014	2,157	0	3,171	0	408	1,724	150	2,282	(889)	(3,600)
2016	0	1,146	2,438	0	3,583	0	539	2,730	223	3,492	(92)	(3,650)
2017	0	1,293	2,752	0	4,045	0	685	3,756	307	4,747	702	(3,295)
2018	0	1,458	3,102	0	4,560	0	848	4,828	399	6,075	1,515	(2,590)
2019	0	725	1,299	0	2,024	5,866	1,016	6,015	228	13,126	11,102	2,148
2020	0	820	1,469	0	2,289	5,453	987	6,256	151	12,848	10,559	6,287
2021	0	1,204	2,423	0	3,627	5,233	958	6,504	153	12,848	9,221	9,606
2022	0	1,360	2,738	0	4,099	5,201	930	6,777	159	13,068	8,969	12,572
2023	0	1,157	2,415	0	3,572	5,295	904	6,754	152	13,105	9,533	15,466
2024	0	1,309	2,732	0	4,041	5,354	877	6,992	152	13,375	9,334	18,069
2025	0	1,479	3,087	0	4,566	5,344	852	7,160	145	13,500	8,934	20,357
2026	0	1,669	3,484	0	5,153	5,380	827	7,139	130	13,476	8,323	22,315
2027	0	1,465	3,180	0	4,645	5,423	802	7,208	120	13,553	8,908	24,239
2028	0	1,654	3,589	0	5,243	5,398	777	7,357	128	13,660	8,418	25,909
2029	0	1,128	2,022	0	3,150	5,540	753	7,242	127	13,661	10,511	27,823
2030	0	1,273	2,281	0	3,554	5,538	728	7,365	113	13,745	10,191	29,528
2031	0	1,331	2,724	0	4,055	5,497	704	7,601	124	13,925	9,870	31,045
2032	0	1,506	3,084	0	4,590	5,669	680	7,404	122	13,875	9,285	32,355
2033	0	1,703	3,488	0	5,191	5,655	656	7,677	34	14,022	8,832	33,500
2034	0	1,923	3,939	0	5,862	5,918	634	7,433	3	13,988	8,126	34,467
2035	0	1,661	3,535	0	5,196	6,008	614	7,977	(5)	14,594	9,398	35,494
2036	0	1,877	3,995	0	5,872	5,952	595	8,380	(18)	14,908	9,036	36,401
2037	0	2,119	4,509	0	6,628	6,079	578	8,532	(25)	15,163	8,535	37,188
2038	0	2,390	5,082	0	7,472	5,906	562	8,886	(33)	15,321	7,849	37,853
2039	0	1,188	2,128	0	3,316	5,804	550	9,076	(56)	15,373	12,057	38,790
2040	0	1,343	2,407	0	3,751	6,055	539	9,235	(73)	15,756	12,005	39,648
2041	0	1,973	3,971	0	5,944	5,996	528	9,537	(83)	15,979	10,035	40,306
2042	0	2,229	4,487	0	6,716	5,891	518	9,857	129	16,396	9,680	40,889
2043	0	1,896	3,957	0	5,853	5,909	508	10,614	359	17,391	11,538	41,527
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0								

Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)):	2.29	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	3.26	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	456	1,138	163	0	1,758	145	0	0	1	145	(1,612)	(1,360)
2012	0	517	1,256	535	0	2,312	447	84	0	2	533	(1,779)	(2,738)
2013	0	586	1,391	984	0	2,962	755	185	0	61	1,001	(1,961)	(4,133)
2014	0	663	1,536	1,539	0	3,738	1,137	291	0	100	1,527	(2,211)	(5,577)
2015	0	1,014	1,805	2,185	0	5,004	1,724	408	0	150	2,282	(2,722)	(7,210)
2016	0	1,146	1,989	2,910	0	6,045	2,730	539	0	223	3,492	(2,553)	(8,617)
2017	0	1,293	2,189	3,760	0	7,242	3,756	685	0	307	4,747	(2,494)	(9,880)
2018	0	1,458	2,405	4,704	0	8,567	4,828	848	0	399	6,075	(2,492)	(11,038)
2019	0	725	277	5,333	0	6,335	11,881	1,016	0	228	13,126	6,791	(8,140)
2020	0	820	306	5,349	0	6,475	11,710	987	0	151	12,848	6,373	(5,641)
2021	0	1,204	1,363	5,466	0	8,033	11,737	958	0	153	12,848	4,815	(3,908)
2022	0	1,360	1,507	5,624	0	8,491	11,979	930	0	159	13,068	4,577	(2,395)
2023	0	1,157	1,532	5,795	0	8,484	12,049	904	0	152	13,105	4,621	(992)
2024	0	1,309	1,692	6,052	0	9,053	12,346	877	0	152	13,375	4,322	213
2025	0	1,479	1,865	6,269	0	9,614	12,504	852	0	145	13,500	3,887	1,209
2026	0	1,669	2,054	6,521	0	10,245	12,519	827	0	130	13,476	3,232	1,969
2027	0	1,465	2,129	6,862	0	10,456	12,631	802	0	120	13,553	3,097	2,638
2028	0	1,654	2,340	7,141	0	11,135	12,755	777	0	128	13,660	2,526	3,139
2029	0	1,128	337	7,461	0	8,926	12,781	753	0	127	13,661	4,735	4,001
2030	0	1,273	371	7,826	0	9,470	12,904	728	0	113	13,745	4,276	4,717
2031	0	1,331	1,304	8,182	0	10,817	13,097	704	0	124	13,925	3,109	5,194
2032	0	1,506	1,441	8,665	0	11,613	13,073	680	0	122	13,875	2,262	5,514
2033	0	1,703	1,592	9,440	0	12,735	13,332	656	0	34	14,022	1,287	5,680
2034	0	1,923	1,757	9,617	0	13,297	13,351	634	0	3	13,988	691	5,763
2035	0	1,661	1,805	9,996	0	13,462	13,985	614	0	(5)	14,594	1,132	5,886
2036	0	1,877	1,989	10,711	0	14,577	14,331	595	0	(18)	14,908	331	5,920
2037	0	2,119	2,189	11,284	0	15,592	14,611	578	0	(25)	15,163	(429)	5,880
2038	0	2,390	2,405	11,775	0	16,570	14,792	562	0	(33)	15,321	(1,249)	5,774
2039	0	1,188	277	12,315	0	13,780	14,880	550	0	(56)	15,373	1,593	5,898
2040	0	1,343	306	12,888	0	14,538	15,290	539	0	(73)	15,756	1,218	5,985
2041	0	1,973	1,363	13,570	0	16,906	15,533	528	0	(83)	15,979	(928)	5,924
2042	0	2,229	1,507	14,297	0	18,032	15,748	518	0	129	16,396	(1,637)	5,826
2043	0	1,896	1,532	15,073	0	18,502	16,524	508	0	359	17,391	(1,111)	5,764
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	45,518	48,951	240,294	0	334,764	351,865	21,117	0	3,479	376,461	41,696	
NPV	0	10,464	14,434	43,131	0	68,029	67,141	5,427	0	1,224	73,793	5,764	

Discount Rate

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89	%
1.08	

RESIDENTIAL REFRIGERATOR REPLACEMENT

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Refrigerator Replacement

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.03 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.04 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	107.41 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2019/2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0
2011	897	1,570	0	2,467	116	2,125	2,125	0	0	2,125
2012	1,263	2,157	0	3,420	413	0	2,993	0	0	2,993
2013	1,723	2,872	0	4,595	845	0	4,083	0	0	4,083
2014	2,267	3,685	0	5,952	1,466	0	5,372	0	0	5,372
2015	1,606	2,547	0	4,153	2,104	0	3,805	0	0	3,805
2016	0	0	0	0	2,415	0	0	0	0	0
2017	0	0	0	0	2,503	0	0	0	0	0
2018	0	0	0	0	2,572	0	0	0	0	0
2019	0	0	0	0	2,667	0	0	0	0	0
2020	0	0	0	0	2,675	0	0	0	0	0
2021	0	0	0	0	2,733	0	0	0	0	0
2022	0	0	0	0	2,813	0	0	0	0	0
2023	0	0	0	0	2,898	0	0	0	0	0
2024	0	0	0	0	3,026	0	0	0	0	0
2025	1,267	1,570	0	2,837	3,135	0	3,003	0	0	3,003
2026	1,784	2,157	0	3,941	3,261	0	4,229	0	0	4,229
2027	2,435	2,872	0	5,306	3,432	0	5,770	0	0	5,770
2028	3,203	3,685	0	6,888	3,571	0	7,590	0	0	7,590
2029	2,269	2,547	0	4,816	3,731	0	5,377	0	0	5,377
2030	0	0	0	0	3,913	0	0	0	0	0
2031	0	0	0	0	4,092	0	0	0	0	0
2032	0	0	0	0	4,333	0	0	0	0	0
2033	0	0	0	0	4,721	0	0	0	0	0
2034	0	0	0	0	4,809	0	0	0	0	0
2035	0	0	0	0	4,999	0	0	0	0	0
2036	0	0	0	0	5,356	0	0	0	0	0
2037	0	0	0	0	5,643	0	0	0	0	0
2038	0	0	0	0	5,888	0	0	0	0	0
2039	1,790	1,570	0	3,360	6,158	0	4,243	0	0	4,243
2040	2,521	2,157	0	4,678	6,445	0	5,975	0	0	5,975
2041	3,440	2,872	0	6,312	6,786	0	8,153	0	0	8,153
2042	4,526	3,685	0	8,211	7,149	0	10,725	0	0	10,725
2043	3,206	2,547	0	5,753	7,538	0	7,598	0	0	7,598
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	34,197	38,493	0	72,690	124,203	0	81,039	0	0	81,039
NPV	8,718	12,526	0	21,244	23,967	0	20,660	0	0	20,660

* 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 REQ
PROGRAM NAME: Residential Refrigerator Replacement

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,865	244	0	549	362	133	47	307	1	1,642	1,642	1,642	7,670
2020	7,557	235	0	527	249	127	48	307	100	1,593	1,463	3,105	7,862
2021	7,150	222	0	499	247	121	49	307	85	1,530	1,290	4,395	8,058
2022	6,758	210	0	472	244	116	50	307	71	1,469	1,138	5,533	8,260
2023	6,381	198	0	445	241	110	52	307	57	1,410	1,003	6,536	8,466
2024	6,017	187	0	420	237	105	53	307	45	1,353	884	7,420	8,678
2025	5,666	176	0	395	233	99	54	307	33	1,298	779	8,199	8,895
2026	5,326	165	0	372	229	94	56	307	23	1,245	686	8,885	9,117
2027	4,996	155	0	349	216	88	57	307	21	1,193	604	9,489	9,345
2028	4,668	145	0	326	202	83	58	307	21	1,141	530	10,019	9,579
2029	4,340	135	0	303	187	77	60	307	21	1,090	465	10,485	9,818
2030	4,012	125	0	280	173	72	61	307	21	1,038	407	10,892	10,064
2031	3,685	114	0	257	158	66	63	307	21	987	355	11,247	10,315
2032	3,357	104	0	234	144	61	64	307	21	936	309	11,556	10,573
2033	3,029	94	0	211	130	55	66	307	21	884	269	11,825	10,838
2034	2,701	84	0	188	115	50	68	307	21	833	232	12,057	11,109
2035	2,373	74	0	166	101	44	69	307	21	782	200	12,257	11,386
2036	2,045	64	0	143	87	39	71	307	21	731	172	12,429	11,671
2037	1,717	53	0	120	72	33	73	307	21	679	147	12,576	11,963
2038	1,389	43	0	97	58	28	75	307	21	628	125	12,701	12,262
2039	1,062	33	0	74	108	22	77	307	(43)	577	105	12,806	12,568
2040	798	25	0	56	160	17	79	307	(107)	535	90	12,895	12,882
2041	598	19	0	42	152	11	81	307	(107)	503	77	12,973	13,205
2042	399	12	0	28	143	6	83	307	(107)	471	66	13,039	13,535
2043	199	6	0	14	134	(0)	85	307	(107)	438	57	13,096	13,873

IN SERVICE COST (\$000)	7,670
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} =$$

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Refrigerator Replacement

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	280	280	307	307	278	278	1	716	0	0	0	1	(194)
2020	7.22%	538	818	307	614	278	556	100	716	0	0	0	100	(84)
2021	6.68%	498	1,316	307	920	278	834	85	716	0	0	0	85	(9)
2022	6.18%	461	1,777	307	1,227	278	1,113	71	716	0	0	0	71	62
2023	5.71%	426	2,203	307	1,534	278	1,391	57	716	0	0	0	57	119
2024	5.29%	394	2,597	307	1,841	278	1,669	45	716	0	0	0	45	164
2025	4.89%	365	2,962	307	2,148	278	1,947	33	716	0	0	0	33	197
2026	4.52%	337	3,299	307	2,454	278	2,225	23	716	0	0	0	23	220
2027	4.46%	333	3,632	307	2,761	278	2,503	21	716	0	0	0	21	241
2028	4.46%	333	3,965	307	3,068	278	2,782	21	716	0	0	0	21	262
2029	4.46%	333	4,298	307	3,375	278	3,060	21	716	0	0	0	21	283
2030	4.46%	333	4,630	307	3,682	278	3,338	21	716	0	0	0	21	304
2031	4.46%	333	4,963	307	3,988	278	3,616	21	716	0	0	0	21	325
2032	4.46%	333	5,296	307	4,295	278	3,894	21	716	0	0	0	21	346
2033	4.46%	333	5,629	307	4,602	278	4,172	21	716	0	0	0	21	367
2034	4.46%	333	5,961	307	4,909	278	4,451	21	716	0	0	0	21	388
2035	4.46%	333	6,294	307	5,216	278	4,729	21	716	0	0	0	21	409
2036	4.46%	333	6,627	307	5,522	278	5,007	21	716	0	0	0	21	430
2037	4.46%	333	6,960	307	5,829	278	5,285	21	716	0	0	0	21	451
2038	4.46%	333	7,293	307	6,136	278	5,563	21	716	0	0	0	21	472
2039	2.23%	166	7,459	307	6,443	278	5,841	(43)	716	0	0	0	(43)	429
2040	0.00%	0	7,459	307	6,750	278	6,120	(107)	716	0	0	0	(107)	322
2041	0.00%	0	7,459	307	7,056	278	6,398	(107)	716	0	0	0	(107)	215
2042	0.00%	0	7,459	307	7,363	278	6,676	(107)	716	0	0	0	(107)	107
2043	0.00%	0	7,459	307	7,670	278	6,954	(107)	716	0	0	0	(107)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(195)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	716
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Refrigerator Replacement

(1)	(2)	(3)	(4)	(5) END OF YEAR NET	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	280	1	7,363	307	(194)	7,865	7,557	7,711
2020	7.22%	538	100	7,056	614	(94)	7,557	7,150	7,354
2021	6.68%	498	85	6,750	920	(9)	7,150	6,758	6,954
2022	6.18%	461	71	6,443	1,227	62	6,758	6,381	6,570
2023	5.71%	426	57	6,136	1,534	119	6,381	6,017	6,199
2024	5.29%	394	45	5,829	1,841	164	6,017	5,666	5,842
2025	4.89%	365	33	5,522	2,148	197	5,666	5,326	5,496
2026	4.52%	337	23	5,216	2,454	220	5,326	4,996	5,161
2027	4.46%	333	21	4,909	2,761	241	4,996	4,668	4,832
2028	4.46%	333	21	4,602	3,068	262	4,668	4,340	4,504
2029	4.46%	333	21	4,295	3,375	283	4,340	4,012	4,176
2030	4.46%	333	21	3,988	3,682	304	4,012	3,685	3,848
2031	4.46%	333	21	3,682	3,988	325	3,685	3,357	3,521
2032	4.46%	333	21	3,375	4,295	346	3,357	3,029	3,193
2033	4.46%	333	21	3,068	4,602	367	3,029	2,701	2,865
2034	4.46%	333	21	2,761	4,909	388	2,701	2,373	2,537
2035	4.46%	333	21	2,454	5,216	409	2,373	2,045	2,209
2036	4.46%	333	21	2,148	5,522	430	2,045	1,717	1,881
2037	4.46%	333	21	1,841	5,829	451	1,717	1,389	1,553
2038	4.46%	333	21	1,534	6,136	472	1,389	1,062	1,226
2039	2.23%	166	(43)	1,227	6,443	429	1,062	798	930
2040	0.00%	0	(107)	920	6,750	322	798	598	698
2041	0.00%	0	(107)	614	7,056	215	598	399	499
2042	0.00%	0	(107)	307	7,363	107	399	199	299
2043	0.00%	0	(107)	(0)	7,670	0	199	0	100

* Column not specified in workbook

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO.YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	6,540	6,540	6,540
EQUITY AFUDC	716		
DEBT AFUDC	414	414	
CPI			919
TOTAL	7,670	6,954	7,459

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Refrigerator Replacement

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	20,390	20,390	6.35	7.80	6.84	0.00	1.00	1.00
2012	48,404	48,404	6.43	7.77	6.88	0.00	1.00	1.00
2013	85,696	85,696	7.06	7.94	7.38	0.00	1.00	1.00
2014	133,558	133,558	7.53	8.28	7.80	0.00	1.00	1.00
2015	166,636	166,636	8.11	9.05	8.45	0.00	1.00	1.00
2016	166,636	166,636	9.00	10.60	9.54	0.00	1.00	1.00
2017	166,636	166,636	9.75	11.58	10.34	0.00	1.00	1.00
2018	166,636	166,636	10.52	12.42	11.15	0.00	1.00	1.00
2019	166,636	166,636	11.50	13.91	12.32	10.41	1.00	1.00
2020	166,636	166,636	12.08	14.53	12.95	10.50	1.00	1.00
2021	166,636	166,636	12.57	15.14	13.47	10.74	1.00	1.00
2022	166,636	166,636	13.06	15.56	13.94	10.81	1.00	1.00
2023	166,636	166,636	13.39	15.66	14.23	10.80	1.00	1.00
2024	166,636	166,636	13.95	16.25	14.81	10.84	1.00	1.00
2025	166,636	166,636	14.40	16.69	15.26	10.96	1.00	1.00
2026	166,636	166,636	14.70	16.87	15.52	11.05	1.00	1.00
2027	166,636	166,636	15.13	17.12	15.90	11.17	1.00	1.00
2028	166,636	166,636	15.60	17.50	16.35	11.36	1.00	1.00
2029	166,636	166,636	16.02	17.67	16.70	11.41	1.00	1.00
2030	166,636	166,636	16.52	18.12	17.18	11.59	1.00	1.00
2031	166,636	166,636	17.08	18.72	17.74	11.80	1.00	1.00
2032	166,636	166,636	17.50	18.78	18.05	11.88	1.00	1.00
2033	166,636	166,636	18.27	19.48	18.72	12.10	1.00	1.00
2034	166,636	166,636	18.73	19.53	19.02	12.14	1.00	1.00
2035	166,636	166,636	19.57	20.59	19.94	12.29	1.00	1.00
2036	166,636	166,636	20.40	21.53	20.75	12.55	1.00	1.00
2037	166,636	166,636	21.11	22.14	21.43	12.70	1.00	1.00
2038	166,636	166,636	22.02	23.06	22.36	13.04	1.00	1.00
2039	166,636	166,636	22.78	23.75	23.08	13.32	1.00	1.00
2040	166,636	166,636	23.59	24.42	23.86	13.44	1.00	1.00
2041	166,636	166,636	24.54	25.36	24.79	13.75	1.00	1.00
2042	166,636	166,636	25.50	26.30	25.75	14.10	1.00	1.00
2043	166,636	166,636	26.74	27.84	27.07	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Residential Refrigerator Replacement

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	1,642	901	38	2,294	2,902	1,972
2020	1,593	923	55	3,379	4,117	1,833
2021	1,530	946	57	3,526	4,300	1,760
2022	1,469	970	61	3,732	4,483	1,749
2023	1,410	994	64	3,923	4,611	1,780
2024	1,353	1,019	68	4,144	4,785	1,800
2025	1,298	1,044	73	4,428	5,047	1,797
2026	1,245	1,071	78	4,732	5,316	1,809
2027	1,193	1,097	82	4,995	5,544	1,824
2028	1,141	1,125	85	5,127	5,663	1,815
2029	1,090	1,153	89	5,343	5,812	1,863
2030	1,038	1,182	93	5,593	6,045	1,862
2031	987	1,211	96	5,709	6,154	1,848
2032	936	1,242	99	5,910	6,281	1,906
2033	884	1,273	109	6,503	6,868	1,901
2034	833	1,304	114	6,769	7,031	1,990
2035	782	1,337	118	6,923	7,139	2,020
2036	731	1,370	122	7,130	7,351	2,001
2037	679	1,405	125	7,292	7,457	2,044
2038	628	1,440	128	7,474	7,684	1,986
2039	577	1,476	132	7,627	7,861	1,951
2040	535	1,513	135	7,803	7,950	2,036
2041	503	1,551	139	7,974	8,151	2,016
2042	471	1,589	143	8,156	8,378	1,981
2043	438	1,629	147	8,366	8,593	1,987
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
NOM	24,987	30,764	2,451	144,851	155,522	47,531
NPV	5,590	5,108	370	22,169	24,659	8,578

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
YEAR	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	90	0
2012	34	3	37	3	1	4	303	0
2013	81	12	93	7	2	8	592	0
2014	144	18	163	12	3	15	1,004	0
2015	227	24	250	19	5	24	1,506	0
2016	281	24	305	23	6	30	1,987	0
2017	272	25	296	23	7	29	2,176	0
2018	262	25	287	22	7	29	2,331	0
2019	253	26	279	21	7	28	2,625	0
2020	244	27	270	20	7	27	2,738	0
2021	235	27	263	20	7	27	2,856	0
2022	227	28	255	19	7	26	2,927	0
2023	219	29	247	18	8	26	2,932	0
2024	211	29	240	18	8	25	3,040	0
2025	202	30	233	17	8	25	3,117	0
2026	194	31	225	16	8	24	3,141	0
2027	186	32	218	15	8	24	3,178	0
2028	178	32	210	15	9	24	3,241	0
2029	170	33	203	14	9	23	3,256	0
2030	162	34	196	13	9	23	3,334	0
2031	153	35	188	13	9	22	3,443	0
2032	145	36	181	12	10	22	3,434	0
2033	138	37	174	11	10	21	3,554	0
2034	131	38	168	11	10	21	3,540	0
2035	125	39	163	10	10	21	3,744	0
2036	119	40	159	10	11	21	3,918	0
2037	115	41	156	10	11	20	4,021	0
2038	111	42	152	9	11	20	4,187	0
2039	107	43	149	9	11	20	4,306	0
2040	102	44	146	9	12	20	4,418	0
2041	98	45	143	8	12	20	4,585	0
2042	94	46	140	8	12	20	4,752	0
2043	90	47	137	7	13	20	5,045	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	5,309	1,018	6,327	442	268	710	99,321	0
NPV	1,604	221	1,825	134	56	190	20,455	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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Discount Rate:
Benefit/Cost Ratio (Col(11) / Col(6)) :

1.11

(1)	(2)	(3)	(4)	(5)	(5)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS BILLS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0	0
2011	153	0	1,570	0	1,723	2,125	0	0	2,125	(402)	(339)
2012	543	0	2,157	0	2,700	2,993	0	0	2,993	(293)	(566)
2013	1,112	0	2,872	0	3,983	4,083	0	0	4,083	(100)	(637)
2014	1,928	0	3,685	0	5,614	5,372	0	0	5,372	242	(479)
2015	2,768	0	2,547	0	5,315	3,805	426	0	3,805	1,509	426
2016	3,177	0	0	0	3,177	0	0	0	0	3,177	2,177
2017	3,293	0	0	0	3,293	0	0	0	0	3,293	3,843
2018	3,384	0	0	0	3,384	0	0	0	0	3,384	5,416
2019	3,509	0	0	0	3,509	0	0	0	0	3,509	6,914
2020	3,520	0	0	0	3,520	0	0	0	0	3,520	8,293
2021	3,596	0	0	0	3,596	0	0	0	0	3,596	9,588
2022	3,701	0	0	0	3,701	0	0	0	0	3,701	10,812
2023	3,813	0	0	0	3,813	0	0	0	0	3,813	11,969
2024	3,982	0	0	0	3,982	0	0	0	0	3,982	13,080
2025	4,125	0	1,570	0	5,695	3,003	0	0	3,003	2,692	13,769
2026	4,291	0	2,157	0	6,448	4,229	0	0	4,229	2,219	14,291
2027	4,515	0	2,872	0	7,387	5,770	0	0	5,770	1,617	14,640
2028	4,699	0	3,685	0	8,384	7,590	0	0	7,590	794	14,798
2029	4,909	0	2,547	0	7,456	5,377	0	0	5,377	2,079	15,177
2030	5,149	0	0	0	5,149	0	0	0	0	5,149	16,038
2031	5,384	0	0	0	5,384	0	0	0	0	5,384	16,865
2032	5,702	0	0	0	5,702	0	0	0	0	5,702	17,670
2033	6,212	0	0	0	6,212	0	0	0	0	6,212	18,475
2034	6,328	0	0	0	6,328	0	0	0	0	6,328	19,228
2035	6,577	0	0	0	6,577	0	0	0	0	6,577	19,947
2036	7,048	0	0	0	7,048	0	0	0	0	7,048	20,654
2037	7,425	0	0	0	7,425	0	0	0	0	7,425	21,339
2038	7,748	0	0	0	7,748	0	0	0	0	7,748	21,995
2039	8,103	0	1,570	0	9,673	4,243	0	0	4,243	5,430	22,417
2040	8,480	0	2,157	0	10,637	5,975	0	0	5,975	4,663	22,750
2041	8,929	0	2,872	0	11,800	8,153	0	0	8,153	3,648	22,989
2042	9,407	0	3,685	0	13,092	10,725	0	0	10,725	2,368	23,132
2043	9,918	0	2,547	0	12,465	7,598	0	0	7,598	4,868	23,401
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	163,425	0	38,493	0	201,918	81,039	0	0	81,039	120,879	
NPV	31,536	0	12,526	0	44,061	20,660	0	0	20,660	23,401	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

2.13

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BUSINESS HEATING, VENTILATING AND AIR CONDITIONING

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	1.03 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.37 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	4,904.66 kWh ****
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	382.02 kWh ****

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
^ (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
^ (11) UTILITY AFUDC RATE	8.48 %
^ (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

**** THIS IS A LOAD SHIFTING PROGRAM. VALUE SHOWN IN ITEM (4) IS ANNUAL KWH/CUST SHIFTED AWAY FROM PEAK HRS. VALUE SHOWN IN ITEM (7) IS ANNUAL KWH/CUST THAT IS PAID BACK DURING OFF-PEAK.

* INPUT DATA - PART I CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

[illegible]

* 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 REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
YEAR													
2019	293,266	9,110	0	20,466	13,501	4,942	1,745	11,440	22	61,227	61,227	61,227	286,008
2020	281,803	8,754	0	19,666	9,277	4,736	1,788	11,440	3,744	59,406	54,558	115,785	293,158
2021	266,619	8,282	0	18,607	9,193	4,530	1,833	11,440	3,162	57,048	48,116	163,901	300,487
2022	252,016	7,829	0	17,588	9,086	4,324	1,879	11,440	2,629	54,775	42,429	206,330	307,999
2023	237,947	7,392	0	16,606	8,971	4,119	1,926	11,440	2,128	52,581	37,405	243,734	315,699
2024	224,378	6,970	0	15,659	8,835	3,913	1,974	11,440	1,669	50,460	32,966	276,701	323,592
2025	211,269	6,563	0	14,744	8,687	3,707	2,023	11,440	1,243	48,407	29,044	305,745	331,681
2026	198,586	6,169	0	13,859	8,524	3,501	2,074	11,440	850	46,417	25,577	331,321	339,974
2027	186,295	5,787	0	13,001	8,049	3,295	2,126	11,440	786	44,484	22,511	353,833	348,473
2028	174,069	5,407	0	12,148	7,515	3,089	2,179	11,440	785	42,563	19,781	373,614	357,185
2029	161,844	5,028	0	11,295	6,978	2,883	2,233	11,440	786	40,642	17,347	390,961	366,114
2030	149,617	4,648	0	10,441	6,443	2,677	2,289	11,440	785	38,723	15,179	406,140	375,267
2031	137,392	4,268	0	9,588	5,906	2,471	2,346	11,440	786	36,806	13,250	419,390	384,649
2032	125,166	3,888	0	8,735	5,371	2,265	2,405	11,440	785	34,890	11,535	430,925	394,265
2033	112,941	3,508	0	7,882	4,834	2,059	2,465	11,440	786	32,975	10,012	440,937	404,122
2034	100,714	3,129	0	7,029	4,300	1,853	2,527	11,440	785	31,062	8,662	449,599	414,225
2035	88,489	2,749	0	6,175	3,763	1,647	2,590	11,440	786	29,151	7,465	457,064	424,580
2036	76,263	2,369	0	5,322	3,228	1,441	2,655	11,440	785	27,241	6,407	463,471	435,195
2037	64,038	1,989	0	4,469	2,691	1,236	2,721	11,440	786	25,332	5,472	468,942	446,075
2038	51,811	1,609	0	3,616	2,156	1,030	2,789	11,440	785	23,426	4,647	473,589	457,227
2039	39,586	1,230	0	2,763	4,013	824	2,859	11,440	(1,608)	21,521	3,921	477,510	468,657
2040	29,753	924	0	2,076	5,976	618	2,930	11,440	(4,001)	19,964	3,340	480,850	480,374
2041	22,314	693	0	1,557	5,650	412	3,004	11,440	(4,001)	18,755	2,882	483,731	492,383
2042	14,875	462	0	1,038	5,324	206	3,079	11,440	(4,001)	17,548	2,476	486,208	504,693
2043	7,436	231	0	519	4,998	0	3,156	11,440	(4,001)	16,342	2,118	488,325	517,310

IN SERVICE COST (\$000)	286,008
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03
P/S	0%	0.00
C/S	56%	12.50

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Heating, Ventilating and Air-C

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	10,430	10,430	11,440	11,440	10,372	10,372	22	26,696	0	0	0	22	(7,236)
2020	7.22%	20,078	30,508	11,440	22,881	10,372	20,745	3,744	26,696	0	0	0	3,744	(3,492)
2021	6.68%	18,571	49,078	11,440	34,321	10,372	31,117	3,162	26,696	0	0	0	3,162	(329)
2022	6.18%	17,188	66,267	11,440	45,761	10,372	41,490	2,629	26,696	0	0	0	2,629	2,300
2023	5.71%	15,889	82,156	11,440	57,202	10,372	51,862	2,128	26,696	0	0	0	2,128	4,428
2024	5.29%	14,699	96,855	11,440	68,642	10,372	62,235	1,669	26,696	0	0	0	1,669	6,097
2025	4.89%	13,595	110,450	11,440	80,082	10,372	72,607	1,243	26,696	0	0	0	1,243	7,340
2026	4.52%	12,577	123,027	11,440	91,523	10,372	82,980	850	26,696	0	0	0	850	8,190
2027	4.46%	12,410	135,437	11,440	102,963	10,372	93,352	786	26,696	0	0	0	786	8,976
2028	4.46%	12,407	147,844	11,440	114,403	10,372	103,725	785	26,696	0	0	0	785	9,761
2029	4.46%	12,410	160,254	11,440	125,843	10,372	114,097	786	26,696	0	0	0	786	10,547
2030	4.46%	12,407	172,661	11,440	137,284	10,372	124,470	785	26,696	0	0	0	785	11,332
2031	4.46%	12,410	185,071	11,440	148,724	10,372	134,842	786	26,696	0	0	0	786	12,118
2032	4.46%	12,407	197,478	11,440	160,164	10,372	145,215	785	26,696	0	0	0	785	12,903
2033	4.46%	12,410	209,889	11,440	171,605	10,372	155,587	786	26,696	0	0	0	786	13,689
2034	4.46%	12,407	222,296	11,440	183,045	10,372	165,960	785	26,696	0	0	0	785	14,474
2035	4.46%	12,410	234,706	11,440	194,485	10,372	176,332	786	26,696	0	0	0	786	15,260
2036	4.46%	12,407	247,113	11,440	205,926	10,372	186,705	785	26,696	0	0	0	785	16,045
2037	4.46%	12,410	259,523	11,440	217,366	10,372	197,077	786	26,696	0	0	0	786	16,831
2038	4.46%	12,407	271,930	11,440	228,806	10,372	207,450	785	26,696	0	0	0	785	17,616
2039	2.23%	6,205	278,135	11,440	240,247	10,372	217,822	(1,608)	26,696	0	0	0	(1,608)	16,008
2040	0.00%	0	278,135	11,440	251,687	10,372	228,195	(4,001)	26,696	0	0	0	(4,001)	12,007
2041	0.00%	0	278,135	11,440	263,127	10,372	238,567	(4,001)	26,696	0	0	0	(4,001)	8,006
2042	0.00%	0	278,135	11,440	274,568	10,372	248,940	(4,001)	26,696	0	0	0	(4,001)	4,004
2043	0.00%	0	278,135	11,440	286,008	10,372	259,312	(4,001)	26,696	0	0	0	(4,001)	3

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(7,258)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	26,696
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Heating, Ventilation and Air-Conditioning

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	10,430	22	274,568	11,440	(7,236)	293,266	281,803	287,535
2020	7.22%	20,078	3,744	263,127	22,881	(3,492)	281,803	266,619	274,211
2021	6.68%	18,571	3,162	251,687	34,321	(329)	266,619	252,016	259,318
2022	6.18%	17,188	2,629	240,247	45,761	2,300	252,016	237,947	244,982
2023	5.71%	15,889	2,128	228,806	57,202	4,428	237,947	224,378	231,163
2024	5.29%	14,699	1,669	217,366	68,642	6,097	224,378	211,269	217,824
2025	4.89%	13,595	1,243	205,926	80,082	7,340	211,269	198,586	204,928
2026	4.52%	12,577	850	194,485	91,523	8,190	198,586	186,295	192,441
2027	4.46%	12,410	786	183,045	102,963	8,976	186,295	174,069	180,182
2028	4.46%	12,407	785	171,605	114,403	9,761	174,069	161,844	167,956
2029	4.46%	12,410	786	160,164	125,843	10,547	161,844	149,617	155,731
2030	4.46%	12,407	785	148,724	137,284	11,332	149,617	137,392	143,505
2031	4.46%	12,410	786	137,284	148,724	12,118	137,392	125,166	131,279
2032	4.46%	12,407	785	125,843	160,164	12,903	125,166	112,941	119,053
2033	4.46%	12,410	786	114,403	171,605	13,689	112,941	100,714	106,827
2034	4.46%	12,407	785	102,963	183,045	14,474	100,714	88,489	94,602
2035	4.46%	12,410	786	91,523	194,485	15,260	88,489	76,263	82,376
2036	4.46%	12,407	785	80,082	205,926	16,045	76,263	64,038	70,150
2037	4.46%	12,410	786	68,642	217,366	16,831	64,038	51,811	57,924
2038	4.46%	12,407	785	57,202	228,806	17,616	51,811	39,586	45,699
2039	2.23%	6,205	(1,608)	45,761	240,247	16,008	39,586	29,753	34,670
2040	0.00%	0	(4,001)	34,321	251,687	12,007	29,753	22,314	26,034
2041	0.00%	0	(4,001)	22,881	263,127	8,006	22,314	14,875	18,595
2042	0.00%	0	(4,001)	11,440	274,568	4,004	14,875	7,436	11,155
2043	0.00%	0	(4,001)	0	286,008	3	7,436	-3	3,716

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

				100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)			
	NO. YEARS	CUMULATIVE	DEBT	CUMULATIVE	YEARLY	CUMULATIVE	CONSTRUCTION			CUMULATIVE	DEFERRED	CUMULATIVE	INCREMENTAL	CUMULATIVE	
	BEFORE	WITH AFUDC	AFUDC	DEBT	TOTAL	TOTAL	PERIOD			CUMULATIVE	TAXES	DEFERRED	YEAR-END	YEAR-END	
YEAR	IN-SERVICE	(\$/k W)	(\$/k W)	AFUDC	AFUDC	AFUDC	INTEREST			CPI	TAXES	TAXES	BOOK VALUE	BOOK VALUE	
				(\$/k W)	(\$/k W)	(\$/k W)	(\$/k W)			(\$/k W)	(\$/k W)	(\$/k W)	(\$/k W)	(\$/k W)	(\$/k W)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-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	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	0.04	(0.01)	(0.01)	1.29	1.29	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	0.14	(0.14)	(0.15)	16.78	16.07	18.07	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	(0.72)	42.83	60.90	60.90	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	(4.13)	351.16	412.06	412.06	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	(13.39)	473.37	885.43	885.43	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	(27.02)	179.18	1,064.61	1,064.61	1,064.61

INPUT DATA – PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	12,694	12,694	6.41	7.31	7.47	0.00	1.00	1.00
2011	33,056	33,056	6.35	7.16	7.29	0.00	1.00	1.00
2012	58,097	58,097	6.43	7.17	7.31	0.00	1.00	1.00
2013	86,576	86,576	7.06	7.56	7.64	0.00	1.00	1.00
2014	115,219	115,219	7.53	7.95	8.03	0.00	1.00	1.00
2015	139,539	139,539	8.11	8.63	8.72	0.00	1.00	1.00
2016	159,943	159,943	9.00	9.88	10.04	0.00	1.00	1.00
2017	178,745	178,745	9.75	10.73	10.93	0.00	1.00	1.00
2018	195,855	195,855	10.52	11.55	11.75	0.00	1.00	1.00
2019	195,855	195,855	11.50	12.81	13.07	10.41	1.00	1.00
2020	195,855	195,855	12.08	13.44	13.68	10.50	1.00	1.00
2021	195,855	195,855	12.57	14.00	14.25	10.74	1.00	1.00
2022	195,855	195,855	13.06	14.45	14.69	10.81	1.00	1.00
2023	195,855	195,855	13.39	14.67	14.88	10.80	1.00	1.00
2024	195,855	195,855	13.95	15.23	15.45	10.84	1.00	1.00
2025	195,855	195,855	14.40	15.69	15.90	10.96	1.00	1.00
2026	195,855	195,855	14.70	15.95	16.13	11.05	1.00	1.00
2027	195,855	195,855	15.13	16.30	16.46	11.17	1.00	1.00
2028	195,855	195,855	15.60	16.72	16.88	11.36	1.00	1.00
2029	195,855	195,855	16.02	17.03	17.16	11.41	1.00	1.00
2030	195,855	195,855	16.52	17.51	17.63	11.59	1.00	1.00
2031	195,855	195,855	17.08	18.08	18.20	11.80	1.00	1.00
2032	195,855	195,855	17.50	18.33	18.41	11.88	1.00	1.00
2033	195,855	195,855	18.27	19.00	19.09	12.10	1.00	1.00
2034	195,855	195,855	18.73	19.23	19.30	12.14	1.00	1.00
2035	195,855	195,855	19.57	20.20	20.29	12.29	1.00	1.00
2036	195,855	195,855	20.40	21.05	21.15	12.55	1.00	1.00
2037	195,855	195,855	21.11	21.72	21.80	12.70	1.00	1.00
2038	195,855	195,855	22.02	22.64	22.72	13.04	1.00	1.00
2039	195,855	195,855	22.78	23.36	23.44	13.32	1.00	1.00
2040	195,855	195,855	23.59	24.11	24.17	13.44	1.00	1.00
2041	195,855	195,855	24.54	25.04	25.11	13.75	1.00	1.00
2042	195,855	195,855	25.50	26.00	26.06	14.10	1.00	1.00
2043	195,855	195,855	26.74	27.38	27.47	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT	AVOIDED GEN UNIT	AVOIDED GEN UNIT	AVOIDED GEN UNIT	REPLACEMENT	AVOIDED GEN UNIT
YEAR	CAPACITY COST \$(000)	FIXED O&M \$(000)	VARIABLE O&M \$(000)	FUEL COST \$(000)	FUEL COST \$(000)	BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	61,227	33,584	1417	85,524	108,201	73,550
2020	59,406	34,423	2043	126,005	153,509	68,369
2021	57,048	35,284	2138	131,470	160,329	65,611
2022	54,775	36,166	2271	139,148	167,149	65,211
2023	52,581	37,070	2396	146,292	171,957	66,382
2024	50,460	37,997	2539	154,537	178,410	67,123
2025	48,407	38,947	2714	165,119	188,189	66,998
2026	46,417	39,920	2907	176,450	198,239	67,455
2027	44,484	40,918	3074	186,247	206,728	67,996
2028	42,563	41,941	3165	191,191	211,182	67,678
2029	40,642	42,990	3314	199,242	216,734	69,454
2030	38,723	44,065	3479	208,570	225,400	69,437
2031	36,806	45,166	3565	212,867	229,488	68,917
2032	34,890	46,295	3704	220,388	234,202	71,075
2033	32,975	47,453	4076	242,496	256,098	70,902
2034	31,062	48,639	4265	252,404	262,169	74,201
2035	29,151	49,855	4383	258,148	266,215	75,321
2036	27,241	51,102	4531	265,857	274,112	74,618
2037	25,332	52,379	4656	271,899	278,055	76,212
2038	23,426	53,689	4790	278,683	286,537	74,051
2039	21,521	55,031	4914	284,413	293,116	72,764
2040	19,964	56,406	5050	290,963	296,465	75,918
2041	18,755	57,817	5186	297,348	303,928	75,178
2042	17,548	59,262	5328	304,119	312,396	73,861
2043	16,342	60,744	5488	311,942	320,430	74,086
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	931,746	1,147,143	91,393	5,401,324	5,799,237	1,772,369
NPV	208,427	190,455	13,800	826,673	919,494	319,862

AVOIDED T&D AND PROGRAM FUEL SAVINGS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME : Business Heating, Ventilating and Air-Conditioning

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
YEAR	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	2,333	167
2011	652	52	704	54	14	68	8,219	596
2012	1,709	138	1,847	142	37	179	16,367	1,203
2013	3,018	369	3,388	251	66	318	27,186	2,096
2014	4,516	504	5,020	376	101	477	39,799	3,116
2015	6,019	625	6,644	501	138	640	54,601	4,241
2016	7,261	735	7,996	605	172	776	73,875	5,530
2017	8,262	842	9,104	688	202	890	90,817	6,777
2018	9,164	945	10,110	763	231	994	108,027	8,086
2019	9,960	969	10,929	830	259	1,089	125,657	9,245
2020	9,613	993	10,607	801	266	1,066	131,777	9,709
2021	9,272	1,018	10,291	772	272	1,045	137,339	10,098
2022	8,941	1,044	9,985	745	279	1,024	141,501	10,495
2023	8,618	1,070	9,688	718	286	1,004	143,388	10,764
2024	8,300	1,096	9,396	691	293	985	148,872	11,210
2025	7,985	1,124	9,109	665	301	966	153,315	11,571
2026	7,673	1,152	8,825	639	308	947	155,641	11,816
2027	7,362	1,181	8,542	613	316	929	158,863	12,159
2028	7,050	1,210	8,260	587	324	911	162,837	12,535
2029	6,739	1,240	7,979	561	332	893	165,579	12,877
2030	6,428	1,272	7,699	535	340	876	170,105	13,276
2031	6,119	1,303	7,422	510	349	858	175,619	13,724
2032	5,818	1,336	7,153	485	357	842	177,719	14,068
2033	5,530	1,369	6,899	461	366	827	183,886	14,687
2034	5,261	1,404	6,664	438	376	814	185,752	15,052
2035	5,012	1,439	6,450	417	385	802	195,300	15,730
2036	4,784	1,475	6,258	398	395	793	203,508	16,391
2037	4,575	1,511	6,086	381	404	785	209,785	16,969
2038	4,383	1,549	5,932	365	415	780	218,652	17,696
2039	4,206	1,588	5,794	350	425	775	225,532	18,309
2040	4,041	1,628	5,669	337	436	772	232,629	18,963
2041	3,880	1,668	5,548	323	446	770	241,487	19,719
2042	3,719	1,710	5,429	310	458	767	250,696	20,497
2043	3,558	1,753	5,310	296	469	765	264,275	21,486
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NOM.	199,428	37,311	236,739	16,610	9,818	26,428	4,980,938	390,861
NPV	57,625	7,883	65,509	4,800	2,011	6,810	981,722	75,278

* 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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT COSTS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	829	34,353	0	35,183	0	0	2,166	9	2,175	(33,007)	(30,314)
2011	0	1,311	46,133	0	47,443	0	772	7,622	17	8,411	(39,033)	(63,235)
2012	0	1,665	56,341	0	58,006	0	2,026	15,164	38	17,228	(46,778)	(94,822)
2013	0	1,952	64,358	0	66,310	0	3,705	25,089	2,314	31,109	(35,201)	(119,863)
2014	0	2,041	65,366	0	67,408	0	5,497	36,683	3,577	45,758	(21,650)	(134,007)
2015	0	1,910	57,046	0	58,955	0	7,284	50,360	5,007	62,651	3,696	(131,790)
2016	0	1,612	48,207	0	49,820	0	8,773	68,345	6,582	83,700	33,880	(113,121)
2017	0	1,557	45,686	0	47,244	0	9,994	84,040	8,181	102,215	54,971	(85,303)
2018	0	1,484	42,950	0	44,434	0	11,104	99,941	9,836	120,881	76,447	(49,774)
2019	0	0	0	0	0	73,550	12,018	116,412	8,026	210,000	210,006	39,861
2020	0	0	0	0	0	68,369	11,673	122,067	7,487	209,597	209,597	122,020
2021	0	0	0	0	0	65,611	11,335	127,241	7,968	212,155	212,155	198,394
2022	0	0	0	0	0	65,211	11,009	131,006	8,793	216,019	216,019	269,812
2023	0	0	0	0	0	66,382	10,692	132,624	9,179	218,876	218,876	336,269
2024	0	0	0	0	0	67,123	10,381	137,662	10,018	225,183	225,183	399,061
2025	0	464	20,123	0	20,587	66,998	10,075	141,744	10,850	229,667	209,080	452,605
2026	0	812	33,161	0	33,973	67,455	9,772	143,825	11,270	232,321	198,348	499,254
2027	0	1,012	40,127	0	41,139	67,996	9,471	146,704	12,094	236,266	195,127	541,400
2028	0	1,155	45,490	0	46,645	67,678	9,171	150,302	13,206	240,357	193,712	579,826
2029	0	1,100	43,586	0	44,686	69,454	8,873	152,702	14,645	245,673	200,988	616,441
2030	0	1,625	60,162	0	61,787	69,437	8,575	156,829	15,429	250,369	188,582	647,992
2031	0	1,645	58,641	0	60,286	68,917	8,280	161,895	16,930	256,021	195,735	678,067
2032	0	1,991	67,154	0	69,145	71,075	7,995	163,651	18,265	260,986	191,841	705,138
2033	0	2,292	73,891	0	76,183	70,902	7,726	169,200	18,587	266,415	190,232	729,791
2034	0	2,100	57,797	0	59,897	74,201	7,478	170,700	19,769	272,148	212,251	755,053
2035	0	2,233	63,339	0	65,572	75,321	7,253	179,570	21,342	283,486	217,913	778,872
2036	0	2,171	55,726	0	57,896	74,618	7,051	187,117	22,925	291,711	233,815	802,343
2037	0	2,090	51,970	0	54,061	76,212	6,872	192,816	24,739	300,639	246,578	825,075
2038	0	1,980	47,862	0	49,842	74,051	6,711	200,956	26,630	308,348	258,506	846,962
2039	0	0	0	0	0	72,764	6,570	207,223	28,542	315,099	315,099	871,462
2040	0	673	29,144	0	29,817	75,918	6,441	213,667	30,743	326,729	296,912	892,665
2041	0	1,176	48,027	0	49,203	75,178	6,318	221,768	32,972	336,236	287,033	911,489
2042	0	1,466	58,116	0	59,582	73,861	6,196	230,199	38,182	348,438	288,855	928,887
2043	0	1,672	65,883	0	67,555	74,086	6,076	242,789	43,826	366,777	299,221	945,438
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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	3.17	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	3.56	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS		REVENUE LOSSES	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT & FUEL BENEFITS	AVOIDED T&D BENEFITS	REVENUE GAINS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	INCENTIVES \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	829	25,163	2,204	0	28,196	2,166	0	9	2,175	(26,021)	(23,898)	(23,898)
2011	0	1,311	26,150	9,183	0	36,643	7,622	772	17	8,411	(28,232)	(47,710)	(47,710)
2012	0	1,665	30,040	20,570	0	52,275	15,164	2,026	38	17,228	(35,047)	(74,857)	(74,857)
2013	0	1,952	33,070	35,599	0	70,622	25,089	3,705	0	2,314	31,109	(39,513)	(102,965)
2014	0	2,041	33,404	53,520	0	88,966	36,683	5,497	0	3,577	45,758	(43,208)	(131,194)
2015	0	1,910	29,086	71,336	0	102,332	50,360	7,284	0	5,007	62,651	(39,680)	(155,002)
2016	0	1,612	26,074	86,923	0	114,609	68,345	8,773	0	6,582	83,700	(30,910)	(172,034)
2017	0	1,557	24,986	101,229	0	127,772	84,040	9,994	0	8,181	102,215	(25,557)	(184,967)
2018	0	1,484	23,768	113,580	0	138,833	99,941	11,104	0	9,836	120,881	(17,952)	(193,311)
2019	0	0	0	122,844	0	122,844	189,962	12,018	0	8,026	210,006	87,162	(156,108)
2020	0	0	0	123,088	0	123,088	190,437	11,673	0	7,487	209,597	86,509	(122,198)
2021	0	0	0	126,212	0	126,212	192,852	11,335	0	7,968	212,155	85,942	(91,260)
2022	0	0	0	130,951	0	130,951	196,217	11,009	0	8,793	216,019	85,068	(63,135)
2023	0	0	0	135,649	0	135,649	199,006	10,692	0	9,179	218,876	83,228	(37,865)
2024	0	0	0	142,725	0	142,725	204,785	10,381	0	10,018	225,183	82,458	(14,872)
2025	0	464	9,978	148,988	0	159,430	208,742	10,075	0	10,850	229,667	70,237	3,115
2026	0	812	14,322	155,834	0	170,968	211,280	9,772	0	11,270	232,321	61,353	17,545
2027	0	1,012	16,066	165,317	0	182,395	214,700	9,471	0	12,094	236,266	53,871	29,181
2028	0	1,155	17,352	172,973	0	191,480	217,979	9,171	0	13,206	240,357	48,877	38,876
2029	0	1,100	16,681	181,908	0	199,689	222,156	8,873	0	14,645	245,673	45,985	47,253
2030	0	1,625	24,929	192,049	0	218,603	226,266	8,575	0	15,529	250,369	31,766	52,568
2031	0	1,645	21,413	202,039	0	225,097	230,811	8,280	0	16,930	256,021	30,924	57,320
2032	0	1,991	23,268	215,281	0	240,540	234,726	7,995	0	18,265	260,986	20,446	60,205
2033	0	2,292	24,730	236,413	0	263,436	240,102	7,726	0	18,587	266,415	2,979	60,591
2034	0	2,100	16,723	241,020	0	259,844	244,902	7,478	0	19,769	272,148	12,304	62,055
2035	0	2,233	19,342	252,359	0	273,935	254,891	7,253	0	21,342	283,486	9,551	63,099
2036	0	2,171	16,489	272,333	0	290,993	261,735	7,051	0	22,925	291,711	718	63,171
2037	0	2,090	15,692	287,949	0	305,731	269,028	6,872	0	24,739	300,639	(5,092)	62,702
2038	0	1,980	14,756	301,840	0	318,576	275,007	6,711	0	26,630	308,348	(10,228)	61,836
2039	0	0	0	317,070	0	317,070	279,987	6,570	0	28,542	315,099	(1,972)	61,683
2040	0	673	9,978	333,306	0	343,957	289,585	6,441	0	30,703	326,729	(17,228)	60,453
2041	0	1,176	14,322	352,562	0	368,061	296,947	6,318	0	32,972	336,236	(31,825)	58,365
2042	0	1,466	16,066	373,124	0	390,656	304,060	6,196	0	38,182	348,438	(42,218)	55,823
2043	0	1,672	17,352	395,081	0	414,106	316,874	6,076	0	43,826	366,777	(47,329)	53,205
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Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89	%
1.04	

BUSINESS LIGHTING

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Lighting

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.95 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.27 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	3,816.40 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.09 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2010-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN. TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

* 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_REQ
PROGRAM NAME: *Business Lighting*

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE	DEBT	PREFERRED STOCK	COMMON EQUITY	INCOME TAXES	PROPERTY TAX	PROPERTY INSURANCE	DEPREC.	DEFERRED TAXES	TOTAL FIXED CHARGES	PRESENT WORTH FIXED CHARGES	CUMULATIVE PW FIXED CHARGES	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	93,054	2,891	0	6,494	4,284	1,568	554	3,630	7	19,427	19,427	19,427	90,751
2020	89,417	2,778	0	6,240	2,944	1,503	567	3,630	1,188	18,850	17,311	36,739	93,019
2021	84,599	2,628	0	5,904	2,917	1,437	582	3,630	1,003	18,102	15,267	52,006	95,345
2022	79,965	2,484	0	5,581	2,883	1,372	596	3,630	834	17,380	13,463	65,469	97,729
2023	75,501	2,345	0	5,269	2,846	1,307	611	3,630	675	16,684	11,869	77,337	100,172
2024	71,196	2,212	0	4,969	2,803	1,241	626	3,630	530	16,011	10,460	87,798	102,676
2025	67,036	2,082	0	4,678	2,756	1,176	642	3,630	394	15,360	9,216	97,013	105,243
2026	63,012	1,957	0	4,397	2,705	1,111	658	3,630	270	14,728	8,116	105,129	107,874
2027	59,112	1,836	0	4,125	2,554	1,045	674	3,630	249	14,115	7,143	112,272	110,571
2028	55,232	1,716	0	3,855	2,384	980	691	3,630	249	13,505	6,277	118,548	113,335
2029	51,353	1,595	0	3,584	2,214	915	709	3,630	249	12,896	5,504	124,052	116,169
2030	47,474	1,475	0	3,313	2,044	849	726	3,630	249	12,287	4,816	128,869	119,073
2031	43,595	1,354	0	3,042	1,874	784	745	3,630	249	11,679	4,204	133,073	122,050
2032	39,715	1,234	0	2,772	1,704	719	763	3,630	249	11,071	3,660	136,733	125,101
2033	35,836	1,113	0	2,501	1,534	653	782	3,630	249	10,463	3,177	139,910	128,228
2034	31,957	993	0	2,230	1,364	588	802	3,630	249	9,856	2,748	142,658	131,434
2035	28,078	872	0	1,959	1,194	523	822	3,630	249	9,250	2,369	145,027	134,720
2036	24,198	752	0	1,689	1,024	457	842	3,630	249	8,644	2,033	147,060	138,088
2037	20,319	631	0	1,418	854	392	863	3,630	249	8,038	1,736	148,796	141,540
2038	16,440	511	0	1,147	684	327	885	3,630	249	7,433	1,474	150,270	145,079
2039	12,561	390	0	877	1,273	261	907	3,630	(510)	6,829	1,244	151,514	148,706
2040	9,441	293	0	659	1,896	196	930	3,630	(1,270)	6,334	1,060	152,574	152,423
2041	7,080	220	0	494	1,793	131	953	3,630	(1,270)	5,951	914	153,489	156,234
2042	4,720	147	0	329	1,689	65	977	3,630	(1,270)	5,568	786	154,274	160,140
2043	2,359	73	0	165	1,586	(0)	1,001	3,630	(1,270)	5,185	672	154,946	164,143

IN SERVICE COST (\$000)	90,751
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} = 1.70738$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Lighting

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,309	3,309	3,630	3,630	3,291	3,291	7	8,471	0	0	0	7	(2,296)
2020	7.22%	6,371	9,680	3,630	7,260	3,291	6,582	1,188	8,471	0	0	0	1,188	(1,108)
2021	6.68%	5,892	15,573	3,630	10,890	3,291	9,874	1,003	8,471	0	0	0	1,003	(105)
2022	6.18%	5,454	21,026	3,630	14,520	3,291	13,165	834	8,471	0	0	0	834	730
2023	5.71%	5,042	26,068	3,630	18,150	3,291	16,456	675	8,471	0	0	0	675	1,405
2024	5.29%	4,664	30,732	3,630	21,780	3,291	19,747	530	8,471	0	0	0	530	1,935
2025	4.89%	4,314	35,046	3,630	25,410	3,291	23,038	394	8,471	0	0	0	394	2,329
2026	4.52%	3,991	39,037	3,630	29,040	3,291	26,330	270	8,471	0	0	0	270	2,599
2027	4.46%	3,938	42,974	3,630	32,670	3,291	29,621	249	8,471	0	0	0	249	2,848
2028	4.46%	3,937	46,911	3,630	36,300	3,291	32,912	249	8,471	0	0	0	249	3,097
2029	4.46%	3,938	50,849	3,630	39,930	3,291	36,203	249	8,471	0	0	0	249	3,347
2030	4.46%	3,937	54,786	3,630	43,560	3,291	39,494	249	8,471	0	0	0	249	3,596
2031	4.46%	3,938	58,723	3,630	47,190	3,291	42,786	249	8,471	0	0	0	249	3,845
2032	4.46%	3,937	62,660	3,630	50,820	3,291	46,077	249	8,471	0	0	0	249	4,094
2033	4.46%	3,938	66,598	3,630	54,450	3,291	49,368	249	8,471	0	0	0	249	4,343
2034	4.46%	3,937	70,535	3,630	58,080	3,291	52,659	249	8,471	0	0	0	249	4,593
2035	4.46%	3,938	74,472	3,630	61,710	3,291	55,950	249	8,471	0	0	0	249	4,842
2036	4.46%	3,937	78,409	3,630	65,341	3,291	59,242	249	8,471	0	0	0	249	5,091
2037	4.46%	3,938	82,347	3,630	68,971	3,291	62,533	249	8,471	0	0	0	249	5,340
2038	4.46%	3,937	86,284	3,630	72,601	3,291	65,824	249	8,471	0	0	0	249	5,589
2039	2.23%	1,969	88,253	3,630	76,231	3,291	69,115	(510)	8,471	0	0	0	(510)	5,079
2040	0.00%	0	88,253	3,630	79,861	3,291	72,406	(1,270)	8,471	0	0	0	(1,270)	3,810
2041	0.00%	0	88,253	3,630	83,491	3,291	75,698	(1,270)	8,471	0	0	0	(1,270)	2,540
2042	0.00%	0	88,253	3,630	87,121	3,291	78,989	(1,270)	8,471	0	0	0	(1,270)	1,271
2043	0.00%	0	88,253	3,630	90,751	3,291	82,280	(1,270)	8,471	0	0	0	(1,270)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,303)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	8,471
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Lighting

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,309	7	87,121	3,630	(2,296)	93,054	89,417	91,235
2020	7.22%	6,371	1,188	83,491	7,260	(1,108)	89,417	84,599	87,008
2021	6.68%	5,892	1,003	79,861	10,890	(105)	84,599	79,965	82,282
2022	6.18%	5,454	834	76,231	14,520	730	79,965	75,501	77,733
2023	5.71%	5,042	675	72,601	18,150	1,405	75,501	71,196	73,348
2024	5.29%	4,664	530	68,971	21,780	1,935	71,196	67,036	69,116
2025	4.89%	4,314	394	65,341	25,410	2,329	67,036	63,012	65,024
2026	4.52%	3,991	270	61,710	29,040	2,599	63,012	59,112	61,062
2027	4.46%	3,938	249	58,080	32,670	2,848	59,112	55,232	57,172
2028	4.46%	3,937	249	54,450	36,300	3,097	55,232	51,353	53,293
2029	4.46%	3,938	249	50,820	39,930	3,347	51,353	47,474	49,414
2030	4.46%	3,937	249	47,190	43,560	3,596	47,474	43,595	45,534
2031	4.46%	3,938	249	43,560	47,190	3,845	43,595	39,715	41,655
2032	4.46%	3,937	249	39,930	50,820	4,094	39,715	35,836	37,776
2033	4.46%	3,938	249	36,300	54,450	4,343	35,836	31,957	33,897
2034	4.46%	3,937	249	32,670	58,080	4,593	31,957	28,078	30,017
2035	4.46%	3,938	249	29,040	61,710	4,842	28,078	24,198	26,138
2036	4.46%	3,937	249	25,410	65,341	5,091	24,198	20,319	22,259
2037	4.46%	3,938	249	21,780	68,971	5,340	20,319	16,440	18,379
2038	4.46%	3,937	249	18,150	72,601	5,589	16,440	12,561	14,500
2039	2.23%	1,969	(510)	14,520	76,231	5,079	12,561	9,441	11,001
2040	0.00%	0	(1,270)	10,890	79,861	3,810	9,441	7,080	8,261
2041	0.00%	0	(1,270)	7,260	83,491	2,540	7,080	4,720	5,900
2042	0.00%	0	(1,270)	3,630	87,121	1,271	4,720	2,359	3,540
2043	0.00%	0	(1,270)	(0)	90,751	1	2,359	-1	1,179

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

57.47

156.84

127.50

(27.02)

1,064.61

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	77,381	77,381	77,381
EQUITY AFUDC	8,471		
DEBT AFUDC	4,899	4,899	
CPI			10,869
TOTAL	90,751	82,280	88,250

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Business Lighting

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	4,352	4,352	6.41	7.78	7.09	0.00	1.00	1.00
2011	12,240	12,240	6.35	7.54	6.97	0.00	1.00	1.00
2012	20,394	20,394	6.43	7.53	7.00	0.00	1.00	1.00
2013	28,784	28,784	7.06	7.79	7.44	0.00	1.00	1.00
2014	37,316	37,316	7.53	8.16	7.87	0.00	1.00	1.00
2015	44,514	44,514	8.11	8.88	8.53	0.00	1.00	1.00
2016	51,281	51,281	9.00	10.32	9.69	0.00	1.00	1.00
2017	58,751	58,751	9.75	11.25	10.50	0.00	1.00	1.00
2018	67,258	67,258	10.52	12.08	11.32	0.00	1.00	1.00
2019	67,258	67,258	11.50	13.49	12.52	10.41	1.00	1.00
2020	67,258	67,258	12.08	14.09	13.15	10.50	1.00	1.00
2021	67,258	67,258	12.57	14.70	13.69	10.74	1.00	1.00
2022	67,258	67,258	13.06	15.11	14.14	10.81	1.00	1.00
2023	67,258	67,258	13.39	15.26	14.41	10.80	1.00	1.00
2024	67,258	67,258	13.95	15.82	14.99	10.84	1.00	1.00
2025	67,258	67,258	14.40	16.26	15.44	10.96	1.00	1.00
2026	67,258	67,258	14.70	16.47	15.70	11.05	1.00	1.00
2027	67,258	67,258	15.13	16.78	16.07	11.17	1.00	1.00
2028	67,258	67,258	15.60	17.17	16.51	11.36	1.00	1.00
2029	67,258	67,258	16.02	17.39	16.84	11.41	1.00	1.00
2030	67,258	67,258	16.52	17.85	17.33	11.59	1.00	1.00
2031	67,258	67,258	17.08	18.43	17.89	11.80	1.00	1.00
2032	67,258	67,258	17.50	18.59	18.18	11.88	1.00	1.00
2033	67,258	67,258	18.27	19.27	18.84	12.10	1.00	1.00
2034	67,258	67,258	18.73	19.40	19.13	12.14	1.00	1.00
2035	67,258	67,258	19.57	20.42	20.06	12.29	1.00	1.00
2036	67,258	67,258	20.40	21.31	20.89	12.55	1.00	1.00
2037	67,258	67,258	21.11	21.95	21.56	12.70	1.00	1.00
2038	67,258	67,258	22.02	22.88	22.49	13.04	1.00	1.00
2039	67,258	67,258	22.78	23.59	23.22	13.32	1.00	1.00
2040	67,258	67,258	23.59	24.29	23.98	13.44	1.00	1.00
2041	67,258	67,258	24.54	25.20	24.91	13.75	1.00	1.00
2042	67,258	67,258	25.50	26.16	25.87	14.10	1.00	1.00
2043	67,258	67,258	26.74	27.64	27.22	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
YEAR						
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	19,427	10,656	449	27,137	34,332	23,338
2020	18,850	10,923	648	39,982	48,709	21,694
2021	18,102	11,196	678	41,716	50,873	20,818
2022	17,380	11,475	721	44,152	53,037	20,692
2023	16,684	11,762	760	46,419	54,562	21,063
2024	16,011	12,056	806	49,035	56,610	21,298
2025	15,360	12,358	861	52,392	59,712	21,258
2026	14,728	12,667	922	55,988	62,902	21,403
2027	14,115	12,983	976	59,097	65,595	21,575
2028	13,505	13,308	1004	60,665	67,008	21,474
2029	12,896	13,641	1052	63,220	68,770	22,038
2030	12,287	13,982	1104	66,179	71,520	22,032
2031	11,679	14,331	1131	67,543	72,817	21,867
2032	11,071	14,690	1175	69,929	74,313	22,552
2033	10,463	15,057	1293	76,944	81,260	22,497
2034	9,856	15,433	1353	80,088	83,187	23,544
2035	9,250	15,819	1391	81,911	84,471	23,900
2036	8,644	16,215	1438	84,357	86,976	23,677
2037	8,038	16,620	1477	86,274	88,227	24,182
2038	7,433	17,035	1520	88,427	90,918	23,496
2039	6,829	17,461	1559	90,245	93,006	23,088
2040	6,334	17,898	1602	92,323	94,069	24,089
2041	5,951	18,345	1646	94,349	96,437	23,854
2042	5,568	18,804	1691	96,497	99,124	23,436
2043	5,185	19,274	1741	98,980	101,673	23,507
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	295,644	363,990	28,999	1,713,848	1,840,106	562,375
NPV	66,134	60,432	4,379	262,305	291,757	101,493

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
	AVOIDED TRANSMISSION CAP COST	AVOIDED TRANSMISSION O&M COST	TOTAL AVOIDED TRANSMISSION COST	AVOIDED DISTRIBUTION CAP COST	AVOIDED DISTRIBUTION O&M COST	TOTAL AVOIDED DISTRIBUTION COST	PROGRAM FUEL SAVINGS	PROGRAM OFF-PEAK PAYBACK
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	669	0
2011	207	16	223	17	4	22	2,466	0
2012	586	47	633	49	13	61	4,827	0
2013	977	113	1,091	81	22	103	7,452	0
2014	1,380	151	1,531	115	31	146	10,453	0
2015	1,789	184	1,973	149	41	190	14,110	0
2016	2,123	218	2,341	177	51	227	19,358	0
2017	2,433	256	2,689	203	60	262	24,272	0
2018	2,785	300	3,085	232	70	302	29,821	0
2019	3,201	307	3,508	267	82	349	35,661	0
2020	3,090	315	3,405	257	84	342	37,232	0
2021	2,980	323	3,303	248	86	335	38,865	0
2022	2,874	331	3,205	239	89	328	39,876	0
2023	2,770	339	3,109	231	91	321	40,151	0
2024	2,668	348	3,015	222	93	315	41,586	0
2025	2,567	357	2,924	214	95	309	42,715	0
2026	2,467	366	2,833	205	98	303	43,202	0
2027	2,368	375	2,742	197	100	297	43,930	0
2028	2,268	384	2,652	189	103	292	44,895	0
2029	2,169	394	2,563	181	105	286	45,370	0
2030	2,070	403	2,473	172	108	280	46,532	0
2031	1,971	414	2,385	164	111	275	48,026	0
2032	1,875	424	2,299	156	113	270	48,283	0
2033	1,784	434	2,218	149	116	265	49,979	0
2034	1,698	445	2,143	141	119	261	50,153	0
2035	1,618	456	2,074	135	122	257	52,866	0
2036	1,543	468	2,011	129	125	254	55,189	0
2037	1,474	480	1,954	123	128	251	56,783	0
2038	1,410	492	1,902	117	132	249	59,173	0
2039	1,352	504	1,856	113	135	247	60,964	0
2040	1,299	516	1,816	108	138	246	62,707	0
2041	1,248	529	1,777	104	142	246	65,042	0
2042	1,196	543	1,739	100	145	245	67,482	0
2043	1,145	556	1,701	95	149	244	71,420	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
NOM.	63,386	11,788	75,175	5,279	3,102	8,381	1,361,512	0
NPV	18,122	2,473	20,595	1,509	631	2,141	269,861	0

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

	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT	REPLACEMENT EMISSION COST	PROGRAM EMISSION BENEFIT	OFF-PEAK EMISSION PAYBACK COST	NET EMISSION BENEFIT
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0
2010	0	0	3	0	3
2011	0	0	7	0	7
2012	0	0	14	0	14
2013	0	0	676	0	676
2014	0	0	1,007	0	1,007
2015	0	0	1,380	0	1,380
2016	0	0	1,813	0	1,813
2017	0	0	2,289	0	2,289
2018	0	0	2,850	0	2,850
2019	3,245	4,243	3,325	0	2,327
2020	4,941	6,399	3,598	0	2,140
2021	5,443	7,057	3,860	0	2,246
2022	6,356	8,222	4,336	0	2,471
2023	7,014	9,067	4,624	0	2,571
2024	8,077	10,414	5,158	0	2,820
2025	9,322	11,985	5,685	0	3,022
2026	10,338	13,212	5,996	0	3,122
2027	11,694	14,924	6,563	0	3,333
2028	12,823	16,337	7,147	0	3,632
2029	14,668	18,618	7,964	0	4,014
2030	16,263	20,629	8,603	0	4,237
2031	17,675	22,405	9,345	0	4,615
2032	19,463	24,620	10,128	0	4,970
2033	22,677	28,670	10,981	0	4,988
2034	25,102	31,708	11,889	0	5,283
2035	27,264	34,455	12,889	0	5,698
2036	29,764	37,606	13,953	0	6,111
2037	32,260	40,747	15,075	0	6,588
2038	34,969	44,163	16,277	0	7,083
2039	37,767	47,757	17,559	0	7,569
2040	40,812	51,601	18,924	0	8,136
2041	43,974	55,591	20,348	0	8,731
2042	43,974	55,591	21,869	0	10,252
2043	43,974	55,591	23,516	0	11,900
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	529,860	671,612	279,652	0	137,900
NPV	64,153	81,629	40,506	0	23,030

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Lighting

(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)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	118	6,670	0	6,788	0	0	669	3	672	(6,115)	(5,616)
2011	0	219	13,752	0	13,971	0	244	2,466	7	2,718	(11,254)	(15,108)
2012	0	232	13,683	0	13,915	0	694	4,827	14	5,536	(8,379)	(21,599)
2013	0	245	13,319	0	13,564	0	1,194	7,452	676	9,322	(4,242)	(24,616)
2014	0	255	11,913	0	12,168	0	1,677	10,453	1,007	13,137	968	(23,984)
2015	0	221	8,409	0	8,629	0	2,163	14,110	1,380	17,653	9,024	(18,570)
2016	0	238	9,184	0	9,423	0	2,568	19,358	1,813	23,740	14,317	(10,681)
2017	0	267	10,285	0	10,552	0	2,951	24,272	2,289	29,513	18,961	(1,085)
2018	0	308	11,814	0	12,122	0	3,387	29,821	2,850	36,059	23,937	10,040
2019	0	28	1,121	0	1,148	23,338	3,857	35,661	2,327	65,183	64,035	37,371
2020	0	28	1,149	0	1,177	21,694	3,747	37,232	2,140	64,812	63,635	62,315
2021	0	5	194	0	198	20,818	3,638	38,865	2,246	65,568	65,369	85,847
2022	0	30	1,207	0	1,237	20,692	3,533	39,876	2,471	66,571	65,335	107,448
2023	0	79	3,013	0	3,092	21,063	3,431	40,151	2,571	67,216	64,124	126,917
2024	0	88	3,256	0	3,344	21,298	3,331	41,586	2,820	69,036	65,692	145,235
2025	0	100	3,698	0	3,798	21,258	3,233	42,715	3,022	70,228	66,429	162,247
2026	0	115	4,196	0	4,311	21,403	3,136	43,202	3,122	70,863	66,553	177,900
2027	0	114	4,226	0	4,339	21,575	3,040	43,930	3,333	71,878	67,539	192,488
2028	0	161	6,093	0	6,254	21,474	2,944	44,895	3,632	72,946	66,692	205,717
2029	0	161	6,153	0	6,314	22,038	2,849	45,370	4,014	74,271	67,957	218,097
2030	0	278	14,206	0	14,484	22,032	2,754	46,532	4,237	75,555	61,071	228,315
2031	0	439	25,542	0	25,981	21,867	2,660	48,026	4,615	77,168	51,186	236,180
2032	0	311	20,230	0	20,541	22,552	2,569	48,283	4,970	78,375	57,833	244,341
2033	0	284	17,805	0	18,090	22,497	2,483	49,979	4,988	79,948	61,858	252,357
2034	0	317	16,235	0	16,552	23,544	2,404	50,153	5,283	81,385	64,833	260,073
2035	0	236	9,072	0	9,308	23,900	2,331	52,866	5,698	84,794	75,487	268,324
2036	0	298	11,324	0	11,622	23,677	2,265	55,189	6,111	87,241	75,619	275,915
2037	0	334	12,591	0	12,925	24,182	2,205	56,783	6,588	89,758	76,833	282,998
2038	0	397	14,857	0	15,254	23,496	2,151	59,173	7,083	91,904	76,650	289,488
2039	0	120	4,250	0	4,370	23,088	2,104	60,964	7,569	93,725	89,354	296,436
2040	0	179	6,543	0	6,722	24,089	2,062	62,707	8,136	96,994	90,272	302,882
2041	0	203	7,360	0	7,562	23,854	2,023	65,042	8,731	99,651	92,088	308,922
2042	0	199	7,228	0	7,426	23,436	1,984	67,482	10,252	103,154	95,727	314,687
2043	0	236	8,878	0	9,114	23,507	1,945	71,420	11,900	108,772	99,658	320,200
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	6,842	309,457	0	316,299	562,375	83,556	1,361,512	137,900	2,145,343	1,829,044	
NPV	0	1,990	94,929	0	96,919	101,493	22,735	269,861	23,030	417,119	320,200	

Discount Rate:

8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) :

4.30

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Lighting

(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)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	893	0	2,964	0	3,857	6,670	0	0	6,670	(2,813)	(2,584)
2011	3,550	0	6,272	0	9,821	13,752	0	0	13,752	(3,931)	(5,899)
2012	7,377	0	5,757	0	13,134	13,683	0	0	13,683	(549)	(6,325)
2013	11,801	0	5,077	0	16,878	13,319	0	0	13,319	3,558	(3,794)
2014	16,962	0	4,066	0	21,028	11,913	0	0	11,913	9,115	2,161
2015	22,207	0	1,710	0	23,917	8,409	0	0	8,409	15,509	11,466
2016	27,118	0	1,893	0	29,011	9,184	0	0	9,184	19,826	22,391
2017	32,531	0	2,059	0	34,590	10,285	0	0	10,285	24,305	34,691
2018	38,332	0	2,275	0	40,608	11,814	0	0	11,814	28,794	48,073
2019	42,506	0	284	0	42,790	1,121	0	0	1,121	41,669	65,858
2020	42,538	0	284	0	42,822	1,149	0	0	1,149	41,673	82,193
2021	43,510	0	48	0	43,557	194	0	0	194	43,364	97,804
2022	45,006	0	284	0	45,290	1,207	0	0	1,207	44,083	112,378
2023	46,537	0	590	0	47,126	3,013	0	0	3,013	44,114	125,772
2024	48,843	0	578	0	49,421	3,256	0	0	3,256	46,165	138,645
2025	50,795	0	630	0	51,425	3,698	0	0	3,698	47,727	150,868
2026	53,014	0	687	0	53,702	4,196	0	0	4,196	49,506	162,511
2027	56,093	0	541	0	56,634	4,226	0	0	4,226	52,408	173,831
2028	58,589	0	846	0	59,435	6,093	0	0	6,093	53,341	184,412
2029	61,484	0	834	0	62,318	6,153	0	0	6,153	56,166	194,644
2030	64,777	0	3,266	0	68,044	14,206	0	0	14,206	53,838	203,651
2031	68,013	0	6,611	0	74,624	25,542	0	0	25,542	49,081	211,193
2032	72,333	0	5,437	0	77,770	20,230	0	0	20,230	57,540	219,312
2033	79,240	0	4,465	0	83,705	17,805	0	0	17,805	65,899	227,853
2034	80,771	0	3,629	0	84,400	16,235	0	0	16,235	68,165	235,965
2035	84,360	0	1,365	0	85,724	9,072	0	0	9,072	76,652	244,344
2036	90,834	0	1,629	0	92,463	11,324	0	0	11,324	81,139	252,489
2037	95,940	0	1,723	0	97,663	12,591	0	0	12,591	85,072	260,332
2038	100,422	0	1,938	0	102,361	14,857	0	0	14,857	87,503	267,740
2039	105,340	0	451	0	105,792	4,250	0	0	4,250	101,542	275,636
2040	110,579	0	749	0	111,328	6,543	0	0	6,543	104,785	283,118
2041	116,796	0	812	0	117,608	7,360	0	0	7,360	110,248	290,349
2042	123,433	0	795	0	124,227	7,228	0	0	7,228	116,999	297,395
2043	130,519	0	875	0	131,394	8,878	0	0	8,878	122,515	304,172
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	2,033,042	0	71,423	0	2,104,465	309,457	0	0	309,457	1,795,008	
NPV	370,537	0	28,564	0	399,101	94,929	0	0	94,929	304,172	

In Service of Gen Unit:

Discount Rate :

2019

8.89 %

Benefit/Cost Ratio (Col(6) / Col(10))

4.20

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	118	2,964	777	0	3,859	669	0	0	3	672	(3,186)	(2,926)
2011	0	219	6,272	3,091	0	9,581	2,466	244	0	7	2,718	(6,863)	(8,715)
2012	0	232	5,757	6,427	0	12,416	4,827	694	0	14	5,536	(6,880)	(14,044)
2013	0	245	5,077	10,271	0	15,593	7,452	1,194	0	676	9,322	(6,271)	(18,505)
2014	0	255	4,066	14,758	0	19,079	10,453	1,677	0	1,007	13,137	(5,943)	(22,388)
2015	0	221	19,318	0	0	21,249	14,110	2,163	0	1,380	17,653	(3,596)	(24,545)
2016	0	238	1,893	23,562	0	25,693	19,358	2,568	0	1,813	23,740	(1,953)	(25,622)
2017	0	267	2,059	28,285	0	30,611	24,272	2,951	0	2,289	29,513	(1,098)	(26,177)
2018	0	308	2,275	33,309	0	35,892	29,821	3,387	0	2,850	36,059	167	(26,100)
2019	0	28	284	36,853	0	37,165	58,999	3,857	0	2,327	65,183	28,018	(14,141)
2020	0	28	284	36,845	0	37,157	58,925	3,747	0	2,140	64,812	27,654	(3,301)
2021	0	5	48	37,625	0	37,678	59,683	3,638	0	2,246	65,568	27,890	6,739
2022	0	30	284	38,852	0	39,165	60,568	3,533	0	2,471	66,571	27,406	15,800
2023	0	79	590	40,131	0	40,801	61,214	3,431	0	2,571	67,216	26,415	23,821
2024	0	88	578	42,061	0	42,727	62,885	3,331	0	2,820	69,036	26,309	31,157
2025	0	100	630	43,639	0	44,369	63,973	3,233	0	3,022	70,228	25,858	37,779
2026	0	115	687	45,486	0	46,288	64,605	3,136	0	3,122	70,863	24,575	43,559
2027	0	114	541	48,054	0	48,709	65,505	3,040	0	3,333	71,878	23,170	48,563
2028	0	161	846	50,142	0	51,149	66,370	2,944	0	3,632	72,946	21,797	52,887
2029	0	161	834	52,555	0	53,550	67,408	2,849	0	4,014	74,271	20,721	56,662
2030	0	278	3,266	55,303	0	58,848	68,565	2,754	0	4,237	75,555	16,708	59,457
2031	0	439	6,611	57,998	0	65,048	69,893	2,660	0	4,615	77,168	12,119	61,319
2032	0	311	5,437	61,615	0	67,363	70,835	2,569	0	4,970	78,375	11,012	62,873
2033	0	284	4,465	67,401	0	72,150	72,476	2,483	0	4,988	79,948	7,798	63,884
2034	0	317	3,629	68,697	0	72,642	73,698	2,404	0	5,283	81,385	8,742	64,924
2035	0	236	1,365	71,643	0	73,244	76,766	2,331	0	5,698	84,794	11,551	66,187
2036	0	298	1,629	77,040	0	78,967	78,865	2,265	0	6,111	87,241	8,274	67,017
2037	0	334	1,723	81,319	0	83,376	80,965	2,205	0	6,588	89,758	6,382	67,606
2038	0	397	1,938	85,045	0	87,380	82,670	2,151	0	7,083	91,904	4,524	67,989
2039	0	120	451	89,134	0	89,706	84,052	2,104	0	7,569	93,725	4,019	68,301
2040	0	179	749	93,488	0	94,417	86,796	2,062	0	8,136	96,994	2,578	68,485
2041	0	203	812	98,657	0	99,672	88,897	2,023	0	8,731	99,651	(21)	68,484
2042	0	199	795	104,174	0	105,167	90,918	1,984	0	10,252	103,154	(2,014)	68,363
2043	0	236	875	110,064	0	111,176	94,927	1,945	0	11,900	108,772	(2,404)	68,230
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	

Discount Rate

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89 %

1.20

BUSINESS REFRIGERATION

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Refrigeration

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.93 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.24 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	8,757.63 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
° (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
° (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
° (11) UTILITY AFUDC RATE	8.48 %
° (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
° (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

* 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_REQ
PROGRAM NAME: Business Refrigeration

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	16,962	527	0	1,184	781	286	101	662	1	3,541	3,541	16,542
2020	16,299	506	0	1,137	537	274	103	662	217	3,436	3,156	16,956
2021	15,421	479	0	1,076	532	262	106	662	183	3,300	2,783	17,380
2022	14,576	453	0	1,017	526	250	109	662	152	3,168	2,454	17,814
2023	13,762	428	0	960	519	238	111	662	123	3,041	2,163	18,260
2024	12,978	403	0	906	511	226	114	662	97	2,919	1,907	18,716
2025	12,219	380	0	853	502	214	117	662	72	2,800	1,680	19,184
2026	11,486	357	0	802	493	202	120	662	49	2,685	1,479	19,664
2027	10,775	335	0	752	466	191	123	662	45	2,573	1,302	20,155
2028	10,068	313	0	703	435	179	126	662	45	2,462	1,144	20,659
2029	9,361	291	0	653	404	167	129	662	45	2,351	1,003	21,175
2030	8,654	269	0	604	373	155	132	662	45	2,240	878	21,705
2031	7,947	247	0	555	342	143	136	662	45	2,129	766	22,247
2032	7,239	225	0	505	311	131	139	662	45	2,018	667	22,804
2033	6,532	203	0	456	280	119	143	662	45	1,907	579	23,374
2034	5,825	181	0	407	249	107	146	662	45	1,797	501	23,958
2035	5,118	159	0	357	218	95	150	662	45	1,686	432	24,557
2036	4,411	137	0	308	187	83	154	662	45	1,576	371	25,171
2037	3,704	115	0	258	156	71	157	662	45	1,465	316	25,800
2038	2,997	93	0	209	125	60	161	662	45	1,355	269	26,445
2039	2,290	71	0	160	232	48	165	662	(93)	1,245	227	27,106
2040	1,721	53	0	120	346	36	169	662	(231)	1,155	193	27,784
2041	1,291	40	0	90	327	24	174	662	(231)	1,085	167	28,479
2042	860	27	0	60	308	12	178	662	(231)	1,015	143	29,191
2043	430	13	0	30	289	(0)	183	662	(231)	945	122	29,920

IN SERVICE COST (\$000)	16,542
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03 %
P/S	0%	0.00 %
C/S	56%	12.50 %

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Refrigeration

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	603	603	662	662	600	600	1	1,544	0	0	0	1	(419)
2020	7.22%	1,161	1,765	662	1,323	600	1,200	217	1,544	0	0	0	217	(202)
2021	6.68%	1,074	2,839	662	1,985	600	1,800	183	1,544	0	0	0	183	(19)
2022	6.18%	994	3,833	662	2,647	600	2,400	152	1,544	0	0	0	152	133
2023	5.71%	919	4,752	662	3,308	600	3,000	123	1,544	0	0	0	123	256
2024	5.29%	850	5,602	662	3,970	600	3,600	97	1,544	0	0	0	97	353
2025	4.89%	786	6,388	662	4,632	600	4,199	72	1,544	0	0	0	72	425
2026	4.52%	727	7,116	662	5,294	600	4,799	49	1,544	0	0	0	49	474
2027	4.46%	718	7,833	662	5,955	600	5,399	45	1,544	0	0	0	45	519
2028	4.46%	718	8,551	662	6,617	600	5,999	45	1,544	0	0	0	45	565
2029	4.46%	718	9,269	662	7,279	600	6,599	45	1,544	0	0	0	45	610
2030	4.46%	718	9,986	662	7,940	600	7,199	45	1,544	0	0	0	45	655
2031	4.46%	718	10,704	662	8,602	600	7,799	45	1,544	0	0	0	45	701
2032	4.46%	718	11,422	662	9,264	600	8,399	45	1,544	0	0	0	45	746
2033	4.46%	718	12,140	662	9,925	600	8,999	45	1,544	0	0	0	45	792
2034	4.46%	718	12,857	662	10,587	600	9,599	45	1,544	0	0	0	45	837
2035	4.46%	718	13,575	662	11,249	600	10,199	45	1,544	0	0	0	45	883
2036	4.46%	718	14,293	662	11,910	600	10,799	45	1,544	0	0	0	45	928
2037	4.46%	718	15,010	662	12,572	600	11,399	45	1,544	0	0	0	45	973
2038	4.46%	718	15,728	662	13,234	600	11,999	45	1,544	0	0	0	45	1,019
2039	2.23%	359	16,087	662	13,895	600	12,598	(93)	1,544	0	0	0	(93)	926
2040	0.00%	0	16,087	662	14,557	600	13,198	(231)	1,544	0	0	0	(231)	694
2041	0.00%	0	16,087	662	15,219	600	13,798	(231)	1,544	0	0	0	(231)	463
2042	0.00%	0	16,087	662	15,881	600	14,398	(231)	1,544	0	0	0	(231)	232
2043	0.00%	0	16,087	662	16,542	600	14,998	(231)	1,544	0	0	0	(231)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(420)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	1,544
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Refrigeration

(1)	(2)	(3)	(4)	(5) END OF YEAR NET	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	603	1	15,881	662	(419)	16,962	16,299	16,631
2020	7.22%	1,161	217	15,219	1,323	(202)	16,299	15,421	15,860
2021	6.68%	1,074	183	14,557	1,985	(19)	15,421	14,576	14,999
2022	6.18%	994	152	13,895	2,647	133	14,576	13,762	14,169
2023	5.71%	919	123	13,234	3,308	256	13,762	12,978	13,370
2024	5.29%	850	97	12,572	3,970	353	12,978	12,219	12,599
2025	4.89%	786	72	11,910	4,632	425	12,219	11,486	11,853
2026	4.52%	727	49	11,249	5,294	474	11,486	10,775	11,130
2027	4.46%	718	45	10,587	5,955	519	10,775	10,068	10,421
2028	4.46%	718	45	9,925	6,617	565	10,068	9,361	9,714
2029	4.46%	718	45	9,264	7,279	610	9,361	8,654	9,007
2030	4.46%	718	45	8,602	7,940	655	8,654	7,947	8,300
2031	4.46%	718	45	7,940	8,602	701	7,947	7,239	7,593
2032	4.46%	718	45	7,279	9,264	746	7,239	6,532	6,886
2033	4.46%	718	45	6,617	9,925	792	6,532	5,825	6,179
2034	4.46%	718	45	5,955	10,587	837	5,825	5,118	5,472
2035	4.46%	718	45	5,294	11,249	883	5,118	4,411	4,764
2036	4.46%	718	45	4,632	11,910	928	4,411	3,704	4,057
2037	4.46%	718	45	3,970	12,572	973	3,704	2,997	3,350
2038	4.46%	718	45	3,308	13,234	1,019	2,997	2,290	2,643
2039	2.23%	359	(93)	2,647	13,895	926	2,290	1,721	2,005
2040	0.00%	0	(231)	1,985	14,557	694	1,721	1,291	1,506
2041	0.00%	0	(231)	1,323	15,219	463	1,291	860	1,075
2042	0.00%	0	(231)	662	15,881	232	860	430	645
2043	0.00%	0	(231)	(0)	16,542	0	430	0	215

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.66%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
YEAR												
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	14,105	14,105	14,105
EQUITY AFUDC	1,544		
DEBT AFUDC	893	893	
CPI			1,981
TOTAL	16,542	14,998	16,086

* Column not specified in workbook

INPUT DATA -- PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Business Refrigeration

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	535	535	6.41	6.48	11.04	0.00	1.00	1.00
2011	2,057	2,057	6.35	6.41	10.12	0.00	1.00	1.00
2012	3,994	3,994	6.43	6.49	10.22	0.00	1.00	1.00
2013	6,171	6,171	7.06	7.10	9.62	0.00	1.00	1.00
2014	8,184	8,184	7.53	7.57	10.03	0.00	1.00	1.00
2015	10,117	10,117	8.11	8.17	11.47	0.00	1.00	1.00
2016	10,898	10,898	9.00	9.09	12.68	0.00	1.00	1.00
2017	11,702	11,702	9.75	9.84	13.65	0.00	1.00	1.00
2018	12,511	12,511	10.52	10.60	14.52	0.00	1.00	1.00
2019	12,511	12,511	11.50	11.62	16.73	10.41	1.00	1.00
2020	12,511	12,511	12.08	12.22	17.27	10.50	1.00	1.00
2021	12,511	12,511	12.57	12.71	18.16	10.74	1.00	1.00
2022	12,511	12,511	13.06	13.21	19.04	10.81	1.00	1.00
2023	12,511	12,511	13.39	13.54	19.01	10.80	1.00	1.00
2024	12,511	12,511	13.95	14.11	19.89	10.84	1.00	1.00
2025	12,511	12,511	14.40	14.56	20.56	10.96	1.00	1.00
2026	12,511	12,511	14.70	14.87	20.91	11.05	1.00	1.00
2027	12,511	12,511	15.13	15.29	21.49	11.17	1.00	1.00
2028	12,511	12,511	15.60	15.75	22.02	11.36	1.00	1.00
2029	12,511	12,511	16.02	16.17	22.29	11.41	1.00	1.00
2030	12,511	12,511	16.52	16.68	22.92	11.59	1.00	1.00
2031	12,511	12,511	17.08	17.22	23.58	11.80	1.00	1.00
2032	12,511	12,511	17.50	17.66	23.31	11.88	1.00	1.00
2033	12,511	12,511	18.27	18.37	24.12	12.10	1.00	1.00
2034	12,511	12,511	18.73	18.79	23.68	12.14	1.00	1.00
2035	12,511	12,511	19.57	19.64	25.52	12.29	1.00	1.00
2036	12,511	12,511	20.40	20.43	26.76	12.55	1.00	1.00
2037	12,511	12,511	21.11	21.15	27.25	12.70	1.00	1.00
2038	12,511	12,511	22.02	22.06	28.05	13.04	1.00	1.00
2039	12,511	12,511	22.78	22.82	28.69	13.32	1.00	1.00
2040	12,511	12,511	23.59	23.62	29.06	13.44	1.00	1.00
2041	12,511	12,511	24.54	24.56	29.99	13.75	1.00	1.00
2042	12,511	12,511	25.50	25.53	30.97	14.10	1.00	1.00
2043	12,511	12,511	26.74	26.77	33.55	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Business Refrigeration

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	3,541	1,942	82	4,947	6,258	4,254
2020	3,436	1,991	118	7,288	8,879	3,954
2021	3,300	2,041	124	7,604	9,273	3,795
2022	3,168	2,092	131	8,048	9,668	3,772
2023	3,041	2,144	139	8,461	9,946	3,839
2024	2,919	2,198	147	8,938	10,319	3,882
2025	2,800	2,253	157	9,550	10,885	3,875
2026	2,685	2,309	168	10,206	11,466	3,901
2027	2,573	2,367	178	10,772	11,957	3,933
2028	2,462	2,426	183	11,058	12,214	3,914
2029	2,351	2,486	192	11,524	12,536	4,017
2030	2,240	2,549	201	12,063	13,037	4,016
2031	2,129	2,612	206	12,312	13,273	3,986
2032	2,018	2,678	214	12,747	13,546	4,111
2033	1,907	2,745	236	14,026	14,812	4,101
2034	1,797	2,813	247	14,599	15,163	4,292
2035	1,686	2,884	253	14,931	15,397	4,356
2036	1,576	2,956	262	15,377	15,854	4,316
2037	1,465	3,030	269	15,726	16,082	4,408
2038	1,355	3,105	277	16,119	16,573	4,283
2039	1,245	3,183	284	16,450	16,953	4,209
2040	1,155	3,262	292	16,829	17,147	4,391
2041	1,085	3,344	300	17,198	17,579	4,348
2042	1,015	3,428	308	17,590	18,068	4,272
2043	945	3,513	317	18,042	18,533	4,285
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	53,891	66,349	5,286	312,404	335,418	102,511
NPV	12,055	11,016	798	47,813	53,182	18,500

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
	AVOIDED TRANSMISSION CAP COST	AVOIDED TRANSMISSION O&M COST	TOTAL AVOIDED TRANSMISSION COST	AVOIDED DISTRIBUTION CAP COST	AVOIDED DISTRIBUTION O&M COST	TOTAL AVOIDED DISTRIBUTION COST	PROGRAM FUEL SAVINGS	PROGRAM OFF-PEAK PAYBACK
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	152	0
2011	25	2	27	2	1	3	730	0
2012	97	8	105	8	2	10	1,724	0
2013	189	24	213	16	4	20	3,167	0
2014	294	32	326	24	7	31	4,764	0
2015	389	41	430	32	9	41	6,562	0
2016	480	45	526	40	11	51	8,389	0
2017	507	50	557	42	12	55	9,762	0
2018	535	55	590	45	14	58	11,268	0
2019	564	56	620	47	15	62	12,779	0
2020	545	57	602	45	15	61	13,432	0
2021	525	59	584	44	16	60	13,977	0
2022	507	60	567	42	16	58	14,522	0
2023	488	62	550	41	17	57	14,886	0
2024	470	63	534	39	17	56	15,510	0
2025	452	65	517	38	17	55	16,015	0
2026	434	67	501	36	18	54	16,350	0
2027	416	68	485	35	18	53	16,810	0
2028	399	70	469	33	19	52	17,309	0
2029	381	72	452	32	19	51	17,767	0
2030	363	74	436	30	20	50	18,327	0
2031	345	75	421	29	20	49	18,920	0
2032	328	77	405	27	21	48	19,400	0
2033	311	79	391	26	21	47	20,156	0
2034	296	81	377	25	22	46	20,607	0
2035	282	83	365	24	22	46	21,540	0
2036	270	85	355	22	23	45	22,404	0
2037	259	87	346	22	23	45	23,181	0
2038	248	90	338	21	24	45	24,192	0
2039	238	92	330	20	25	44	25,011	0
2040	229	94	323	19	25	44	25,895	0
2041	220	96	316	18	26	44	26,914	0
2042	210	99	309	18	26	44	27,977	0
2043	201	101	302	17	27	44	29,345	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	11,499	2,171	13,670	958	572	1,530	539,744	0
NPV	3,385	464	3,849	282	119	400	105,269	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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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	4.12	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	4.94	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.10	

BUSINESS BUILDING ENVELOPE PROGRAM

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Building Envelope Program

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.86 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.15 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	2,142.45 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.09 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NONRECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

* INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Building Envelope Program

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	231	6,840	0	7,071	445	184	12,339	0	0	12,339
2011	557	16,067	0	16,624	1,943	839	29,895	0	0	29,895
2012	636	18,060	0	18,696	4,301	1,917	34,532	0	0	34,532
2013	691	19,373	0	20,064	7,164	3,153	38,003	0	0	38,003
2014	698	19,347	0	20,046	10,407	4,616	39,007	0	0	39,007
2015	688	18,883	0	19,571	13,692	6,180	39,176	0	0	39,176
2016	628	17,260	0	17,888	16,964	7,450	36,583	0	0	36,583
2017	639	17,216	0	17,855	20,206	8,980	37,397	0	0	37,397
2018	650	17,180	0	17,831	23,482	10,223	38,248	0	0	38,248
2019	0	0	0	0	26,053	10,639	0	0	0	0
2020	21	418	0	440	26,223	10,405	980	0	0	980
2021	37	557	0	594	27,061	10,229	1,494	0	0	1,494
2022	38	561	0	599	28,240	10,121	1,544	0	0	1,544
2023	42	713	0	755	29,351	10,185	1,856	0	0	1,856
2024	17	261	0	278	31,023	10,285	701	0	0	701
2025	265	6,029	0	6,294	32,652	10,002	15,736	0	0	15,736
2026	659	14,622	0	15,281	34,301	10,036	39,231	0	0	39,231
2027	766	16,574	0	17,340	36,556	10,125	45,734	0	0	45,734
2028	841	17,760	0	18,601	38,365	10,236	50,416	0	0	50,416
2029	886	18,248	0	19,134	40,495	10,303	53,298	0	0	53,298
2030	986	19,034	0	20,020	42,906	10,401	57,173	0	0	57,173
2031	1,033	18,435	0	19,469	45,291	10,469	56,706	0	0	56,706
2032	1,064	18,476	0	19,540	48,414	10,672	58,249	0	0	58,249
2033	1,090	18,604	0	19,695	53,387	11,036	59,974	0	0	59,974
2034	142	1,100	0	1,241	54,441	11,206	3,616	0	0	3,616
2035	101	661	0	762	57,243	10,988	2,241	0	0	2,241
2036	49	269	0	318	62,004	11,144	993	0	0	993
2037	42	225	0	267	65,676	11,420	853	0	0	853
2038	37	190	0	226	69,010	11,457	737	0	0	737
2039	0	0	0	0	72,662	11,508	0	0	0	0
2040	419	6,447	0	6,866	76,560	11,549	24,396	0	0	24,396
2041	1,015	15,179	0	16,194	81,179	11,608	59,266	0	0	59,266
2042	1,172	17,136	0	18,307	86,113	11,668	68,766	0	0	68,766
2043	1,288	18,473	0	19,760	91,383	11,728	76,058	0	0	76,058
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	17,430	360,199	0	377,629	1,355,196	312,962	985,197	0	0	985,197
NPV	5,169	128,842	0	134,012	238,757	73,147	290,378	0	0	290,378

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GENK-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Business Building Envelope Program

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
YEAR													
2019	135,848	4,220	0	9,481	6,254	2,289	808	5,299	10	28,362	28,362	28,362	132,486
2020	130,539	4,055	0	9,110	4,297	2,194	828	5,299	1,734	27,519	25,273	53,635	135,798
2021	123,505	3,837	0	8,619	4,259	2,099	849	5,299	1,465	26,426	22,289	75,923	139,193
2022	116,741	3,626	0	8,147	4,209	2,003	870	5,299	1,218	25,373	19,654	95,577	142,673
2023	110,223	3,424	0	7,692	4,156	1,908	892	5,299	986	24,357	17,327	112,904	146,240
2024	103,938	3,229	0	7,254	4,093	1,812	914	5,299	773	23,374	15,271	128,175	149,896
2025	97,865	3,040	0	6,830	4,024	1,717	937	5,299	576	22,423	13,454	141,629	153,644
2026	91,990	2,858	0	6,420	3,948	1,622	961	5,299	394	21,501	11,848	153,477	157,485
2027	86,297	2,681	0	6,022	3,729	1,526	985	5,299	364	20,606	10,428	163,905	161,422
2028	80,633	2,505	0	5,627	3,481	1,431	1,009	5,299	364	19,716	9,163	173,068	165,457
2029	74,970	2,329	0	5,232	3,232	1,335	1,035	5,299	364	18,827	8,036	181,103	169,594
2030	69,307	2,153	0	4,837	2,985	1,240	1,060	5,299	364	17,938	7,031	188,135	173,834
2031	63,644	1,977	0	4,442	2,736	1,145	1,087	5,299	364	17,050	6,138	194,272	178,179
2032	57,980	1,801	0	4,046	2,488	1,049	1,114	5,299	364	16,162	5,343	199,616	182,634
2033	52,317	1,625	0	3,651	2,239	954	1,142	5,299	364	15,275	4,638	204,254	187,200
2034	46,653	1,449	0	3,256	1,992	859	1,170	5,299	364	14,389	4,012	208,266	191,880
2035	40,990	1,273	0	2,861	1,743	763	1,200	5,299	364	13,503	3,458	211,724	196,677
2036	35,327	1,097	0	2,465	1,495	668	1,230	5,299	364	12,619	2,968	214,692	201,594
2037	29,664	921	0	2,070	1,247	572	1,260	5,299	364	11,735	2,535	217,226	206,633
2038	24,000	746	0	1,675	999	477	1,292	5,299	364	10,851	2,153	219,379	211,799
2039	18,337	570	0	1,280	1,859	382	1,324	5,299	(745)	9,969	1,816	221,195	217,094
2040	13,783	428	0	962	2,768	286	1,357	5,299	(1,853)	9,248	1,547	222,742	222,522
2041	10,337	321	0	721	2,617	191	1,391	5,299	(1,853)	8,688	1,335	224,077	228,085
2042	6,891	214	0	481	2,466	95	1,426	5,299	(1,853)	8,128	1,147	225,224	233,787
2043	3,445	107	0	240	2,315	(0)	1,462	5,299	(1,853)	7,570	981	226,205	239,631

IN SERVICE COST (\$000)	132,486
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = \text{CPWFC} / \text{IN-SVC COST} =$$

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Building Envelope Program

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	4,831	4,831	5,299	5,299	4,805	4,805	10	12,366	0	0	0	10	(3,352)
2020	7.22%	9,301	14,132	5,299	10,599	4,805	9,610	1,734	12,366	0	0	0	1,734	(1,618)
2021	6.68%	8,602	22,734	5,299	15,898	4,805	14,414	1,465	12,366	0	0	0	1,465	(153)
2022	6.18%	7,962	30,696	5,299	21,198	4,805	19,219	1,218	12,366	0	0	0	1,218	1,065
2023	5.71%	7,360	38,057	5,299	26,497	4,805	24,024	986	12,366	0	0	0	986	2,051
2024	5.29%	6,809	44,866	5,299	31,797	4,805	28,829	773	12,366	0	0	0	773	2,824
2025	4.89%	6,297	51,163	5,299	37,096	4,805	33,634	576	12,366	0	0	0	576	3,400
2026	4.52%	5,826	56,989	5,299	42,396	4,805	38,438	394	12,366	0	0	0	394	3,794
2027	4.46%	5,749	62,738	5,299	47,695	4,805	43,243	364	12,366	0	0	0	364	4,158
2028	4.46%	5,747	68,485	5,299	52,995	4,805	48,048	364	12,366	0	0	0	364	4,522
2029	4.46%	5,749	74,234	5,299	58,294	4,805	52,853	364	12,366	0	0	0	364	4,886
2030	4.46%	5,747	79,981	5,299	63,593	4,805	57,658	364	12,366	0	0	0	364	5,249
2031	4.46%	5,749	85,730	5,299	68,893	4,805	62,462	364	12,366	0	0	0	364	5,613
2032	4.46%	5,747	91,477	5,299	74,192	4,805	67,267	364	12,366	0	0	0	364	5,977
2033	4.46%	5,749	97,226	5,299	79,492	4,805	72,072	364	12,366	0	0	0	364	6,341
2034	4.46%	5,747	102,973	5,299	84,791	4,805	76,877	364	12,366	0	0	0	364	6,705
2035	4.46%	5,749	108,722	5,299	90,091	4,805	81,682	364	12,366	0	0	0	364	7,069
2036	4.46%	5,747	114,469	5,299	95,390	4,805	86,486	364	12,366	0	0	0	364	7,432
2037	4.46%	5,749	120,218	5,299	100,690	4,805	91,291	364	12,366	0	0	0	364	7,796
2038	4.46%	5,747	125,965	5,299	105,989	4,805	96,096	364	12,366	0	0	0	364	8,160
2039	2.23%	2,874	128,840	5,299	111,289	4,805	100,901	(745)	12,366	0	0	0	(745)	7,415
2040	0.00%	0	128,840	5,299	116,588	4,805	105,706	(1,853)	12,366	0	0	0	(1,853)	5,562
2041	0.00%	0	128,840	5,299	121,887	4,805	110,510	(1,853)	12,366	0	0	0	(1,853)	3,708
2042	0.00%	0	128,840	5,299	127,187	4,805	115,315	(1,853)	12,366	0	0	0	(1,853)	1,855
2043	0.00%	0	128,840	5,299	132,486	4,805	120,120	(1,853)	12,366	0	0	0	(1,853)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(3,362)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	12,366
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Building Envelope Program

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	4,831	10	127,187	5,299	(3,352)	135,848	130,539	133,194
2020	7.22%	9,301	1,734	121,887	10,599	(1,618)	130,539	123,505	127,022
2021	6.68%	8,602	1,465	116,588	15,898	(153)	123,505	116,741	120,123
2022	6.18%	7,962	1,218	111,289	21,198	1,065	116,741	110,223	113,482
2023	5.71%	7,360	986	105,989	26,497	2,051	110,223	103,938	107,081
2024	5.29%	6,809	773	100,690	31,797	2,824	103,938	97,865	100,902
2025	4.89%	6,297	576	95,390	37,096	3,400	97,865	91,990	94,928
2026	4.52%	5,826	394	90,091	42,396	3,794	91,990	86,297	89,143
2027	4.46%	5,749	364	84,791	47,695	4,158	86,297	80,633	83,465
2028	4.46%	5,747	364	79,492	52,995	4,522	80,633	74,970	77,802
2029	4.46%	5,749	364	74,192	58,294	4,886	74,970	69,307	72,138
2030	4.46%	5,747	364	68,893	63,593	5,249	69,307	63,644	66,475
2031	4.46%	5,749	364	63,593	68,893	5,613	63,644	57,980	60,812
2032	4.46%	5,747	364	58,294	74,192	5,977	57,980	52,317	55,149
2033	4.46%	5,749	364	52,995	79,492	6,341	52,317	46,653	49,485
2034	4.46%	5,747	364	47,695	84,791	6,705	46,653	40,990	43,822
2035	4.46%	5,749	364	42,396	90,091	7,069	40,990	35,327	38,159
2036	4.46%	5,747	364	37,096	95,390	7,432	35,327	29,664	32,495
2037	4.46%	5,749	364	31,797	100,690	7,796	29,664	24,000	26,832
2038	4.46%	5,747	364	26,497	105,989	8,160	24,000	18,337	21,169
2039	2.23%	2,874	(745)	21,198	111,289	7,415	18,337	13,783	16,060
2040	0.00%	0	(1,853)	15,898	116,588	5,562	13,783	10,337	12,060
2041	0.00%	0	(1,853)	10,599	121,887	3,708	10,337	6,891	8,614
2042	0.00%	0	(1,853)	5,299	127,187	1,855	6,891	3,445	5,168
2043	0.00%	0	(1,853)	(0)	132,486	1	3,445	-1	1,722

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77												
YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	112,969	112,969	112,969
EQUITY AFUDC	12,366		
DEBT AFUDC	7,152	7,152	
CPI			15,867
TOTAL	132,486	120,120	128,836

* Column not specified in workbook

INPUT DATA -- PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Business Building Envelope Program

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	5,127	5,127	6.41	9.01	6.70	0.00	1.00	1.00
2011	17,167	17,167	6.35	8.48	6.61	0.00	1.00	1.00
2012	30,582	30,582	6.43	8.45	6.66	0.00	1.00	1.00
2013	44,795	44,795	7.06	8.41	7.23	0.00	1.00	1.00
2014	58,804	58,804	7.53	8.67	7.68	0.00	1.00	1.00
2015	72,271	72,271	8.11	9.61	8.31	0.00	1.00	1.00
2016	84,263	84,263	9.00	11.55	9.31	0.00	1.00	1.00
2017	96,163	96,163	9.75	12.72	10.06	0.00	1.00	1.00
2018	107,988	107,988	10.52	13.53	10.86	0.00	1.00	1.00
2019	107,988	107,988	11.50	15.25	11.94	10.41	1.00	1.00
2020	107,988	107,988	12.08	15.88	12.57	10.50	1.00	1.00
2021	107,988	107,988	12.57	16.53	13.08	10.74	1.00	1.00
2022	107,988	107,988	13.06	17.14	13.59	10.81	1.00	1.00
2023	107,988	107,988	13.39	17.16	13.92	10.80	1.00	1.00
2024	107,988	107,988	13.95	17.82	14.47	10.84	1.00	1.00
2025	107,988	107,988	14.40	18.22	14.92	10.96	1.00	1.00
2026	107,988	107,988	14.70	18.32	15.19	11.05	1.00	1.00
2027	107,988	107,988	15.13	18.54	15.60	11.17	1.00	1.00
2028	107,988	107,988	15.60	18.91	16.05	11.36	1.00	1.00
2029	107,988	107,988	16.02	18.85	16.44	11.41	1.00	1.00
2030	107,988	107,988	16.52	19.26	16.92	11.59	1.00	1.00
2031	107,988	107,988	17.08	19.86	17.47	11.80	1.00	1.00
2032	107,988	107,988	17.50	19.62	17.84	11.88	1.00	1.00
2033	107,988	107,988	18.27	20.38	18.50	12.10	1.00	1.00
2034	107,988	107,988	18.73	20.08	18.86	12.14	1.00	1.00
2035	107,988	107,988	19.57	21.37	19.75	12.29	1.00	1.00
2036	107,988	107,988	20.40	22.39	20.54	12.55	1.00	1.00
2037	107,988	107,988	21.11	22.91	21.24	12.70	1.00	1.00
2038	107,988	107,988	22.02	23.86	22.16	13.04	1.00	1.00
2039	107,988	107,988	22.78	24.49	22.89	13.32	1.00	1.00
2040	107,988	107,988	23.59	25.04	23.68	13.44	1.00	1.00
2041	107,988	107,988	24.54	25.93	24.62	13.75	1.00	1.00
2042	107,988	107,988	25.50	26.84	25.59	14.10	1.00	1.00
2043	107,988	107,988	26.74	28.65	26.85	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

	(2)	(3)	(4)	(5)	(6)	(7)
	AVOIDED GEN UNIT CAPACITY COST	AVOIDED GEN UNIT FIXED O&M	AVOIDED GEN UNIT VARIABLE O&M	AVOIDED GEN UNIT FUEL COST	REPLACEMENT FUEL COST	AVOIDED GEN UNIT BENEFITS
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	28,362	15,557	656	39,617	50,122	34,070
2020	27,519	15,946	946	58,369	71,109	31,670
2021	26,426	16,344	990	60,900	74,268	30,393
2022	25,373	16,753	1052	64,457	77,428	30,208
2023	24,357	17,172	1110	67,766	79,655	30,750
2024	23,374	17,601	1176	71,585	82,644	31,093
2025	22,423	18,041	1257	76,487	87,174	31,035
2026	21,501	18,492	1347	81,736	91,830	31,247
2027	20,606	18,954	1424	86,275	95,762	31,498
2028	19,716	19,428	1466	88,565	97,825	31,350
2029	18,827	19,914	1535	92,294	100,397	32,173
2030	17,938	20,412	1612	96,615	104,411	32,165
2031	17,050	20,922	1651	98,606	106,305	31,924
2032	16,162	21,445	1716	102,089	108,489	32,924
2033	15,275	21,981	1888	112,331	118,631	32,844
2034	14,389	22,531	1976	116,920	121,443	34,372
2035	13,503	23,094	2030	119,581	123,318	34,891
2036	12,619	23,672	2099	123,152	126,976	34,565
2037	11,735	24,263	2157	125,951	128,802	35,303
2038	10,851	24,870	2219	129,093	132,731	34,302
2039	9,969	25,492	2276	131,748	135,779	33,706
2040	9,248	26,129	2339	134,782	137,330	35,167
2041	8,688	26,782	2402	137,739	140,787	34,825
2042	8,128	27,452	2468	140,876	144,710	34,214
2043	7,570	28,138	2542	144,500	148,432	34,318
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	431,609	531,386	42,336	2,502,034	2,686,358	821,007
NPV	96,549	88,224	6,393	382,937	425,933	148,168

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	524	0
2011	221	17	239	18	5	23	2,128	0
2012	750	60	810	62	16	79	4,536	0
2013	1,340	161	1,500	112	29	141	7,016	0
2014	1,965	216	2,181	164	44	208	9,883	0
2015	2,579	272	2,851	215	59	274	13,916	0
2016	3,164	325	3,490	264	75	338	20,243	0
2017	3,673	380	4,054	306	89	395	25,756	0
2018	4,178	438	4,616	348	104	452	30,949	0
2019	4,680	449	5,129	390	120	510	37,064	0
2020	4,518	460	4,978	376	123	499	38,537	0
2021	4,358	472	4,829	363	126	489	40,120	0
2022	4,202	483	4,686	350	129	479	41,586	0
2023	4,059	495	4,546	337	133	470	41,475	0
2024	3,902	508	4,410	325	136	461	43,051	0
2025	3,755	521	4,275	313	139	452	43,973	0
2026	3,609	534	4,143	301	143	443	44,097	0
2027	3,464	547	4,011	288	146	435	44,512	0
2028	3,319	561	3,879	276	150	426	45,313	0
2029	3,174	575	3,748	264	154	418	44,937	0
2030	3,028	589	3,617	252	158	410	45,854	0
2031	2,884	604	3,488	240	162	402	47,275	0
2032	2,743	619	3,362	228	166	394	46,393	0
2033	2,608	634	3,242	217	170	387	48,151	0
2034	2,481	650	3,132	207	174	381	47,096	0
2035	2,363	666	3,030	197	178	375	50,280	0
2036	2,254	683	2,937	188	183	371	52,752	0
2037	2,154	700	2,854	179	187	367	53,860	0
2038	2,062	718	2,779	172	192	364	56,080	0
2039	1,978	736	2,714	165	197	362	57,459	0
2040	1,901	754	2,655	158	202	360	58,622	0
2041	1,825	773	2,598	152	207	359	60,654	0
2042	1,750	792	2,542	146	212	358	62,737	0
2043	1,675	812	2,487	140	217	357	67,193	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	92,608	17,203	109,811	7,713	4,525	12,238	1,334,020	0
NPV	26,371	3,601	29,972	2,196	918	3,114	270,254	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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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	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)
YEAR												
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	231	12,339	0	12,571	0	0	524	5	528	(12,042)	(11,060)
2011	0	557	29,895	0	30,453	0	262	2,128	8	2,398	(28,054)	(34,721)
2012	0	636	34,532	0	35,169	0	888	4,536	18	5,441	(29,727)	(57,748)
2013	0	691	38,003	0	38,694	0	1,641	7,016	587	9,245	(29,449)	(78,697)
2014	0	698	39,007	0	39,705	0	2,389	9,883	892	13,164	(26,541)	(96,037)
2015	0	688	39,176	0	39,864	0	3,125	13,916	1,253	18,294	(21,570)	(108,979)
2016	0	628	36,583	0	37,211	0	3,828	20,243	1,709	25,780	(11,431)	(115,278)
2017	0	639	37,397	0	38,035	0	4,449	25,756	2,171	32,376	(5,660)	(118,142)
2018	0	650	38,248	0	38,899	0	5,068	30,949	2,667	38,684	(215)	(118,241)
2019	0	0	0	0	0	34,070	5,639	37,064	1,639	78,412	78,412	(84,773)
2020	0	21	980	0	1,001	31,670	5,477	38,537	1,218	76,903	75,902	(55,021)
2021	0	37	1,494	0	1,530	30,393	5,318	40,120	1,252	77,083	75,553	(27,823)
2022	0	38	1,544	0	1,582	30,208	5,165	41,586	1,292	78,251	76,669	(2,475)
2023	0	42	1,856	0	1,898	30,750	5,016	41,475	1,282	78,523	76,625	20,791
2024	0	17	701	0	718	31,093	4,870	43,051	1,324	80,339	79,620	42,993
2025	0	265	15,736	0	16,001	31,035	4,727	43,973	1,333	81,068	65,067	59,656
2026	0	659	39,231	0	39,890	31,247	4,586	44,097	1,315	81,244	41,354	69,382
2027	0	766	45,734	0	46,500	31,498	4,446	44,512	1,275	81,729	35,229	76,991
2028	0	841	50,416	0	51,257	31,350	4,306	45,313	1,379	82,347	31,090	83,158
2029	0	886	53,298	0	54,184	32,173	4,166	44,937	1,464	82,740	28,556	88,360
2030	0	986	57,173	0	58,159	32,165	4,027	45,854	1,432	83,478	25,319	92,596
2031	0	1,033	56,706	0	57,739	31,924	3,890	47,275	1,565	84,653	26,914	96,732
2032	0	1,064	58,249	0	59,313	32,924	3,756	46,393	1,642	84,714	25,402	100,316
2033	0	1,090	59,974	0	61,064	32,844	3,629	48,151	1,186	85,810	24,746	103,523
2034	0	142	3,616	0	3,757	34,372	3,512	47,096	1,097	86,077	82,320	113,321
2035	0	101	2,241	0	2,342	34,891	3,405	50,280	1,151	89,726	87,384	122,872
2036	0	49	993	0	1,042	34,565	3,308	52,752	1,169	91,794	90,752	131,982
2037	0	42	853	0	895	35,303	3,221	53,860	1,233	93,617	92,723	140,530
2038	0	37	737	0	773	34,302	3,143	56,080	1,289	94,815	94,041	148,492
2039	0	0	0	0	0	33,706	3,075	57,459	1,272	95,512	95,512	155,919
2040	0	419	24,396	0	24,815	35,167	3,015	58,622	1,307	98,111	73,297	161,153
2041	0	1,015	59,266	0	60,281	34,825	2,957	60,654	1,381	99,817	39,536	163,746
2042	0	1,172	68,766	0	69,938	34,214	2,900	62,737	2,752	102,603	32,665	165,713
2043	0	1,288	76,058	0	77,346	34,318	2,844	67,193	4,237	108,592	31,246	167,442
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0		

Benefit/Cost Ratio (Col(11) / Col(6)) :

8.89	%
1.57	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS	TAX CREDITS	UTILITY REBAATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	719	0	6,840	0	7,559	12,339	0	0	12,339	(4,780)	(4,390)
2011	3,181	0	16,067	0	19,248	29,895	0	0	29,895	(10,648)	(13,370)
2012	7,099	0	18,060	0	25,159	34,532	0	0	34,532	(9,373)	(20,631)
2013	11,784	0	19,373	0	31,158	38,003	0	0	38,003	(6,845)	(25,500)
2014	17,154	0	19,347	0	36,501	39,007	0	0	39,007	(2,506)	(27,137)
2015	22,677	0	18,883	0	41,560	39,176	0	0	39,176	2,384	(25,707)
2016	27,889	0	17,260	0	45,149	36,583	0	0	36,583	8,566	(20,987)
2017	33,324	0	17,216	0	50,540	37,397	0	0	37,397	13,143	(14,335)
2018	38,515	0	17,180	0	55,696	38,248	0	0	38,248	17,448	(6,227)
2019	42,028	0	0	0	42,028	0	0	0	0	42,028	11,712
2020	42,000	0	418	0	42,418	980	0	0	980	41,438	27,955
2021	42,833	0	557	0	43,390	1,494	0	0	1,494	41,896	43,037
2022	44,146	0	561	0	44,707	1,544	0	0	1,544	43,163	57,308
2023	45,548	0	713	0	46,261	1,856	0	0	1,856	44,405	70,790
2024	47,663	0	261	0	47,924	701	0	0	701	47,223	83,958
2025	49,342	0	6,029	0	55,370	15,736	0	0	15,736	39,635	94,108
2026	51,363	0	14,622	0	65,985	39,231	0	0	39,231	26,754	100,400
2027	54,169	0	16,574	0	70,743	45,734	0	0	45,734	25,009	105,802
2028	56,458	0	17,760	0	74,218	50,416	0	0	50,416	23,802	110,524
2029	59,092	0	18,248	0	77,340	53,298	0	0	53,298	24,042	114,904
2030	62,096	0	19,034	0	81,129	57,173	0	0	57,173	23,956	118,912
2031	65,036	0	18,435	0	83,471	56,706	0	0	56,706	26,765	123,024
2032	69,003	0	18,476	0	87,479	58,249	0	0	58,249	29,230	127,149
2033	75,357	0	18,604	0	93,962	59,974	0	0	59,974	33,988	131,553
2034	76,798	0	1,100	0	77,897	3,616	0	0	3,616	74,282	140,394
2035	79,956	0	661	0	80,616	2,241	0	0	2,241	78,376	148,961
2036	85,847	0	269	0	86,117	993	0	0	993	85,123	157,506
2037	90,548	0	225	0	90,773	853	0	0	853	89,920	165,796
2038	94,601	0	190	0	94,791	737	0	0	737	94,054	173,759
2039	99,053	0	0	0	99,053	0	0	0	0	99,053	181,461
2040	103,790	0	6,447	0	110,237	24,396	0	0	24,396	85,841	187,591
2041	109,415	0	15,179	0	124,594	59,266	0	0	59,266	65,328	191,875
2042	115,419	0	17,136	0	132,554	68,766	0	0	68,766	63,788	195,717
2043	121,827	0	18,473	0	140,300	76,058	0	0	76,058	64,242	199,271
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
NOM	1,945,728	0	360,199	0	2,305,928	985,197	0	0	985,197	1,320,730	
NPV	360,806	0	128,842	0	489,648	290,378	0	0	290,378	199,271	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89 %

1.69

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.04	

BUSINESS WATER HEATING

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Water Heating

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.94 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.26 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	7,095.49 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.63
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
* (10) UTILITY DISCOUNT RATE	8.89 %
* (11) UTILITY AFUDC RATE	8.48 %
* (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
* (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
* (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2017-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (in-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (in-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	72	902	0	974	99	20	1,420	0	0	1,420
2011	84	746	0	830	344	71	1,494	0	0	1,494
2012	94	819	0	913	666	140	1,681	0	0	1,681
2013	186	2,268	0	2,454	1,124	242	3,706	0	0	3,706
2014	118	979	0	1,097	1,681	366	2,108	0	0	2,108
2015	75	604	0	678	2,150	458	1,332	0	0	1,332
2016	46	367	0	413	2,506	506	830	0	0	830
2017	48	367	0	414	2,803	563	850	0	0	850
2018	49	367	0	416	3,097	600	872	0	0	872
2019	0	0	0	0	3,373	608	0	0	0	0
2020	0	0	0	0	3,398	595	0	0	0	0
2021	0	0	0	0	3,517	584	0	0	0	0
2022	0	0	0	0	3,685	578	0	0	0	0
2023	0	0	0	0	3,839	582	0	0	0	0
2024	0	0	0	0	4,071	588	0	0	0	0
2025	63	384	0	447	4,304	571	1,130	0	0	1,130
2026	163	1,265	0	1,428	4,533	573	3,112	0	0	3,112
2027	136	819	0	955	4,847	578	2,434	0	0	2,434
2028	153	897	0	1,050	5,098	585	2,733	0	0	2,733
2029	291	2,349	0	2,640	5,395	589	5,752	0	0	5,752
2030	108	604	0	712	5,731	594	1,930	0	0	1,930
2031	67	367	0	434	6,064	598	1,201	0	0	1,201
2032	69	367	0	436	6,497	610	1,232	0	0	1,232
2033	71	367	0	437	7,185	631	1,262	0	0	1,262
2034	0	0	0	0	7,328	640	0	0	0	0
2035	0	0	0	0	7,728	628	0	0	0	0
2036	0	0	0	0	8,392	637	0	0	0	0
2037	0	0	0	0	8,900	652	0	0	0	0
2038	0	0	0	0	9,367	655	0	0	0	0
2039	0	0	0	0	9,878	657	0	0	0	0
2040	92	384	0	475	10,424	660	1,637	0	0	1,637
2041	175	746	0	922	11,071	663	3,134	0	0	3,134
2042	260	1,337	0	1,597	11,762	667	4,934	0	0	4,934
2043	221	897	0	1,118	12,501	670	3,958	0	0	3,958
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	2,642	18,199	0	20,841	183,357	18,359	48,740	0	0	48,740
NPV	797	6,907	0	7,704	32,640	4,482	14,791	0	0	14,791

* 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_REQ
PROGRAM NAME: Business Water Heating

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	6,299	196	0	440	290	106	37	246	0	1,315	1,315	1,315	6,144
2020	6,053	188	0	422	199	102	38	246	80	1,276	1,172	2,487	6,297
2021	5,727	178	0	400	197	97	39	246	68	1,225	1,034	3,521	6,455
2022	5,413	168	0	378	195	93	40	246	56	1,177	911	4,432	6,616
2023	5,111	159	0	357	193	88	41	246	46	1,129	803	5,236	6,781
2024	4,820	150	0	336	190	84	42	246	36	1,084	708	5,944	6,951
2025	4,538	141	0	317	187	80	43	246	27	1,040	624	6,568	7,125
2026	4,266	133	0	298	183	75	45	246	18	997	549	7,117	7,303
2027	4,002	124	0	279	173	71	46	246	17	956	484	7,600	7,485
2028	3,739	116	0	261	161	66	47	246	17	914	425	8,025	7,672
2029	3,476	108	0	243	150	62	48	246	17	873	373	8,398	7,864
2030	3,214	100	0	224	138	58	49	246	17	832	326	8,724	8,061
2031	2,951	92	0	206	127	53	50	246	17	791	285	9,009	8,262
2032	2,689	84	0	188	115	49	52	246	17	749	248	9,256	8,469
2033	2,426	75	0	169	104	44	53	246	17	708	215	9,472	8,681
2034	2,163	67	0	151	92	40	54	246	17	667	186	9,658	8,898
2035	1,901	59	0	133	81	35	56	246	17	626	160	9,818	9,120
2036	1,638	51	0	114	69	31	57	246	17	585	138	9,956	9,348
2037	1,376	43	0	96	58	27	58	246	17	544	118	10,073	9,582
2038	1,113	35	0	78	46	22	60	246	17	503	100	10,173	9,821
2039	850	26	0	59	36	18	61	246	(35)	462	84	10,257	10,067
2040	639	20	0	45	128	13	63	246	(86)	429	72	10,329	10,319
2041	479	15	0	33	121	9	65	246	(86)	403	62	10,391	10,577
2042	320	10	0	22	114	4	66	246	(86)	377	53	10,444	10,841
2043	160	5	0	11	107	(0)	68	246	(86)	351	45	10,489	11,112

IN SERVICE COST (\$000)	6,144
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	224	224	246	246	223	223	0	573	0	0	0	0	(155)
2020	7.22%	431	655	246	491	223	446	80	573	0	0	0	80	(75)
2021	6.68%	399	1,054	246	737	223	668	68	573	0	0	0	68	(7)
2022	6.18%	369	1,423	246	983	223	891	56	573	0	0	0	56	49
2023	5.71%	341	1,765	246	1,229	223	1,114	46	573	0	0	0	46	95
2024	5.29%	316	2,080	246	1,474	223	1,337	36	573	0	0	0	36	131
2025	4.89%	292	2,373	246	1,720	223	1,560	27	573	0	0	0	27	158
2026	4.52%	270	2,643	246	1,966	223	1,782	18	573	0	0	0	18	176
2027	4.46%	267	2,909	246	2,212	223	2,005	17	573	0	0	0	17	193
2028	4.46%	267	3,176	246	2,457	223	2,228	17	573	0	0	0	17	210
2029	4.46%	267	3,442	246	2,703	223	2,451	17	573	0	0	0	17	227
2030	4.46%	267	3,709	246	2,949	223	2,674	17	573	0	0	0	17	243
2031	4.46%	267	3,975	246	3,195	223	2,896	17	573	0	0	0	17	260
2032	4.46%	267	4,242	246	3,440	223	3,119	17	573	0	0	0	17	277
2033	4.46%	267	4,508	246	3,686	223	3,342	17	573	0	0	0	17	294
2034	4.46%	267	4,775	246	3,932	223	3,565	17	573	0	0	0	17	311
2035	4.46%	267	5,042	246	4,178	223	3,788	17	573	0	0	0	17	328
2036	4.46%	267	5,308	246	4,423	223	4,010	17	573	0	0	0	17	345
2037	4.46%	267	5,575	246	4,669	223	4,233	17	573	0	0	0	17	362
2038	4.46%	267	5,841	246	4,915	223	4,456	17	573	0	0	0	17	378
2039	2.23%	133	5,974	246	5,161	223	4,679	(35)	573	0	0	0	(35)	344
2040	0.00%	0	5,974	246	5,406	223	4,902	(86)	573	0	0	0	(86)	258
2041	0.00%	0	5,974	246	5,652	223	5,125	(86)	573	0	0	0	(86)	172
2042	0.00%	0	5,974	246	5,898	223	5,347	(86)	573	0	0	0	(86)	86
2043	0.00%	0	5,974	246	6,144	223	5,570	(86)	573	0	0	0	(86)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(156)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	573
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Water Heating

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	224	0	5,898	246	(155)	6,299	6,053	6,176
2020	7.22%	431	80	5,652	491	(75)	6,053	5,727	5,890
2021	6.68%	399	68	5,406	737	(7)	5,727	5,413	5,570
2022	6.18%	369	56	5,161	983	49	5,413	5,111	5,262
2023	5.71%	341	46	4,915	1,229	95	5,111	4,820	4,965
2024	5.29%	316	36	4,669	1,474	131	4,820	4,538	4,679
2025	4.89%	292	27	4,423	1,720	158	4,538	4,266	4,402
2026	4.52%	270	18	4,178	1,966	176	4,266	4,002	4,134
2027	4.46%	267	17	3,932	2,212	193	4,002	3,739	3,870
2028	4.46%	267	17	3,686	2,457	210	3,739	3,476	3,608
2029	4.46%	267	17	3,440	2,703	227	3,476	3,214	3,345
2030	4.46%	267	17	3,195	2,949	243	3,214	2,951	3,083
2031	4.46%	267	17	2,949	3,195	260	2,951	2,689	2,820
2032	4.46%	267	17	2,703	3,440	277	2,689	2,426	2,557
2033	4.46%	267	17	2,457	3,686	294	2,426	2,163	2,295
2034	4.46%	267	17	2,212	3,932	311	2,163	1,901	2,032
2035	4.46%	267	17	1,966	4,178	328	1,901	1,638	1,769
2036	4.46%	267	17	1,720	4,423	345	1,638	1,376	1,507
2037	4.46%	267	17	1,474	4,669	362	1,376	1,113	1,244
2038	4.46%	267	17	1,229	4,915	378	1,113	850	982
2039	2.23%	133	(35)	983	5,161	344	850	639	745
2040	0.00%	0	(86)	737	5,406	258	639	479	559
2041	0.00%	0	(86)	491	5,652	172	479	320	399
2042	0.00%	0	(86)	246	5,898	86	320	160	240
2043	0.00%	0	(86)	(0)	6,144	0	160	0	80

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
(1)	(2)	(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
YEAR	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.25	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	5,239	5,239	5,239
EQUITY AFUDC	573		
DEBT AFUDC	332	332	
CPI			736
TOTAL	6,144	5,570	5,974

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Business Water Heating

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	465	465	6.41	6.72	8.91	0.00	1.00	1.00
2011	992	992	6.35	6.62	8.40	0.00	1.00	1.00
2012	1,570	1,570	6.43	6.68	8.37	0.00	1.00	1.00
2013	2,686	2,686	7.06	7.24	8.35	0.00	1.00	1.00
2014	3,377	3,377	7.53	7.69	8.62	0.00	1.00	1.00
2015	3,803	3,803	8.11	8.32	9.53	0.00	1.00	1.00
2016	4,062	4,062	9.00	9.33	11.45	0.00	1.00	1.00
2017	4,320	4,320	9.75	10.08	12.59	0.00	1.00	1.00
2018	4,579	4,579	10.52	10.88	13.42	0.00	1.00	1.00
2019	4,579	4,579	11.50	11.97	15.12	10.41	1.00	1.00
2020	4,579	4,579	12.08	12.60	15.76	10.50	1.00	1.00
2021	4,579	4,579	12.57	13.12	16.36	10.74	1.00	1.00
2022	4,579	4,579	13.06	13.62	16.96	10.81	1.00	1.00
2023	4,579	4,579	13.39	13.94	16.96	10.80	1.00	1.00
2024	4,579	4,579	13.95	14.49	17.62	10.84	1.00	1.00
2025	4,579	4,579	14.40	14.95	18.05	10.96	1.00	1.00
2026	4,579	4,579	14.70	15.22	18.15	11.05	1.00	1.00
2027	4,579	4,579	15.13	15.63	18.36	11.17	1.00	1.00
2028	4,579	4,579	15.60	16.08	18.71	11.36	1.00	1.00
2029	4,579	4,579	16.02	16.46	18.68	11.41	1.00	1.00
2030	4,579	4,579	16.52	16.94	19.10	11.59	1.00	1.00
2031	4,579	4,579	17.08	17.50	19.71	11.80	1.00	1.00
2032	4,579	4,579	17.50	17.86	19.50	11.88	1.00	1.00
2033	4,579	4,579	18.27	18.52	20.25	12.10	1.00	1.00
2034	4,579	4,579	18.73	18.87	20.00	12.14	1.00	1.00
2035	4,579	4,579	19.57	19.76	21.25	12.29	1.00	1.00
2036	4,579	4,579	20.40	20.56	22.27	12.55	1.00	1.00
2037	4,579	4,579	21.11	21.25	22.81	12.70	1.00	1.00
2038	4,579	4,579	22.02	22.17	23.74	13.04	1.00	1.00
2039	4,579	4,579	22.78	22.90	24.38	13.32	1.00	1.00
2040	4,579	4,579	23.59	23.69	24.94	13.44	1.00	1.00
2041	4,579	4,579	24.54	24.63	25.85	13.75	1.00	1.00
2042	4,579	4,579	25.50	25.60	26.77	14.10	1.00	1.00
2043	4,579	4,579	26.74	26.86	28.52	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	1,315	721	30	1,837	2,324	1,580
2020	1,276	739	44	2,707	3,297	1,469
2021	1,225	758	46	2,824	3,444	1,409
2022	1,177	777	49	2,989	3,590	1,401
2023	1,129	796	51	3,142	3,694	1,426
2024	1,084	816	55	3,320	3,832	1,442
2025	1,040	837	58	3,547	4,042	1,439
2026	997	858	62	3,790	4,258	1,449
2027	956	879	66	4,001	4,441	1,461
2028	914	901	68	4,107	4,536	1,454
2029	873	923	71	4,280	4,656	1,492
2030	832	947	75	4,480	4,842	1,492
2031	791	970	77	4,572	4,929	1,480
2032	749	994	80	4,734	5,031	1,527
2033	708	1,019	88	5,209	5,501	1,523
2034	667	1,045	92	5,422	5,632	1,594
2035	626	1,071	94	5,545	5,718	1,618
2036	585	1,098	97	5,711	5,888	1,603
2037	544	1,125	100	5,841	5,973	1,637
2038	503	1,153	103	5,986	6,155	1,591
2039	462	1,182	106	6,109	6,296	1,563
2040	429	1,212	108	6,250	6,368	1,631
2041	403	1,242	111	6,387	6,529	1,615
2042	377	1,273	114	6,533	6,710	1,587
2043	351	1,305	118	6,701	6,883	1,591
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	20,014	24,641	1,963	116,023	124,570	38,071
NPV	4,477	4,091	296	17,757	19,751	6,871

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

	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT	REPLACEMENT EMISSION COST	PROGRAM EMISSION BENEFIT	OFF-PEAK EMISSION PAYBACK COST	NET EMISSION BENEFIT
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	1	0	1
2012	0	0	2	0	2
2013	0	0	108	0	108
2014	0	0	171	0	171
2015	0	0	224	0	224
2016	0	0	273	0	273
2017	0	0	320	0	320
2018	0	0	369	0	369
2019	220	287	414	0	347
2020	334	433	448	0	349
2021	368	478	484	0	375
2022	430	557	544	0	418
2023	475	614	581	0	442
2024	547	705	648	0	490
2025	631	811	715	0	535
2026	700	894	754	0	560
2027	792	1,010	827	0	608
2028	868	1,106	900	0	662
2029	993	1,260	1,004	0	737
2030	1,101	1,397	1,087	0	791
2031	1,197	1,517	1,181	0	861
2032	1,318	1,667	1,280	0	931
2033	1,535	1,941	1,388	0	982
2034	1,699	2,147	1,503	0	1,056
2035	1,846	2,333	1,629	0	1,143
2036	2,015	2,546	1,764	0	1,233
2037	2,184	2,758	1,906	0	1,331
2038	2,367	2,990	2,058	0	1,436
2039	2,557	3,233	2,223	0	1,546
2040	2,763	3,493	2,395	0	1,665
2041	2,977	3,763	2,576	0	1,789
2042	2,977	3,763	2,768	0	1,982
2043	2,977	3,763	2,977	0	2,190
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	35,870	45,466	35,524	0	25,928
NPV	4,343	5,526	5,226	0	4,043

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT COSTS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FUEL SAVINGS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	72	1,420	0	1,492	0	0	112	0	112	(1,379)	(1,267)
2011	0	84	1,494	0	1,578	0	26	345	1	372	(1,205)	(2,283)
2012	0	94	1,681	0	1,775	0	56	612	2	669	(1,106)	(3,140)
2013	0	186	3,706	0	3,892	0	93	1,098	108	1,299	(2,593)	(4,985)
2014	0	118	2,108	0	2,226	0	157	1,662	171	1,990	(235)	(5,138)
2015	0	75	1,332	0	1,407	0	195	2,131	224	2,550	1,143	(4,452)
2016	0	46	830	0	876	0	216	2,622	273	3,111	2,235	(3,221)
2017	0	48	850	0	898	0	227	3,019	320	3,565	2,667	(1,871)
2018	0	49	872	0	920	0	238	3,458	369	4,065	3,145	(410)
2019	0	0	0	0	0	1,580	248	3,919	347	6,094	6,094	2,191
2020	0	0	0	0	0	1,469	241	4,129	349	6,188	6,188	4,617
2021	0	0	0	0	0	1,409	234	4,298	375	6,316	6,316	6,891
2022	0	0	0	0	0	1,401	228	4,464	418	6,510	6,510	9,043
2023	0	0	0	0	0	1,426	221	4,565	442	6,654	6,654	11,064
2024	0	0	0	0	0	1,442	215	4,744	490	6,890	6,890	12,985
2025	0	63	1,130	0	1,194	1,439	208	4,893	535	7,075	5,881	14,491
2026	0	163	3,112	0	3,276	1,449	202	4,979	560	7,189	3,914	15,412
2027	0	136	2,434	0	2,570	1,461	195	5,110	608	7,374	4,804	16,449
2028	0	153	2,733	0	2,885	1,454	189	5,257	662	7,562	4,677	17,377
2029	0	291	5,752	0	6,043	1,492	183	5,377	737	7,789	1,746	17,695
2030	0	108	1,930	0	2,038	1,492	177	5,531	791	7,991	5,953	18,691
2031	0	67	1,201	0	1,269	1,480	170	5,712	861	8,224	6,955	19,759
2032	0	69	1,232	0	1,301	1,527	165	5,825	931	8,447	7,147	20,768
2033	0	71	1,262	0	1,333	1,523	159	6,032	982	8,697	7,364	21,722
2034	0	0	0	0	0	1,594	154	6,139	1,056	8,944	8,944	22,787
2035	0	0	0	0	0	1,618	150	6,432	1,143	9,342	9,342	23,808
2036	0	0	0	0	0	1,603	146	6,691	1,233	9,672	9,672	24,779
2037	0	0	0	0	0	1,637	143	6,915	1,331	10,026	10,026	25,703
2038	0	0	0	0	0	1,591	140	7,215	1,436	10,381	10,381	26,582
2039	0	0	0	0	0	1,563	137	7,449	1,546	10,695	10,695	27,414
2040	0	92	1,637	0	1,729	1,631	134	7,704	1,665	11,134	9,405	28,085
2041	0	175	3,134	0	3,309	1,615	132	8,010	1,789	11,546	8,236	28,625
2042	0	260	4,934	0	5,193	1,587	129	8,324	1,982	12,021	6,828	29,037
2043	0	221	3,958	0	4,179	1,591	126	8,737	2,190	12,646	8,467	29,505
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0		

Benefit/Cost Ratio (Col(11) / Col(6)) :

8.89	%
2.89	

In Service of Gen Unlt:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	3.43	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS	UTILITY PROGRAM COSTS		REVENUE LOSSES	OTHER COSTS	TOTAL COSTS	AVOIDED GEN UNIT & FUEL BENEFITS	AVOIDED T&D BENEFITS	REVENUE GAINS	OTHER BENEFITS	TOTAL BENEFITS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	INCENTIVES \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	72	902	119	0	1,093	112	0	0	0	112	(981)	(901)
2011	0	84	746	415	0	1,245	345	26	0	1	372	(872)	(1,637)
2012	0	94	819	806	0	1,719	612	56	0	2	669	(1,050)	(2,450)
2013	0	186	2,268	1,366	0	3,820	1,098	93	0	108	1,299	(2,520)	(4,243)
2014	0	118	979	2,047	0	3,143	1,662	157	0	171	1,990	(1,153)	(4,997)
2015	0	75	604	2,608	0	3,287	2,131	195	0	224	2,550	(736)	(5,439)
2016	0	46	367	3,012	0	3,426	2,622	216	0	273	3,111	(315)	(5,612)
2017	0	48	367	3,366	0	3,781	3,019	227	0	320	3,565	(216)	(5,721)
2018	0	49	367	3,697	0	4,112	3,458	238	0	369	4,065	(47)	(5,743)
2019	0	0	0	3,981	0	3,981	5,499	248	0	347	6,094	2,113	(4,841)
2020	0	0	0	3,993	0	3,993	5,597	241	0	349	6,188	2,195	(3,981)
2021	0	0	0	4,101	0	4,101	5,707	234	0	375	6,316	2,215	(3,183)
2022	0	0	0	4,263	0	4,263	5,865	228	0	418	6,510	2,247	(2,440)
2023	0	0	0	4,421	0	4,421	5,991	221	0	442	6,654	2,233	(1,762)
2024	0	0	0	4,659	0	4,659	6,186	215	0	490	6,890	2,231	(1,140)
2025	0	63	384	4,875	0	5,322	6,332	208	0	535	7,075	1,753	(691)
2026	0	163	1,265	5,106	0	6,534	6,428	202	0	560	7,189	655	(537)
2027	0	136	819	5,425	0	6,381	6,571	195	0	608	7,374	994	(323)
2028	0	153	897	5,683	0	6,732	6,711	189	0	662	7,562	830	(158)
2029	0	291	2,349	5,984	0	8,624	6,869	183	0	737	7,789	(835)	(310)
2030	0	108	604	6,325	0	7,037	7,023	177	0	791	7,991	954	(151)
2031	0	67	367	6,662	0	7,096	7,193	160	0	861	8,224	1,128	23
2032	0	69	367	7,106	0	7,542	7,352	175	0	931	8,447	905	150
2033	0	71	367	7,815	0	8,253	7,555	159	0	982	8,697	444	208
2034	0	0	0	7,968	0	7,968	7,733	154	0	1,056	8,944	975	324
2035	0	0	0	8,355	0	8,355	8,050	150	0	1,143	9,342	987	432
2036	0	0	0	9,028	0	9,028	8,293	146	0	1,233	9,672	644	497
2037	0	0	0	9,552	0	9,552	8,552	143	0	1,331	10,026	474	540
2038	0	0	0	10,021	0	10,021	8,806	140	0	1,436	10,381	360	571
2039	0	0	0	10,536	0	10,536	9,012	137	0	1,546	10,695	159	583
2040	0	92	384	11,084	0	11,559	9,335	134	0	1,665	11,134	(425)	553
2041	0	175	746	11,734	0	12,656	9,625	132	0	1,789	11,546	(1,110)	480
2042	0	260	1,337	12,429	0	14,026	9,910	129	0	1,982	12,021	(2,005)	359
2043	0	221	897	13,171	0	14,289	10,329	126	0	2,190	12,646	(1,643)	268
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	2,642	18,199	201,716	0	222,557	201,584	5,631	0	25,928	233,143	10,586	
NPV	0	797	6,907	37,121	0	44,825	39,438	1,613	0	4,043	45,093	268	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.01	

BUSINESS ON CALL

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business On Call

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.85 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.14 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	2.65 kWh ****
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	1.46 kWh ****

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
* (9) SUPPLY COSTS ESCALATION RATES	*** %**
^ (10) UTILITY DISCOUNT RATE	8.89 %
^ (11) UTILITY AFUDC RATE	8.48 %
^ (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
^ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	12.38 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

**** THIS IS A LOAD SHIFTING PROGRAM. VALUE SHOWN IN ITEM (4) IS ANNUAL KWH/CUST SHIFTED AWAY FROM PEAK HRS. VALUE SHOWN IN ITEM (7) IS ANNUAL KWH/CUST THAT IS PAID BACK DURING OFF-PEAK.

* INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business On Call

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	84	64	0	148	0	0	0	0	0	0
2011	249	192	0	441	1	0	0	0	0	0
2012	412	320	0	732	1	0	0	0	0	0
2013	572	448	0	1,020	2	0	0	0	0	0
2014	729	576	0	1,305	2	0	0	0	0	0
2015	837	704	0	1,541	3	0	0	0	0	0
2016	894	832	0	1,726	3	0	0	0	0	0
2017	953	960	0	1,913	4	0	0	0	0	0
2018	1,014	1,088	0	2,102	5	0	0	0	0	0
2019	973	1,152	0	2,125	4	0	0	0	0	0
2020	833	1,152	0	1,985	5	0	0	0	0	0
2021	699	1,152	0	1,851	5	0	0	0	0	0
2022	571	1,152	0	1,723	5	0	0	0	0	0
2023	450	1,152	0	1,602	5	0	0	0	0	0
2024	392	1,152	0	1,544	5	0	0	0	0	0
2025	402	1,152	0	1,554	5	0	0	0	0	0
2026	412	1,152	0	1,564	6	0	0	0	0	0
2027	422	1,152	0	1,574	6	0	0	0	0	0
2028	433	1,152	0	1,585	6	0	0	0	0	0
2029	444	1,152	0	1,596	6	0	0	0	0	0
2030	455	1,152	0	1,607	7	0	0	0	0	0
2031	466	1,152	0	1,618	7	0	0	0	0	0
2032	478	1,152	0	1,630	7	0	0	0	0	0
2033	490	1,152	0	1,642	8	0	0	0	0	0
2034	502	1,152	0	1,654	8	0	0	0	0	0
2035	515	1,152	0	1,667	9	0	0	0	0	0
2036	528	1,152	0	1,679	9	0	0	0	0	0
2037	541	1,152	0	1,693	10	0	0	0	0	0
2038	554	1,152	0	1,706	10	0	0	0	0	0
2039	568	1,152	0	1,720	11	0	0	0	0	0
2040	582	1,152	0	1,734	12	0	0	0	0	0
2041	597	1,152	0	1,749	12	0	0	0	0	0
2042	612	1,152	0	1,764	13	0	0	0	0	0
2043	627	1,152	0	1,779	13	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
NOM	19,291	33,981	0	53,272	212	0	0	0	0	0
NPV	6,066	8,343	0	14,408	40	0	0	0	0	0

* 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_REQ
 PROGRAM NAME: *Business On Call*

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR	DEBT	PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY	DEPREC.	DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
YEAR	RATE BASE	\$(000)	STOCK	EQUITY	TAXES	TAX	INSURANCE	\$(000)	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
	\$(000)		\$(000)	\$(000)	\$(000)	\$(000)	\$(000)		\$(000)	CHARGES	FIXED	CHARGES	FOR
										\$(000)	CHARGES	\$(000)	PROPERTY INSURANCE
													\$(000)
2019	40,790	1,267	0	2,847	1,878	687	243	1,591	3	8,516	8,516	8,516	39,781
2020	39,196	1,218	0	2,735	1,290	659	249	1,591	521	8,263	7,588	16,104	40,775
2021	37,084	1,152	0	2,588	1,279	630	255	1,591	440	7,935	6,692	22,797	41,794
2022	35,053	1,089	0	2,446	1,264	601	261	1,591	366	7,619	5,901	28,698	42,839
2023	33,096	1,028	0	2,310	1,248	573	268	1,591	296	7,313	5,203	33,901	43,910
2024	31,209	969	0	2,178	1,229	544	275	1,591	232	7,018	4,585	38,486	45,008
2025	29,385	913	0	2,051	1,208	516	281	1,591	173	6,733	4,040	42,526	46,133
2026	27,621	858	0	1,928	1,186	487	288	1,591	118	6,456	3,557	46,083	47,287
2027	25,912	805	0	1,808	1,120	458	296	1,591	109	6,187	3,131	49,214	48,469
2028	24,211	752	0	1,690	1,045	430	303	1,591	109	5,920	2,751	51,966	49,681
2029	22,511	699	0	1,571	971	401	311	1,591	109	5,653	2,413	54,378	50,923
2030	20,810	646	0	1,452	896	372	318	1,591	109	5,386	2,111	56,490	52,196
2031	19,110	594	0	1,334	821	344	326	1,591	109	5,119	1,843	58,333	53,500
2032	17,409	541	0	1,215	747	315	335	1,591	109	4,853	1,604	59,937	54,838
2033	15,709	488	0	1,096	672	286	343	1,591	109	4,587	1,393	61,330	56,209
2034	14,008	435	0	978	598	258	351	1,591	109	4,320	1,205	62,534	57,614
2035	12,308	382	0	859	523	229	360	1,591	109	4,055	1,038	63,573	59,055
2036	10,607	330	0	740	449	200	369	1,591	109	3,789	891	64,464	60,531
2037	8,907	277	0	622	374	172	378	1,591	109	3,523	761	65,225	62,044
2038	7,206	224	0	503	300	143	388	1,591	109	3,258	646	65,871	63,595
2039	5,506	171	0	384	558	115	398	1,591	(224)	2,993	545	66,416	65,185
2040	4,138	129	0	289	831	86	408	1,591	(557)	2,777	465	66,881	66,815
2041	3,104	96	0	217	786	57	418	1,591	(557)	2,609	401	67,282	68,485
2042	2,069	64	0	144	740	29	428	1,591	(557)	2,441	344	67,626	70,197
2043	1,034	32	0	72	695	(0)	439	1,591	(557)	2,273	295	67,921	71,952

IN SERVICE COST (\$000)	39,781
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST = 1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business On Call

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	1,451	1,451	1,591	1,591	1,443	1,443	3	3,713	0	0	0	3	(1,006)
2020	7.22%	2,793	4,243	1,591	3,182	1,443	2,885	521	3,713	0	0	0	521	(486)
2021	6.68%	2,583	6,826	1,591	4,774	1,443	4,328	440	3,713	0	0	0	440	(46)
2022	6.18%	2,391	9,217	1,591	6,365	1,443	5,771	366	3,713	0	0	0	366	320
2023	5.71%	2,210	11,427	1,591	7,956	1,443	7,213	296	3,713	0	0	0	296	616
2024	5.29%	2,044	13,471	1,591	9,547	1,443	8,656	232	3,713	0	0	0	232	848
2025	4.89%	1,891	15,362	1,591	11,139	1,443	10,099	173	3,713	0	0	0	173	1,021
2026	4.52%	1,749	17,112	1,591	12,730	1,443	11,542	118	3,713	0	0	0	118	1,139
2027	4.46%	1,726	18,838	1,591	14,321	1,443	12,984	109	3,713	0	0	0	109	1,248
2028	4.46%	1,726	20,563	1,591	15,912	1,443	14,427	109	3,713	0	0	0	109	1,358
2029	4.46%	1,726	22,290	1,591	17,503	1,443	15,870	109	3,713	0	0	0	109	1,467
2030	4.46%	1,726	24,015	1,591	19,095	1,443	17,312	109	3,713	0	0	0	109	1,576
2031	4.46%	1,726	25,741	1,591	20,686	1,443	18,755	109	3,713	0	0	0	109	1,685
2032	4.46%	1,726	27,467	1,591	22,277	1,443	20,198	109	3,713	0	0	0	109	1,795
2033	4.46%	1,726	29,193	1,591	23,868	1,443	21,640	109	3,713	0	0	0	109	1,904
2034	4.46%	1,726	30,919	1,591	25,460	1,443	23,083	109	3,713	0	0	0	109	2,013
2035	4.46%	1,726	32,645	1,591	27,051	1,443	24,526	109	3,713	0	0	0	109	2,122
2036	4.46%	1,726	34,371	1,591	28,642	1,443	25,969	109	3,713	0	0	0	109	2,232
2037	4.46%	1,726	36,097	1,591	30,233	1,443	27,411	109	3,713	0	0	0	109	2,341
2038	4.46%	1,726	37,823	1,591	31,824	1,443	28,854	109	3,713	0	0	0	109	2,450
2039	2.23%	863	38,686	1,591	33,416	1,443	30,297	(224)	3,713	0	0	0	(224)	2,227
2040	0.00%	0	38,686	1,591	35,007	1,443	31,739	(557)	3,713	0	0	0	(557)	1,670
2041	0.00%	0	38,686	1,591	36,598	1,443	33,182	(557)	3,713	0	0	0	(557)	1,113
2042	0.00%	0	38,686	1,591	38,189	1,443	34,625	(557)	3,713	0	0	0	(557)	557
2043	0.00%	0	38,686	1,591	39,781	1,443	36,067	(557)	3,713	0	0	0	(557)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,009)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	3,713
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business On Call

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION \$(000)	(5b)* ACCUMULATED DEF TAXES \$(000)	(6) BEGINNING YEAR RATE BASE \$(000)	(7) ENDING OF YEAR RATE BASE \$(000)	(8) MID-YEAR RATE BASE \$(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)						
2019	3.75%	1,451	3	38,189	1,591	(1,006)	40,790	39,196	39,993
2020	7.22%	2,793	521	36,598	3,182	(486)	39,196	37,084	38,140
2021	6.68%	2,583	440	35,007	4,774	(46)	37,084	35,053	36,058
2022	6.18%	2,391	366	33,416	6,365	320	35,053	33,096	34,074
2023	5.71%	2,210	296	31,824	7,956	616	33,096	31,209	32,152
2024	5.29%	2,044	232	30,233	9,547	848	31,209	29,385	30,297
2025	4.89%	1,891	173	28,642	11,139	1,021	29,385	27,621	28,503
2026	4.52%	1,749	118	27,051	12,730	1,139	27,621	25,912	26,766
2027	4.46%	1,726	109	25,460	14,321	1,248	25,912	24,211	25,061
2028	4.46%	1,726	109	23,868	15,912	1,358	24,211	22,511	23,361
2029	4.46%	1,726	109	22,277	17,503	1,467	22,511	20,810	21,660
2030	4.46%	1,726	109	20,686	19,095	1,576	20,810	19,110	19,960
2031	4.46%	1,726	109	19,095	20,686	1,685	19,110	17,409	18,259
2032	4.46%	1,726	109	17,503	22,277	1,795	17,409	15,709	16,559
2033	4.46%	1,726	109	15,912	23,868	1,904	15,709	14,008	14,859
2034	4.46%	1,726	109	14,321	25,460	2,013	14,008	12,308	13,158
2035	4.46%	1,726	109	12,730	27,051	2,122	12,308	10,607	11,458
2036	4.46%	1,726	109	11,139	28,642	2,232	10,607	8,907	9,757
2037	4.46%	1,726	109	9,547	30,233	2,341	8,907	7,206	8,057
2038	4.46%	1,726	109	7,956	31,824	2,450	7,206	5,506	6,356
2039	2.23%	863	(224)	6,365	33,416	2,227	5,506	4,138	4,822
2040	0.00%	0	(557)	4,774	35,007	1,670	4,138	3,104	3,621
2041	0.00%	0	(557)	3,182	36,598	1,113	3,104	2,069	2,586
2042	0.00%	0	(557)	1,591	38,189	557	2,069	1,034	1,552
2043	0.00%	0	(557)	(0)	39,781	0	1,034	0	517

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77

(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.65	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	33,920	33,920	33,920
EQUITY AFUDC	3,713		
DEBT AFUDC	2,147	2,147	
CPI			4,764
TOTAL	39,781	36,067	38,684

* Column not specified in workbook

INPUT DATA – PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Business On Call

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	3,657	3,657	6.41	16.51	6.41	0.00	1.00	1.00
2011	7,314	7,314	6.35	10.38	6.35	0.00	1.00	1.00
2012	10,970	10,970	6.43	13.34	6.43	0.00	1.00	1.00
2013	14,627	14,627	7.06	9.99	7.06	0.00	1.00	1.00
2014	18,284	18,284	7.53	10.61	7.53	0.00	1.00	1.00
2015	21,941	21,941	8.11	13.20	8.11	0.00	1.00	1.00
2016	25,598	25,598	9.00	13.90	9.00	0.00	1.00	1.00
2017	29,254	29,254	9.75	15.09	9.75	0.00	1.00	1.00
2018	32,911	32,911	10.52	15.46	10.52	0.00	1.00	1.00
2019	32,911	32,911	11.50	21.44	11.50	10.41	1.00	1.00
2020	32,911	32,911	12.08	20.17	12.08	10.50	1.00	1.00
2021	32,911	32,911	12.57	21.76	12.57	10.74	1.00	1.00
2022	32,911	32,911	13.06	23.66	13.06	10.81	1.00	1.00
2023	32,911	32,911	13.39	20.91	13.39	10.80	1.00	1.00
2024	32,911	32,911	13.95	22.19	13.95	10.84	1.00	1.00
2025	32,911	32,911	14.40	22.20	14.40	10.96	1.00	1.00
2026	32,911	32,911	14.70	22.41	14.70	11.05	1.00	1.00
2027	32,911	32,911	15.13	23.05	15.13	11.17	1.00	1.00
2028	32,911	32,911	15.60	23.70	15.60	11.36	1.00	1.00
2029	32,911	32,911	16.02	22.95	16.02	11.41	1.00	1.00
2030	32,911	32,911	16.52	23.78	16.52	11.59	1.00	1.00
2031	32,911	32,911	17.08	24.53	17.08	11.80	1.00	1.00
2032	32,911	32,911	17.50	24.55	17.50	11.88	1.00	1.00
2033	32,911	32,911	18.27	25.51	18.27	12.10	1.00	1.00
2034	32,911	32,911	18.73	25.89	18.73	12.14	1.00	1.00
2035	32,911	32,911	19.57	27.04	19.57	12.29	1.00	1.00
2036	32,911	32,911	20.40	28.26	20.40	12.55	1.00	1.00
2037	32,911	32,911	21.11	29.22	21.11	12.70	1.00	1.00
2038	32,911	32,911	22.02	30.23	22.02	13.04	1.00	1.00
2039	32,911	32,911	22.78	31.29	22.78	13.32	1.00	1.00
2040	32,911	32,911	23.59	32.02	23.59	13.44	1.00	1.00
2041	32,911	32,911	24.54	33.28	24.54	13.75	1.00	1.00
2042	32,911	32,911	25.50	34.66	25.50	14.10	1.00	1.00
2043	32,911	32,911	26.74	36.49	26.74	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Business On Call

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	8,516	4,671	197	11,896	15,050	10,230
2020	8,263	4,788	284	17,526	21,351	9,509
2021	7,935	4,908	297	18,286	22,300	9,126
2022	7,619	5,030	316	19,354	23,249	9,070
2023	7,313	5,156	333	20,348	23,917	9,233
2024	7,018	5,285	353	21,494	24,815	9,336
2025	6,733	5,417	377	22,966	26,175	9,319
2026	6,456	5,552	404	24,542	27,573	9,382
2027	6,187	5,691	428	25,905	28,754	9,458
2028	5,920	5,834	440	26,593	29,373	9,413
2029	5,653	5,979	461	27,712	30,145	9,660
2030	5,386	6,129	484	29,010	31,351	9,658
2031	5,119	6,282	496	29,608	31,919	9,586
2032	4,853	6,439	515	30,654	32,575	9,886
2033	4,587	6,600	567	33,729	35,620	9,862
2034	4,320	6,765	593	35,107	36,465	10,321
2035	4,055	6,934	610	35,906	37,028	10,476
2036	3,789	7,108	630	36,978	38,126	10,379
2037	3,523	7,285	648	37,818	38,674	10,600
2038	3,258	7,467	666	38,762	39,854	10,300
2039	2,993	7,654	684	39,559	40,769	10,121
2040	2,777	7,846	702	40,470	41,235	10,559
2041	2,609	8,042	721	41,358	42,273	10,456
2042	2,441	8,243	741	42,300	43,451	10,273
2043	2,273	8,449	763	43,388	44,568	10,304
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
NOM	129,596	159,555	12,712	751,265	806,611	246,517
NPV	28,990	26,490	1,919	114,981	127,892	44,489

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	1	0
2011	155	12	168	8	3	11	2	1
2012	311	25	336	16	7	22	4	1
2013	466	52	517	23	10	34	4	1
2014	620	66	686	31	14	45	5	2
2015	773	81	855	39	18	57	8	3
2016	927	97	1,024	46	22	69	9	3
2017	1,081	114	1,195	54	27	81	12	4
2018	1,235	131	1,366	62	31	93	14	5
2019	1,389	135	1,524	69	36	105	20	6
2020	1,341	138	1,479	67	37	104	19	6
2021	1,293	142	1,435	65	38	103	21	6
2022	1,247	145	1,392	62	39	101	23	7
2023	1,201	149	1,350	60	40	100	20	7
2024	1,157	152	1,309	58	41	99	21	7
2025	1,113	156	1,269	56	42	97	21	7
2026	1,070	160	1,230	53	43	96	21	8
2027	1,026	164	1,190	51	44	95	22	8
2028	983	168	1,151	49	45	94	22	8
2029	940	173	1,112	47	46	93	21	8
2030	896	177	1,073	45	47	92	22	9
2031	853	181	1,035	43	49	91	23	9
2032	812	186	998	41	50	90	23	9
2033	773	190	964	39	51	90	24	9
2034	736	195	931	37	52	89	24	10
2035	701	200	902	35	54	89	25	10
2036	669	205	874	33	55	88	26	11
2037	639	210	849	32	56	88	27	11
2038	611	215	827	31	58	88	28	11
2039	586	221	807	29	59	88	29	12
2040	563	226	790	28	61	89	29	12
2041	541	232	773	27	62	89	31	13
2042	518	238	756	26	64	90	32	13
2043	496	244	740	25	65	90	34	14
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	27,723	5,184	32,907	1,385	1,365	2,750	662	251
NPV	8,029	1,096	9,125	401	280	682	135	48

* 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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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	7.70	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	infinite	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	3.23	

COMMERCIAL/INDUSTRIAL DEMAND REDUCTION

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Commercial/Industrial Demand Reduction

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	1.00 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.34 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	8.59 kWh ****
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.40 kWh ****

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
~ (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
~ (9) SUPPLY COSTS ESCALATION RATES	*** %**
~ (10) UTILITY DISCOUNT RATE	8.89 %
~ (11) UTILITY AFUDC RATE	8.48 %
~ (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
~ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
~ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	0.00 \$/kW
(6) BASE YEAR DISTRIBUTION COST	0.00 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	0.00 \$/kW
(11) DISTRIBUTION FIXED O & M COST	0.00 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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

**** THIS IS A LOAD SHIFTING PROGRAM. VALUE SHOWN IN ITEM (4) IS ANNUAL KWH/CUST SHIFTED AWAY FROM PEAK HRS. VALUE SHOWN IN ITEM (7) IS ANNUAL KWH/CUST THAT IS PAID BACK DURING OFF-PEAK.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	UTILITY PROGRAM COSTS WITHOUT INCENTIVES	UTILITY INCENTIVES	OTHER UTILITY COSTS	TOTAL UTILITY PROGRAM COSTS	ENERGY CHARGE REVENUE LOSSES	DEMAND CHARGE REVENUE LOSSES	PARTICIPANT EQUIPMENT COSTS	PARTICIPANT O&M COSTS	OTHER PARTICIPANT COSTS	TOTAL PARTICIPANT COSTS
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	19	366	0	385	4	0	0	0	0	0
2011	38	1,098	0	1,137	13	0	0	0	0	0
2012	59	1,830	0	1,889	23	0	0	0	0	0
2013	81	2,562	0	2,643	34	0	0	0	0	0
2014	103	3,292	0	3,396	47	0	0	0	0	0
2015	127	4,020	0	4,147	60	0	0	0	0	0
2016	152	4,747	0	4,899	74	0	0	0	0	0
2017	178	5,475	0	5,653	89	0	0	0	0	0
2018	205	6,203	0	6,408	105	0	0	0	0	0
2019	210	6,567	0	6,777	117	0	0	0	0	0
2020	215	6,567	0	6,782	119	0	0	0	0	0
2021	221	6,567	0	6,787	123	0	0	0	0	0
2022	226	6,567	0	6,793	128	0	0	0	0	0
2023	232	6,567	0	6,799	133	0	0	0	0	0
2024	238	6,567	0	6,804	140	0	0	0	0	0
2025	244	6,567	0	6,810	147	0	0	0	0	0
2026	250	6,567	0	6,816	155	0	0	0	0	0
2027	256	6,567	0	6,823	165	0	0	0	0	0
2028	262	6,567	0	6,829	173	0	0	0	0	0
2029	269	6,567	0	6,836	182	0	0	0	0	0
2030	276	6,567	0	6,842	192	0	0	0	0	0
2031	283	6,567	0	6,849	203	0	0	0	0	0
2032	290	6,567	0	6,856	216	0	0	0	0	0
2033	297	6,567	0	6,863	238	0	0	0	0	0
2034	304	6,567	0	6,871	243	0	0	0	0	0
2035	312	6,567	0	6,879	255	0	0	0	0	0
2036	320	6,567	0	6,886	276	0	0	0	0	0
2037	328	6,567	0	6,894	292	0	0	0	0	0
2038	336	6,567	0	6,902	306	0	0	0	0	0
2039	344	6,567	0	6,911	322	0	0	0	0	0
2040	353	6,567	0	6,919	339	0	0	0	0	0
2041	362	6,567	0	6,928	359	0	0	0	0	0
2042	371	6,567	0	6,937	381	0	0	0	0	0
2043	380	6,567	0	6,947	404	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	8,141	193,758	0	201,898	6,058	0	0	0	0	0
NPV	1,758	47,588	0	49,346	1,079	0	0	0	0	0

* 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_REQ
PROGRAM NAME: Commercial/Industrial Demand Reduction

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	170,978	5,311	0	11,932	7,871	2,881	1,017	6,670	13	35,696	35,696	35,696	166,747
2020	164,295	5,104	0	11,466	5,409	2,761	1,043	6,670	2,183	34,635	31,808	67,504	170,915
2021	155,443	4,829	0	10,848	5,360	2,641	1,069	6,670	1,844	33,260	28,052	95,557	175,188
2022	146,929	4,564	0	10,254	5,298	2,521	1,095	6,670	1,533	31,935	24,737	120,293	179,568
2023	138,727	4,309	0	9,681	5,230	2,401	1,123	6,670	1,241	30,655	21,808	142,101	184,057
2024	130,816	4,064	0	9,129	5,151	2,281	1,151	6,670	973	29,419	19,220	161,321	188,659
2025	123,173	3,826	0	8,596	5,065	2,161	1,180	6,670	725	28,222	16,933	178,254	193,375
2026	115,778	3,597	0	8,080	4,969	2,041	1,209	6,670	496	27,062	14,912	193,165	198,210
2027	108,613	3,374	0	7,580	4,693	1,921	1,239	6,670	458	25,935	13,124	206,290	203,165
2028	101,485	3,153	0	7,082	4,381	1,801	1,270	6,670	458	24,815	11,533	217,822	208,244
2029	94,357	2,931	0	6,585	4,068	1,681	1,302	6,670	458	23,695	10,114	227,936	213,450
2030	87,229	2,710	0	6,088	3,756	1,561	1,335	6,670	458	22,576	8,850	236,785	218,786
2031	80,102	2,488	0	5,590	3,443	1,441	1,368	6,670	458	21,458	7,725	244,510	224,256
2032	72,974	2,267	0	5,093	3,132	1,321	1,402	6,670	458	20,341	6,725	251,235	229,862
2033	65,846	2,045	0	4,595	2,819	1,201	1,437	6,670	458	19,225	5,837	257,073	235,609
2034	58,718	1,824	0	4,098	2,507	1,081	1,473	6,670	458	18,110	5,050	262,123	241,499
2035	51,590	1,603	0	3,600	2,194	960	1,510	6,670	458	16,995	4,352	266,475	247,537
2036	44,462	1,381	0	3,103	1,882	840	1,548	6,670	458	15,882	3,735	270,210	253,725
2037	37,335	1,160	0	2,606	1,569	720	1,586	6,670	458	14,769	3,190	273,400	260,068
2038	30,207	938	0	2,108	1,257	600	1,626	6,670	458	13,657	2,709	276,109	266,570
2039	23,079	717	0	1,611	2,340	480	1,667	6,670	(937)	12,547	2,286	278,395	273,234
2040	17,347	539	0	1,211	3,484	360	1,708	6,670	(2,333)	11,639	1,947	280,342	280,065
2041	13,009	404	0	908	3,294	240	1,751	6,670	(2,333)	10,934	1,680	282,022	287,067
2042	8,672	269	0	605	3,104	120	1,795	6,670	(2,333)	10,230	1,444	283,466	294,243
2043	4,335	135	0	303	2,914	0	1,840	6,670	(2,333)	9,528	1,235	284,701	301,599

IN SERVICE COST (\$000)	166,747
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

$$K\text{-FACTOR} = CPWFC / IN\text{-}SVC\text{ COST} =$$

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Commercial/Industrial Demand Reduct

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS L/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	6,081	6,081	6,670	6,670	6,047	6,047	13	15,564	0	0	0	13	(4,219)
2020	7.22%	11,706	17,786	6,670	13,340	6,047	12,095	2,183	15,564	0	0	0	2,183	(2,036)
2021	6.68%	10,827	28,613	6,670	20,010	6,047	18,142	1,844	15,564	0	0	0	1,844	(192)
2022	6.18%	10,021	38,634	6,670	26,679	6,047	24,189	1,533	15,564	0	0	0	1,533	1,341
2023	5.71%	9,264	47,898	6,670	33,349	6,047	30,237	1,241	15,564	0	0	0	1,241	2,582
2024	5.28%	8,570	56,468	6,670	40,019	6,047	36,284	973	15,564	0	0	0	973	3,555
2025	4.89%	7,926	64,394	6,670	46,689	6,047	42,331	725	15,564	0	0	0	725	4,279
2026	4.52%	7,333	71,726	6,670	53,359	6,047	48,378	496	15,564	0	0	0	496	4,775
2027	4.46%	7,235	78,962	6,670	60,029	6,047	54,426	458	15,564	0	0	0	458	5,233
2028	4.46%	7,234	86,195	6,670	66,699	6,047	60,473	458	15,564	0	0	0	458	5,691
2029	4.46%	7,235	93,430	6,670	73,369	6,047	66,520	458	15,564	0	0	0	458	6,149
2030	4.46%	7,234	100,664	6,670	80,038	6,047	72,568	458	15,564	0	0	0	458	6,607
2031	4.46%	7,235	107,899	6,670	86,708	6,047	78,615	458	15,564	0	0	0	458	7,065
2032	4.46%	7,234	115,133	6,670	93,378	6,047	84,662	458	15,564	0	0	0	458	7,523
2033	4.46%	7,235	122,368	6,670	100,048	6,047	90,710	458	15,564	0	0	0	458	7,981
2034	4.46%	7,234	129,602	6,670	106,718	6,047	96,757	458	15,564	0	0	0	458	8,438
2035	4.46%	7,235	136,837	6,670	113,388	6,047	102,804	458	15,564	0	0	0	458	8,897
2036	4.46%	7,234	144,071	6,670	120,058	6,047	108,852	458	15,564	0	0	0	458	9,354
2037	4.46%	7,235	151,306	6,670	126,728	6,047	114,899	458	15,564	0	0	0	458	9,813
2038	4.46%	7,234	158,539	6,670	133,397	6,047	120,946	458	15,564	0	0	0	458	10,270
2039	2.23%	3,618	162,157	6,670	140,067	6,047	126,993	(937)	15,564	0	0	0	(937)	9,333
2040	0.00%	0	162,157	6,670	146,737	6,047	133,041	(2,333)	15,564	0	0	0	(2,333)	7,000
2041	0.00%	0	162,157	6,670	153,407	6,047	139,088	(2,333)	15,564	0	0	0	(2,333)	4,667
2042	0.00%	0	162,157	6,670	160,077	6,047	145,135	(2,333)	15,564	0	0	0	(2,333)	2,335
2043	0.00%	0	162,157	6,670	166,747	6,047	151,183	(2,333)	15,564	0	0	0	(2,333)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(4,231)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	15,564
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Commercial/Industrial Demand Reduction

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	6,081	13	160,077	6,670	(4,219)	170,978	164,295	167,637
2020	7.22%	11,706	2,183	153,407	13,340	(2,036)	164,295	155,443	159,869
2021	6.68%	10,827	1,844	146,737	20,010	(192)	155,443	146,929	151,186
2022	6.18%	10,021	1,533	140,067	26,679	1,341	146,929	138,727	142,828
2023	5.71%	9,264	1,241	133,397	33,349	2,582	138,727	130,816	134,771
2024	5.29%	8,570	973	126,728	40,019	3,555	130,816	123,173	126,994
2025	4.89%	7,926	725	120,058	46,689	4,279	123,173	115,778	119,476
2026	4.52%	7,333	496	113,388	53,359	4,775	115,778	108,613	112,196
2027	4.46%	7,235	458	106,718	60,029	5,233	108,613	101,485	105,049
2028	4.46%	7,234	458	100,048	66,699	5,691	101,485	94,357	97,921
2029	4.46%	7,235	458	93,378	73,369	6,149	94,357	87,229	90,793
2030	4.46%	7,234	458	86,708	80,038	6,607	87,229	80,102	83,665
2031	4.46%	7,235	458	80,038	86,708	7,065	80,102	72,974	76,538
2032	4.46%	7,234	458	73,369	93,378	7,523	72,974	65,846	69,410
2033	4.46%	7,235	458	66,699	100,048	7,981	65,846	58,718	62,282
2034	4.46%	7,234	458	60,029	106,718	8,438	58,718	51,590	55,154
2035	4.46%	7,235	458	53,359	113,388	8,897	51,590	44,462	48,026
2036	4.46%	7,234	458	46,689	120,058	9,354	44,462	37,335	40,899
2037	4.46%	7,235	458	40,019	126,728	9,813	37,335	30,207	33,771
2038	4.46%	7,234	458	33,349	133,397	10,270	30,207	23,079	26,643
2039	2.23%	3,618	(937)	26,679	140,067	9,333	23,079	17,347	20,213
2040	0.00%	0	(2,333)	20,010	146,737	7,000	17,347	13,009	15,178
2041	0.00%	0	(2,333)	13,340	153,407	4,667	13,009	8,672	10,841
2042	0.00%	0	(2,333)	6,670	160,077	2,335	8,672	4,335	6,504
2043	0.00%	0	(2,333)	0	166,747	2	4,335	-2	2,167

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	142,182	142,182	142,182
EQUITY AFUDC	15,564		
DEBT AFUDC	9,001	9,001	
CPI			19,970
TOTAL	166,747	151,183	162,152

* Column not specified in workbook

INPUT DATA -- PART 2
PROGRAM METHOD SELECTED : REV_REQ
PROGRAM NAME: Commercial/Industrial Demand Reduction

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	13,073	13,073	6.41	16.51	6.41	0.00	1.00	1.00
2011	26,146	26,146	6.35	10.38	6.35	0.00	1.00	1.00
2012	39,219	39,219	6.43	13.34	6.43	0.00	1.00	1.00
2013	52,292	52,292	7.06	9.99	7.06	0.00	1.00	1.00
2014	65,286	65,286	7.53	10.61	7.53	0.00	1.00	1.00
2015	78,279	78,279	8.11	13.20	8.11	0.00	1.00	1.00
2016	91,273	91,273	9.00	13.90	9.00	0.00	1.00	1.00
2017	104,266	104,266	9.75	15.09	9.75	0.00	1.00	1.00
2018	117,260	117,260	10.52	15.46	10.52	0.00	1.00	1.00
2019	117,260	117,260	11.50	21.44	11.50	10.41	1.00	1.00
2020	117,260	117,260	12.08	20.17	12.08	10.50	1.00	1.00
2021	117,260	117,260	12.57	21.76	12.57	10.74	1.00	1.00
2022	117,260	117,260	13.06	23.66	13.06	10.81	1.00	1.00
2023	117,260	117,260	13.39	20.91	13.39	10.80	1.00	1.00
2024	117,260	117,260	13.95	22.19	13.95	10.84	1.00	1.00
2025	117,260	117,260	14.40	22.20	14.40	10.96	1.00	1.00
2026	117,260	117,260	14.70	22.41	14.70	11.05	1.00	1.00
2027	117,260	117,260	15.13	23.05	15.13	11.17	1.00	1.00
2028	117,260	117,260	15.60	23.70	15.60	11.36	1.00	1.00
2029	117,260	117,260	16.02	22.95	16.02	11.41	1.00	1.00
2030	117,260	117,260	16.52	23.78	16.52	11.59	1.00	1.00
2031	117,260	117,260	17.08	24.53	17.08	11.80	1.00	1.00
2032	117,260	117,260	17.50	24.55	17.50	11.88	1.00	1.00
2033	117,260	117,260	18.27	25.51	18.27	12.10	1.00	1.00
2034	117,260	117,260	18.73	25.89	18.73	12.14	1.00	1.00
2035	117,260	117,260	19.57	27.04	19.57	12.29	1.00	1.00
2036	117,260	117,260	20.40	28.26	20.40	12.55	1.00	1.00
2037	117,260	117,260	21.11	29.22	21.11	12.70	1.00	1.00
2038	117,260	117,260	22.02	30.23	22.02	13.04	1.00	1.00
2039	117,260	117,260	22.78	31.29	22.78	13.32	1.00	1.00
2040	117,260	117,260	23.59	32.02	23.59	13.44	1.00	1.00
2041	117,260	117,260	24.54	33.28	24.54	13.75	1.00	1.00
2042	117,260	117,260	25.50	34.66	25.50	14.10	1.00	1.00
2043	117,260	117,260	26.74	36.49	26.74	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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: Commercial/Industrial Demand Reduction

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	35,696	19,580	826	49,862	63,083	42,881
2020	34,635	20,069	1191	73,463	89,498	39,860
2021	33,260	20,571	1247	76,649	93,474	38,252
2022	31,935	21,085	1324	81,125	97,450	38,019
2023	30,655	21,612	1397	85,290	100,254	38,702
2024	29,419	22,153	1480	90,097	104,015	39,133
2025	28,222	22,707	1582	96,267	109,717	39,061
2026	27,062	23,274	1695	102,873	115,576	39,327
2027	25,935	23,856	1792	108,585	120,526	39,643
2028	24,815	24,452	1845	111,467	123,122	39,457
2029	23,695	25,064	1932	116,161	126,359	40,493
2030	22,576	25,690	2028	121,599	131,412	40,483
2031	21,458	26,333	2078	124,105	133,795	40,179
2032	20,341	26,991	2159	128,489	136,543	41,438
2033	19,225	27,666	2376	141,379	149,309	41,337
2034	18,110	28,357	2487	147,155	152,848	43,261
2035	16,995	29,066	2555	150,504	155,207	43,913
2036	15,882	29,793	2642	154,998	159,811	43,504
2037	14,769	30,538	2715	158,521	162,110	44,433
2038	13,657	31,301	2793	162,476	167,055	43,173
2039	12,547	32,084	2865	165,817	170,891	42,422
2040	11,639	32,886	2944	169,636	172,844	44,262
2041	10,934	33,708	3024	173,358	177,194	43,830
2042	10,230	34,551	3106	177,306	182,131	43,062
2043	9,528	35,414	3199	181,867	186,816	43,193
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	543,222	668,801	53,283	3,149,051	3,381,040	1,033,317
NPV	121,516	111,038	8,046	481,963	536,078	186,484

[illegible]

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

AVOIDED GENERATING EMISSION IMPACT
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Commercial/Industrial Demand Reduction

YEAR	(2) AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	(3) REPLACEMENT EMISSION COST \$(000)	(4) PROGRAM EMISSION BENEFIT \$(000)	(5) OFF-PEAK EMISSION PAYBACK COST \$(000)	(6) NET EMISSION BENEFIT \$(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	0	0	0
2012	0	0	1	0	1
2013	0	0	4	0	4
2014	0	0	5	0	5
2015	0	0	8	0	7
2016	0	0	10	0	9
2017	0	0	13	0	12
2018	0	0	15	1	15
2019	5,962	7,796	18	1	(1,816)
2020	9,078	11,758	20	1	(2,660)
2021	10,001	12,966	21	1	(2,944)
2022	11,679	15,107	24	1	(3,404)
2023	12,889	16,660	24	1	(3,748)
2024	14,840	19,136	27	1	(4,270)
2025	17,128	22,022	29	1	(4,866)
2026	18,994	24,276	29	1	(5,254)
2027	21,487	27,421	31	1	(5,905)
2028	23,561	30,018	33	2	(6,426)
2029	26,950	34,208	38	2	(7,221)
2030	29,882	37,904	41	2	(7,984)
2031	32,476	41,168	44	2	(8,649)
2032	35,761	45,238	46	2	(9,432)
2033	41,668	52,679	50	2	(10,963)
2034	46,123	58,260	51	2	(12,089)
2035	50,096	63,309	57	3	(13,158)
2036	54,690	69,099	61	3	(14,351)
2037	59,275	74,869	66	3	(15,531)
2038	64,253	81,145	70	3	(16,825)
2039	69,393	87,749	75	4	(18,284)
2040	74,989	94,812	74	4	(19,752)
2041	80,799	102,144	80	4	(21,269)
2042	80,799	102,144	86	4	(21,263)
2043	80,799	102,144	92	5	(21,257)
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	973,574	1,234,031	1,244	58	(259,271)
NPV	117,875	149,986	195	9	(31,924)

Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	88.80	

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Commercial/Industrial Demand Reduction

(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)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	5	0	366	0	371	0	0	0	0	371	341
2011	16	0	1,098	0	1,114	0	0	0	0	1,114	1,281
2012	28	0	1,830	0	1,858	0	0	0	0	1,858	2,720
2013	41	0	2,562	0	2,604	0	0	0	0	2,604	4,572
2014	57	0	3,292	0	3,349	0	0	0	0	3,349	6,760
2015	73	0	4,020	0	4,092	0	0	0	0	4,092	9,215
2016	90	0	4,747	0	4,837	0	0	0	0	4,837	11,881
2017	107	0	5,475	0	5,582	0	0	0	0	5,582	14,706
2018	126	0	6,203	0	6,329	0	0	0	0	6,329	17,647
2019	141	0	6,567	0	6,708	0	0	0	0	6,708	20,510
2020	143	0	6,567	0	6,709	0	0	0	0	6,709	23,140
2021	148	0	6,567	0	6,714	0	0	0	0	6,714	25,557
2022	154	0	6,567	0	6,720	0	0	0	0	6,720	27,779
2023	160	0	6,567	0	6,726	0	0	0	0	6,726	29,821
2024	169	0	6,567	0	6,735	0	0	0	0	6,735	31,699
2025	178	0	6,567	0	6,744	0	0	0	0	6,744	33,427
2026	186	0	6,567	0	6,753	0	0	0	0	6,753	35,015
2027	198	0	6,567	0	6,765	0	0	0	0	6,765	36,476
2028	208	0	6,567	0	6,774	0	0	0	0	6,774	37,820
2029	219	0	6,567	0	6,786	0	0	0	0	6,786	39,056
2030	232	0	6,567	0	6,798	0	0	0	0	6,798	40,193
2031	244	0	6,567	0	6,811	0	0	0	0	6,811	41,240
2032	261	0	6,567	0	6,827	0	0	0	0	6,827	42,203
2033	287	0	6,567	0	6,854	0	0	0	0	6,854	43,091
2034	293	0	6,567	0	6,859	0	0	0	0	6,859	43,908
2035	307	0	6,567	0	6,874	0	0	0	0	6,874	44,659
2036	332	0	6,567	0	6,899	0	0	0	0	6,899	45,352
2037	352	0	6,567	0	6,918	0	0	0	0	6,918	45,989
2038	369	0	6,567	0	6,936	0	0	0	0	6,936	46,577
2039	388	0	6,567	0	6,955	0	0	0	0	6,955	47,117
2040	409	0	6,567	0	6,975	0	0	0	0	6,975	47,616
2041	433	0	6,567	0	7,000	0	0	0	0	7,000	48,075
2042	459	0	6,567	0	7,025	0	0	0	0	7,025	48,498
2043	486	0	6,567	0	7,053	0	0	0	0	7,053	48,888
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
NOM	7,299	0	193,758	0	201,056	0	0	0	0	201,056	
NPV	1,299	0	47,588	0	48,888	0	0	0	0	48,888	

In Service of Gen Unit:

Discount Rate :

Benefit/Cost Ratio (Col(6) / Col(10))

2019

8.89

%

Infinite

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
YEAR													
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	19	366	4	0	389	10	0	0	0	10	(379)	(348)
2011	0	38	1,098	13	0	1,150	18	0	0	0	19	(1,131)	(1,302)
2012	0	59	1,830	23	0	1,912	41	0	0	1	41	(1,871)	(2,751)
2013	0	81	2,562	34	0	2,677	40	0	0	4	44	(2,634)	(4,625)
2014	0	103	3,292	47	0	3,443	55	0	0	5	60	(3,383)	(6,835)
2015	0	127	4,020	60	0	4,207	85	0	0	7	93	(4,114)	(9,304)
2016	0	152	4,747	74	0	4,974	105	0	0	9	115	(4,859)	(11,981)
2017	0	178	5,475	89	0	5,742	132	0	0	12	144	(5,598)	(14,814)
2018	0	205	6,203	105	0	6,513	152	0	0	15	166	(6,346)	(17,763)
2019	0	210	6,567	117	0	6,894	43,112	0	0	(1,816)	41,296	34,402	(3,080)
2020	0	215	6,567	119	0	6,901	40,074	0	0	(2,660)	37,414	30,513	8,881
2021	0	221	6,567	123	0	6,910	38,484	0	0	(2,944)	35,540	28,630	19,187
2022	0	226	6,567	128	0	6,921	38,273	0	0	(3,404)	34,869	27,948	28,427
2023	0	232	6,567	133	0	6,931	38,921	0	0	(3,748)	35,173	28,242	37,002
2024	0	238	6,567	140	0	6,944	39,367	0	0	(4,270)	35,097	28,153	44,853
2025	0	244	6,567	147	0	6,958	39,293	0	0	(4,866)	34,427	27,469	51,887
2026	0	250	6,567	155	0	6,971	39,561	0	0	(5,254)	34,308	27,337	58,317
2027	0	256	6,567	165	0	6,987	39,884	0	0	(5,905)	33,979	26,992	64,147
2028	0	262	6,567	173	0	7,001	39,705	0	0	(6,426)	33,279	26,277	69,359
2029	0	269	6,567	182	0	7,017	40,730	0	0	(7,221)	33,509	26,492	74,185
2030	0	276	6,567	192	0	7,035	40,729	0	0	(7,984)	32,745	25,711	78,487
2031	0	283	6,567	203	0	7,052	40,433	0	0	(8,649)	31,784	24,732	82,287
2032	0	290	6,567	216	0	7,073	41,691	0	0	(9,432)	32,258	25,186	85,841
2033	0	297	6,567	238	0	7,102	41,600	0	0	(10,963)	30,637	23,535	88,891
2034	0	304	6,567	243	0	7,114	43,527	0	0	(12,089)	31,438	24,324	91,786
2035	0	312	6,567	255	0	7,134	44,191	0	0	(13,158)	31,033	23,899	94,398
2036	0	320	6,567	276	0	7,162	43,794	0	0	(14,351)	29,444	22,282	96,635
2037	0	328	6,567	292	0	7,186	44,733	0	0	(15,531)	29,202	22,016	98,665
2038	0	336	6,567	306	0	7,209	43,483	0	0	(16,825)	26,658	19,449	100,311
2039	0	344	6,567	322	0	7,233	42,744	0	0	(18,284)	24,459	17,226	101,651
2040	0	353	6,567	339	0	7,259	44,590	0	0	(19,752)	24,838	17,579	102,906
2041	0	362	6,567	359	0	7,288	44,171	0	0	(21,269)	22,902	15,614	103,930
2042	0	371	6,567	381	0	7,318	43,417	0	0	(21,263)	22,154	14,836	104,824
2043	0	380	6,567	404	0	7,350	43,567	0	0	(21,257)	22,310	14,960	105,651
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	

Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89	%
3.10	

BUSINESS MOTORS

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Motors

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.85 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.14 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	5,393.41 kWh
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.70738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
° (8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
° (9) SUPPLY COSTS ESCALATION RATES	*** %**
~ (10) UTILITY DISCOUNT RATE	8.89 %
~ (11) UTILITY AFUDC RATE	8.48 %
° (12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
° (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
~ (14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012 2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON FUEL COST IN CUSTOMER BILL	*** CENTS/kWh
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/kW/MO
(4) DEMAND CHARGE 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 I CONTINUED
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Motors

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0	0
2011	36	51	0	87	146	43	838	0	0	838
2012	39	53	0	92	463	139	900	0	0	900
2013	41	55	0	97	839	245	960	0	0	960
2014	44	57	0	101	1,282	371	1,020	0	0	1,020
2015	46	59	0	105	1,773	510	1,077	0	0	1,077
2016	49	60	0	109	2,321	637	1,130	0	0	1,130
2017	51	62	0	112	2,903	795	1,180	0	0	1,180
2018	53	62	0	115	3,509	931	1,224	0	0	1,224
2019	0	0	0	0	3,975	982	0	0	0	0
2020	0	0	0	0	4,005	961	0	0	0	0
2021	0	0	0	0	4,146	944	0	0	0	0
2022	0	0	0	0	4,347	934	0	0	0	0
2023	0	0	0	0	4,530	940	0	0	0	0
2024	0	0	0	0	4,805	950	0	0	0	0
2025	0	0	0	0	5,082	923	0	0	0	0
2026	52	51	0	103	5,354	927	1,214	0	0	1,214
2027	56	53	0	109	5,728	935	1,303	0	0	1,303
2028	60	55	0	115	6,026	945	1,391	0	0	1,391
2029	63	57	0	121	6,379	951	1,477	0	0	1,477
2030	67	59	0	126	6,778	960	1,559	0	0	1,559
2031	70	60	0	131	7,174	967	1,637	0	0	1,637
2032	73	62	0	135	7,688	985	1,709	0	0	1,709
2033	76	62	0	138	8,505	1,019	1,773	0	0	1,773
2034	0	0	0	0	8,674	1,035	0	0	0	0
2035	0	0	0	0	9,150	1,015	0	0	0	0
2036	0	0	0	0	9,940	1,029	0	0	0	0
2037	0	0	0	0	10,543	1,054	0	0	0	0
2038	0	0	0	0	11,098	1,058	0	0	0	0
2039	0	0	0	0	11,706	1,063	0	0	0	0
2040	0	0	0	0	12,355	1,066	0	0	0	0
2041	76	51	0	126	13,125	1,072	1,759	0	0	1,759
2042	81	53	0	134	13,946	1,077	1,887	0	0	1,887
2043	87	55	0	142	14,824	1,083	2,014	0	0	2,014
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	1,120	1,078	0	2,198	213,119	28,546	26,053	0	0	26,053
NPV	328	380	0	708	36,105	6,523	7,624	0	0	7,624

* 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_REQ
PROGRAM NAME: **Business Motors**

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	8,924	277	0	623	411	150	53	348	1	1,863	1,863	1,863	8,703
2020	8,575	266	0	598	282	144	54	348	114	1,808	1,660	3,523	8,921
2021	8,113	252	0	566	280	138	56	348	96	1,736	1,464	4,987	9,144
2022	7,669	238	0	535	276	132	57	348	80	1,667	1,291	6,278	9,372
2023	7,241	225	0	505	273	125	59	348	65	1,600	1,138	7,417	9,607
2024	6,828	212	0	476	269	119	60	348	51	1,535	1,003	8,420	9,847
2025	6,429	200	0	449	264	113	62	348	38	1,473	884	9,304	10,093
2026	6,043	188	0	422	259	107	63	348	26	1,412	778	10,082	10,345
2027	5,669	176	0	396	245	100	65	348	24	1,354	685	10,767	10,604
2028	5,297	165	0	370	229	94	66	348	24	1,295	602	11,369	10,869
2029	4,925	153	0	344	212	88	68	348	24	1,237	528	11,897	11,141
2030	4,553	141	0	318	196	81	70	348	24	1,178	462	12,359	11,419
2031	4,181	130	0	292	180	75	71	348	24	1,120	403	12,762	11,705
2032	3,809	118	0	266	163	69	73	348	24	1,062	351	13,113	11,997
2033	3,437	107	0	240	147	63	75	348	24	1,003	305	13,417	12,297
2034	3,065	95	0	214	131	56	77	348	24	945	264	13,681	12,605
2035	2,693	84	0	188	114	50	79	348	24	887	227	13,908	12,920
2036	2,321	72	0	162	98	44	81	348	24	829	195	14,103	13,243
2037	1,949	61	0	136	82	38	83	348	24	771	166	14,270	13,574
2038	1,577	49	0	110	66	31	85	348	24	713	141	14,411	13,913
2039	1,205	37	0	84	122	25	87	348	(49)	655	119	14,530	14,261
2040	905	28	0	63	182	19	89	348	(122)	607	102	14,632	14,617
2041	679	21	0	47	172	13	91	348	(122)	571	88	14,720	14,983
2042	453	14	0	32	162	6	94	348	(122)	534	75	14,795	15,357
2043	226	7	0	16	152	0	96	348	(122)	497	64	14,859	15,741

IN SERVICE COST (\$000)	8,703
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	44%	7.03	%
P/S	0%	0.00	%
C/S	56%	12.50	%

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: *Business Motors*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	317	317	348	348	316	316	1	812	0	0	0	1	(220)
2020	7.22%	611	928	348	696	316	631	114	812	0	0	0	114	(106)
2021	6.68%	565	1,493	348	1,044	316	947	96	812	0	0	0	96	(10)
2022	6.18%	523	2,016	348	1,392	316	1,263	80	812	0	0	0	80	70
2023	5.71%	484	2,500	348	1,741	316	1,578	65	812	0	0	0	65	135
2024	5.29%	447	2,947	348	2,089	316	1,894	51	812	0	0	0	51	186
2025	4.89%	414	3,361	348	2,437	316	2,209	38	812	0	0	0	38	223
2026	4.52%	383	3,744	348	2,785	316	2,525	26	812	0	0	0	26	249
2027	4.46%	378	4,121	348	3,133	316	2,841	24	812	0	0	0	24	273
2028	4.46%	378	4,499	348	3,481	316	3,156	24	812	0	0	0	24	297
2029	4.46%	378	4,876	348	3,829	316	3,472	24	812	0	0	0	24	321
2030	4.46%	378	5,254	348	4,177	316	3,788	24	812	0	0	0	24	345
2031	4.46%	378	5,632	348	4,526	316	4,103	24	812	0	0	0	24	369
2032	4.46%	378	6,009	348	4,874	316	4,419	24	812	0	0	0	24	393
2033	4.46%	378	6,387	348	5,222	316	4,734	24	812	0	0	0	24	417
2034	4.46%	378	6,764	348	5,570	316	5,050	24	812	0	0	0	24	440
2035	4.46%	378	7,142	348	5,918	316	5,366	24	812	0	0	0	24	464
2036	4.46%	378	7,519	348	6,266	316	5,681	24	812	0	0	0	24	488
2037	4.46%	378	7,897	348	6,614	316	5,997	24	812	0	0	0	24	512
2038	4.46%	378	8,275	348	6,962	316	6,313	24	812	0	0	0	24	536
2039	2.23%	189	8,463	348	7,311	316	6,628	(49)	812	0	0	0	(49)	487
2040	0.00%	0	8,463	348	7,659	316	6,944	(122)	812	0	0	0	(122)	365
2041	0.00%	0	8,463	348	8,007	316	7,259	(122)	812	0	0	0	(122)	244
2042	0.00%	0	8,463	348	8,355	316	7,575	(122)	812	0	0	0	(122)	122
2043	0.00%	0	8,463	348	8,703	316	7,891	(122)	812	0	0	0	(122)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(221)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	812
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Motors

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	END OF YEAR NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	317	1	8,355	348	(220)	8,924	8,575	8,749
2020	7.22%	611	114	8,007	696	(106)	8,575	8,113	8,344
2021	6.68%	565	96	7,659	1,044	(10)	8,113	7,669	7,891
2022	6.18%	523	80	7,311	1,392	70	7,669	7,241	7,455
2023	5.71%	484	65	6,962	1,741	135	7,241	6,828	7,034
2024	5.29%	447	51	6,614	2,089	186	6,828	6,429	6,628
2025	4.89%	414	38	6,266	2,437	223	6,429	6,043	6,236
2026	4.52%	383	26	5,918	2,785	249	6,043	5,669	5,856
2027	4.46%	378	24	5,570	3,133	273	5,669	5,297	5,483
2028	4.46%	378	24	5,222	3,481	297	5,297	4,925	5,111
2029	4.46%	378	24	4,874	3,829	321	4,925	4,553	4,739
2030	4.46%	378	24	4,526	4,177	345	4,553	4,181	4,367
2031	4.46%	378	24	4,177	4,526	369	4,181	3,809	3,995
2032	4.46%	378	24	3,829	4,874	393	3,809	3,437	3,623
2033	4.46%	378	24	3,481	5,222	417	3,437	3,065	3,251
2034	4.46%	378	24	3,133	5,570	440	3,065	2,693	2,879
2035	4.46%	378	24	2,785	5,918	464	2,693	2,321	2,507
2036	4.46%	378	24	2,437	6,266	488	2,321	1,949	2,135
2037	4.46%	378	24	2,089	6,614	512	1,949	1,577	1,763
2038	4.46%	378	24	1,741	6,962	536	1,577	1,205	1,391
2039	2.23%	189	(49)	1,392	7,311	487	1,205	905	1,055
2040	0.00%	0	(122)	1,044	7,659	365	905	679	792
2041	0.00%	0	(122)	696	8,007	244	679	453	566
2042	0.00%	0	(122)	348	8,355	122	453	226	339
2043	0.00%	0	(122)	0	8,703	0	226	0	113

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$/kW)	(7) CUMULATIVE AVERAGE SPENDING (\$/kW)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.030	0.00%	0.00	0.00
2011	-8	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77												
(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/kW)	(8a)* DEBT AFUDC (\$/kW)	(8b)* CUMULATIVE DEBT AFUDC (\$/kW)	(9) YEARLY TOTAL AFUDC (\$/kW)	(9a)* CUMULATIVE TOTAL AFUDC (\$/kW)	(9b)* CONSTRUCTION PERIOD INTEREST (\$/kW)	(9c)* CUMULATIVE CPI (\$/kW)	(9d)* DEFERRED TAXES (\$/kW)	(9e)* CUMULATIVE DEFERRED TAXES (\$/kW)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	7,421	7,421	7,421
EQUITY AFUDC	812		
DEBT AFUDC	470	470	
CPI			1,042
TOTAL	8,703	7,891	8,463

* Column not specified in workbook

INPUT DATA -- PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: Business Motors

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	791	791	6.35	7.00	7.50	0.00	1.00	1.00
2012	1,618	1,618	6.43	7.03	7.49	0.00	1.00	1.00
2013	2,480	2,480	7.06	7.46	7.76	0.00	1.00	1.00
2014	3,373	3,373	7.53	7.88	8.13	0.00	1.00	1.00
2015	4,292	4,292	8.11	8.55	8.85	0.00	1.00	1.00
2016	5,234	5,234	9.00	9.72	10.27	0.00	1.00	1.00
2017	6,194	6,194	9.75	10.54	11.20	0.00	1.00	1.00
2018	7,165	7,165	10.52	11.35	12.02	0.00	1.00	1.00
2019	7,165	7,165	11.50	12.57	13.41	10.41	1.00	1.00
2020	7,165	7,165	12.08	13.20	14.02	10.50	1.00	1.00
2021	7,165	7,165	12.57	13.74	14.62	10.74	1.00	1.00
2022	7,165	7,165	13.06	14.19	15.03	10.81	1.00	1.00
2023	7,165	7,165	13.39	14.45	15.20	10.80	1.00	1.00
2024	7,165	7,165	13.95	15.02	15.74	10.84	1.00	1.00
2025	7,165	7,165	14.40	15.48	16.18	10.96	1.00	1.00
2026	7,165	7,165	14.70	15.74	16.40	11.05	1.00	1.00
2027	7,165	7,165	15.13	16.11	16.72	11.17	1.00	1.00
2028	7,165	7,165	15.60	16.54	17.12	11.36	1.00	1.00
2029	7,165	7,165	16.02	16.87	17.35	11.41	1.00	1.00
2030	7,165	7,165	16.52	17.35	17.81	11.59	1.00	1.00
2031	7,165	7,165	17.08	17.92	18.39	11.80	1.00	1.00
2032	7,165	7,165	17.50	18.20	18.55	11.88	1.00	1.00
2033	7,165	7,165	18.27	18.87	19.23	12.10	1.00	1.00
2034	7,165	7,165	18.73	19.15	19.38	12.14	1.00	1.00
2035	7,165	7,165	19.57	20.09	20.40	12.29	1.00	1.00
2036	7,165	7,165	20.40	20.92	21.28	12.55	1.00	1.00
2037	7,165	7,165	21.11	21.59	21.92	12.70	1.00	1.00
2038	7,165	7,165	22.02	22.52	22.85	13.04	1.00	1.00
2039	7,165	7,165	22.78	23.25	23.55	13.32	1.00	1.00
2040	7,165	7,165	23.59	24.01	24.27	13.44	1.00	1.00
2041	7,165	7,165	24.54	24.94	25.18	13.75	1.00	1.00
2042	7,165	7,165	25.50	25.90	26.14	14.10	1.00	1.00
2043	7,165	7,165	26.74	27.25	27.61	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* 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.

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	1,863	1,022	43	2,602	3,292	2,238
2020	1,808	1,047	62	3,834	4,671	2,080
2021	1,736	1,074	65	4,001	4,879	1,997
2022	1,667	1,101	69	4,234	5,086	1,984
2023	1,600	1,128	73	4,452	5,233	2,020
2024	1,535	1,156	77	4,702	5,429	2,042
2025	1,473	1,185	83	5,024	5,726	2,039
2026	1,412	1,215	88	5,369	6,032	2,053
2027	1,354	1,245	94	5,667	6,291	2,069
2028	1,295	1,276	96	5,818	6,426	2,059
2029	1,237	1,308	101	6,063	6,595	2,113
2030	1,178	1,341	106	6,347	6,859	2,113
2031	1,120	1,374	108	6,477	6,983	2,097
2032	1,062	1,409	113	6,706	7,127	2,163
2033	1,003	1,444	124	7,379	7,793	2,158
2034	945	1,480	130	7,680	7,978	2,258
2035	887	1,517	133	7,855	8,101	2,292
2036	829	1,555	138	8,090	8,341	2,271
2037	771	1,594	142	8,274	8,461	2,319
2038	713	1,634	146	8,480	8,719	2,253
2039	655	1,675	150	8,655	8,919	2,214
2040	607	1,716	154	8,854	9,021	2,310
2041	571	1,759	158	9,048	9,248	2,288
2042	534	1,803	162	9,254	9,506	2,248
2043	497	1,848	167	9,492	9,750	2,254
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NOM	28,352	34,907	2,781	164,359	176,467	53,932
NPV	6,342	5,795	420	25,155	27,980	9,733

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
	AVOIDED TRANSMISSION CAP COST	AVOIDED TRANSMISSION O&M COST	TOTAL AVOIDED TRANSMISSION COST	AVOIDED DISTRIBUTION CAP COST	AVOIDED DISTRIBUTION O&M COST	TOTAL AVOIDED DISTRIBUTION COST	PROGRAM FUEL SAVINGS	PROGRAM OFF-PEAK PAYBACK
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	152	0
2012	35	3	38	3	1	4	465	0
2013	71	9	80	6	2	7	833	0
2014	109	12	121	9	2	12	1,255	0
2015	148	16	164	12	3	16	1,785	0
2016	189	20	209	16	4	20	2,535	0
2017	230	24	255	19	5	25	3,297	0
2018	273	29	302	23	7	29	4,150	0
2019	316	29	346	26	8	34	4,941	0
2020	305	30	335	25	8	34	5,188	0
2021	294	31	325	25	8	33	5,404	0
2022	284	32	316	24	8	32	5,574	0
2023	274	33	306	23	9	32	5,668	0
2024	264	33	297	22	9	31	5,891	0
2025	254	34	288	21	9	30	6,068	0
2026	244	35	279	20	9	30	6,165	0
2027	235	36	271	20	10	29	6,301	0
2028	225	37	262	19	10	29	6,466	0
2029	215	38	253	18	10	28	6,587	0
2030	206	39	244	17	10	27	6,772	0
2031	196	40	236	16	11	27	6,992	0
2032	186	41	227	16	11	26	7,090	0
2033	177	42	219	15	11	26	7,339	0
2034	169	43	211	14	11	25	7,433	0
2035	160	44	204	13	12	25	7,804	0
2036	153	45	198	13	12	25	8,126	0
2037	146	46	192	12	12	24	8,381	0
2038	139	47	187	12	13	24	8,740	0
2039	134	48	182	11	13	24	9,020	0
2040	129	50	178	11	13	24	9,311	0
2041	124	51	174	10	14	24	9,670	0
2042	119	52	171	10	14	24	10,039	0
2043	114	53	167	9	14	24	10,571	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
NOM.	6,116	1,120	7,236	509	294	804	196,013	0
NPV	1,687	230	1,916	140	58	199	37,523	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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Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	6.75	

In Service of Gen Unit:	2019	
Discount Rate :	8.89	%
Benefit/Cost Ratio (Col(6) / Col(10))	6.61	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)
2010	0	0	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	36	51	189	0	276	152	0	0	0	153	(123)	(104)
2012	0	39	53	602	0	694	465	41	0	1	507	(187)	(249)
2013	0	41	55	1,085	0	1,181	833	88	0	79	1,000	(181)	(378)
2014	0	44	57	1,553	0	1,754	1,255	133	0	126	1,514	(241)	(535)
2015	0	46	59	2,283	0	2,388	1,785	180	0	182	2,148	(241)	(679)
2016	0	49	60	2,958	0	3,067	2,535	229	0	252	3,017	(50)	(707)
2017	0	51	62	3,698	0	3,810	3,297	279	0	333	3,909	99	(657)
2018	0	53	62	4,440	0	4,555	4,150	331	0	423	4,904	349	(495)
2019	0	0	0	4,957	0	4,957	7,179	380	0	399	7,958	3,000	786
2020	0	0	0	4,966	0	4,966	7,269	369	0	395	8,033	3,067	1,988
2021	0	0	0	5,091	0	5,091	7,400	358	0	421	8,179	3,089	3,100
2022	0	0	0	5,281	0	5,281	7,558	348	0	471	8,377	3,096	4,123
2023	0	0	0	5,470	0	5,470	7,688	338	0	497	8,522	3,052	5,050
2024	0	0	0	5,755	0	5,755	7,933	328	0	546	8,808	3,053	5,901
2025	0	0	0	6,006	0	6,006	8,107	318	0	597	9,022	3,017	6,674
2026	0	52	51	6,281	0	6,384	8,218	309	0	625	9,151	2,768	7,325
2027	0	56	53	6,663	0	6,772	8,370	300	0	676	9,346	2,574	7,881
2028	0	60	55	6,971	0	7,086	8,525	290	0	736	9,552	2,466	8,370
2029	0	63	57	7,330	0	7,451	8,701	281	0	818	9,800	2,349	8,798
2030	0	67	59	7,738	0	7,864	8,885	272	0	875	10,032	2,168	9,161
2031	0	70	60	8,140	0	8,271	9,089	263	0	952	10,304	2,033	9,473
2032	0	73	62	8,673	0	8,808	9,252	254	0	1,029	10,534	1,726	9,717
2033	0	76	62	9,524	0	9,662	9,496	245	0	1,078	10,819	1,157	9,867
2034	0	0	0	9,709	0	9,709	9,691	237	0	1,156	11,083	1,374	10,030
2035	0	0	0	10,165	0	10,165	10,096	229	0	1,250	11,575	1,410	10,184
2036	0	0	0	10,969	0	10,969	10,397	222	0	1,347	11,966	998	10,284
2037	0	0	0	11,597	0	11,597	10,700	216	0	1,454	12,371	774	10,356
2038	0	0	0	12,156	0	12,156	10,994	211	0	1,568	12,772	616	10,408
2039	0	0	0	12,769	0	12,769	11,234	206	0	1,685	13,126	357	10,436
2040	0	0	0	13,422	0	13,422	11,621	202	0	1,814	13,638	216	10,451
2041	0	76	51	14,196	0	14,323	11,958	198	0	1,949	14,106	(217)	10,437
2042	0	81	53	15,024	0	15,158	12,286	194	0	2,178	14,659	(499)	10,407
2043	0	87	55	15,907	0	16,049	12,825	191	0	2,426	15,442	(607)	10,373
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
NOM.	0	1,120	1,078	241,666	0	243,864	249,945	8,040	0	28,339	286,324	42,461	
NPV.	0	328	380	42,335	0	43,335	47,256	2,115	0	4,337	53,708	10,373	

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.24	