

**BEFORE THE FLORIDA PUBLIC SERVICE
COMMISSION**

DOCKET NO. 100155-EG

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

MODIFIED PLAN APPENDIX A

March 25, 2011

COM ___
APA ___
ECR ___
GCL 1
RAD 14
SSC ___
ADM ___
OPC ___
CLK ___

DOCUMENT NUMBER-DATE

01988 MAR 25 =

FPSC-COMMISSION CLERK

RESIDENTIAL LOW INCOME WEATHERIZATION

INPUT DATA - PART 1, CONTINUED
PROGRAM METHOD SELECTED: RIV_RRQ
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	0.30 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	788.59 KVA
(5) KW LINE LOSS PERCENTAGE	6.91 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

II. ECONOMIC LIFE & K.F. 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.F. FACTOR FOR GENERATION	1.79738
(5) K.F. 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	--- \$/CUSTOMER
(7) CUSTOMER O & M COST ESCALATION RATE	--- %**
* INCREASED SUPPLY COSTS	--- \$/CUSTOMER
* SUPPLY COSTS ESCALATION RATES	--- %**
~ (10) UTILITY DISCOUNT RATE	8.20 %
~ (11) UTILITY AFDISC 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	185.92 \$/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/KVA
(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 KW-HR** (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/KVA
(2) NON-FUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CUSTOMER BILL	--- \$/KW&M
(4) DEMAND CHARGE ESCALATION RATE	--- %

**CALCULATION OF GENE-FACTOR
PROGRAMMED SELECTED KEY REQ
PROGRAMNAME: Residential Low Income Water/Wastewater**

YEAR	(2) REG-YEAR RATEBASE \$(000)	(3) DEBT \$(000)	(4) PREFERRED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPRECI- \$(000)	(10) DEFERRED TAXES \$(000)	(11) TOTAL FIXED CHARGES \$(000)	(12) EMERENT WORKER FIXED CHARGES \$(000)	(13) CUMULATIVE PW FIXED CHARGES \$(000)	(14) REPLACEMENT COST BASE FOR PROPERTY INSURANCE \$(000)
2019	1,858	120	0	289	178	65	25	150	6	305	305	305	3,762
2020	1,907	115	0	299	122	62	24	150	49	781	718	1,523	3,856
2021	1,907	109	0	245	121	60	24	150	42	750	633	2,156	3,953
2022	1,915	103	0	231	120	57	25	150	35	721	558	2,714	4,051
2023	1,930	97	0	218	118	54	25	150	28	692	492	3,206	4,153
2024	1,951	92	0	206	116	51	26	150	22	664	434	3,680	4,256
2025	1,979	86	0	194	114	49	27	150	16	637	382	4,022	4,363
2026	2,012	81	0	182	112	46	27	150	11	611	334	4,358	4,472
2027	2,050	76	0	171	109	43	28	150	10	585	294	4,654	4,584
2028	2,090	71	0	160	99	41	28	150	10	568	267	4,914	4,698
2029	2,129	66	0	149	92	38	29	150	10	553	228	5,143	4,816
2030	1,968	61	0	137	85	35	30	150	10	509	200	5,342	4,936
2031	1,897	56	0	126	78	33	31	150	10	484	174	5,517	5,060
2032	1,844	51	0	115	71	30	32	150	10	459	152	5,668	5,186
2033	1,498	46	0	104	64	27	32	150	10	434	132	5,800	5,316
2034	1,285	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	1,040	31	0	70	42	19	35	150	10	358	84	6,096	5,724
2037	923	26	0	59	35	16	36	150	10	333	72	6,168	5,868
2038	822	21	0	48	28	14	37	150	10	308	61	6,230	6,014
2039	721	16	0	36	23	11	38	150	10	283	52	6,281	6,165
2040	631	12	0	27	19	8	39	150	(23)	265	44	6,325	6,319
2041	554	9	0	20	14	5	40	150	(33)	247	38	6,363	6,477
2042	496	6	0	14	10	3	40	150	(33)	231	33	6,395	6,639
2043	45	3	0	7	6	(0)	42	150	(33)	215	28	6,423	6,805

IN SERVICE COST (\$000)	3,762
IN SERVICE YEAR	2019
BOOK-LINE (YRS)	25
DEPRECI. RATE	38.57%
DISCOUNT RATE	7.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	6.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.83
PS	0%	8.00
CS	56%	12.50

$K\text{-FACTOR} = \text{CFWFC} / \text{IN-SVC COST} = 1.70728$

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 FUND \$(000)	BOOK DEPR RATE	(10)*(11) TAC RATE \$(000)	SALVAGE TAC RATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	1.75%	157	157	150	150	136	136	0	351	0	0	0	0	(95)
2020	7.22%	264	411	150	301	136	273	49	351	0	0	0	49	(46)
2021	6.88%	244	656	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	753	136	682	28	351	0	0	0	28	58
2024	5.09%	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%	163	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	2,762	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	231
2039	2.23%	82	3,639	150	3,160	136	2,865	(21)	351	0	0	0	(21)	211
2040	0.00%	0	3,639	150	3,311	136	3,002	(23)	351	0	0	0	(23)	198
2041	0.00%	0	3,639	150	3,461	136	3,138	(23)	351	0	0	0	(23)	165
2042	0.00%	0	3,639	150	3,612	136	3,275	(23)	351	0	0	0	(23)	133
2043	0.00%	0	3,639	150	3,762	136	3,411	(23)	351	0	0	0	(23)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(95)
TOTAL EQUITY FUND CAPITALIZED (SEE PAGE 5)	351
BOOK DEPR RATE - USEFUL LIFE	4.89%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/SELECTED: RESV_REQ
 PROGRAMNAME: 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)
2010	3.75%	137	0	3,612	130	(95)	3,854	3,707	3,782
2020	7.22%	264	49	3,461	301	(46)	3,767	3,507	3,607
2021	6.68%	244	42	3,311	451	(6)	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%	191	22	2,859	903	89	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	4.18%	163	10	2,408	1,354	118	2,450	2,290	2,370
2028	4.48%	163	10	2,257	1,505	128	2,290	2,129	2,209
2029	4.48%	163	10	2,107	1,655	139	2,129	1,968	2,048
2030	4.48%	163	10	1,956	1,806	149	1,968	1,807	1,888
2031	4.48%	163	10	1,806	1,956	159	1,807	1,646	1,727
2032	4.48%	163	10	1,655	2,107	170	1,646	1,486	1,566
2033	4.48%	163	10	1,505	2,257	180	1,486	1,325	1,405
2034	4.48%	163	10	1,354	2,408	190	1,325	1,164	1,244
2035	4.48%	163	10	1,204	2,558	201	1,164	1,003	1,084
2036	4.48%	163	10	1,053	2,709	211	1,003	842	923
2037	4.48%	163	10	903	2,859	221	842	682	762
2038	4.48%	163	10	752	3,010	232	682	521	601
2039	2.33%	82	(21)	602	3,160	211	521	391	456
2040	0.80%	0	(3)	451	3,311	198	391	294	342
2041	0.80%	0	(3)	301	3,461	105	294	196	245
2042	0.80%	0	(3)	150	3,612	55	196	98	147
2043	0.80%	0	(3)	0	3,762	0	98	0	49

* Columns not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (\$K/W)	(6) ANNUAL SPENDING (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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%	15.59	9.24
2015	-4	3.00%	1.194	4.37%	30.61	37.63
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	428.27	298.84
2018	-1	3.00%	1.305	10.44%	38.79	338.38

YEAR	NO. YEARS IN-SERVICE	(8) CUMULATIVE SPENDING W/PLANT ESCALATION (\$K/W)	(9) DEBT AFUDC (\$K/W)	(10) CUMULATIVE DEBT AFUDC (\$K/W)	(11) TOTAL AFUDC (\$K/W)	(12) CUMULATIVE CONSTRUCTION INTEREST (\$K/W)	(13) CUMULATIVE CPI (\$K/W)	(14) DEPRECIATED TAXES (\$K/W)	(15) CUMULATIVE DEPRECIATED TAXES (\$K/W)	(16) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(17) CUMULATIVE YEAR-END BOOK VALUE (\$K/W)
2009	-10	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
2011	-8	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
2013	-6	0.62	0.02	0.02	0.65	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.30	0.30	6.79	0.65	0.70	(0.16)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	2.22	4.66	2.65	(0.37)	(0.32)	42.83	60.90
2016	-3	236.84	7.97	8.56	23.36	15.90	19.25	(1.41)	(4.13)	251.16	432.06
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	(9.26)	(13.39)	473.37	885.43
2018	-1	334.83	29.46	37.47	80.39	156.84	64.78	(27.50)	(27.82)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,655
AFUDC RATE	3.48%

57.47	156.84	227.50	(27.82)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEBT 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	3,659	

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM(MODEL) SECTED : RIV_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 (Ct/kWh)	AVOIDED MARGINAL FUEL COST (Ct/kWh)	INCREASED MARGINAL FUEL COST (Ct/kWh)	REPLACEMENT FUEL COST (Ct/kWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KW/h 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	6.62	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	9.94	11.34	9.25	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	13.38	10.90	0.00	1.00	1.00
2019	9,000	9,000	11.56	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	18.35	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	18.79	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	12.53	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	13.84	1.00	1.00
2039	9,000	9,000	22.78	24.29	22.92	13.92	1.00	1.00
2040	9,000	9,000	23.39	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	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.

RATE IMPACT TEST
 PROGRAM METHOD SELECTED: REV_REVQ
 PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	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	28	0	0	0	28	(420)	(380)
2011	0	123	297	125	0	545	106	17	0	0	124	(423)	(741)
2012	0	126	297	229	0	643	175	35	0	7	211	(433)	(1,076)
2013	0	129	297	354	0	746	240	54	0	20	314	(437)	(1,387)
2014	0	170	357	442	0	949	316	71	0	29	416	(334)	(1,249)
2015	0	223	432	565	0	1,221	429	89	0	39	554	(665)	(2,148)
2016	0	229	432	691	0	1,322	619	106	0	52	778	(575)	(1,446)
2017	0	235	432	827	0	1,494	787	124	0	66	978	(516)	(2,723)
2018	0	282	492	943	0	1,738	950	142	0	82	1,174	(563)	(2,887)
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	1,094	0	1,775	2,094	149	0	49	2,285	511	(2,197)
2022	0	312	492	1,115	0	1,919	2,132	145	0	46	2,323	404	(2,064)
2023	0	279	432	1,149	0	1,853	2,140	141	0	45	2,326	473	(1,928)
2024	0	218	357	1,200	0	1,775	2,260	137	0	48	2,385	610	(1,258)
2025	0	296	432	1,243	0	1,961	2,227	133	0	49	2,409	448	(1,654)
2026	0	344	492	1,293	0	2,129	2,236	128	0	49	2,414	285	(1,503)
2027	0	309	432	1,361	0	2,093	2,253	125	0	49	2,427	334	(1,406)
2028	0	398	432	1,416	0	2,156	2,271	121	0	53	2,445	289	(1,439)
2029	0	178	195	1,479	0	1,833	2,285	117	0	58	2,460	608	(1,328)
2030	0	380	492	1,532	0	2,422	2,313	113	0	58	2,494	61	(1,318)
2031	0	301	432	1,622	0	2,396	2,350	109	0	64	2,503	137	(1,297)
2032	0	340	432	1,718	0	2,490	2,353	105	0	68	2,526	36	(1,282)
2033	0	348	432	1,872	0	2,632	2,483	102	0	56	2,561	(91)	(1,204)
2034	0	341	417	1,997	0	2,685	2,418	99	0	56	2,572	(82)	(1,315)
2035	0	366	432	1,982	0	2,780	2,327	96	0	59	2,682	(98)	(1,236)
2036	0	375	432	2,134	0	2,931	2,393	93	0	62	2,748	(183)	(1,344)
2037	0	394	432	2,238	0	3,054	2,450	91	0	66	2,807	(277)	(1,367)
2038	0	443	492	2,335	0	3,269	2,689	88	0	70	2,847	(442)	(1,406)
2039	0	228	195	2,442	0	2,865	2,715	87	0	72	2,873	3	(1,403)
2040	0	414	432	2,556	0	3,402	2,792	83	0	76	2,892	(449)	(1,436)
2041	0	424	432	2,691	0	3,547	2,843	83	0	81	3,009	(336)	(1,471)
2042	0	511	492	2,855	0	3,838	2,894	82	0	123	3,099	(739)	(1,515)
2043	0	446	432	2,949	0	3,867	3,030	80	0	140	3,279	(388)	(1,343)
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	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	9,260	13,532	48,519	0	72,010	64,264	1,439	0	1,902	67,625	(2,383)	
NPV	0	2,367	4,006	9,135	0	15,582	12,591	353	0	411	13,954	(1,548)	

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

RESIDENTIAL LOW INCOME HOME ENERGY SURVEY

INPUT DATA -- PART I CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Home Energy Survey

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	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	1.91 \$/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 I CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Home Energy Survey

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	
2010	0	0	0	0	0	0	0	0	0	
2011	755	730	0	1,485	392	0	767	0	767	
2012	774	730	0	1,504	1,239	0	786	0	786	
2013	793	730	0	1,523	2,170	0	806	0	806	
2014	813	730	0	1,543	3,223	0	826	0	826	
2015	833	730	0	1,563	4,344	0	847	0	847	
2016	1,068	1,191	0	2,259	5,490	0	1,416	0	1,416	
2017	1,094	1,191	0	2,286	6,724	0	1,451	0	1,451	
2018	1,122	1,191	0	2,313	7,975	0	1,487	0	1,487	
2019	230	461	0	691	8,819	0	590	0	590	
2020	236	461	0	697	8,846	0	605	0	605	
2021	966	1,037	0	2,004	9,039	0	1,395	0	1,395	
2022	991	1,037	0	2,028	9,301	0	1,430	0	1,430	
2023	1,015	1,037	0	2,053	9,583	0	1,466	0	1,466	
2024	1,041	730	0	1,771	10,008	0	1,057	0	1,057	
2025	1,067	730	0	1,797	10,368	0	1,084	0	1,084	
2026	1,367	1,191	0	2,558	10,784	0	1,812	0	1,812	
2027	1,401	1,191	0	2,592	11,348	0	1,858	0	1,858	
2028	1,436	1,191	0	2,627	11,809	0	1,904	0	1,904	
2029	589	615	0	1,204	12,338	0	1,007	0	1,007	
2030	603	615	0	1,218	12,941	0	1,033	0	1,033	
2031	1,546	1,191	0	2,737	13,531	0	2,050	0	2,050	
2032	1,268	1,037	0	2,305	14,320	0	1,821	0	1,821	
2033	1,300	1,037	0	2,337	15,612	0	1,876	0	1,876	
2034	999	576	0	1,576	15,904	0	1,068	0	1,068	
2035	1,024	576	0	1,601	16,530	0	1,095	0	1,095	
2036	1,400	1,037	0	2,437	17,713	0	2,021	0	2,021	
2037	1,793	1,191	0	2,984	18,661	0	2,378	0	2,378	
2038	1,838	1,191	0	3,029	19,473	0	2,437	0	2,437	
2039	754	615	0	1,368	20,365	0	1,289	0	1,289	
2040	773	615	0	1,387	21,314	0	1,322	0	1,322	
2041	1,980	1,191	0	3,171	22,440	0	2,625	0	2,625	
2042	2,029	1,191	0	3,220	23,643	0	2,690	0	2,690	
2043	2,080	1,191	0	3,271	24,927	0	2,758	0	2,758	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	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	36,978	30,161	0	67,139	401,184	0	49,068	0	49,068	
NPV	9,109	8,433	0	17,542	73,690	0	11,498	0	11,498	

* 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 Home Energy Survey

(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	6,963
2020	6,861	213	0	479	226	115	44	279	91	1,446	1,328	7,137
2021	6,491	202	0	453	224	110	45	279	77	1,389	1,171	7,316
2022	6,136	191	0	428	221	105	46	279	64	1,334	1,033	7,499
2023	5,793	180	0	404	218	100	47	279	52	1,280	911	7,686
2024	5,463	170	0	381	215	95	48	279	41	1,229	803	7,878
2025	5,144	160	0	359	211	90	49	279	30	1,179	707	8,075
2026	4,835	150	0	337	208	85	50	279	21	1,130	623	8,277
2027	4,536	141	0	317	196	80	52	279	19	1,083	548	8,484
2028	4,238	132	0	296	183	75	53	279	19	1,036	482	8,696
2029	3,940	122	0	275	170	70	54	279	19	990	422	8,914
2030	3,643	113	0	254	157	65	56	279	19	943	370	9,136
2031	3,345	104	0	233	144	60	57	279	19	896	323	9,365
2032	3,047	95	0	213	131	55	59	279	19	849	281	9,599
2033	2,750	85	0	192	118	50	60	279	19	803	244	9,839
2034	2,452	76	0	171	105	45	62	279	19	756	211	10,085
2035	2,154	67	0	150	92	40	63	279	19	710	182	10,337
2036	1,857	58	0	130	79	35	65	279	19	663	156	10,596
2037	1,559	48	0	109	66	30	66	279	19	617	133	10,860
2038	1,261	39	0	88	53	25	68	279	19	570	113	11,132
2039	964	30	0	67	38	20	70	279	(39)	524	95	11,410
2040	724	23	0	51	145	15	71	279	(97)	486	81	11,695
2041	543	17	0	38	138	10	73	279	(97)	457	70	11,988
2042	362	11	0	25	130	5	75	279	(97)	427	60	12,288
2043	181	6	0	13	122	(0)	77	279	(97)	398	52	12,595

IN SERVICE COST (\$000)	6,963
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: Residential Low Income Home Energy S

(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 Low Income Home Energy Survey

(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%	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

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

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	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 Low Income Home Energy Survey

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	(5) AVOIDED MARGINAL FUEL COST (C/kWh)	(6)* INCREASED MARGINAL FUEL COST (C/kWh)	(7) REPLACEMENT FUEL COST (C/kWh)	(8) PROGRAM kW EFFECTIVENESS FACTOR	(9) 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	0.00	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 Low Income Home Energy Survey

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	1,491	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	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

AVOIDED T&D AND PROGRAM FUEL SAVINGS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME : Residential Low Income Home Energy Survey

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$(000)	(3) AVOIDED TRANSMISSION O&M COST \$(000)	(4) TOTAL AVOIDED TRANSMISSION COST \$(000)	(5) AVOIDED DISTRIBUTION CAP COST \$(000)	(6) AVOIDED DISTRIBUTION O&M COST \$(000)	(7) TOTAL AVOIDED DISTRIBUTION COST \$(000)	(8) PROGRAM FUEL SAVINGS \$(000)	(8a)* 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	235	0
2012	32	2	34	3	1	3	714	0
2013	63	8	71	5	1	7	1,306	0
2014	94	10	105	8	2	10	1,949	0
2015	126	13	139	10	3	13	2,702	0
2016	157	16	173	13	4	17	3,663	0
2017	188	20	208	16	5	20	4,690	0
2018	219	23	242	18	5	24	5,838	0
2019	250	24	274	21	6	27	6,809	0
2020	242	24	266	20	6	27	7,151	0
2021	233	25	258	19	7	26	7,437	0
2022	225	25	250	19	7	26	7,730	0
2023	217	26	243	18	7	25	7,928	0
2024	209	27	236	17	7	25	8,256	0
2025	201	27	228	17	7	24	8,522	0
2026	193	28	221	16	8	24	8,703	0
2027	186	29	214	15	8	23	8,955	0
2028	178	29	207	15	8	23	9,232	0
2029	170	30	201	14	8	22	9,484	0
2030	163	31	194	14	8	22	9,778	0
2031	155	32	187	13	8	21	10,108	0
2032	147	33	180	12	9	21	10,361	0
2033	140	33	173	12	9	21	10,817	0
2034	133	34	167	11	9	20	11,086	0
2035	127	35	162	11	9	20	11,585	0
2036	121	36	157	10	10	20	12,072	0
2037	115	37	152	10	10	19	12,498	0
2038	110	38	148	9	10	19	13,033	0
2039	106	39	145	9	10	19	13,484	0
2040	102	40	141	8	11	19	13,966	0
2041	98	41	138	8	11	19	14,523	0
2042	94	42	135	8	11	19	15,096	0
2043	90	43	133	7	11	19	15,825	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	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.	4,885	899	5,784	407	236	643	285,538	0
NPV	1,362	186	1,547	113	47	161	53,943	0

* 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 Low Income Home Energy Survey

YEAR	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	REPLACEMENT EMISSION COST \$(000)	PROGRAM EMISSION BENEFIT \$(000)	OFF-PEAK EMISSION PAYBACK COST \$(000)	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	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
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

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV REQ
PROGRAM NAME: Residential Low Income Home Energy Survey

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(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	755	767	0	1,522	0	0	235	1	236	(1,286)	(1,085)
2012	0	774	786	0	1,560	0	37	714	2	753	(807)	(1,710)
2013	0	793	806	0	1,599	0	77	1,306	133	1,517	(82)	(1,769)
2014	0	813	826	0	1,639	0	115	1,949	206	2,270	631	(1,357)
2015	0	833	847	0	1,680	0	152	2,702	293	3,147	1,467	(477)
2016	0	1,068	1,416	0	2,484	0	190	3,663	398	4,251	1,767	497
2017	0	1,094	1,451	0	2,546	0	228	4,690	516	5,434	2,888	1,959
2018	0	1,122	1,487	0	2,609	0	266	5,838	647	6,751	4,142	3,884
2019	0	230	590	0	820	1,791	301	6,809	676	9,577	8,757	7,621
2020	0	236	605	0	841	1,665	293	7,151	702	9,810	8,969	11,137
2021	0	966	1,395	0	2,362	1,597	284	7,437	755	10,074	7,712	13,913
2022	0	991	1,430	0	2,421	1,588	276	7,730	846	10,439	8,018	16,564
2023	0	1,015	1,466	0	2,481	1,616	268	7,928	899	10,711	8,229	21,586
2024	0	1,041	1,057	0	2,098	1,634	260	8,256	995	11,146	9,048	23,980
2025	0	1,067	1,084	0	2,150	1,631	253	8,522	1,093	11,499	9,348	25,993
2026	0	1,367	1,812	0	3,179	1,642	245	8,703	1,151	11,741	8,562	27,903
2027	0	1,401	1,858	0	3,259	1,655	238	8,955	1,253	12,101	8,843	29,716
2028	0	1,436	1,904	0	3,340	1,648	230	9,232	1,366	12,476	9,136	31,779
2029	0	589	1,007	0	1,596	1,691	223	9,484	1,524	12,922	11,326	33,735
2030	0	603	1,033	0	1,636	1,691	215	9,778	1,641	13,325	11,689	35,299
2031	0	1,546	2,050	0	3,597	1,678	208	10,108	1,785	13,778	10,181	36,869
2032	0	1,268	1,831	0	3,099	1,730	201	10,361	1,934	14,226	11,128	38,376
2033	0	1,300	1,876	0	3,176	1,726	194	10,817	2,067	14,804	11,628	41,471
2034	0	999	1,068	0	2,068	1,807	188	11,086	2,231	15,311	13,243	42,802
2035	0	1,024	1,095	0	2,119	1,834	182	11,585	2,415	16,016	13,896	44,016
2036	0	1,400	2,021	0	3,420	1,817	176	12,072	2,609	16,675	13,254	45,182
2037	0	1,793	2,378	0	4,171	1,856	172	12,498	2,820	17,345	13,173	46,478
2038	0	1,838	2,437	0	4,276	1,803	167	13,033	3,042	18,046	13,770	47,721
2039	0	754	1,289	0	2,043	1,772	164	13,484	3,283	18,702	16,659	48,751
2040	0	773	1,322	0	2,094	1,848	161	13,966	3,536	19,511	17,417	49,744
2041	0	1,980	2,625	0	4,604	1,830	157	14,523	3,801	20,312	15,708	50,711
2042	0	2,029	2,690	0	4,719	1,798	154	15,096	4,152	21,201	16,481	
2043	0	2,080	2,758	0	4,837	1,804	151	15,825	4,532	22,312	17,474	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	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	36,978	49,068	0	86,046	43,151	6,427	285,538	53,301	388,416	302,370	
NPV	0	9,109	11,498	0	20,607	7,788	1,708	53,943	7,879	71,318	50,711	

Discount Rate: 8.89 %
Benefit/Cost Ratio (Col(11) / Col(6)) : 3.46

PARTICIPANT COSTS AND BENEFITS
 PROGRAM METHOD SELECTED: REV REQ
 PROGRAM NAME: Residential Low Income Home Energy Survey

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(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	515	0	730	0	1,245	767	0	0	767	478	404
2012	1,631	0	730	0	2,361	786	0	0	786	1,575	1,623
2013	2,856	0	730	0	3,586	806	0	0	806	2,780	3,601
2014	4,241	0	730	0	4,971	826	0	0	826	4,145	6,309
2015	5,716	0	730	0	6,446	847	0	0	847	5,599	9,668
2016	7,223	0	1,191	0	8,414	1,416	0	0	1,416	6,998	13,525
2017	8,848	0	1,191	0	10,039	1,451	0	0	1,451	8,588	17,870
2018	10,493	0	1,191	0	11,684	1,487	0	0	1,487	10,196	22,609
2019	11,603	0	461	0	12,064	590	0	0	590	11,474	27,507
2020	11,640	0	461	0	12,101	605	0	0	605	11,496	32,013
2021	11,893	0	1,037	0	12,930	1,395	0	0	1,395	11,535	36,165
2022	12,238	0	1,037	0	13,275	1,430	0	0	1,430	11,845	40,082
2023	12,609	0	1,037	0	13,646	1,466	0	0	1,466	12,181	43,780
2024	13,169	0	730	0	13,899	1,057	0	0	1,057	12,842	47,361
2025	13,642	0	730	0	14,372	1,084	0	0	1,084	13,288	50,764
2026	14,190	0	1,191	0	15,381	1,812	0	0	1,812	13,569	53,955
2027	14,932	0	1,191	0	16,123	1,858	0	0	1,858	14,265	57,036
2028	15,539	0	1,191	0	16,730	1,904	0	0	1,904	14,825	59,977
2029	16,234	0	615	0	16,849	1,007	0	0	1,007	15,841	62,863
2030	17,028	0	615	0	17,643	1,033	0	0	1,033	16,610	65,642
2031	17,804	0	1,191	0	18,995	2,250	0	0	2,250	16,544	68,245
2032	18,855	0	1,037	0	19,893	1,831	0	0	1,831	18,062	70,794
2033	20,542	0	1,037	0	21,579	1,876	0	0	1,876	19,703	73,348
2034	20,927	0	576	0	21,503	1,068	0	0	1,068	20,435	75,780
2035	21,750	0	576	0	22,326	1,095	0	0	1,095	21,231	78,100
2036	23,306	0	1,037	0	24,344	2,021	0	0	2,021	22,323	80,341
2037	24,554	0	1,191	0	25,745	2,378	0	0	2,378	23,367	82,495
2038	25,622	0	1,191	0	26,813	2,437	0	0	2,437	24,376	84,559
2039	26,796	0	615	0	27,411	1,289	0	0	1,289	26,121	86,590
2040	28,044	0	615	0	28,659	1,322	0	0	1,322	27,337	88,542
2041	29,527	0	1,191	0	30,718	2,625	0	0	2,625	28,093	90,385
2042	31,109	0	1,191	0	32,300	2,690	0	0	2,690	29,610	92,168
2043	32,799	0	1,191	0	33,990	2,758	0	0	2,758	31,232	93,896
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	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
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	527,873	0	30,161	0	558,034	49,068	0	0	49,068	508,966	
NPV	96,961	0	8,433	0	105,394	11,498	0	0	11,498	93,896	

In Service of Gen Unit: 2019
 Discount Rate : 8.89 %
 Benefit/Cost Ratio (Col(6) / Col(10)) 9.17

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Home Energy Survey

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) INCENTIVES \$(000)	(5) REVENUE LOSSES \$(000)	(6) OTHER COSTS \$(000)	(7) TOTAL COSTS \$(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	(9) AVOIDED T&D BENEFITS \$(000)	(10) REVENUE GAINS \$(000)	(11) OTHER BENEFITS \$(000)	(12) TOTAL BENEFITS \$(000)	(13) NET BENEFITS \$(000)	(14) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
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	755	730	392	0	1,877	235	0	0	1	236	(1,641)	(1,384)
2012	0	774	730	1,239	0	2,743	714	37	0	2	753	(1,990)	(2,926)
2013	0	793	730	2,170	0	3,693	1,306	77	0	133	1,517	(2,177)	(4,475)
2014	0	813	730	3,223	0	4,766	1,949	115	0	206	2,270	(2,496)	(6,105)
2015	0	833	730	4,344	0	5,907	2,702	152	0	293	3,147	(2,761)	(7,762)
2016	0	1,068	1,191	5,490	0	7,748	3,663	190	0	398	4,251	(3,498)	(9,689)
2017	0	1,094	1,191	6,724	0	9,010	4,690	228	0	516	5,434	(3,576)	(11,499)
2018	0	1,122	1,191	7,975	0	10,287	5,838	266	0	647	6,751	(3,536)	(13,142)
2019	0	230	461	8,819	0	9,510	8,600	301	0	676	9,577	67	(13,114)
2020	0	236	461	8,846	0	9,543	8,815	293	0	702	9,810	267	(13,009)
2021	0	966	1,037	9,039	0	11,043	9,035	284	0	755	10,074	(969)	(13,358)
2022	0	991	1,037	9,301	0	11,329	9,317	276	0	846	10,439	(890)	(13,652)
2023	0	1,015	1,037	9,583	0	11,636	9,544	268	0	899	10,711	(925)	(13,933)
2024	0	1,041	730	10,008	0	11,779	9,891	260	0	995	11,146	(633)	(14,109)
2025	0	1,067	730	10,368	0	12,164	10,153	253	0	1,093	11,499	(666)	(14,280)
2026	0	1,367	1,191	10,784	0	13,342	10,345	245	0	1,151	11,741	(1,601)	(14,656)
2027	0	1,401	1,191	11,348	0	13,940	10,611	238	0	1,253	12,101	(1,839)	(15,054)
2028	0	1,436	1,191	11,809	0	14,436	10,880	230	0	1,366	12,476	(1,960)	(15,442)
2029	0	589	615	12,338	0	13,541	11,175	223	0	1,524	12,922	(619)	(15,555)
2030	0	603	615	12,941	0	14,160	11,469	215	0	1,641	13,325	(834)	(15,695)
2031	0	1,546	1,191	13,521	0	15,266	11,765	208	0	1,765	13,778	(2,490)	(16,077)
2032	0	1,268	1,037	14,330	0	16,636	12,092	201	0	1,934	14,226	(2,409)	(16,417)
2033	0	1,300	1,037	15,612	0	17,949	12,543	194	0	2,067	14,804	(3,145)	(16,825)
2034	0	999	576	15,904	0	17,480	12,893	188	0	2,231	15,311	(2,169)	(17,083)
2035	0	1,024	576	16,530	0	18,131	13,419	182	0	2,415	16,016	(2,115)	(17,314)
2036	0	1,400	1,037	17,713	0	20,150	13,889	176	0	2,609	16,675	(3,475)	(17,663)
2037	0	1,793	1,191	18,661	0	21,645	14,353	172	0	2,820	17,345	(4,301)	(18,060)
2038	0	1,838	1,191	19,473	0	22,502	14,836	167	0	3,042	18,046	(4,457)	(18,437)
2039	0	754	615	20,365	0	21,733	15,256	164	0	3,283	18,702	(3,031)	(18,673)
2040	0	773	615	21,314	0	22,701	15,814	161	0	3,536	19,511	(3,190)	(18,900)
2041	0	1,980	1,191	22,440	0	25,611	16,354	157	0	3,801	20,312	(5,299)	(19,248)
2042	0	2,029	1,191	23,643	0	26,863	16,895	154	0	4,152	21,201	(5,662)	(19,589)
2043	0	2,080	1,191	24,927	0	28,198	17,629	151	0	4,532	22,312	(5,886)	(19,915)
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	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	36,978	30,161	401,184	0	468,323	328,689	6,427	0	53,301	388,416	(79,906)	
NPV	0	9,109	8,433	73,690	0	91,232	61,730	1,708	0	7,879	71,318	(19,915)	

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

**RESIDENTIAL / LOW INCOME ENERGY
EFFICIENCY RETROFIT**

INPUT DATA -- PART I CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Energy Efficiency Retrofit

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	*** %

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 I CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Energy Efficiency Retrofit

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	UTILITY INCENTIVES \$(000)	OTHER UTILITY COSTS \$(000)	TOTAL UTILITY PROGRAM COSTS \$(000)	ENERGY CHARGE REVENUE LOSSES \$(000)	DEMAND CHARGE REVENUE LOSSES \$(000)	PARTICIPANT EQUIPMENT COSTS \$(000)	PARTICIPANT O&M COSTS \$(000)	OTHER PARTICIPANT COSTS \$(000)	TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	0
2011	450	6,096	0	6,546	420	6,405	0	0	6,405
2012	461	6,096	0	6,557	1,330	6,565	0	0	6,565
2013	472	6,096	0	6,568	2,329	6,729	0	0	6,729
2014	484	6,096	0	6,580	3,459	6,897	0	0	6,897
2015	561	6,396	0	6,957	4,663	7,417	0	0	7,417
2016	575	6,396	0	6,971	5,892	7,603	0	0	7,603
2017	590	6,396	0	6,986	7,217	7,793	0	0	7,793
2018	605	6,396	0	7,001	8,559	7,988	0	0	7,988
2019	144	600	0	744	9,465	768	0	0	768
2020	147	600	0	747	9,495	787	0	0	787
2021	245	1,410	0	1,655	9,701	1,896	0	0	1,896
2022	252	1,410	0	1,662	9,983	1,944	0	0	1,944
2023	258	1,410	0	1,668	10,285	1,992	0	0	1,992
2024	264	1,410	0	1,674	10,742	2,042	0	0	2,042
2025	527	3,910	0	4,437	11,128	5,804	0	0	5,804
2026	541	3,910	0	4,451	11,575	5,950	0	0	5,950
2027	554	3,910	0	4,464	12,180	6,098	0	0	6,098
2028	568	3,910	0	4,478	12,675	6,251	0	0	6,251
2029	467	3,100	0	3,567	13,242	5,080	0	0	5,080
2030	479	3,100	0	3,579	13,890	5,207	0	0	5,207
2031	656	5,440	0	6,096	14,523	9,365	0	0	9,365
2032	672	5,440	0	6,112	15,381	9,600	0	0	9,600
2033	377	2,940	0	3,317	16,756	5,318	0	0	5,318
2034	386	2,940	0	3,326	17,070	5,451	0	0	5,451
2035	396	2,940	0	3,336	17,742	5,587	0	0	5,587
2036	606	3,896	0	4,502	19,011	7,589	0	0	7,589
2037	622	3,896	0	4,518	20,029	7,778	0	0	7,778
2038	637	3,896	0	4,533	20,900	7,973	0	0	7,973
2039	814	4,056	0	4,870	21,858	8,508	0	0	8,508
2040	835	4,056	0	4,891	22,876	8,720	0	0	8,720
2041	1,010	4,866	0	5,876	24,085	10,723	0	0	10,723
2042	1,035	4,866	0	5,901	25,376	10,992	0	0	10,992
2043	1,061	4,866	0	5,927	26,755	11,266	0	0	11,266
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	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	17,753	132,746	0	150,499	430,594	0	210,085	0	210,085
NPV	4,541	43,887	0	48,428	79,092	0	56,619	0	56,619

* 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 Energy Efficiency Retrofit

(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	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	199	101	351	1,405	(197)	2,644	482	58,659	57,571
2040	3,361	114	0	235	134	76	360	1,405	(492)	2,452	410	59,069	59,010
2041	2,741	85	0	191	94	51	369	1,405	(492)	2,304	354	59,423	60,486
2042	1,827	57	0	128	64	25	378	1,405	(492)	2,156	294	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 Low Income Energy Efficient

(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 Low Income Energy Efficiency Retrofit

(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%	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)	5,216	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

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

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725 3498055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	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 Low Income Energy Efficiency Retrofit

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (C&Wh)	(5) AVOIDED MARGINAL FUEL COST (C&Wh)	(6)* INCREASED MARGINAL FUEL COST (C&Wh)	(7) REPLACEMENT FUEL COST (C&Wh)	(8) PROGRAM kW EFFECTIVENESS FACTOR	(9) 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	20.99	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
	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 Low Income Energy Efficiency Retrofit

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	8,374
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	0	0
0	0	0	0	0	0	0
0	0	0	0	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

AVOIDED T&D AND PROGRAM FUEL SAVINGS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Low Income Energy Efficiency Retrofit

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$'(000)	(3) AVOIDED TRANSMISSION O&M COST \$'(000)	(4) TOTAL AVOIDED TRANSMISSION COST \$'(000)	(5) AVOIDED DISTRIBUTION CAP COST \$'(000)	(6) AVOIDED DISTRIBUTION O&M COST \$'(000)	(7) TOTAL AVOIDED DISTRIBUTION COST \$'(000)	(8) PROGRAM FUEL SAVINGS \$'(000)	(8a)* 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	349	0
2012	159	13	172	13	3	17	1,036	0
2013	318	38	357	26	7	33	1,703	0
2014	476	53	529	40	11	50	2,445	0
2015	634	67	702	53	14	67	3,476	0
2016	791	83	874	66	18	84	5,157	0
2017	949	99	1,048	79	23	102	6,713	0
2018	1,106	116	1,222	92	27	119	8,262	0
2019	1,264	119	1,383	105	32	137	9,967	0
2020	1,220	122	1,342	102	33	134	10,410	0
2021	1,177	125	1,302	98	33	131	10,759	0
2022	1,135	128	1,263	95	34	129	11,134	0
2023	1,094	131	1,226	91	35	126	11,087	0
2024	1,054	135	1,189	88	36	124	11,513	0
2025	1,015	138	1,153	85	37	121	11,772	0
2026	976	142	1,117	81	38	119	11,821	0
2027	937	145	1,082	78	39	117	11,911	0
2028	898	149	1,047	75	40	115	12,108	0
2029	859	152	1,012	72	41	112	12,072	0
2030	821	156	977	68	42	110	12,320	0
2031	782	160	942	65	43	108	12,721	0
2032	744	164	908	62	44	106	12,542	0
2033	707	168	875	59	45	104	12,998	0
2034	672	172	845	56	46	102	12,802	0
2035	640	177	817	53	47	101	13,618	0
2036	610	181	791	51	48	99	14,279	0
2037	582	186	768	49	50	98	14,617	0
2038	557	190	748	46	51	97	15,208	0
2039	535	195	730	45	52	97	15,591	0
2040	514	200	714	43	54	96	15,940	0
2041	494	205	699	41	55	96	16,518	0
2042	474	210	684	39	56	96	17,118	0
2043	454	215	669	38	58	95	18,267	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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	24,647	4,535	29,183	2,053	1,192	3,245	358,234	0
NPV	6,871	937	7,808	572	238	810	71,530	0

* 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 Low Income Energy Efficiency Retrofit

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	REPLACEMENT EMISSION COST \$(000)	PROGRAM EMISSION BENEFIT \$(000)	OFF-PEAK EMISSION PAYBACK COST \$(000)	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	4	0	4
2013	0	0	144	0	144
2014	0	0	223	0	223
2015	0	0	319	0	319
2016	0	0	440	0	440
2017	0	0	573	0	573
2018	0	0	726	0	726
2019	1,256	1,643	839	0	453
2020	1,913	2,477	908	0	343
2021	2,107	2,732	980	0	355
2022	2,461	3,183	1,092	0	370
2023	2,716	3,510	1,161	0	367
2024	3,127	4,032	1,291	0	386
2025	3,609	4,640	1,429	0	398
2026	4,002	5,115	1,501	0	388
2027	4,527	5,778	1,634	0	384
2028	4,964	6,325	1,778	0	417
2029	5,679	7,208	1,978	0	449
2030	6,296	7,987	2,137	0	447
2031	6,843	8,674	2,370	0	499
2032	7,535	9,532	2,513	0	517
2033	8,780	11,100	2,727	0	406
2034	9,718	12,276	2,947	0	390
2035	10,555	13,339	3,195	0	411
2036	11,523	14,559	3,459	0	423
2037	12,489	15,775	3,738	0	452
2038	13,538	17,098	4,035	0	476
2039	14,621	18,489	4,350	0	483
2040	15,800	19,977	4,684	0	507
2041	17,025	21,522	5,036	0	539
2042	17,025	21,522	5,413	0	915
2043	17,025	21,522	5,820	0	1,323
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	205,134	260,013	69,396	0	14,517
NPV	24,837	31,602	10,045	0	3,279

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Energy Efficiency Retrofit

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(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	450	6,405	0	6,854	0	0	349	1	350	(6,504)	(5,486)
2012	0	461	6,565	0	7,026	0	188	1,036	4	1,228	(5,797)	(9,977)
2013	0	472	6,729	0	7,201	0	390	1,703	144	2,237	(4,965)	(13,509)
2014	0	484	6,897	0	7,381	0	579	2,445	223	3,248	(4,134)	(16,209)
2015	0	561	7,417	0	7,979	0	769	3,476	319	4,563	(3,416)	(18,259)
2016	0	590	7,603	0	8,178	0	959	5,157	440	6,556	(1,622)	(19,152)
2017	0	605	7,793	0	8,383	0	1,150	6,713	573	8,435	52	(19,126)
2018	0	798	8,592	0	9,390	0	1,342	8,262	726	10,330	1,737	(18,318)
2019	0	144	768	0	912	9,035	1,520	9,967	453	20,974	20,063	(9,755)
2020	0	147	787	0	935	8,399	1,476	10,410	343	20,629	19,694	(2,036)
2021	0	245	1,896	0	2,142	8,060	1,433	10,759	355	20,608	18,466	4,612
2022	0	252	1,944	0	2,195	8,011	1,392	11,134	370	20,906	18,711	10,798
2023	0	258	1,992	0	2,250	8,155	1,352	11,087	367	20,960	18,710	16,479
2024	0	264	2,042	0	2,306	8,246	1,313	11,513	386	21,457	19,151	21,819
2025	0	527	5,804	0	6,332	8,230	1,274	11,772	398	21,674	15,342	25,748
2026	0	541	5,950	0	6,490	8,286	1,237	11,821	388	21,732	15,242	29,333
2027	0	554	6,098	0	6,652	8,353	1,199	11,911	384	21,846	15,194	32,615
2028	0	568	6,251	0	6,819	8,314	1,161	12,108	417	22,001	15,182	35,626
2029	0	467	5,080	0	5,547	8,532	1,124	12,072	449	22,177	16,630	38,656
2030	0	479	5,207	0	5,686	8,530	1,087	12,320	447	22,384	16,698	41,450
2031	0	656	9,365	0	10,021	8,466	1,050	12,721	489	22,726	12,705	43,402
2032	0	672	9,600	0	10,272	8,731	1,013	12,542	517	22,803	12,531	45,170
2033	0	377	5,318	0	5,694	8,710	979	12,998	406	23,093	17,399	47,425
2034	0	386	5,451	0	5,837	9,115	947	12,802	390	23,254	17,417	49,498
2035	0	396	5,587	0	5,983	9,253	917	13,618	411	24,199	18,216	51,489
2036	0	606	7,589	0	8,195	9,166	891	14,279	423	24,758	16,563	53,152
2037	0	622	7,778	0	8,400	9,362	866	14,617	452	25,297	16,897	54,709
2038	0	637	7,973	0	8,610	9,097	845	15,208	476	25,626	17,016	56,150
2039	0	814	8,308	0	9,322	8,938	826	15,591	483	25,838	16,516	57,434
2040	0	835	8,720	0	9,555	9,326	810	15,940	507	26,583	17,028	58,650
2041	0	1,010	10,723	0	11,734	9,235	795	16,518	539	27,087	15,353	59,657
2042	0	1,035	10,992	0	12,027	9,073	779	17,118	915	27,886	15,859	60,612
2043	0	1,061	11,266	0	12,328	9,101	764	18,267	1,323	29,455	17,127	61,560
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	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	17,753	210,085	0	227,838	217,722	32,427	358,234	14,517	622,901	395,063	
NPV	0	4,541	56,619	0	61,160	39,293	8,618	71,530	3,279	122,720	61,560	

Discount Rate: 8.89 %
Benefit/Cost Ratio (Col(11) / Col(6)) : 2.01

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Energy Efficiency Retrofit

(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	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	15,188	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	0	0	0	0	0	0
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

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Low Income Energy Efficiency Retrofit

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	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	450	6,096	420	0	6,966	349	0	0	1	350	(6,616)	(5,581)
2012	0	461	6,096	1,330	0	7,887	1,036	188	0	4	1,228	(6,659)	(10,738)
2013	0	472	6,096	2,329	0	8,898	1,703	390	0	144	2,237	(6,661)	(15,477)
2014	0	484	6,096	3,459	0	10,040	2,445	579	0	223	3,248	(6,792)	(19,914)
2015	0	561	6,396	4,663	0	11,620	3,476	769	0	319	4,563	(7,057)	(24,148)
2016	0	575	6,396	5,892	0	12,863	5,157	959	0	440	6,556	(6,307)	(27,624)
2017	0	590	6,396	7,217	0	14,203	6,713	1,150	0	573	8,435	(5,768)	(30,543)
2018	0	605	6,396	8,559	0	15,560	8,262	1,342	0	726	10,330	(5,230)	(32,973)
2019	0	144	600	9,465	0	10,209	19,002	1,520	0	453	20,974	10,766	(28,379)
2020	0	147	600	9,495	0	10,242	18,809	1,476	0	343	20,629	10,387	(24,307)
2021	0	245	1,410	9,701	0	11,357	18,819	1,433	0	355	20,608	9,251	(20,977)
2022	0	252	1,410	9,983	0	11,644	19,144	1,392	0	370	20,906	9,262	(17,915)
2023	0	258	1,410	10,285	0	11,953	19,242	1,352	0	367	20,960	9,007	(15,180)
2024	0	264	1,410	10,742	0	12,416	19,758	1,313	0	386	21,457	9,041	(12,659)
2025	0	527	3,910	11,128	0	15,565	20,002	1,274	0	398	21,674	6,109	(11,095)
2026	0	541	3,910	11,575	0	16,025	20,108	1,237	0	388	21,732	5,707	(9,752)
2027	0	554	3,910	12,180	0	16,644	20,264	1,199	0	384	21,846	5,202	(8,629)
2028	0	568	3,910	12,675	0	17,153	20,422	1,161	0	417	22,001	4,848	(7,667)
2029	0	467	3,100	13,242	0	16,809	20,604	1,124	0	449	22,177	5,368	(6,689)
2030	0	479	3,100	13,890	0	17,469	20,850	1,087	0	447	22,384	4,915	(5,867)
2031	0	656	5,440	14,523	0	20,619	21,187	1,050	0	489	22,726	7,107	(5,542)
2032	0	672	5,440	15,381	0	21,493	21,273	1,013	0	517	22,803	1,310	(5,358)
2033	0	377	2,940	16,756	0	20,073	21,708	979	0	406	23,093	3,021	(4,967)
2034	0	386	2,940	17,070	0	20,396	21,917	947	0	390	23,254	2,857	(4,627)
2035	0	396	2,940	17,742	0	21,078	22,871	917	0	411	24,199	3,121	(4,286)
2036	0	606	3,896	19,011	0	23,514	23,445	891	0	423	24,758	1,245	(4,161)
2037	0	622	3,896	20,029	0	24,546	23,979	866	0	452	25,297	751	(4,092)
2038	0	637	3,896	20,900	0	25,434	24,305	845	0	476	25,626	192	(4,075)
2039	0	814	4,056	21,858	0	26,728	24,529	826	0	483	25,838	(890)	(4,144)
2040	0	835	4,056	22,876	0	27,767	25,266	810	0	507	26,583	(1,184)	(4,229)
2041	0	1,010	4,866	24,085	0	29,962	25,753	795	0	539	27,087	(2,875)	(4,417)
2042	0	1,035	4,866	25,376	0	31,278	26,191	779	0	915	27,886	(3,392)	(4,622)
2043	0	1,061	4,866	26,755	0	32,682	27,368	764	0	1,323	29,455	(3,227)	(4,800)
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	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	17,753	132,746	430,594	0	581,094	575,956	32,427	0	14,517	622,901	41,807	
NPV	0	4,541	43,887	79,092	0	127,520	110,822	8,618	0	3,279	122,720	(4,800)	

Discount Rate 8.89 %
Benefit/Cost Ratio (Col(12) / Col(7)) : 0.96

RESIDENTIAL SOLAR WATER HEATING

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.25 KW
(2) GENERATOR KW PRODUCTION PER CUSTOMER	0.34 KW
(3) KW LINE LOSS PERCENTAGE	2.60 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	1,91.85 KWH
(5) KWH LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	3.00 KVA

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	1.70788
(5) K FACTOR FOR T & D	1.0254

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	*** \$/CUSTOMER
(7) CUSTOMER O & M COST ESCALATION RATE	*** %
(8) INCREASED SUPPLY COSTS	*** \$/CUSTOMER
(9) SUPPLY COSTS ESCALATION RATE	*** %
(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	2015-2019
(4) BASE YEAR AVOIDED GENERATING COST	755.39 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.20 \$/KW
(6) BASE YEAR DISTRIBUTION COST	12.38 \$/KW
(7) GEN. TRAN & DIST. COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	37.66 \$/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	894 ** (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/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW&D
(4) DEMAND CHARGE ESCALATION RATE	*** %

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

**CALCULATION OF GENE-FACTOR
PROGRAMMED SELECTED REV REQ
PROGRAMNAME: Road and Sewer Water Handling**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATEBASE \$(000)	DEBT \$(000)	PREEMPTED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRECIATION \$(000)	DEPRECIATED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,711	240	0	338	333	130	46	301	1	1,610	1,610	1,610	7,321
2020	7,410	230	0	317	344	125	47	301	38	1,562	1,435	3,045	7,769
2021	7,011	218	0	289	262	119	48	301	83	1,500	1,263	4,310	7,901
2022	6,627	206	0	262	239	114	49	301	69	1,440	1,116	5,425	8,099
2023	6,257	194	0	237	216	108	51	301	56	1,383	984	6,409	8,361
2024	5,906	183	0	212	193	103	52	301	44	1,327	867	7,276	8,589
2025	5,555	173	0	188	168	97	53	301	33	1,273	764	8,040	8,722
2026	5,222	162	0	164	144	92	55	301	22	1,221	673	8,712	8,840
2027	4,899	152	0	142	122	87	56	301	21	1,170	592	9,304	9,163
2028	4,577	142	0	119	98	81	57	301	21	1,119	520	9,824	9,392
2029	4,254	132	0	97	76	76	59	301	21	1,069	456	10,280	9,627
2030	3,934	122	0	75	54	70	60	301	21	1,018	399	10,680	9,868
2031	3,613	112	0	53	32	65	62	301	21	968	348	11,028	10,134
2032	3,291	102	0	31	10	60	63	301	21	917	303	11,331	10,367
2033	2,970	92	0	9	(2)	54	65	301	21	867	263	11,595	10,626
2034	2,648	82	0	(18)	(22)	49	66	301	21	817	222	11,822	10,892
2035	2,327	72	0	(37)	(41)	43	68	301	21	767	194	12,019	11,164
2036	2,005	62	0	(56)	(60)	38	70	301	21	716	168	12,187	11,444
2037	1,684	52	0	(75)	(79)	32	72	301	21	666	144	12,331	11,730
2038	1,362	42	0	(95)	(97)	27	73	301	21	616	122	12,453	12,023
2039	1,041	32	0	(116)	(106)	22	75	301	(40)	566	103	12,556	12,323
2040	720	24	0	(137)	(127)	16	77	301	(105)	525	88	12,644	12,632
2041	397	18	0	(158)	(149)	11	79	301	(185)	483	76	12,720	12,947
2042	91	12	0	(179)	(170)	5	81	301	(265)	441	65	12,785	13,271
2043	196	6	0	(199)	(191)	(0)	83	301	(345)	400	56	12,841	13,603

IN SERVICE COST (\$000)	7,321
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPRECIATION RATE	38.57%
DISCOUNT RATE	8.5%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.62%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	46%	7.43%
PS	0%	0.00%
CE	54%	12.50%

X-FACTOR = CPWFC / IN-SVC COST = 1.7973

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 L/IFE	(10)*(11) TAXRATE \$(000)	SALVAGE TAXRATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	274	274	301	301	273	273	1	702	0	0	0	1	(190)
2020	7.22%	528	802	301	602	273	545	58	702	0	0	0	58	(92)
2021	6.88%	488	1,291	301	902	273	818	83	702	0	0	0	83	(9)
2022	6.38%	452	1,742	301	1,203	273	1,091	69	702	0	0	0	69	68
2023	5.71%	418	2,160	301	1,504	273	1,364	56	702	0	0	0	56	116
2024	5.09%	387	2,547	301	1,805	273	1,636	44	702	0	0	0	44	160
2025	4.49%	357	2,904	301	2,106	273	1,909	33	702	0	0	0	33	193
2026	4.32%	331	3,235	301	2,407	273	2,182	22	702	0	0	0	22	215
2027	4.46%	326	3,561	301	2,707	273	2,435	21	702	0	0	0	21	236
2028	4.46%	326	3,888	301	3,008	273	2,727	21	702	0	0	0	21	257
2029	4.46%	326	4,214	301	3,309	273	3,000	21	702	0	0	0	21	277
2030	4.46%	326	4,540	301	3,610	273	3,273	21	702	0	0	0	21	298
2031	4.46%	326	4,866	301	3,911	273	3,546	21	702	0	0	0	21	319
2032	4.46%	326	5,193	301	4,212	273	3,818	21	702	0	0	0	21	339
2033	4.46%	326	5,519	301	4,513	273	4,091	21	702	0	0	0	21	360
2034	4.46%	326	5,845	301	4,813	273	4,364	21	702	0	0	0	21	381
2035	4.46%	326	6,172	301	5,114	273	4,637	21	702	0	0	0	21	401
2036	4.46%	326	6,498	301	5,415	273	4,909	21	702	0	0	0	21	422
2037	4.46%	326	6,824	301	5,716	273	5,182	21	702	0	0	0	21	443
2038	4.46%	326	7,150	301	6,017	273	5,455	21	702	0	0	0	21	463
2039	2.23%	163	7,314	301	6,317	273	5,728	(42)	702	0	0	0	(42)	421
2040	0.00%	0	7,514	301	6,618	273	6,000	(105)	702	0	0	0	(105)	316
2041	0.00%	0	7,514	301	6,919	273	6,273	(105)	702	0	0	0	(105)	211
2042	0.00%	0	7,514	301	7,220	273	6,546	(105)	702	0	0	0	(105)	106
2043	0.00%	0	7,514	301	7,521	273	6,819	(105)	702	0	0	0	(105)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(191)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	702
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)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	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 RATEBASE \$(000)
2019	3.73%	374	1	7,220	301	(196)	7,711	7,618	7,561
2020	7.22%	328	38	6,919	602	(92)	7,410	7,811	7,210
2021	6.68%	488	83	6,618	902	(2)	7,011	6,627	6,819
2022	6.18%	431	69	6,317	1,203	61	6,627	6,257	6,442
2023	5.71%	418	56	6,017	1,594	115	6,257	5,960	6,078
2024	5.27%	387	44	5,716	1,985	160	5,908	5,555	5,725
2025	4.86%	357	35	5,415	2,166	193	5,555	5,200	5,280
2026	4.52%	331	22	5,114	2,407	215	5,222	4,899	5,060
2027	4.46%	326	21	4,813	2,707	226	4,899	4,577	4,738
2028	4.46%	326	21	4,512	3,008	237	4,577	4,256	4,416
2029	4.46%	326	21	4,212	3,309	277	4,256	3,934	4,095
2030	4.46%	326	21	3,911	3,610	298	3,934	3,613	3,773
2031	4.46%	326	21	3,610	3,911	319	3,613	3,291	3,452
2032	4.46%	326	21	3,309	4,212	339	3,291	2,970	3,131
2033	4.46%	326	21	3,008	4,512	360	2,970	2,648	2,809
2034	4.46%	326	21	2,707	4,813	381	2,648	2,327	2,488
2035	4.46%	326	21	2,407	5,114	401	2,327	2,005	2,166
2036	4.46%	326	21	2,106	5,415	422	2,005	1,684	1,845
2037	4.46%	326	21	1,805	5,716	443	1,684	1,362	1,523
2038	4.46%	326	21	1,504	6,017	463	1,362	1,041	1,202
2039	2.23%	163	(62)	1,203	6,317	481	1,041	782	912
2040	0.00%	0	(165)	902	6,618	316	782	587	685
2041	0.00%	0	(165)	602	6,919	211	587	391	489
2042	0.00%	0	(165)	301	7,220	185	391	196	295
2043	0.00%	0	(165)	(0)	7,521	0	196	0	28

* 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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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%	1.04	0.82
2014	-5	3.00%	1.159	1.90%	15.39	9.26
2015	-4	3.00%	1.194	4.57%	39.61	37.63
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	398.24
2018	-1	3.00%	1.305	10.44%	98.79	85.28

100.00% 307.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING W/DEBT AFUDC (\$K/W)	(10)* DEBT AFUDC (\$K/W)	(11)* CUMULATIVE DEBT AFUDC (\$K/W)	(12) YEARLY TOTAL AFUDC (\$K/W)	(13)* CUMULATIVE TOTAL AFUDC (\$K/W)	(14)* CONSTRUCTION PERIOD INTEREST (\$K/W)	(15)* CUMULATIVE CPI (\$K/W)	(16)* DEFERRED TAXES (\$K/W)	(17)* CUMULATIVE DEFERRED TAXES (\$K/W)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(19) CUMULATIVE YEAR-END BOOK VALUE (\$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
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	0.82	0.22	0.82	0.85	0.85	0.64	0.64	(0.61)	(0.61)	1.29	1.29
2014	-5	9.29	0.29	0.29	0.79	0.84	0.65	0.70	(0.34)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.85	3.35	(0.57)	(0.75)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.96	19.25	(4.41)	(4.15)	351.16	412.06
2017	-2	622.23	19.46	28.81	53.10	76.45	43.47	62.72	(9.26)	(13.39)	673.57	825.43
2018	-1	304.83	29.46	37.47	98.29	156.84	64.78	127.50	(13.63)	(27.02)	179.13	1,004.56

37.47

156.84

227.50

(27.62)

1,004.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,055
AFUDC RATE	4.48%

	BOOK BASIS	BOOK BASIS FOR DEBT TAX	TAX BASIS
CONSTRUCTION CASE	6,413	6,413	6,413
EQUALY AFUDC	702		
DEBT AFUDC	406	406	
CPI			901
TOTAL	7,321	6,819	7,314

* Column set specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/GWH)	(5) AVOIDED MARGINAL FUEL COST (\$/GWH)	(6)* INCREASED MARGINAL FUEL COST (\$/GWH)	(7) REPLACEMENT FUEL COST (\$/GWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KW EFFECTIVENESS FACTOR
2009	0	0	6.79	9.37	6.79	9.00	1.00	1.00
2010	1,366	1,366	6.41	6.70	9.41	9.00	1.00	1.00
2011	5,935	5,935	6.35	6.61	8.48	9.00	1.00	1.00
2012	10,877	10,877	6.45	6.64	8.45	9.00	1.00	1.00
2013	15,811	15,811	7.86	7.23	8.41	9.00	1.00	1.00
2014	20,781	20,781	7.33	7.68	8.87	9.00	1.00	1.00
2015	20,781	20,781	8.11	8.31	9.61	9.00	1.00	1.00
2016	20,781	20,781	9.80	9.31	11.55	9.00	1.00	1.00
2017	20,781	20,781	9.75	10.06	12.72	9.00	1.00	1.00
2018	20,781	20,781	10.52	10.86	13.53	9.00	1.00	1.00
2019	20,781	20,781	11.54	11.94	15.25	10.41	1.00	1.00
2020	20,781	20,781	12.08	12.57	15.88	10.50	1.00	1.00
2021	20,781	20,781	12.63	13.09	16.43	10.74	1.00	1.00
2022	20,781	20,781	13.17	13.59	17.14	10.81	1.00	1.00
2023	20,781	20,781	13.66	13.92	17.14	10.80	1.00	1.00
2024	20,781	20,781	13.39	13.92	17.82	10.84	1.00	1.00
2025	20,781	20,781	13.95	14.67	18.22	10.96	1.00	1.00
2026	20,781	20,781	14.44	14.92	18.22	11.65	1.00	1.00
2027	20,781	20,781	14.74	15.19	18.31	11.17	1.00	1.00
2028	20,781	20,781	15.13	15.60	18.54	11.36	1.00	1.00
2029	20,781	20,781	15.69	16.05	18.91	11.56	1.00	1.00
2030	20,781	20,781	16.02	16.44	18.85	11.41	1.00	1.00
2031	20,781	20,781	16.52	16.92	19.26	11.59	1.00	1.00
2032	20,781	20,781	17.08	17.47	19.26	11.80	1.00	1.00
2033	20,781	20,781	17.59	17.84	19.62	11.88	1.00	1.00
2034	20,781	20,781	18.07	18.50	20.38	12.10	1.00	1.00
2035	20,781	20,781	18.73	18.88	20.82	12.14	1.00	1.00
2036	20,781	20,781	19.57	19.75	21.57	12.29	1.00	1.00
2037	20,781	20,781	20.40	20.54	22.39	12.55	1.00	1.00
2038	20,781	20,781	21.11	21.04	22.91	12.70	1.00	1.00
2039	20,781	20,781	22.02	22.16	23.86	13.04	1.00	1.00
2040	20,781	20,781	22.82	22.89	24.49	13.32	1.00	1.00
2041	20,781	20,781	23.72	23.89	25.04	13.64	1.00	1.00
2042	20,781	20,781	24.59	24.82	25.53	13.75	1.00	1.00
2043	20,781	20,781	25.50	25.59	26.94	14.10	1.00	1.00
2044	20,781	20,781	26.74	26.83	28.65	14.40	1.00	1.00
2045	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2046	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2047	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2048	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2049	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2050	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2051	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2052	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2053	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2054	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2055	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2056	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2057	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2058	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2059	0	0	0.00	0.00	0.00	0.00	0.00	0.00
2060	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.

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

INPUT DATA -- PART 1 CONTINUED
PROGRAM/MODE/ID SELECTED: REV_002
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	0.34 KW
(3) KW LINE LOSS PERCENTAGE	2.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	1.59185 KWA
(5) KVA LINE LOSS PERCENTAGE	6.99 %
(6) GROUP LINE LOSS MULTIPLIER	1.09
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	*** \$COST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$COST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$COST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$COST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$COST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	2.89 %
(11) UTILITY AFUD-C RATE	2.48 %
(12) UTILITY NON-RECURRING REBATE INCENTIVE	*** \$COST
(13) UTILITY RECURRING REBATE INCENTIVE	*** \$COST
(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	185.92 \$/KW
(6) BASE YEAR DISTRIBUTION COST	26.64 \$/KW
(7) GEN. TRAN & DIST COST ESCALATION RATE	2.00 %**
(8) GENERATOR FIXED O & M COST	37.66 \$/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	0.186 CENTS/KWA
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.23 CENTS PER KWA** (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
** VALUES SHOWN IS FOR FIRST YEAR ONLY (VALUE VARIES OVER TIME)
*** PROGRAM COST CALCULATION VALUES ARE SHOWN ON PAGE 2

CALCULATION OF GENK FACTOR
PROGRAM/METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BASE-YEAR RATEBASE (\$000)	DEBT (\$000)	PREFERRED STOCK (\$000)	COMMON EQUITY (\$000)	INCOME TAXES (\$000)	PROPERTY TAX (\$000)	PROPERTY INSURANCE (\$000)	DEPRECI- ATION (\$000)	DEPRECI- ATION TAXES (\$000)	TOTAL FIXED CHARGES (\$000)	PRESENT WORTH FIXED CHARGES (\$000)	CUMULATIVE PW FIXED CHARGES (\$000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE (\$000)
2019	304	9	0	21	14	5	2	12	0	64	64	64	297
2020	292	9	0	20	10	5	2	12	4	62	57	120	304
2021	277	9	0	19	10	5	2	12	3	59	50	170	312
2022	261	8	0	18	9	4	2	12	3	57	44	214	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	287	336
2025	219	7	0	15	9	4	2	12	1	50	30	317	344
2026	206	6	0	14	9	4	2	12	1	48	27	344	353
2027	193	6	0	13	8	3	2	12	1	46	23	367	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	406	380
2030	155	5	0	11	7	3	2	12	1	40	16	421	389
2031	143	4	0	10	6	3	2	12	1	38	14	435	399
2032	130	4	0	9	6	2	2	12	1	36	12	447	408
2033	117	4	0	8	5	2	3	12	1	34	10	458	418
2034	105	3	0	7	4	2	3	12	1	32	9	467	429
2035	92	3	0	6	4	2	3	12	1	30	8	474	441
2036	79	2	0	6	3	1	3	12	1	28	7	481	452
2037	66	2	0	5	3	1	3	12	1	26	6	487	463
2038	54	2	0	4	2	1	3	12	1	24	5	491	474
2039	41	1	0	3	4	1	3	12	(2)	22	4	495	485
2040	31	1	0	2	6	1	3	12	(5)	21	3	499	496
2041	23	1	0	2	6	0	3	12	(6)	19	3	502	511
2042	15	0	0	1	6	0	3	12	(6)	18	3	504	526
2043	8	0	0	1	5	(0)	3	12	(6)	17	2	507	537

IN SERVICE COST (\$000)	297
IN SERVICE YEAR	2019
BOOKING (YRS)	25
EFFEC. TAXRATE	28.57%
DISCOUNT RATE	3.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	46%	7.03 %
PS	0%	0.00 %
CS	54%	12.50 %

K FACTOR = $\frac{CFWC}{IN-SVC COST} = 1.7078$

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

(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 LIFE	(10)*(11)	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	7.23%	21	32	12	24	11	22	4	28	0	0	0	4	(4)
2021	6.83%	19	51	12	36	11	32	3	28	0	0	0	3	(9)
2022	4.18%	18	69	12	47	11	43	3	28	0	0	0	3	2
2023	5.71%	16	85	12	59	11	54	2	28	0	0	0	2	5
2024	5.29%	15	100	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	4.32%	13	128	12	95	11	84	1	28	0	0	0	1	8
2027	4.46%	13	141	12	107	11	97	1	28	0	0	0	1	8
2028	4.46%	13	153	12	119	11	108	1	28	0	0	0	1	9
2029	4.46%	13	166	12	131	11	118	1	28	0	0	0	1	10
2030	4.46%	13	179	12	142	11	129	1	28	0	0	0	1	11
2031	4.46%	13	192	12	154	11	140	1	28	0	0	0	1	12
2032	4.46%	13	205	12	166	11	151	1	28	0	0	0	1	13
2033	4.46%	13	218	12	178	11	161	1	28	0	0	0	1	13
2034	4.46%	13	231	12	190	11	172	1	28	0	0	0	1	14
2035	4.46%	13	244	12	202	11	183	1	28	0	0	0	1	15
2036	4.46%	13	256	12	214	11	194	1	28	0	0	0	1	16
2037	4.46%	13	269	12	226	11	204	1	28	0	0	0	1	17
2038	4.46%	13	282	12	237	11	215	1	28	0	0	0	1	18
2039	2.23%	6	289	12	249	11	226	(2)	28	0	0	0	(2)	17
2040	0.00%	0	289	12	261	11	237	(4)	28	0	0	0	(4)	13
2041	0.00%	0	289	12	273	11	248	(6)	28	0	0	0	(6)	8
2042	0.00%	0	289	12	285	11	258	(8)	28	0	0	0	(8)	4
2043	0.00%	0	289	12	297	11	269	(6)	28	0	0	0	(6)	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 - USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/PROJECT SELECTED: RESV_RBQ
 PROGRAMNAME: Residential Solar Water Heating (Low Income New Construction)

(1)	(2)	(3)	(4)	(5) END OF YEAR NEW 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	283	12	(3)	204	222	209
2020	7.25%	21	4	273	24	(4)	292	277	285
2021	6.68%	19	3	261	36	(5)	277	261	269
2022	6.18%	18	3	249	47	2	261	247	254
2023	5.73%	16	2	237	59	5	247	233	240
2024	5.29%	15	2	226	71	6	233	219	224
2025	4.89%	14	1	214	83	8	219	206	213
2026	4.52%	13	1	202	95	8	206	193	200
2027	4.16%	13	1	190	107	9	193	181	187
2028	4.48%	13	1	178	119	10	181	168	174
2029	4.48%	13	1	166	131	11	168	155	162
2030	4.48%	13	1	154	142	12	155	143	149
2031	4.48%	13	1	142	154	13	143	130	136
2032	4.48%	13	1	131	166	13	130	117	124
2033	4.48%	13	1	119	178	14	117	105	111
2034	4.48%	13	1	107	190	15	105	92	98
2035	4.48%	13	1	95	202	16	92	79	85
2036	4.48%	13	1	83	214	17	79	66	73
2037	4.48%	13	1	71	226	17	66	54	60
2038	4.48%	13	1	59	237	18	54	41	47
2039	2.23%	6	(2)	47	249	17	41	31	36
2040	0.00%	0	(4)	36	261	12	31	23	27
2041	0.00%	0	(4)	24	273	8	23	15	19
2042	0.00%	0	(4)	12	285	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 (\$K)	(6) ANNUAL SPENDING (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
2009	-10	3.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.029	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%	1.94	4.62
2014	-5	3.00%	1.159	1.90%	15.59	3.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	232.77
2017	-2	3.00%	1.267	45.70%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	58.79	838.38

YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(9a) DEBT AFUDC (\$K/W)	100.00%		(9b) CUMULATIVE CONSTRUCTION PERIOD INVEST (\$K/W)	(9c) CUMULATIVE CFI (\$K/W)	(9d) DEFERRED TAXES (\$K/W)	(9e) CUMULATIVE DEFERRED TAXES (\$K/W)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$K/W)
				(9b) CUMULATIVE DEBT AFUDC (\$K/W)	(9) TOTAL AFUDC (\$K/W)						
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	0.04	(0.61)	0.00	1.29	
2014	-5	9.29	0.29	0.30	0.79	0.24	0.65	(0.34)	(0.15)	16.78	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	(0.57)	(0.72)	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.99	(0.41)	(4.13)	251.16	
2017	-2	822.20	19.46	28.01	53.10	76.45	43.47	(0.26)	(13.39)	473.27	
2018	-1	534.83	29.46	57.47	84.39	156.84	64.78	(13.62)	(27.02)	1,044.61	

IN SERVICE YEAR	2019	37.49	156.84	122.50	(27.02)	1,044.61
	PLANT COSTS	725,389,045				
AFUDC RATE	3.48%					

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CARE	253	253	253
EQUITY AFUDC	28		
DEBT AFUDC	16	16	
CFI			36
TOTAL	297	269	289

* Column not specified in workbook

INVOI DATA - PART 2
 PROGRAMS/ISSUES 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 (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM/NEW EFFECTIVENESS FACTOR	PROGRAM/NEW EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	20	20	6.41	6.79	9.01	0.00	1.00	1.00
2011	220	220	6.35	6.61	8.48	0.00	1.00	1.00
2012	420	420	6.40	6.66	8.45	0.00	1.00	1.00
2013	620	620	7.06	7.23	8.41	0.00	1.00	1.00
2014	820	820	7.53	7.68	8.67	0.00	1.00	1.00
2015	820	820	8.11	8.31	9.61	0.00	1.00	1.00
2016	820	820	9.00	9.31	11.55	0.00	1.00	1.00
2017	820	820	9.75	10.06	12.72	0.00	1.00	1.00
2018	820	820	10.32	10.86	13.53	0.00	1.00	1.00
2019	820	820	11.50	11.94	15.25	20.61	1.00	1.00
2020	820	820	12.08	12.57	15.88	10.50	1.00	1.00
2021	820	820	12.57	13.08	16.53	10.74	1.00	1.00
2022	820	820	13.06	13.59	17.14	10.81	1.00	1.00
2023	820	820	13.39	13.92	17.16	10.80	1.00	1.00
2024	820	820	13.95	14.67	17.82	10.84	1.00	1.00
2025	820	820	14.40	14.92	18.22	10.86	1.00	1.00
2026	820	820	14.70	15.19	18.22	11.05	1.00	1.00
2027	820	820	15.13	15.60	18.54	11.17	1.00	1.00
2028	820	820	15.60	16.05	18.91	11.36	1.00	1.00
2029	820	820	16.02	16.44	18.85	11.61	1.00	1.00
2030	820	820	16.52	16.92	19.26	11.59	1.00	1.00
2031	820	820	17.08	17.47	19.86	11.80	1.00	1.00
2032	820	820	17.50	17.84	19.62	11.88	1.00	1.00
2033	820	820	18.27	18.55	20.39	12.10	1.00	1.00
2034	820	820	18.73	18.86	20.08	12.14	1.00	1.00
2035	820	820	19.27	19.25	21.57	12.29	1.00	1.00
2036	820	820	20.40	20.54	22.39	12.35	1.00	1.00
2037	820	820	21.11	21.04	22.91	12.70	1.00	1.00
2038	820	820	22.02	22.16	23.86	13.04	1.00	1.00
2039	820	820	22.78	22.89	24.49	13.30	1.00	1.00
2040	820	820	23.59	23.68	25.04	13.64	1.00	1.00
2041	820	820	24.54	24.62	25.53	13.75	1.00	1.00
2042	820	820	25.50	25.59	26.94	14.10	1.00	1.00
2043	820	820	26.74	26.85	28.65	14.60	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 SHEDDING PROGRAMS WHICH SHIFT CONSUMPTION TO OFF-PEAK PERIODS.
 THE VALUES REPRESENT THE OFF-PEAK SYSTEM FUEL COSTS.

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: KEY_REQ
PROGRAM NAME: Residential Solar Water Heating (Low Income New Construction)

(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 GENUNIT BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	PROGRAM FORW. 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	34	100	0	134	0	0	1	0	1	(103)	(103)
2011	0	157	1,000	0	1,157	0	0	13	0	13	(1,144)	(1,047)
2012	0	146	1,000	0	1,146	0	3	34	0	38	(1,108)	(1,465)
2013	0	148	1,000	0	1,148	0	7	60	0	67	(1,081)	(1,716)
2014	0	150	1,000	0	1,150	0	10	89	0	99	(1,051)	(1,961)
2015	0	0	0	0	0	0	13	109	12	134	(917)	(1,311)
2016	0	0	0	0	0	0	12	123	13	148	(869)	(1,229)
2017	0	0	0	0	0	0	12	133	14	159	(810)	(1,149)
2018	0	0	0	0	0	0	12	143	15	170	(751)	(1,070)
2019	0	0	0	0	0	76	11	158	13	259	(492)	(1,000)
2020	0	0	0	0	0	71	11	166	13	261	(233)	(857)
2021	0	0	0	0	0	68	11	173	14	266	(74)	(762)
2022	0	0	0	0	0	68	10	180	16	273	85	(671)
2023	0	0	0	0	0	69	10	184	17	279	174	(586)
2024	0	0	0	0	0	70	10	191	18	289	263	(505)
2025	0	0	0	0	0	70	9	197	20	304	352	(430)
2026	0	0	0	0	0	70	9	200	21	308	441	(360)
2027	0	0	0	0	0	71	9	206	23	308	530	(293)
2028	0	0	0	0	0	70	9	211	25	315	619	(231)
2029	0	0	0	0	0	72	8	216	27	324	708	(170)
2030	0	0	0	0	0	72	8	220	29	332	797	(110)
2031	0	0	0	0	0	73	8	230	32	341	886	(54)
2032	0	0	0	0	0	74	7	234	35	350	975	101
2033	0	0	0	0	0	74	7	242	36	357	1,064	200
2034	0	0	0	0	0	77	7	247	39	366	1,153	300
2035	0	0	0	0	0	78	7	258	42	383	1,242	400
2036	0	0	0	0	0	77	7	269	45	398	1,331	500
2037	0	0	0	0	0	79	7	278	49	412	1,420	600
2038	0	0	0	0	0	77	6	290	53	426	1,509	700
2039	0	0	0	0	0	75	6	299	57	438	1,598	800
2040	0	0	0	0	0	79	6	310	61	455	1,687	900
2041	0	0	0	0	0	78	6	322	65	471	1,776	1,000
2042	0	0	0	0	0	77	6	334	73	490	1,865	1,100
2043	0	0	0	0	0	77	6	351	82	515	1,954	1,200
	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
NPV	0	490	3,075	0	3,565	332	82	1,370	159	1,945	(1,612)	(1,612)
NPV	0	637	4,100	0	4,737	1,820	271	4,673	573	5,796	(1,612)	(1,612)

Discount Rate:
Benefit/Cost Ratio (Col(11) / Col(8)) :

1.33 %

BUSINESS SOLAR WATER HEATING

INPUT DATA - PART 1 CONTINUED
PROGRAM/METHOD SELECTED: REV_REQ
PROGRAM/NAME: Business Sales 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	1,927.00 KWH
(5) KWH LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

II. ECONOMIC LIFE & X 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 RATE	*** %
(10) UTILITY DISCOUNT RATE	8.19 %
(11) UTILITY AFUDC RATE	3.48 %
(12) UTILITY NON-RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

* SUPPLEMENTAL INFORMATION NOT RECEIVED 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	2000
(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	725.30 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.92 \$/KW
(6) BASE YEAR DISTRIBUTION COST	29.64 \$/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	1.81 \$/KW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.206 CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	6% ** (in-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.23 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&O
(4) DEMAND CHARGE ESCALATION RATE	*** %

**CALCULATION OF K-FACTOR
PROGRAM(S) USED: SELECTED MSV, REQ
PROGRAM NAME: Business Solar Water Heating**

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
YEAR	REQ-YEAR RATE BASE \$1000	DEBT \$1000	PREFERRED STOCK \$1000	COMMON EQUITY \$1000	INCOME TAXES \$1000	PROPERTY TAX \$1000	PROPERTY INSURANCE \$1000	DEFERRED \$1000	DEFERRED TAXES \$1000	TOTAL FIXED CHARGES \$1000	PRESENT WORTH FIXED CHARGES \$1000	CUMULATIVE PW/FIXED CHARGES \$1000	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$1000
2019	306	10	0	21	14	5	2	12	0	64	64	64	289
2020	294	9	0	21	10	5	2	12	4	62	57	121	306
2021	273	9	0	19	10	5	2	12	3	60	50	171	314
2022	263	8	0	18	9	5	2	12	3	57	44	215	322
2023	248	8	0	17	9	4	2	12	2	55	39	254	330
2024	234	7	0	16	9	4	2	12	2	53	34	289	338
2025	221	7	0	15	9	4	2	12	1	51	30	319	346
2026	207	6	0	14	9	4	2	12	1	48	27	346	355
2027	194	6	0	14	8	3	2	12	1	46	24	369	364
2028	182	6	0	13	8	3	2	12	1	44	21	390	373
2029	169	5	0	12	7	3	2	12	1	42	18	408	382
2030	156	5	0	11	7	3	2	12	1	40	16	424	392
2031	143	4	0	10	6	3	2	12	1	38	14	438	402
2032	131	4	0	9	6	2	3	12	1	36	12	450	412
2033	118	4	0	8	5	2	3	12	1	34	10	460	421
2034	105	3	0	7	4	2	3	12	1	32	9	469	432
2035	92	3	0	6	4	2	3	12	1	30	8	477	443
2036	80	2	0	6	3	2	3	12	1	28	7	484	454
2037	67	2	0	5	3	1	3	12	1	26	6	490	466
2038	54	2	0	4	2	1	3	12	1	24	5	494	477
2039	41	1	0	3	4	1	3	12	(2)	22	4	498	489
2040	31	1	0	2	6	1	3	12	(4)	21	3	502	501
2041	23	1	0	2	6	0	3	12	(4)	20	3	505	514
2042	16	0	0	1	6	0	3	12	(6)	18	3	508	527
2043	8	0	0	1	5	(0)	3	12	(6)	17	2	510	540

IN SERVICE COST (\$1000)	289
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	28.57%
DISCOUNT RATE	8.7%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.00 %
INS	0%	0.00 %
CE	56%	12.50 %

K-FACTOR = CPWFC / IN-SVC COST = 1.70736

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV' 82Q
 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 LAFEE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	5.75%	11	11	12	12	11	11	0	28	0	0	0	0	(8)
2020	7.25%	21	32	12	24	11	22	4	28	0	0	0	4	(4)
2021	6.65%	19	51	12	36	11	32	3	28	0	0	0	3	(5)
2022	6.15%	18	69	12	48	11	43	3	28	0	0	0	3	2
2023	5.71%	17	86	12	60	11	54	2	28	0	0	0	2	5
2024	5.29%	15	101	12	72	11	65	2	28	0	0	0	2	6
2025	4.89%	14	115	12	84	11	76	1	28	0	0	0	1	8
2026	4.52%	13	128	12	96	11	87	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	130	1	28	0	0	0	1	12
2031	4.46%	13	193	12	155	11	141	1	28	0	0	0	1	13
2032	4.46%	13	206	12	167	11	152	1	28	0	0	0	1	13
2033	4.46%	13	219	12	179	11	162	1	28	0	0	0	1	14
2034	4.46%	13	232	12	191	11	173	1	28	0	0	0	1	15
2035	4.46%	13	245	12	203	11	184	1	28	0	0	0	1	16
2036	4.46%	13	258	12	215	11	195	1	28	0	0	0	1	17
2037	4.46%	13	271	12	227	11	206	1	28	0	0	0	1	18
2038	4.46%	13	284	12	239	11	217	1	28	0	0	0	1	18
2039	2.23%	6	290	12	251	11	227	(5)	28	0	0	0	(5)	17
2040	0.00%	0	290	12	263	11	238	(6)	28	0	0	0	(6)	13
2041	0.00%	0	290	12	275	11	249	(6)	28	0	0	0	(6)	8
2042	0.00%	0	290	12	287	11	260	(6)	28	0	0	0	(6)	4
2043	0.00%	0	290	12	299	11	271	(6)	28	0	0	0	(6)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(5)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	28
BOOK DEPR RATE - 1/USEFUL LIFE	4.85%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM(VERSION) SELECTED: MSY_000
 PROGRAM NAME: Business Solar Water Heating

(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)
2819	3.75%	11	0	287	13	(0)	284	294	300
2820	7.22%	21	4	275	24	(4)	284	278	286
2821	6.88%	19	3	263	36	(0)	278	263	271
2822	6.18%	18	3	251	48	2	263	248	256
2823	5.71%	17	2	239	60	5	248	234	241
2824	5.29%	15	2	227	72	6	234	221	227
2825	4.89%	14	1	215	84	8	221	207	214
2826	4.52%	13	1	203	96	9	207	194	201
2827	4.46%	13	1	191	107	9	194	182	188
2828	4.46%	13	1	179	119	10	182	169	175
2829	4.46%	13	1	167	131	11	169	156	163
2830	4.46%	13	1	155	143	12	156	143	150
2831	4.46%	13	1	143	155	13	143	131	137
2832	4.46%	13	1	131	167	13	131	118	124
2833	4.46%	13	1	119	179	14	118	105	112
2834	4.46%	13	1	107	191	15	105	92	98
2835	4.46%	13	1	96	203	16	92	80	86
2836	4.46%	13	1	84	215	17	80	67	73
2837	4.46%	13	1	72	227	18	67	54	60
2838	4.46%	13	1	60	239	18	54	41	48
2839	2.22%	6	(3)	48	251	17	41	31	36
2840	0.00%	0	(4)	36	263	13	31	23	27
2841	0.00%	0	(4)	24	275	8	23	16	19
2842	0.00%	0	(4)	12	287	4	16	8	10
2843	0.00%	0	(4)	(0)	299	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 (\$K)	(6) ANNUAL SPENDING (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	0.00%	1.030	0.00%	0.00	0.00
2011	-8	0.00%	1.061	0.00%	0.00	0.00
2012	-7	0.00%	1.093	0.00%	0.00	0.00
2013	-6	0.00%	1.126	0.19%	1.24	0.62
2014	-5	0.00%	1.160	1.90%	15.99	9.24
2015	-4	0.00%	1.194	4.57%	39.61	37.03
2016	-3	0.00%	1.230	37.00%	331.87	221.77
2017	-2	0.00%	1.267	45.70%	408.27	398.94
2018	-1	0.00%	1.305	18.40%	98.79	833.58

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(4) DEBT AFUDC (\$K/W)	(5) CUMULATIVE DEBT AFUDC (\$K/W)	(6) YEARLY TOTAL AFUDC (\$K/W)	(7) CUMULATIVE TOTAL AFUDC (\$K/W)	(8) CONSTRUCTION PERIOD INTEREST (\$K/W)	(9) CUMULATIVE CPI (\$K/W)	(10) DEFERRED TAXES (\$K/W)	(11) CUMULATIVE DEFERRED TAXES (\$K/W)	(12) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(13) CUMULATIVE YEAR-END BOOK VALUE (\$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
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	0.02	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.29	0.20	0.20	0.79	0.84	0.63	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.37	1.18	1.49	3.22	4.06	2.63	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.97	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.61	33.10	76.46	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	30.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	723,389,025
AFUDC RATE	0.48%

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS	FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASH	255	255	255		
EQUITY AFUDC	28	16			
DEBT AFUDC				36	
CPI					
TOTAL	283	271		36	

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	(5) AVOIDED MARGINAL FUEL COST (\$/KWH)	(6)* INCREASED MARGINAL FUEL COST (\$/KWH)	(7) REPLACEMENT FUEL COST (\$/KWH)	(8) PROGRAM I/W EFFECTIVENESS FACTOR	(9) PROGRAM I/W EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	6.00	1.00	1.00
2010	11	11	6.41	8.55	6.80	1.00	1.00	1.00
2011	54	54	6.35	8.15	6.76	0.00	1.00	1.00
2012	106	106	6.43	8.09	6.74	0.00	1.00	1.00
2013	169	169	7.06	8.17	7.28	0.00	1.00	1.00
2014	244	244	7.53	8.46	7.73	0.00	1.00	1.00
2015	244	244	8.11	9.29	8.37	0.00	1.00	1.00
2016	244	244	9.00	11.04	9.41	0.00	1.00	1.00
2017	244	244	9.75	12.12	10.17	0.00	1.00	1.00
2018	244	244	10.52	12.96	10.97	0.00	1.00	1.00
2019	244	244	11.50	14.57	12.08	10.41	1.00	1.00
2020	244	244	12.08	15.21	12.73	10.50	1.00	1.00
2021	244	244	12.57	15.76	13.24	10.74	1.00	1.00
2022	244	244	13.06	16.30	13.73	10.81	1.00	1.00
2023	244	244	13.39	16.54	14.04	10.80	1.00	1.00
2024	244	244	13.95	16.98	14.61	10.84	1.00	1.00
2025	244	244	14.40	17.40	15.06	10.96	1.00	1.00
2026	244	244	14.70	17.53	15.33	11.03	1.00	1.00
2027	244	244	15.13	17.74	15.73	11.17	1.00	1.00
2028	244	244	15.60	18.09	16.17	11.36	1.00	1.00
2029	244	244	16.02	18.18	16.55	11.41	1.00	1.00
2030	244	244	16.53	18.60	17.03	11.59	1.00	1.00
2031	244	244	17.08	19.21	17.59	11.80	1.00	1.00
2032	244	244	17.50	19.14	17.93	11.88	1.00	1.00
2033	244	244	18.27	19.86	18.59	12.10	1.00	1.00
2034	244	244	18.73	19.76	18.91	12.14	1.00	1.00
2035	244	244	19.57	20.92	19.82	12.29	1.00	1.00
2036	244	244	20.40	21.89	20.62	12.55	1.00	1.00
2037	244	244	21.11	22.47	21.31	12.70	1.00	1.00
2038	244	244	22.02	23.40	22.23	13.04	1.00	1.00
2039	244	244	22.78	24.05	22.95	13.32	1.00	1.00
2040	244	244	23.59	24.67	23.74	13.44	1.00	1.00
2041	244	244	24.54	25.60	24.68	13.75	1.00	1.00
2042	244	244	25.50	26.54	25.65	14.10	1.00	1.00
2043	244	244	26.74	28.13	26.92	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
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.

RESIDENTIAL PHOTOVOLTAICS

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	145 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.94 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	5.7748 KVA
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS/MOLTYEER	1.00
(7) CUSTOMER KW INCREASE AT METER	0.00 KVA

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	25 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	25 YEARS
(4) K FACTOR FOR GENERATION	1.7878
(5) K FACTOR FOR T & D	1.0254

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	3.89 %
(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	725.30 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	281.52 \$/KW
(6) BASE YEAR DISTRIBUTION COST	28.64 \$/KW
(7) GEN. TRAN & DIST COST ESCALATION RATE	3.80 %
(8) GENERATOR FIXED O & M COST	37.46 \$/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/\$/KVA
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	5.23 CENTS PER KW-HR** (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/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

CALCULATION OF GENKFACTOR
 PROGRAM METHOD SELECTED KEY KEY
 PROGRAM NAME: Residential Photovoltaics (PV)

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
YEAR	REG-YEAR RATEBASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRFC. \$(000)	DEFERRED TAXES \$(000)	TOTAL EFFECTED CHARGES \$(000)	PRESENT WORTH EFFECTED CHARGES \$(000)	CUMULATIVE PW EFFECTED CHARGES \$(000)	REPLACEMENT COST BASES FOR PROPERTY INSURANCE \$(000)
2019	2,120	97	0	238	144	53	19	122	0	651	651	651	3,042
2020	2,398	93	0	209	39	50	19	122	40	632	580	1,232	3,119
2021	2,836	88	0	198	38	48	19	122	34	607	512	1,744	3,197
2022	2,481	83	0	187	46	46	20	122	28	583	431	2,195	3,276
2023	2,531	79	0	177	95	44	20	122	23	559	398	2,593	3,358
2024	2,397	74	0	167	94	42	21	122	18	537	351	2,943	3,442
2025	2,907	70	0	157	92	39	22	122	13	515	309	3,252	3,528
2026	2,113	66	0	147	91	37	22	122	9	494	272	3,525	3,617
2027	1,982	62	0	138	86	35	23	122	8	473	239	3,764	3,707
2028	1,832	58	0	128	80	33	23	122	8	453	210	3,974	3,800
2029	1,722	53	0	120	74	31	24	122	8	432	185	4,159	3,895
2030	1,592	49	0	111	69	28	24	122	8	412	161	4,320	3,992
2031	1,462	45	0	102	63	26	25	122	8	392	141	4,461	4,092
2032	1,301	41	0	93	57	24	26	122	8	372	123	4,584	4,194
2033	1,201	37	0	84	51	22	26	122	8	351	107	4,691	4,299
2034	1,071	33	0	75	46	20	27	122	8	330	92	4,783	4,406
2035	941	29	0	66	40	18	28	122	8	310	79	4,862	4,517
2036	811	25	0	57	34	15	28	122	8	290	68	4,930	4,629
2037	681	21	0	48	29	13	29	122	8	269	58	4,988	4,745
2038	551	17	0	38	23	11	30	122	8	249	49	5,038	4,864
2039	421	13	0	29	17	9	30	122	(17)	229	42	5,080	4,985
2040	317	10	0	22	11	7	31	122	(63)	212	36	5,115	5,110
2041	237	7	0	17	6	4	32	122	(63)	206	31	5,146	5,238
2042	158	5	0	11	3	2	33	122	(63)	187	26	5,172	5,368
2043	79	2	0	6	1	0	34	122	(63)	176	23	5,195	5,503

IN SERVICE COST (\$000)	3,042
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
WFTC T/CORRAIS	38.373
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

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

KFACTOR = CPWFC / IN-SVC COST = 1.7073

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/METRIC SELECTED: REV_REQ
 PROGRAM NAME: Residential First-Flats (FV)

(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 LEASE	(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	7.25%	214	325	122	243	110	221	40	284	0	0	0	40	(37)
2021	6.88%	198	522	122	363	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	4.18%	123	1,441	122	1,095	110	993	5	284	0	0	0	5	93
2028	4.48%	132	1,573	122	1,217	110	1,103	3	284	0	0	0	3	104
2029	4.48%	132	1,705	122	1,339	110	1,214	3	284	0	0	0	3	112
2030	4.48%	132	1,837	122	1,461	110	1,324	3	284	0	0	0	3	121
2031	4.48%	132	1,969	122	1,582	110	1,434	3	284	0	0	0	3	129
2032	4.48%	132	2,101	122	1,704	110	1,544	3	284	0	0	0	3	137
2033	4.48%	132	2,233	122	1,825	110	1,653	3	284	0	0	0	3	146
2034	4.48%	132	2,365	122	1,947	110	1,763	3	284	0	0	0	3	154
2035	4.48%	132	2,497	122	2,069	110	1,873	3	284	0	0	0	3	162
2036	4.48%	132	2,629	122	2,191	110	1,983	3	284	0	0	0	3	171
2037	4.48%	132	2,761	122	2,312	110	2,093	3	284	0	0	0	3	179
2038	4.48%	132	2,893	122	2,434	110	2,203	3	284	0	0	0	3	187
2039	2.25%	65	2,959	122	2,556	110	2,313	(17)	284	0	0	0	(17)	170
2040	0.00%	0	2,959	122	2,677	110	2,423	(43)	284	0	0	0	(43)	128
2041	0.00%	0	2,959	122	2,799	110	2,533	(43)	284	0	0	0	(43)	85
2042	0.00%	0	2,959	122	2,921	110	2,643	(43)	284	0	0	0	(43)	43
2043	0.00%	0	2,959	122	3,042	110	2,753	(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 - USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/VERSION SELECTED: REV REQ
 PROGRAM NAME: Residential Photovoltaics (PV)

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(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)
2019	3.75%	111	0	2,321	122	(77)	2,320	2,378	2,639
2020	7.52%	234	40	2,739	243	(27)	2,393	2,836	2,917
2021	6.65%	198	34	2,677	365	(6)	2,836	2,851	2,739
2022	6.18%	180	28	2,556	487	24	2,681	2,531	2,606
2023	5.72%	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	2,188
2026	4.52%	134	9	2,069	974	87	2,113	1,982	2,047
2027	4.18%	122	8	1,947	1,095	95	1,982	1,852	1,917
2028	4.46%	120	8	1,825	1,217	104	1,852	1,722	1,789
2029	4.46%	120	8	1,704	1,339	112	1,722	1,592	1,657
2030	4.46%	120	8	1,582	1,460	121	1,592	1,462	1,527
2031	4.46%	120	8	1,460	1,582	129	1,462	1,331	1,397
2032	4.46%	120	8	1,339	1,704	137	1,331	1,201	1,266
2033	4.46%	120	8	1,217	1,825	146	1,201	1,071	1,136
2034	4.46%	120	8	1,095	1,947	154	1,071	941	1,006
2035	4.46%	120	8	974	2,069	162	941	811	876
2036	4.46%	122	8	852	2,191	171	811	681	746
2037	4.46%	122	8	730	2,312	179	681	551	616
2038	4.46%	120	8	608	2,434	187	551	421	486
2039	2.23%	66	(17)	487	2,556	196	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	115
2043	0.00%	0	(43)	(8)	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 (\$K/W)	(6) ANNUAL SPENDING (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	0.00%	1.000	0.00%	0.00	0.00
2011	-8	0.00%	1.001	0.00%	0.00	0.00
2012	-7	0.00%	1.003	0.00%	0.00	0.00
2013	-6	0.00%	1.006	0.15%	1.04	0.02
2014	-5	0.00%	1.139	1.90%	15.39	9.24
2015	-4	0.00%	1.194	4.57%	39.61	37.03
2016	-3	0.00%	1.230	37.20%	331.87	222.77
2017	-2	0.00%	1.267	45.74%	428.27	393.84
2018	-1	0.00%	1.305	10.44%	38.79	353.38

YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(9a) DEBT AFUDC (\$K/W)	(9b) CUMULATIVE DEBT AFUDC (\$K/W)	(9c) YEARLY TOTAL AFUDC (\$K/W)	(9d) TOTAL AFUDC (\$K/W)	(9e) CONSTRUCTION PERIOD INTEREST (\$K/W)	(9f) CUMULATIVE CFI (\$K/W)	(9g) DEFERRED TAXES (\$K/W)	(9h) CUMULATIVE DEFERRED TAXES (\$K/W)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$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
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	0.02	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	1.40	3.22	4.06	2.65	3.35	(0.57)	(0.72)	62.83	69.90
2016	-3	226.84	7.87	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.33)	351.16	412.06
2017	-2	622.20	19.46	28.01	39.10	76.45	43.47	62.72	(9.86)	(13.39)	473.37	885.63
2018	-1	394.83	29.46	37.47	80.39	156.84	64.78	127.50	(13.02)	(27.82)	179.18	1,064.81

IN SERVICE YEAR	2019
PLANT COSTS	725,289,835
AFUDC RATE	3.48%

	57.47	156.84	227.50	(27.82)	1,064.81
	BOOK BASIS	BOOK BASIS	FOR DEF TAX	TAX BASIS	
CONSTRUCTION CASE		2,394	2,394	2,394	
EQUITY AFUDC		284			
DEBT AFUDC		164	164		
CFI				364	
TOTAL		3,042	2,758	2,758	

* Columns not specified in workbook

INPUT DATA - PART 2
 PROGRAM/METHOD SELECTED : KSV_REQ
 PROGRAM NAME: Residential Photoovoltaics (PV)

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	(5) AVOIDED MARGINAL FUEL COST (\$/KWH)	(6) INCREASED MARGINAL FUEL COST (\$/KWH)	(7) REPLACEMENT FUEL COST (\$/KWH)	(8) PROGRAM/AV EFFECTIVENESS FACTOR	(9) PROGRAM/AV EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.99	0.00	0.99	0.99
2010	113	113	6.41	8.82	6.98	0.00	0.99	0.98
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	7.86	7.94	7.98	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	9.85	8.45	0.00	0.96	0.96
2016	1,473	1,473	9.08	10.68	9.54	0.00	0.95	0.95
2017	1,473	1,473	9.73	11.66	10.31	0.00	0.94	0.94
2018	1,473	1,473	10.22	12.51	11.22	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	14.83	12.92	10.50	0.92	0.92
2021	1,473	1,473	12.57	15.34	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	13.59	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	15.39	10.96	0.90	0.90
2026	1,473	1,473	14.78	17.06	15.45	11.45	0.89	0.89
2027	1,473	1,473	15.13	17.38	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	16.32	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	18.78	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	20.49	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	22.56	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	24.48	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	25.30	26.30	25.75	14.10	0.97	0.97
2043	1,473	1,473	26.74	27.84	27.87	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.

BUSINESS PHOTOVOLTAICS

INPUT DATA - PART 1 CONTINUED
PROGRAM DESCRIBED SEARCHED: REV_REQ
PROGRAM NAME: Business Photovoltaics (P7)

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	6.86 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.15 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KVA REDUCTION PER CUSTOMER	3,204.93 KVA
(5) KVA LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	1.79738
(5) K FACTOR FOR T & D	1.63254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NONRECURRING COST PER CUSTOMER	*** \$/COST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/COST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/COST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
* INCREASED SUPPLY COSTS	** \$/CUST/YR
+ SUPPLY COSTS ESCALATION RATE	*** %**
+ (10) UTILITY DISCOUNT RATE	3.89 %
- (11) UTILITY AFUDC RATE	3.48 %
+ (12) UTILITY NONRECURRING REBATE/INCENTIVE	*** \$/COST
+ (13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/COST
- (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	725.28 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.72 \$/KW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/KW
(7) GEN. TRAN & DIST. COST ESCALATION RATE	3.08 %**
(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	2.81 \$/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	0.126 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	3.21 CENTS PER KW-HR** (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/60
(4) DEMAND CHARGE ESCALATION RATE	*** %

CALCULATION OF GEN-K-FACTOR
 PROGRAM METHOD SELECTED REV_88Q
 PROGRAM NAME: Business Photovoltaics (P*)

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	NEG-YEAR RATE-BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST-BASE FOR PROPERTY INSURANCE \$(000)
2019	2,661	83	0	186	122	43	16	104	8	335	335	2,385
2020	2,537	79	0	178	84	43	16	104	34	339	495	2,609
2021	2,413	75	0	169	83	41	17	104	29	318	437	2,725
2022	2,285	71	0	160	82	39	17	104	24	497	385	2,794
2023	2,159	67	0	151	81	37	17	104	19	477	339	2,864
2024	2,036	63	0	142	80	35	18	104	15	458	299	2,936
2025	1,917	60	0	134	79	34	18	104	11	439	263	3,009
2026	1,802	56	0	126	77	32	19	104	8	421	232	3,084
2027	1,690	53	0	118	75	30	19	104	7	404	204	3,161
2028	1,579	49	0	110	68	28	20	104	7	386	179	3,240
2029	1,468	46	0	102	63	26	20	104	7	369	157	3,321
2030	1,357	42	0	95	58	24	21	104	7	351	138	3,404
2031	1,246	39	0	87	54	22	21	104	7	334	120	3,489
2032	1,136	35	0	79	49	21	22	104	7	317	105	3,577
2033	1,025	32	0	72	44	19	22	104	7	299	91	3,666
2034	914	28	0	64	39	17	23	104	7	282	79	3,758
2035	803	25	0	56	34	15	23	104	7	264	68	3,852
2036	692	21	0	48	29	13	24	104	7	247	58	3,948
2037	581	18	0	41	24	11	25	104	7	230	50	4,047
2038	470	15	0	33	20	9	25	104	7	213	42	4,148
2039	359	11	0	25	16	7	26	104	(13)	195	36	4,252
2040	249	8	0	19	14	6	27	104	(30)	181	30	4,358
2041	202	6	0	14	11	5	27	104	(36)	170	26	4,467
2042	135	4	0	9	8	4	28	104	(36)	159	22	4,579
2043	67	2	0	5	5	(0)	29	104	(36)	148	19	4,693

IN SERVICE COST (\$000)	2,395
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	32.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.88%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	40%	7.03%
P/S	9%	0.00%
CS	50%	12.50%

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

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Eastern PhotoVista (P7)

(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 DEPRECIATION FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK/DEPR RATE MINUS LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	35	35	104	104	34	34	0	242	0	0	0	0	(66)
2020	7.22%	182	277	184	288	34	138	34	242	0	0	0	34	(24)
2021	6.68%	168	445	184	311	34	282	29	242	0	0	0	29	(5)
2022	6.18%	156	601	184	415	34	376	24	242	0	0	0	24	21
2023	5.71%	144	745	184	519	34	471	19	242	0	0	0	19	48
2024	5.29%	133	879	184	623	34	565	15	242	0	0	0	15	53
2025	4.89%	123	1,002	184	727	34	659	11	242	0	0	0	11	67
2026	4.53%	114	1,116	184	830	34	753	8	242	0	0	0	8	74
2027	4.46%	113	1,229	184	934	34	847	7	242	0	0	0	7	81
2028	4.46%	113	1,341	184	1,038	34	941	7	242	0	0	0	7	89
2029	4.46%	113	1,454	184	1,142	34	1,035	7	242	0	0	0	7	96
2030	4.46%	113	1,566	184	1,247	34	1,129	7	242	0	0	0	7	103
2031	4.46%	113	1,679	184	1,349	34	1,223	7	242	0	0	0	7	110
2032	4.46%	113	1,792	184	1,453	34	1,317	7	242	0	0	0	7	117
2033	4.46%	113	1,904	184	1,557	34	1,412	7	242	0	0	0	7	124
2034	4.46%	113	2,017	184	1,661	34	1,506	7	242	0	0	0	7	131
2035	4.46%	113	2,129	184	1,764	34	1,600	7	242	0	0	0	7	138
2036	4.46%	113	2,242	184	1,868	34	1,694	7	242	0	0	0	7	146
2037	4.46%	113	2,354	184	1,972	34	1,788	7	242	0	0	0	7	153
2038	4.46%	113	2,467	184	2,076	34	1,882	7	242	0	0	0	7	160
2039	2.23%	36	2,523	184	2,180	34	1,976	(15)	242	0	0	0	(15)	145
2040	0.00%	0	2,523	184	2,283	34	2,070	(36)	242	0	0	0	(36)	109
2041	0.00%	0	2,523	184	2,387	34	2,164	(36)	242	0	0	0	(36)	73
2042	0.00%	0	2,523	184	2,491	34	2,258	(36)	242	0	0	0	(36)	36
2043	0.00%	0	2,523	184	2,595	34	2,353	(36)	242	0	0	0	(36)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2039
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(66)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	242
BOOK DEPR RATE - 10% USEFUL LIFE	4.89%

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

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(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)
2019	3.75%	95	0	2,491	104	(60)	2,461	2,397	2,429
2020	7.22%	122	34	2,367	268	(33)	2,337	2,419	2,488
2021	6.88%	128	29	2,239	311	(3)	2,419	2,384	2,333
2022	4.18%	156	24	2,180	415	21	2,286	2,159	2,223
2023	5.71%	144	19	2,076	319	40	2,139	2,034	2,097
2024	5.29%	133	15	1,972	223	33	2,036	1,917	1,974
2025	4.89%	121	11	1,868	727	67	1,917	1,802	1,839
2026	4.52%	114	8	1,764	830	74	1,802	1,690	1,746
2027	4.40%	113	7	1,661	934	81	1,690	1,579	1,635
2028	4.40%	113	7	1,557	1,038	89	1,579	1,468	1,524
2029	4.40%	113	7	1,453	1,142	96	1,468	1,357	1,413
2030	4.40%	113	7	1,349	1,245	103	1,357	1,246	1,302
2031	4.40%	113	7	1,245	1,349	110	1,246	1,136	1,191
2032	4.40%	113	7	1,142	1,453	117	1,136	1,025	1,080
2033	4.40%	113	7	1,038	1,557	124	1,025	914	969
2034	4.40%	113	7	934	1,661	131	914	803	858
2035	4.40%	113	7	830	1,764	138	803	692	747
2036	4.40%	113	7	727	1,868	145	692	581	636
2037	4.40%	113	7	623	1,972	153	581	470	525
2038	4.40%	113	7	519	2,076	160	470	359	415
2039	2.23%	56	(15)	415	2,180	165	359	270	315
2040	0.00%	0	(30)	311	2,286	168	270	202	234
2041	0.00%	0	(30)	268	2,387	73	202	135	169
2042	0.00%	0	(30)	164	2,491	26	135	67	101
2043	0.00%	0	(30)	(0)	2,595	0	67	0	34

* 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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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	0.19%	1.94	0.62
2014	-5	3.00%	1.159	1.90%	15.59	5.34
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	351.37	221.77
2017	-2	3.00%	1.267	45.74%	428.27	394.34
2018	-1	3.00%	1.305	10.44%	38.79	858.38

100.00% 307.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(10)* DEBT AFUDC (\$K/W)	(11)* CUMULATIVE DEBT AFUDC (\$K/W)	(12) YEARLY TOTAL AFUDC (\$K/W)	(13)* CUMULATIVE TOTAL AFUDC (\$K/W)	(14)* CONSTRUCTION PERIOD INTEREST (\$K/W)	(15)* CUMULATIVE CFI (\$K/W)	(16)* DEFERRED TAXES (\$K/W)	(17)* CUMULATIVE DEFERRED TAXES (\$K/W)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(19) CUMULATIVE YEAR-END BOOK VALUE (\$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
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	0.62	0.62	0.85	0.85	0.04	0.04	(0.61)	(0.61)	1.29	1.29
2014	-5	5.29	0.29	0.36	0.79	0.94	0.63	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.96	2.65	3.35	(0.37)	(0.72)	42.43	60.90
2016	-3	236.84	7.87	8.56	19.29	23.36	15.90	19.25	(4.11)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	20.01	51.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.23	29.46	27.47	80.29	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	725,389,065
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAC BASIS
CONSTRUCTION CASH	2,312	2,312	2,312
EQUITY AFUDC	942	140	
DEBT AFUDC	140	140	
CFI			311
TOTAL	2,393	2,393	2,923

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	(5) AVOIDED MARGINAL FUEL COST (\$/KWH)	(6) INCREASED MARGINAL FUEL COST (\$/KWH)	(7) REPLACEMENT FUEL COST (\$/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KVA EFFECTIVENESS FACTOR
2009	0	0	6.79	3.17	6.79	0.00	0.00	0.00
2010	143	143	6.41	16.51	6.41	0.00	0.00	0.00
2011	292	292	6.25	18.28	6.25	0.00	0.00	0.00
2012	1,062	1,062	6.43	9.01	6.28	0.00	1.00	1.00
2013	1,567	1,567	7.06	8.90	7.25	0.00	0.99	0.99
2014	2,128	2,128	7.53	8.57	7.70	0.00	0.99	0.99
2015	2,128	2,128	8.11	9.53	8.32	0.00	0.98	0.98
2016	2,128	2,128	9.09	11.45	9.33	0.00	0.97	0.97
2017	2,128	2,128	9.75	12.59	10.06	0.00	0.97	0.97
2018	2,128	2,128	10.82	13.42	10.88	0.00	0.96	0.96
2019	2,128	2,128	11.58	15.12	11.97	10.41	0.96	0.96
2020	2,128	2,128	12.08	15.76	12.60	10.50	0.95	0.95
2021	2,128	2,128	12.57	16.26	13.12	10.74	0.94	0.94
2022	2,128	2,128	13.06	17.14	13.59	10.81	0.94	0.94
2023	2,128	2,128	13.39	17.16	13.92	10.80	0.93	0.93
2024	2,128	2,128	13.85	17.82	14.47	10.84	0.92	0.92
2025	2,128	2,128	14.40	18.22	14.92	10.96	0.92	0.92
2026	2,128	2,128	14.70	18.32	15.19	11.05	0.91	0.91
2027	2,128	2,128	15.13	18.54	15.60	11.17	0.91	0.91
2028	2,128	2,128	15.60	18.91	16.05	11.26	0.90	0.90
2029	2,128	2,128	16.02	18.85	16.44	11.41	0.90	0.90
2030	2,128	2,128	16.32	19.44	16.90	11.59	0.89	0.89
2031	2,128	2,128	17.08	19.84	17.45	11.80	0.88	0.88
2032	2,128	2,128	17.50	19.76	17.81	11.88	0.88	0.88
2033	2,128	2,128	18.27	20.32	18.49	12.10	0.87	0.87
2034	2,128	2,128	18.73	20.17	18.85	12.14	0.87	0.87
2035	2,128	2,128	19.57	21.50	19.73	12.29	0.86	0.86
2036	2,128	2,128	20.40	22.53	20.53	12.55	0.86	0.86
2037	2,128	2,128	21.11	23.05	21.23	12.70	0.85	0.85
2038	2,128	2,128	22.02	24.00	22.15	13.04	0.84	0.84
2039	2,128	2,128	22.78	24.74	22.87	13.22	0.84	0.84
2040	2,128	2,128	23.59	25.27	23.66	13.44	0.83	0.83
2041	2,128	2,128	24.54	26.14	24.60	13.75	0.83	0.83
2042	2,128	2,128	25.50	27.05	25.57	14.10	0.82	0.82
2043	2,128	2,128	26.74	28.05	26.83	14.40	0.82	0.82
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_RBQ
PROGRAMNAME: Bestest 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	530	291	12	776	982	628
2020	511	296	18	1,143	1,303	376
2021	488	302	18	1,193	1,455	546
2022	465	307	19	1,242	1,616	338
2023	444	313	20	1,327	1,740	544
2024	423	319	21	1,402	1,819	547
2025	403	324	23	1,498	1,907	541
2026	384	334	24	1,601	1,998	541
2027	366	337	25	1,690	1,873	542
2028	348	340	26	1,735	1,916	535
2029	330	349	27	1,808	1,966	547
2030	312	353	28	1,892	2,043	540
2031	295	363	29	1,931	2,092	535
2032	278	369	29	1,959	2,135	550
2033	261	373	32	2,000	2,223	545
2034	244	382	34	2,099	2,378	571
2035	228	389	34	2,242	2,415	578
2036	211	396	35	2,412	2,487	568
2037	195	404	36	2,467	2,523	579
2038	179	411	37	2,528	2,600	556
2039	164	418	37	2,580	2,639	541
2040	151	426	38	2,640	2,690	565
2041	141	434	39	2,696	2,757	554
2042	131	442	40	2,759	2,834	537
2043	121	450	41	2,820	2,907	535
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
NCM	7,603	9,125	722	49,921	52,612	13,940
NPV	1,737	1,538	112	7,500	8,342	2,585

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	2.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	1394.83 KWH
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LOSS LOSS MULTIPLIER	1.00
(7) CUSTOMER KW INCREASE AT METER	0.05 KVA

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	1.7078
(5) K FACTOR FOR T & D	1.0254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON-RECURRING COST PER CUSTOMER	*** \$/CUSTOMER
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUSTOMER
(3) UTILITY COST ESCALATION RATE	*** %
(4) CUSTOMER EQUIPMENT COST	*** \$/CUSTOMER
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %
(6) CUSTOMER O & M COST	*** \$/CUSTOMER/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %
(8) INCREASED SUPPLY COSTS	*** \$/CUSTOMER/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY APODGRATE	8.89 %
(12) UTILITY NON-RECURRING REBATE/INCENTIVE	*** \$/CUSTOMER
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUSTOMER
(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	2010
(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	1.04 %
(8) GENERATOR FIXED O & M COST	37.66 \$/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	0.116 CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	054 % (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$23 CENTS PER KW-HR (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.78 %

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/D
(4) DEMAND CHARGE ESCALATION RATE	*** %

CALCULATION OF GEN K-FACTOR
PROGRAM/AGENCY SELECTED REV_REQ
PROGRAMNAME: Business Pk available for Schools

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	REQ-YEAR RATEBASE \$'(000)	DEBT \$'(000)	PREFERRED STOCK \$'(000)	COMMON EQUITY \$'(000)	INCOME TAXES \$'(000)	PROPERTY TAX \$'(000)	PROPERTY INSURANCE \$'(000)	DEPRECIATION \$'(000)	DEFERRED TAXES \$'(000)	TOTAL FIXED CHARGES \$'(000)	PRESENT WORTH \$'(000)	CUMULATIVE PW FIXED CHARGES \$'(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$'(000)
2019	207	7	0	17	11	4	1	9	0	49	49	49	251
2020	208	7	0	16	7	4	1	9	3	48	44	93	257
2021	215	7	0	15	7	4	1	9	3	46	39	132	263
2022	205	6	0	14	7	3	2	9	2	44	34	167	269
2023	192	6	0	13	7	3	2	9	2	42	30	197	255
2024	181	6	0	13	7	3	2	9	1	41	27	223	261
2025	171	5	0	12	7	3	2	9	1	39	23	247	268
2026	160	5	0	11	7	3	2	9	1	37	21	268	274
2027	150	5	0	10	6	3	2	9	1	36	18	286	281
2028	141	4	0	10	6	2	2	9	1	34	16	302	288
2029	131	4	0	9	6	2	2	9	1	33	14	316	296
2030	121	4	0	8	5	2	2	9	1	31	12	328	303
2031	111	3	0	8	5	2	2	9	1	30	11	339	311
2032	101	3	0	7	4	2	2	9	1	28	9	348	318
2033	91	3	0	6	4	2	2	9	1	27	8	356	326
2034	81	3	0	6	3	1	2	9	1	25	7	363	334
2035	71	2	0	5	3	1	2	9	1	24	6	369	343
2036	62	2	0	4	3	1	2	9	1	22	5	374	351
2037	52	2	0	4	2	1	2	9	1	20	4	379	360
2038	42	1	0	3	2	1	2	9	1	19	4	382	369
2039	32	1	0	2	3	1	2	9	(1)	17	3	386	378
2040	24	1	0	2	5	0	2	9	(3)	16	3	388	388
2041	18	1	0	1	5	0	2	9	(3)	15	2	391	398
2042	12	0	0	1	4	0	2	9	(3)	14	2	393	407
2043	6	0	0	0	4	(9)	3	9	(5)	13	2	394	418

IN SERVICE COST (\$1000)	251
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPRECIATION RATE	38.575
DISCOUNT RATE	8.5%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	AMOUNT	COST
DEBT	44%	7.03
P/S	5%	0.80
C/S	50%	12.30

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

DEFERRED TAX AND MID-YEAR RATEBASE CALCULATION
 PROGRAM: MATHMOD SELECTED: RBY_88Q
 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 MILEAGE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2010	3.75%	8	8	8	8	8	8	0	22	0	0	0	0	(6)
2020	7.22%	16	24	8	16	8	17	3	21	0	0	0	3	(3)
2021	6.82%	15	40	8	24	8	25	3	22	0	0	0	3	(3)
2022	6.38%	14	54	8	32	8	33	2	22	0	0	0	2	(3)
2023	5.71%	13	68	8	40	8	42	2	22	0	0	0	2	2
2024	5.29%	12	80	8	48	8	50	1	22	0	0	0	1	4
2025	4.89%	11	91	8	56	8	58	1	22	0	0	0	1	5
2026	4.52%	10	99	8	64	8	66	1	22	0	0	0	1	6
2027	4.40%	10	109	8	72	8	74	1	22	0	0	0	1	7
2028	4.40%	10	119	8	80	8	82	1	22	0	0	0	1	7
2029	4.40%	10	129	8	88	8	90	1	22	0	0	0	1	8
2030	4.40%	10	139	8	96	8	98	1	22	0	0	0	1	9
2031	4.40%	10	149	8	104	8	106	1	22	0	0	0	1	9
2032	4.40%	10	159	8	112	8	114	1	22	0	0	0	1	10
2033	4.40%	10	169	8	120	8	122	1	22	0	0	0	1	10
2034	4.40%	10	179	8	128	8	130	1	22	0	0	0	1	11
2035	4.40%	10	189	8	136	8	138	1	22	0	0	0	1	11
2036	4.40%	10	200	8	144	8	146	1	22	0	0	0	1	12
2037	4.40%	10	210	8	152	8	154	1	22	0	0	0	1	12
2038	4.40%	10	220	8	160	8	162	1	22	0	0	0	1	13
2039	2.25%	5	225	8	168	8	170	1	22	0	0	0	1	13
2040	0.00%	0	225	8	176	8	178	(1)	22	0	0	0	(1)	13
2041	0.00%	0	225	8	184	8	186	(3)	22	0	0	0	(3)	10
2042	0.00%	0	225	8	192	8	194	(3)	22	0	0	0	(3)	6
2043	0.00%	0	225	8	200	8	202	(3)	22	0	0	0	(3)	3
									22	0	0	0	(3)	0

SALVAGE / REMOVAL COST	0.00
DEPR. SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(5)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	22
BOOK DEPR. RATE - USEFUL LIFE	4.80%

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

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(6)* ACCUMULATED DEPRECIATION \$(000)	(7)* ACCUMULATED DEFERRED TAXES \$(000)	(8) BEGINNING YEAR RATE BASE \$(000)	(9) ENDING OF YEAR RATE BASE \$(000)	(10) MID-YEAR RATE BASE \$(000)
2019	3.75%	8	0	222	9	(6)	237	228	222
2020	7.22%	16	3	212	18	(5)	228	215	221
2021	6.68%	15	3	203	28	(0)	215	203	209
2022	6.33%	14	2	194	37	2	203	192	198
2023	5.71%	13	2	185	46	4	192	181	187
2024	5.29%	12	1	176	55	5	181	171	176
2025	4.89%	11	1	166	63	6	171	160	163
2026	4.52%	10	1	157	71	7	160	150	153
2027	4.46%	10	1	148	80	7	150	141	145
2028	4.46%	10	1	139	89	8	141	131	136
2029	4.46%	10	1	129	98	9	131	121	126
2030	4.46%	10	1	120	107	9	121	111	116
2031	4.46%	10	1	111	116	10	111	101	106
2032	4.46%	10	1	102	125	10	101	91	96
2033	4.46%	10	1	92	134	11	91	81	86
2034	4.46%	10	1	83	143	12	81	71	76
2035	4.46%	10	1	74	152	12	71	62	67
2036	4.46%	10	1	65	160	13	62	52	57
2037	4.46%	10	1	55	168	14	52	42	47
2038	4.46%	10	1	46	176	14	42	32	37
2039	2.23%	5	(1)	37	184	15	32	24	28
2040	0.00%	0	(2)	28	203	16	24	18	21
2041	0.00%	0	(3)	18	212	6	18	12	15
2042	0.00%	0	(3)	9	221	3	12	6	9
2043	0.00%	0	(3)	0	231	0	6	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	3.00%	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%	15.59	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	57.30%	331.87	222.77
2017	-2	3.00%	1.267	45.54%	430.27	394.84
2018	-1	3.00%	1.305	10.44%	58.79	258.38

YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/KW)	(9a) DEBT AFUDC (\$/KW)	(9b) CUMULATIVE DEBT AFUDC (\$/KW)	(7) YEARLY TOTAL AFUDC (\$/KW)	(9c) CUMULATIVE TOTAL AFUDC (\$/KW)	(9d) CONSTRUCTION PERIOD INTEREST (\$/KW)	(9e) CUMULATIVE CPI (\$/KW)	(9f) DEFERRED TAXES (\$/KW)	(9g) CUMULATIVE DEFERRED TAXES (\$/KW)	(10)	(11)
											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	0.62	0.62	0.65	0.65	0.64	0.64	(0.61)	(0.61)	1.29	1.29
2014	-5	9.29	6.29	6.29	6.79	6.84	6.65	6.70	(6.16)	(6.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	3.65	3.35	(3.57)	(3.79)	42.83	60.90
2016	-3	226.84	7.67	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.81	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43
2018	-1	934.33	29.46	57.47	80.59	156.84	64.78	127.50	(23.63)	(27.82)	179.18	1,064.61

	37.47	154.84	127.50	(27.62)	1,044.61
IN SERVICE YEAR 2019					
PLANT COSTS 725,389,653					
AFUDC RATE 3.48%					
		BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS	
CONSTRUCTION GASE		197	197	197	
EQUITY AFUDC		12	12		
DEBT AFUDC				35	
CPI					
TOTAL		209	209	232	

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM/MEASCO SELECTED: REV_REQ
 PROGRAMNAME: Business Photovoltaics for Schools

(1) YEAR	(2) COMPLATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED COMPLATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	(5) AVOIDED MARGINAL FUEL COST (\$/KWH)	(6)* INCREASED MARGINAL FUEL COST (\$/KWH)	(7) REPLACEMENT FUEL COST (\$/KWH)	(8) PROGRAM/KW EFFECTIVENESS FACTOR	(9) PROGRAM/L94 EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	8.00	0.00	0.00
2010	2	2	6.41	8.81	6.74	8.00	1.00	1.00
2011	55	55	6.35	8.34	6.64	8.00	0.99	0.99
2012	105	105	6.43	8.30	6.69	8.00	0.99	0.99
2013	152	152	7.06	8.30	7.25	8.00	0.98	0.98
2014	189	189	7.53	8.62	7.69	8.00	0.97	0.97
2015	189	189	8.11	9.53	8.33	8.00	0.97	0.97
2016	189	189	9.00	11.45	9.33	8.00	0.96	0.96
2017	189	189	9.75	12.39	10.08	8.00	0.96	0.96
2018	189	189	10.92	13.62	10.88	8.00	0.95	0.95
2019	189	189	11.59	15.12	11.97	10.61	0.94	0.94
2020	189	189	12.08	15.68	12.57	10.50	0.94	0.94
2021	189	189	12.57	16.50	13.08	10.24	0.93	0.93
2022	189	189	13.06	17.14	13.59	10.81	0.92	0.92
2023	189	189	13.92	17.16	13.92	10.80	0.92	0.92
2024	189	189	13.95	17.82	14.67	10.84	0.91	0.91
2025	189	189	14.44	18.22	14.92	10.96	0.91	0.91
2026	189	189	14.70	18.32	15.19	11.05	0.90	0.90
2027	189	189	15.13	18.54	15.60	11.17	0.90	0.90
2028	189	189	15.60	19.12	16.04	11.56	0.89	0.89
2029	189	189	16.02	19.64	16.61	11.61	0.88	0.88
2030	189	189	16.52	19.64	16.94	11.59	0.88	0.88
2031	189	189	17.08	20.04	17.45	11.80	0.87	0.87
2032	189	189	17.50	19.76	17.82	11.88	0.87	0.87
2033	189	189	18.27	20.52	18.49	12.10	0.86	0.86
2034	189	189	18.73	20.17	18.85	12.34	0.86	0.86
2035	189	189	19.57	21.50	19.73	12.29	0.85	0.85
2036	189	189	20.40	22.53	20.53	12.55	0.84	0.84
2037	189	189	21.11	23.18	21.22	12.70	0.84	0.84
2038	189	189	22.02	24.15	22.14	13.04	0.83	0.83
2039	189	189	22.78	24.74	22.87	13.32	0.83	0.83
2040	189	189	23.59	25.27	23.66	13.44	0.82	0.82
2041	189	189	24.54	26.14	24.60	13.75	0.82	0.82
2042	189	189	25.90	27.05	25.57	14.10	0.81	0.81
2043	189	189	26.74	28.25	26.83	14.40	0.81	0.81
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.

RESIDENTIAL AIR CONDITIONING

INPUT DATA--PART 1 CONTINUED
PROGRAM METHOD SELECTED: KMW_RBQ
PROGRAM NAME: Residential Ab-Con 400w/2w

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.50 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.57 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KW/LINE REDUCTION PER CUSTOMER	1.12127 KW/L
(5) KW/L LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.50
(7) CUSTOMER KW/L INCREASE AT METER	0.00 KW/L

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) L&D ECONOMIC LIFE	33 YEARS
(4) K FACTOR FOR GENERATION	1.79738
(5) K FACTOR FOR T & D	1.62254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECORRING COST PER CUSTOMER	--- \$/CUST
(2) UTILITY RECORRING 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 RATE	--- %
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY APODC RATE	8.48 %
(12) UTILITY NON RECORRING REBATE/INCENTIVE	--- \$/CUST
(13) UTILITY RECORRING 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 L&D COSTS

(1) BASE YEAR	2000
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2010
(3) IN-SERVICE YEAR FOR AVOIDED L&D	2015-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.50 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/KW
(6) BASE YEAR DISTRIBUTION COST	26.64 \$/KW
(7) GEN. TRAN & DIST COST ESCALATION RATE	3.00 %
(8) GENERATOR FIXED O & M COST	97.66 \$/CUST/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	1.81 \$/KW
(12) L&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	7% (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.23 CENTS PER KWHR (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/MS
(4) DEMAND CHARGE ESCALATION RATE	--- %

CALCULATION OF GENTLE FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Residential Air-Conditioning

YEAR	(2) REG-YEAR RATEBASE \$(000)	(3) DEBT \$(000)	(4) PREFERRED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPR/HC \$(000)	(10) DEFERRED TAXES \$(000)	(11) TOTAL FIXED CHARGES \$(000)	(12) PRESENT WORKS FIXED CHARGES \$(000)	(13) COMPLIANT PW/FIXED CHARGES \$(000)	(14) REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	536,346	16,919	0	36,034	21,772	8,702	3,072	20,143	39	107,881	107,881	107,881	593,567
2020	496,164	15,413	0	34,826	16,354	8,339	3,149	20,143	4,892	104,395	96,169	203,829	516,156
2021	469,430	14,382	0	32,780	16,186	7,976	3,227	20,143	5,568	106,448	84,717	206,376	529,060
2022	443,719	13,784	0	30,966	15,998	7,614	3,306	20,143	6,229	96,442	74,703	363,280	542,286
2023	418,947	13,014	0	29,237	15,795	7,251	3,381	20,143	3,947	92,578	63,858	429,137	555,944
2024	395,457	12,272	0	27,570	15,556	6,889	3,475	20,143	2,938	88,844	58,043	487,180	569,740
2025	373,976	11,555	0	25,959	15,285	6,526	3,561	20,143	2,189	85,229	51,157	538,317	583,983
2026	348,645	10,861	0	24,401	15,007	6,164	3,651	20,143	1,497	81,794	43,002	583,349	598,383
2027	328,065	10,189	0	22,891	14,722	5,801	3,743	20,143	1,384	78,523	39,635	623,984	613,547
2028	304,479	9,521	0	21,388	14,431	5,439	3,836	20,143	1,382	74,939	34,828	657,812	628,886
2029	284,954	8,832	0	19,886	14,285	5,076	3,932	20,143	1,384	71,538	30,542	684,265	644,688
2030	263,427	8,153	0	18,384	14,144	4,713	4,030	20,143	1,382	68,179	26,785	715,080	658,723
2031	241,903	7,515	0	16,882	14,009	4,351	4,131	20,143	1,384	64,803	23,329	738,489	677,241
2032	220,376	6,846	0	15,380	13,877	3,988	4,234	20,143	1,382	61,430	20,389	758,718	694,172
2033	198,852	6,177	0	13,877	13,877	3,625	4,340	20,143	1,384	58,059	17,628	776,347	711,527
2034	177,325	5,508	0	12,375	13,757	3,263	4,449	20,143	1,382	54,694	15,280	791,597	728,515
2035	155,800	4,840	0	10,873	13,605	2,901	4,560	20,143	1,384	51,325	13,144	804,741	747,548
2036	134,274	4,171	0	9,371	13,438	2,538	4,674	20,143	1,382	47,962	11,280	816,021	766,256
2037	112,749	3,502	0	7,868	13,253	2,175	4,791	20,143	1,384	44,602	9,634	825,655	785,392
2038	91,223	2,834	0	6,366	13,057	1,812	4,911	20,143	1,382	41,245	8,182	833,836	805,027
2039	69,698	2,165	0	4,864	12,851	1,450	5,033	20,143	(2,830)	37,891	6,903	840,739	825,153
2040	48,172	1,497	0	3,362	12,635	1,088	5,159	20,143	(7,045)	35,149	5,881	846,620	845,782
2041	26,646	814	0	1,860	12,408	725	5,288	20,143	(7,045)	33,021	5,074	851,693	864,928
2042	11,120	487	0	314	12,171	363	5,428	20,143	(7,045)	30,896	4,360	856,653	884,599
2043	1,594	487	0	314	11,934	0	5,566	20,143	(7,045)	28,774	3,729	859,782	914,814

IN SERVICE COST (\$000)	503,567
IN SERVICE YEAR	2019
BOOK LIVES (YRS)	25
INSTR. TAX RATE	34.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.86%
PROPERTY INSURANCE	0.61%

SOURCE	PERCENT	COST
DEBT	40%	7.03
P/E	0%	0.00
CS	60%	12.50

E-FACTOR = CP/WFC / IN-SVC COST = 1.70738

DEFERRED TAX AND MID-YEAR RATE-BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Ab-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 LIFE	(10)*(11) TAX RATE (\$000)	SALVAGE TAX RATE (\$000)	ANNUAL DEFERRED TAX (\$)-(12)*(13) (\$000)	ACCUMULATED DEFERRED TAX (\$000)
2019	3.75%	18,363	18,363	20,143	20,143	18,263	18,263	39	47,003	0	0	39	(12,790)	
2020	7.22%	35,251	53,714	20,143	40,285	18,263	36,525	6,592	47,003	0	0	6,592	(6,148)	
2021	4.88%	32,097	86,411	20,143	60,428	18,263	54,788	1,568	47,003	0	0	1,568	(588)	
2022	4.18%	30,263	116,674	20,143	80,571	18,263	73,050	4,629	47,003	0	0	4,629	4,069	
2023	5.72%	27,976	144,650	20,143	100,713	18,263	91,313	3,747	47,003	0	0	3,747	7,796	
2024	5.29%	25,889	170,539	20,143	120,856	18,263	109,575	2,938	47,003	0	0	2,938	10,734	
2025	4.89%	23,836	194,446	20,143	140,999	18,263	127,838	2,189	47,003	0	0	2,189	12,923	
2026	4.52%	22,144	216,610	20,143	161,141	18,263	146,100	1,497	47,003	0	0	1,497	14,420	
2027	4.48%	21,830	238,440	20,143	181,284	18,263	164,363	1,384	47,003	0	0	1,384	15,804	
2028	4.48%	21,845	260,285	20,143	201,427	18,263	182,626	1,382	47,003	0	0	1,382	17,186	
2029	4.48%	21,850	282,133	20,143	221,569	18,263	200,888	1,384	47,003	0	0	1,384	18,570	
2030	4.48%	21,845	304,000	20,143	241,712	18,263	219,151	1,382	47,003	0	0	1,382	19,952	
2031	4.48%	21,830	325,830	20,143	261,853	18,263	237,413	1,384	47,003	0	0	1,384	21,336	
2032	4.48%	21,845	347,695	20,143	281,997	18,263	255,675	1,382	47,003	0	0	1,382	22,718	
2033	4.48%	21,850	369,545	20,143	302,140	18,263	273,938	1,384	47,003	0	0	1,384	24,102	
2034	4.48%	21,845	391,390	20,143	322,283	18,263	292,201	1,382	47,003	0	0	1,382	25,484	
2035	4.48%	21,830	413,240	20,143	342,425	18,263	310,464	1,384	47,003	0	0	1,384	26,867	
2036	4.48%	21,845	435,086	20,143	362,568	18,263	328,726	1,382	47,003	0	0	1,382	28,249	
2037	4.48%	21,850	456,936	20,143	382,711	18,263	346,989	1,384	47,003	0	0	1,384	29,633	
2038	4.48%	21,845	478,781	20,143	402,853	18,263	365,251	1,382	47,003	0	0	1,382	31,015	
2039	2.25%	10,923	489,706	20,143	422,996	18,263	383,514	(2,830)	47,003	0	0	(2,830)	28,185	
2040	0.00%	0	489,706	20,143	443,139	18,263	401,776	(7,045)	47,003	0	0	(7,045)	21,140	
2041	0.00%	0	489,706	20,143	463,281	18,263	420,039	(7,045)	47,003	0	0	(7,045)	14,095	
2042	0.00%	0	489,706	20,143	483,424	18,263	438,301	(7,045)	47,003	0	0	(7,045)	7,050	
2043	0.00%	0	489,706	20,143	503,567	18,263	456,564	(7,045)	47,003	0	0	(7,045)	0	

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE/ COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(12,779)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	47,003
BOOK DEPR RATE - 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) END OF YEAR NET PLANT IN SERVICE	(6)* ACCUMULATED DEPRECIATION	(7)* ACCUMULATED DEF TAXES	(8) BEGINNING YEAR RATE BASE	(9) ENDING OF YEAR RATE BASE	(10) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	18,363	39	483,424	20,143	(12,740)	516,346	496,164	506,255
2020	7.22%	35,351	6,392	463,281	40,285	(6,148)	496,164	469,430	482,797
2021	6.68%	32,697	5,568	443,139	60,428	(580)	469,430	443,719	456,574
2022	6.18%	30,263	4,629	422,896	80,571	4,649	443,719	418,947	431,333
2023	5.71%	27,976	3,747	402,833	100,713	7,796	418,947	395,057	407,082
2024	5.29%	25,880	2,938	382,711	120,856	18,734	395,057	371,976	383,517
2025	4.89%	23,936	2,189	362,568	140,999	12,923	371,976	349,645	360,811
2026	4.52%	22,144	1,497	342,425	161,141	14,420	349,645	328,005	338,825
2027	4.16%	21,390	1,094	322,283	181,284	15,804	328,005	306,479	317,242
2028	4.46%	21,945	1,382	302,140	201,427	17,186	306,479	284,954	295,716
2029	4.46%	21,850	1,384	281,997	221,569	18,570	284,954	263,427	274,191
2030	4.46%	21,845	1,382	261,855	241,712	19,952	263,427	241,903	252,665
2031	4.46%	21,850	1,384	241,712	261,855	21,336	241,903	220,376	231,140
2032	4.46%	21,845	1,382	221,569	281,997	22,718	220,376	198,852	209,614
2033	4.46%	21,850	1,384	201,427	302,140	24,102	198,852	177,325	188,088
2034	4.46%	21,845	1,382	181,284	322,283	25,484	177,325	155,800	166,563
2035	4.46%	21,850	1,384	161,141	342,425	26,867	155,800	134,274	145,037
2036	4.46%	21,845	1,382	140,999	362,568	28,249	134,274	112,749	123,512
2037	4.46%	21,850	1,384	120,856	382,711	29,633	112,749	91,223	101,986
2038	4.46%	21,845	1,382	100,713	402,853	31,015	91,223	69,698	80,460
2039	2.23%	10,925	(2,830)	80,571	422,996	28,185	69,698	52,386	61,042
2040	0.89%	0	(7,045)	60,428	443,139	21,140	52,386	39,288	45,837
2041	0.89%	0	(7,045)	40,285	463,281	14,095	39,288	26,190	32,739
2042	0.89%	0	(7,045)	20,143	483,424	7,040	26,190	13,092	19,641
2043	0.89%	0	(7,045)	0	503,567	6	13,092	-6	6,543

* 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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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	0.22
2014	-5	3.00%	1.159	1.90%	15.59	9.24
2015	-4	3.00%	1.194	4.57%	36.61	37.03
2016	-3	3.00%	1.230	37.28%	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	858.33

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(4)* DEBT AFUDC (\$K/W)	100.00%		(6)* TOTAL AFUDC (\$K/W)	(7)* CONSTRUCTION PERIOD INTEREST (\$K/W)	(8)* CUMULATIVE CPI (\$K/W)	(9)* DEFERRED TAXES (\$K/W)	(10) CUMULATIVE DEFERRED TAXES (\$K/W)	(11) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(12) CUMULATIVE YEAR-END BOOK VALUE (\$K/W)
				(5) DEBT AFUDC (\$K/W)	(6) YEARLY TOTAL AFUDC (\$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
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	0.29	0.79	0.84	0.85	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.13	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)	(27.82)	179.18	1,064.61

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

	37.47	156.84	127.50	(27.02)	1,064.61
CONSTRUCTION CASH			429,382		429,382
EQUITY AFUDC		47,003			47,003
DEBT AFUDC		27,182	27,182		54,364
CPI				61,209	61,209
TOTAL		563,567	456,564	48,189	1,064,611

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED: REV_BEQ
 PROGRAM NAME: RestGenHl Air-CondWiring

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	AVERAGE SYSTEM FUEL COST (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KW EFFECTIVENESS FACTOR
2009	0	0	6.29	9.17	6.29	0.00	1.00	1.00
2010	81,694	81,694	6.41	9.81	6.70	0.00	1.00	1.00
2011	132,466	132,466	6.35	8.48	6.61	0.00	1.00	1.00
2012	232,689	232,689	6.43	8.45	6.66	0.00	1.00	1.00
2013	318,670	318,670	7.06	8.41	7.23	0.00	1.00	1.00
2014	408,118	408,118	7.53	8.67	7.68	0.00	1.00	1.00
2015	496,213	496,213	8.11	9.61	8.31	0.00	1.00	1.00
2016	578,557	578,557	9.00	11.35	9.31	0.00	1.00	1.00
2017	643,877	643,877	9.75	12.72	10.66	0.00	1.00	1.00
2018	702,497	702,497	10.32	13.53	10.86	0.00	1.00	1.00
2019	702,497	702,497	11.50	15.25	11.94	16.41	1.00	1.00
2020	702,497	702,497	12.88	15.88	12.57	16.58	1.00	1.00
2021	702,497	702,497	12.57	16.53	13.68	16.74	1.00	1.00
2022	702,497	702,497	13.86	17.14	13.59	16.81	1.00	1.00
2023	702,497	702,497	13.39	17.16	13.92	16.88	1.00	1.00
2024	702,497	702,497	13.95	17.82	14.47	16.94	1.00	1.00
2025	702,497	702,497	14.48	18.22	14.92	16.96	1.00	1.00
2026	702,497	702,497	14.70	18.32	15.19	17.05	1.00	1.00
2027	702,497	702,497	15.13	18.54	15.60	17.17	1.00	1.00
2028	702,497	702,497	15.60	18.91	16.05	17.26	1.00	1.00
2029	702,497	702,497	16.02	18.85	16.44	17.41	1.00	1.00
2030	702,497	702,497	16.52	19.26	16.92	17.59	1.00	1.00
2031	702,497	702,497	17.08	19.86	17.47	17.80	1.00	1.00
2032	702,497	702,497	17.50	19.62	17.84	17.88	1.00	1.00
2033	702,497	702,497	18.27	20.34	18.30	18.10	1.00	1.00
2034	702,497	702,497	18.73	20.08	18.66	18.14	1.00	1.00
2035	702,497	702,497	19.57	21.37	19.75	18.28	1.00	1.00
2036	702,497	702,497	20.46	22.39	20.54	18.55	1.00	1.00
2037	702,497	702,497	21.11	22.91	21.24	18.70	1.00	1.00
2038	702,497	702,497	22.02	23.86	22.16	18.04	1.00	1.00
2039	702,497	702,497	22.78	24.49	22.89	18.32	1.00	1.00
2040	702,497	702,497	23.59	25.04	23.68	18.44	1.00	1.00
2041	702,497	702,497	24.54	25.93	24.62	18.73	1.00	1.00
2042	702,497	702,497	25.50	26.84	25.59	14.10	1.00	1.00
2043	702,497	702,497	26.74	28.65	26.85	14.60	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.

PARTICIPANT COSTS AND BENEFITS
PROGRAM/STRENGTH SELECTED: RES/REBQ
PROGRAM/NAME: Residential Ah-Cooling

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$(000)	(3) TAX CREDITS \$(000)	(4) UTILITY REBATES \$(000)	(5) OTHER BENEFITS \$(000)	(6) TOTAL BENEFITS \$(000)	(7) CUSTOMER EQUIPMENT COSTS \$(000)	(8) CUSTOMER O&M COSTS \$(000)	(9) OTHER COSTS \$(000)	(10) TOTAL COSTS \$(000)	(11) NET BENEFITS \$(000)	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	6,115	0	64,531	0	70,646	187,222	0	0	187,222	(116,576)	(116,576)
2011	18,868	0	54,927	0	73,795	92,157	0	0	92,157	(18,361)	(134,937)
2012	31,256	0	62,689	0	93,945	108,579	0	0	108,579	(14,633)	(149,570)
2013	47,166	0	67,666	0	114,832	118,965	0	0	118,965	(4,133)	(153,703)
2014	63,886	0	69,251	0	133,137	125,004	0	0	125,004	8,132	(145,571)
2015	85,934	0	69,222	0	155,156	128,792	0	0	128,792	26,364	(119,207)
2016	105,648	0	63,414	0	169,062	122,334	0	0	122,334	46,728	(72,479)
2017	125,024	0	54,804	0	179,828	108,419	0	0	108,419	71,409	(1,070)
2018	142,440	0	49,251	0	191,691	100,522	0	0	100,522	91,169	100,091
2019	154,330	0	0	0	154,330	0	0	0	0	154,330	254,421
2020	155,032	0	0	0	155,032	0	0	0	0	155,032	409,453
2021	158,408	0	0	0	158,408	0	0	0	0	158,408	567,861
2022	163,803	0	0	0	163,803	0	0	0	0	163,803	731,664
2023	167,943	0	0	0	167,943	0	0	0	0	167,943	900,007
2024	175,400	0	0	0	175,400	0	0	0	0	175,400	1,074,407
2025	181,697	0	64,531	0	246,228	155,362	0	0	155,362	90,866	1,165,273
2026	188,198	0	54,927	0	243,125	133,709	0	0	133,709	109,416	1,274,689
2027	190,880	0	62,689	0	253,569	157,225	0	0	157,225	96,344	1,371,033
2028	196,968	0	67,666	0	264,634	172,210	0	0	172,210	92,424	1,463,457
2029	216,226	0	69,251	0	285,477	183,912	0	0	183,912	101,565	1,565,022
2030	226,885	0	69,222	0	296,107	186,329	0	0	186,329	110,778	1,675,800
2031	237,125	0	63,414	0	300,539	177,171	0	0	177,171	123,368	1,799,168
2032	251,142	0	54,804	0	305,946	157,023	0	0	157,023	148,345	1,947,513
2033	273,601	0	49,051	0	322,652	145,571	0	0	145,571	172,082	2,119,595
2034	278,732	0	0	0	278,732	0	0	0	0	278,732	2,398,327
2035	289,696	0	0	0	289,696	0	0	0	0	289,696	2,688,023
2036	310,424	0	0	0	310,424	0	0	0	0	310,424	3,000,447
2037	327,638	0	0	0	327,638	0	0	0	0	327,638	3,338,085
2038	341,271	0	0	0	341,271	0	0	0	0	341,271	3,703,356
2039	356,904	0	0	0	356,904	0	0	0	0	356,904	4,098,260
2040	373,522	0	64,531	0	438,054	235,010	0	0	235,010	203,050	4,301,310
2041	393,277	0	54,927	0	448,204	193,725	0	0	193,725	254,475	4,555,785
2042	414,354	0	62,689	0	477,043	227,732	0	0	227,732	246,743	4,802,528
2043	436,858	0	67,666	0	503,524	249,411	0	0	249,411	254,332	5,056,860
2044	0	0	0	0	0	0	0	0	0	0	5,056,860
2045	0	0	0	0	0	0	0	0	0	0	5,056,860
2046	0	0	0	0	0	0	0	0	0	0	5,056,860
2047	0	0	0	0	0	0	0	0	0	0	5,056,860
2048	0	0	0	0	0	0	0	0	0	0	5,056,860
2049	0	0	0	0	0	0	0	0	0	0	5,056,860
2050	0	0	0	0	0	0	0	0	0	0	5,056,860
TOTAL	7,105,445	0	1,359,276	0	8,464,720	3,375,462	0	0	3,375,462	5,089,258	5,089,258
NPV	1,742,541	0	494,183	0	1,836,724	1,801,675	0	0	1,801,675	835,949	835,949

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

2019	0.89	%
	1.83	

RESIDENTIAL DUCT SYSTEM TESTING & REPAIR

INPUT DATA -- PART 1 CONTINUED
PROGRAMMED METHOD SELECTED: KEY_REQ
PROGRAM NAME: Residential Duct Systems 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	2.64 %
(4) GENERATOR KW LOSS REDUCTION PER CUSTOMER	374.32 kWh
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIFLIER	1.09
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	33 YEARS
(4) K FACTOR FOR GENERATION	1.7078
(5) K FACTOR FOR T & D	1.6254

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 RATE	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.68 %
(12) UTILITY NON-RECURRING REBATE INCENTIVE	*** \$CUST
(13) UTILITY RECURRING REBATE INCENTIVE	*** \$CUST
(14) UTILITY REBATE INCENTIVE ESCALATION RATE	*** %

* SUPPLEMENTAL INFORMATION NOT SEARCHED IN WORKBOOK
** VALUES 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	2010
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2010
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2010-2019
(4) BASE YEAR AVOIDED GENERATING COST	783.39 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	181.32 \$/KW
(6) BASE YEAR DISTRIBUTION COST	20.04 \$/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	0.10¢ CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (10-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	\$ 23 CENTS PER KWH** (10-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 CHARGES IN CUSTOMER BILL	*** \$/KW&D
(4) DEMAND CHARGE ESCALATION RATE	*** %

**CALCULATION OF GENX-FACTOR
PROGRAMMED SECURED MSV REQ
PROGRAM NAME: Residential Dist. System Testing and Repair**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATEBASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRBC. \$(000)	DEFERRED TAXES \$(000)	TOTAL EGGED CHANGES \$(000)	PRESENT WORKS FUND CHANGES \$(000)	CUMULATIVE PW FUND CHANGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	105,434	3,275	0	7,357	4,854	1,777	827	4,113	8	23,010	23,010	23,010	102,815
2020	101,303	2,147	0	7,970	3,335	1,783	648	4,113	1,346	21,356	19,613	41,623	185,385
2021	95,845	2,977	0	6,689	3,385	1,629	639	4,113	1,137	20,598	17,297	58,920	198,620
2022	90,594	2,814	0	4,322	2,266	1,533	675	4,113	945	19,491	15,282	74,172	118,729
2023	85,538	2,657	0	5,949	1,225	1,481	692	4,113	785	18,982	13,446	87,618	133,488
2024	80,660	2,506	0	5,829	3,176	1,467	710	4,113	690	18,140	11,851	99,469	116,206
2025	75,948	2,359	0	5,300	3,123	1,351	727	4,113	477	17,441	10,441	109,910	119,934
2026	71,388	2,218	0	4,982	3,064	1,258	746	4,113	386	16,686	9,134	119,104	122,215
2027	66,979	2,080	0	4,674	2,894	1,184	764	4,113	283	15,991	8,092	127,197	125,078
2028	62,723	1,944	0	4,367	2,701	1,110	783	4,113	282	15,301	7,111	134,308	128,402
2029	58,620	1,807	0	4,060	2,508	1,036	803	4,113	283	14,610	6,236	140,544	131,622
2030	54,785	1,671	0	3,754	2,316	962	823	4,113	282	13,920	5,457	146,000	134,942
2031	49,200	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	863	4,113	282	12,542	4,147	154,910	141,731
2033	40,600	1,261	0	2,833	1,738	740	884	4,113	283	11,854	3,599	158,509	145,273
2034	36,205	1,125	0	2,527	1,546	666	904	4,113	282	11,166	3,114	161,623	148,907
2035	31,810	988	0	2,220	1,353	592	921	4,113	283	10,479	2,634	164,306	152,629
2036	27,415	852	0	1,913	1,160	518	934	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	160,336
2038	18,625	579	0	1,300	775	370	1,003	4,113	282	8,421	1,670	170,247	164,305
2039	14,230	442	0	993	583	296	1,028	4,113	(575)	7,736	1,409	171,636	168,474
2040	10,036	306	0	746	398	222	1,053	4,113	(1,436)	7,177	1,091	172,837	172,686
2041	6,022	169	0	500	203	148	1,080	4,113	(1,438)	6,742	1,006	173,893	177,003
2042	3,347	86	0	273	104	74	1,107	4,113	(1,438)	6,308	890	174,783	181,428
2043	2,673	85	0	187	66	48	1,134	4,113	(1,438)	5,875	761	175,544	185,961

IN SERVICE COST (\$000)	102,815
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPRC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.89%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.03%
PS	0%	8.00%
CS	56%	12.50%

X-FACTOR = CPWFC / IN-SVC COST = 1.79738

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Pool 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 LIFE	(10)*(11) TAXRATE \$(000)	SALVAGE TAXRATE \$(000)	ANNUAL DEFERRED TAX \$(10)*(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,749	3,749	4,113	4,113	3,729	3,729	0	3,597	0	0	0	0	(2,691)
2020	7.25%	7,218	10,967	4,113	8,225	3,729	7,457	1,346	3,597	0	0	0	1,346	(1,345)
2021	6.88%	6,876	17,843	4,113	12,338	3,729	11,196	1,137	3,597	0	0	0	1,137	(218)
2022	6.18%	6,179	23,822	4,113	16,450	3,729	14,915	945	3,597	0	0	0	945	827
2023	5.71%	5,712	29,534	4,113	20,543	3,729	18,494	785	3,597	0	0	0	785	1,592
2024	5.29%	5,284	34,818	4,113	24,676	3,729	22,372	606	3,597	0	0	0	606	2,192
2025	4.82%	4,827	39,705	4,113	28,288	3,729	26,181	447	3,597	0	0	0	447	2,639
2026	4.32%	4,321	44,226	4,113	32,941	3,729	29,830	304	3,597	0	0	0	304	3,044
2027	4.48%	4,461	48,687	4,113	37,813	3,729	33,529	283	3,597	0	0	0	283	3,227
2028	4.48%	4,460	53,147	4,113	41,286	3,729	37,287	282	3,597	0	0	0	282	3,509
2029	4.48%	4,461	57,608	4,113	45,229	3,729	41,016	283	3,597	0	0	0	283	3,791
2030	4.48%	4,460	62,069	4,113	49,351	3,729	44,745	282	3,597	0	0	0	282	4,074
2031	4.48%	4,461	66,530	4,113	53,464	3,729	48,475	283	3,597	0	0	0	283	4,356
2032	4.48%	4,460	70,990	4,113	57,576	3,729	52,202	282	3,597	0	0	0	282	4,638
2033	4.48%	4,461	75,451	4,113	61,689	3,729	55,931	283	3,597	0	0	0	283	4,921
2034	4.48%	4,460	79,911	4,113	65,801	3,729	59,660	282	3,597	0	0	0	282	5,203
2035	4.48%	4,461	84,372	4,113	69,914	3,729	63,388	283	3,597	0	0	0	283	5,485
2036	4.48%	4,460	88,832	4,113	74,027	3,729	67,117	282	3,597	0	0	0	282	5,768
2037	4.48%	4,461	93,294	4,113	78,139	3,729	70,846	283	3,597	0	0	0	283	6,050
2038	4.48%	4,460	97,754	4,113	82,252	3,729	74,574	282	3,597	0	0	0	282	6,332
2039	2.23%	2,231	99,985	4,113	86,364	3,729	78,303	(578)	3,597	0	0	0	(578)	5,755
2040	0.00%	0	99,985	4,113	90,677	3,729	82,032	(1,438)	3,597	0	0	0	(1,438)	4,316
2041	0.00%	0	99,985	4,113	94,590	3,729	85,761	(1,438)	3,597	0	0	0	(1,438)	2,878
2042	0.00%	0	99,985	4,113	98,702	3,729	89,489	(1,438)	3,597	0	0	0	(1,438)	1,440
2043	0.00%	0	99,985	4,113	102,815	3,729	93,218	(1,438)	3,597	0	0	0	(1,438)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2028
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,699)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	3,597
BOOK/DEPR RATE - 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	(6)*	(7)*	(8)	(9)	(10)
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%	3,749	8	38,792	4,113	(2,601)	103,426	101,303	101,394
2020	7.22%	7,218	1,346	34,590	8,225	(1,253)	101,383	95,845	98,574
2021	6.68%	6,676	1,137	30,477	12,338	(318)	95,845	94,506	93,220
2022	6.18%	6,179	945	26,361	16,430	827	90,596	85,538	83,067
2023	5.71%	5,712	763	22,232	20,563	1,592	85,538	80,660	78,089
2024	5.29%	5,284	604	18,139	24,676	2,192	80,660	75,948	73,204
2025	4.89%	4,887	447	14,027	28,788	2,639	75,948	71,388	68,680
2026	4.52%	4,521	306	9,934	32,901	3,044	71,388	66,970	64,179
2027	4.16%	4,161	183	6,801	37,013	3,327	66,970	62,575	60,772
2028	4.46%	4,460	282	61,689	41,126	3,989	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	53,461	49,351	4,074	53,785	49,390	51,987
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	42,796
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)	16,430	86,364	5,735	14,230	10,036	12,463
2040	0.00%	0	(1,438)	12,338	90,477	4,316	10,036	6,022	8,359
2041	0.00%	0	(1,438)	8,225	94,590	2,878	6,022	2,347	6,084
2042	0.00%	0	(1,438)	4,113	98,702	1,440	2,347	1,073	4,010
2043	0.00%	0	(1,438)	0	102,815	1	2,473	-1	1,736

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (\$K)	(6) ANNUAL SPENDING (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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	0.13%	1.34	0.62
2014	-5	3.00%	1.159	1.90%	14.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.63
2016	-3	3.00%	1.230	37.00%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	96.79	838.38

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(4)* NET AFUDC (\$K/W)	100.00%		(7)* CUMULATIVE TOTAL AFUDC (\$K/W)	(8)* CONSTRUCTION PERIOD INTEREST (\$K/W)	(9)* CUMULATIVE CEI (\$K/W)	(10)* DEFERRED TAXES (\$K/W)	(11)* CUMULATIVE DEFERRED TAXES (\$K/W)	(12) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(13) CUMULATIVE YEAR-END BOOK VALUE (\$K/W)
				(5) CUMULATIVE DEBT AFUDC (\$K/W)	(6) YEARLY TOTAL AFUDC (\$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
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	3.23	4.86	2.65	3.25	(0.57)	(0.78)	49.83	69.90
2016	-3	236.84	7.07	8.56	19.29	73.36	15.90	19.25	(3.41)	(4.15)	351.16	412.06
2017	-2	622.20	19.46	28.91	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	136.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,055
AFUDC RATE	3.48%

	57.47	154.84	227.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS	FOR DEF TAX	TAX BASIS	
CONSTRUCTION CASE	37,668	87,668		87,668	
EQUITY AFUDC	9,397				
DEBT AFUDC	5,550	5,550			
CEI				12,514	
TOTAL	102,615	93,218		99,382	

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED: KEY_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 (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KW 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	34,069	34,069	6.35	8.48	6.61	0.00	1.00	1.00
2012	49,930	49,930	6.43	8.45	6.66	0.00	1.00	1.00
2013	125,567	125,567	7.06	8.41	7.32	0.00	1.00	1.00
2014	185,139	185,139	7.53	8.57	7.68	0.00	1.00	1.00
2015	234,738	234,738	8.11	9.61	8.31	0.00	1.00	1.00
2016	291,283	291,283	9.09	11.85	9.31	0.00	1.00	1.00
2017	341,111	341,111	9.75	12.72	10.86	0.00	1.00	1.00
2018	387,839	387,839	10.32	13.29	10.96	0.00	1.00	1.00
2019	387,839	387,839	11.50	15.25	11.54	18.41	1.00	1.00
2020	387,839	387,839	12.88	15.88	12.57	18.50	1.00	1.00
2021	387,839	387,839	12.57	16.33	13.98	18.74	1.00	1.00
2022	387,839	387,839	13.06	17.14	13.29	18.81	1.00	1.00
2023	387,839	387,839	13.39	17.16	13.92	18.89	1.00	1.00
2024	387,839	387,839	13.35	17.82	14.47	18.84	1.00	1.00
2025	387,839	387,839	14.40	18.22	14.92	18.96	1.00	1.00
2026	387,839	387,839	14.70	18.32	15.19	11.05	1.00	1.00
2027	387,839	387,839	15.13	18.54	15.60	11.27	1.00	1.00
2028	387,839	387,839	15.60	18.91	16.05	11.26	1.00	1.00
2029	387,839	387,839	16.92	18.25	16.44	11.41	1.00	1.00
2030	387,839	387,839	16.32	19.26	16.92	11.39	1.00	1.00
2031	387,839	387,839	17.08	19.86	17.47	11.88	1.00	1.00
2032	387,839	387,839	17.50	19.62	17.84	11.88	1.00	1.00
2033	387,839	387,839	18.27	20.38	18.26	12.14	1.00	1.00
2034	387,839	387,839	18.73	20.08	18.75	12.29	1.00	1.00
2035	387,839	387,839	19.57	21.57	19.75	12.55	1.00	1.00
2036	387,839	387,839	20.40	22.39	20.54	12.70	1.00	1.00
2037	387,839	387,839	20.11	22.91	21.24	13.04	1.00	1.00
2038	387,839	387,839	22.02	23.26	22.16	13.04	1.00	1.00
2039	387,839	387,839	22.78	24.49	22.89	13.32	1.00	1.00
2040	387,839	387,839	23.39	25.04	23.63	13.44	1.00	1.00
2041	387,839	387,839	24.54	25.93	24.62	13.75	1.00	1.00
2042	387,839	387,839	25.50	26.84	25.39	14.10	1.00	1.00
2043	387,839	387,839	26.74	28.65	26.85	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.

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	0.36 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	0.48 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	867.70 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 Building Envelope

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	
2010	298	7,627	0	7,925	658	0	16,537	0	16,537	
2011	1,082	10,551	0	11,634	2,367	0	22,173	0	22,173	
2012	1,346	13,217	0	14,563	4,888	0	28,834	0	28,834	
2013	1,632	16,377	0	18,009	8,250	0	37,219	0	37,219	
2014	1,898	18,851	0	20,749	12,675	0	44,274	0	44,274	
2015	2,136	20,486	0	22,623	17,886	0	49,457	0	49,457	
2016	1,974	21,435	0	23,409	23,562	0	53,489	0	53,489	
2017	2,037	22,299	0	24,336	29,902	0	57,461	0	57,461	
2018	2,022	21,757	0	23,780	36,459	0	58,512	0	58,512	
2019	0	0	0	0	40,753	0	0	0	0	
2020	131	5,172	0	5,304	40,880	0	16,611	0	16,611	
2021	813	6,043	0	6,856	41,770	0	19,635	0	19,635	
2022	1,019	7,881	0	8,900	42,982	0	26,276	0	26,276	
2023	1,247	10,266	0	11,512	44,284	0	35,124	0	35,124	
2024	1,452	12,095	0	13,547	46,251	0	42,440	0	42,440	
2025	1,623	13,219	0	14,842	47,911	0	47,544	0	47,544	
2026	1,325	14,042	0	15,366	49,836	0	51,939	0	51,939	
2027	1,317	14,896	0	16,212	52,442	0	56,492	0	56,492	
2028	1,341	15,394	0	16,736	54,573	0	59,865	0	59,865	
2029	0	0	0	0	57,016	0	0	0	0	
2030	463	7,584	0	8,048	59,805	0	26,944	0	26,944	
2031	1,554	10,137	0	11,691	62,529	0	35,019	0	35,019	
2032	1,923	12,693	0	14,616	66,223	0	45,550	0	45,550	
2033	2,316	15,728	0	18,044	72,145	0	58,835	0	58,835	
2034	2,665	18,063	0	20,727	73,498	0	69,875	0	69,875	
2035	2,954	19,541	0	22,495	76,389	0	77,761	0	77,761	
2036	2,591	20,347	0	22,938	81,855	0	83,787	0	83,787	
2037	2,580	21,046	0	23,626	86,236	0	89,613	0	89,613	
2038	2,461	20,378	0	22,839	89,989	0	90,762	0	90,762	
2039	0	0	0	0	94,111	0	0	0	0	
2040	248	5,215	0	5,463	98,496	0	27,417	0	27,417	
2041	1,613	6,458	0	8,070	103,702	0	33,857	0	33,857	
2042	2,032	8,405	0	10,437	109,260	0	45,230	0	45,230	
2043	2,502	10,915	0	13,417	115,194	0	60,311	0	60,311	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	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	50,597	428,117	0	478,713	1,844,777	0	1,468,843	0	1,468,843	
NPV	14,331	140,419	0	154,750	335,162	0	395,631	0	395,631	

* 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)	
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	164,698	5,116	0	11,494	7,582	2,776	980	6,425	12	34,385	34,385	34,385	160,622
2020	158,260	4,916	0	11,045	5,210	2,660	1,004	6,425	2,103	33,363	30,640	65,025	164,637
2021	149,733	4,651	0	10,449	5,163	2,544	1,029	6,425	1,776	32,038	27,022	92,047	168,753
2022	141,532	4,397	0	9,877	5,103	2,429	1,055	6,425	1,477	30,762	23,828	115,875	172,972
2023	133,631	4,151	0	9,326	5,038	2,313	1,082	6,425	1,195	29,529	21,006	136,881	177,296
2024	126,011	3,914	0	8,794	4,962	2,197	1,109	6,425	937	28,338	18,514	155,395	181,729
2025	118,649	3,686	0	8,280	4,878	2,082	1,136	6,425	698	27,185	16,311	171,706	186,272
2026	111,526	3,464	0	7,783	4,787	1,966	1,165	6,425	478	26,067	14,364	186,070	190,929
2027	104,623	3,250	0	7,301	4,520	1,850	1,194	6,425	441	24,982	12,642	198,712	195,702
2028	97,757	3,037	0	6,822	4,220	1,735	1,224	6,425	441	23,903	11,109	209,821	200,595
2029	90,891	2,823	0	6,343	3,919	1,619	1,254	6,425	441	22,825	9,742	219,563	205,609
2030	84,025	2,610	0	5,864	3,618	1,503	1,286	6,425	441	21,747	8,525	228,088	210,750
2031	77,159	2,397	0	5,385	3,317	1,388	1,318	6,425	441	20,670	7,441	235,529	216,018
2032	70,293	2,184	0	4,906	3,017	1,272	1,351	6,425	441	19,594	6,478	242,007	221,419
2033	63,427	1,970	0	4,426	2,715	1,156	1,384	6,425	441	18,519	5,623	247,630	226,954
2034	56,561	1,757	0	3,947	2,415	1,041	1,419	6,425	441	17,444	4,864	252,494	232,628
2035	49,695	1,544	0	3,468	2,113	925	1,455	6,425	441	16,371	4,192	256,687	238,444
2036	42,829	1,330	0	2,989	1,813	810	1,491	6,425	441	15,298	3,598	260,285	244,405
2037	35,963	1,117	0	2,510	1,511	694	1,528	6,425	441	14,227	3,073	263,357	250,515
2038	29,097	904	0	2,031	1,211	578	1,566	6,425	441	13,156	2,610	265,967	256,778
2039	22,231	691	0	1,551	2,254	463	1,606	6,425	(903)	12,086	2,202	268,169	263,197
2040	16,709	519	0	1,166	3,356	347	1,646	6,425	(2,247)	11,212	1,876	270,045	269,777
2041	12,532	389	0	875	3,173	231	1,687	6,425	(2,247)	10,533	1,618	271,663	276,522
2042	8,354	260	0	582	2,290	116	1,722	6,425	(2,247)	9,855	1,391	273,054	283,455
2043	4,176	130	0	291	2,807	(0)	1,772	6,425	(2,247)	9,178	1,189	274,243	290,521

IN SERVICE COST (\$000)	160,622
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: 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%	5,857	5,857	6,425	6,425	5,825	5,825	12	14,992	0	0	0	12	(4,064)
2020	7.22%	11,276	17,133	6,425	12,850	5,825	11,650	2,103	14,992	0	0	0	2,103	(1,961)
2021	6.68%	10,429	27,562	6,425	19,275	5,825	17,476	1,776	14,992	0	0	0	1,776	(185)
2022	6.18%	9,653	37,215	6,425	25,699	5,825	23,301	1,477	14,992	0	0	0	1,477	1,292
2023	5.71%	8,923	46,139	6,425	32,124	5,825	29,126	1,195	14,992	0	0	0	1,195	2,487
2024	5.29%	8,255	54,394	6,425	38,549	5,825	34,951	937	14,992	0	0	0	937	3,424
2025	4.89%	7,635	62,028	6,425	44,974	5,825	40,776	698	14,992	0	0	0	698	4,122
2026	4.52%	7,063	69,092	6,425	51,399	5,825	46,601	478	14,992	0	0	0	478	4,600
2027	4.46%	6,969	76,061	6,425	57,824	5,825	52,427	441	14,992	0	0	0	441	5,041
2028	4.46%	6,968	83,029	6,425	64,249	5,825	58,252	441	14,992	0	0	0	441	5,482
2029	4.46%	6,969	89,998	6,425	70,674	5,825	64,077	441	14,992	0	0	0	441	5,923
2030	4.46%	6,968	96,966	6,425	77,098	5,825	69,902	441	14,992	0	0	0	441	6,364
2031	4.46%	6,969	103,936	6,425	83,523	5,825	75,727	441	14,992	0	0	0	441	6,805
2032	4.46%	6,968	110,904	6,425	89,948	5,825	81,552	441	14,992	0	0	0	441	7,246
2033	4.46%	6,969	117,873	6,425	96,373	5,825	87,378	441	14,992	0	0	0	441	7,688
2034	4.46%	6,968	124,841	6,425	102,798	5,825	93,203	441	14,992	0	0	0	441	8,128
2035	4.46%	6,969	131,810	6,425	109,223	5,825	99,028	441	14,992	0	0	0	441	8,570
2036	4.46%	6,968	138,778	6,425	115,648	5,825	104,853	441	14,992	0	0	0	441	9,011
2037	4.46%	6,969	145,748	6,425	122,072	5,825	110,678	441	14,992	0	0	0	441	9,452
2038	4.46%	6,968	152,716	6,425	128,497	5,825	116,503	441	14,992	0	0	0	441	9,893
2039	2.23%	3,485	156,200	6,425	134,922	5,825	122,329	(903)	14,992	0	0	0	(903)	8,990
2040	0.00%	0	156,200	6,425	141,347	5,825	128,154	(2,247)	14,992	0	0	0	(2,247)	6,743
2041	0.00%	0	156,200	6,425	147,772	5,825	133,979	(2,247)	14,992	0	0	0	(2,247)	4,496
2042	0.00%	0	156,200	6,425	154,197	5,825	139,804	(2,247)	14,992	0	0	0	(2,247)	2,249
2043	0.00%	0	156,200	6,425	160,622	5,825	145,629	(2,247)	14,992	0	0	0	(2,247)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(4,076)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	14,992
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)	(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%	5,857	12	154,197	6,425	(4,064)	164,698	158,260	161,479
2020	7.22%	11,276	2,103	147,772	12,850	(1,961)	158,260	149,733	153,997
2021	6.68%	10,429	1,776	141,347	19,275	(185)	149,733	141,532	145,633
2022	6.18%	9,653	1,477	134,922	25,699	1,292	141,532	133,631	137,581
2023	5.71%	8,923	1,195	128,497	32,124	2,487	133,631	126,011	129,821
2024	5.29%	8,255	937	122,072	38,549	3,424	126,011	118,649	122,330
2025	4.89%	7,635	698	115,648	44,974	4,122	118,649	111,526	115,087
2026	4.52%	7,063	478	109,223	51,399	4,600	111,526	104,623	108,074
2027	4.46%	6,969	441	102,798	57,824	5,041	104,623	97,757	101,190
2028	4.46%	6,968	441	96,373	64,249	5,482	97,757	90,891	94,324
2029	4.46%	6,969	441	89,948	70,674	5,923	90,891	84,025	87,458
2030	4.46%	6,968	441	83,523	77,098	6,364	84,025	77,159	80,592
2031	4.46%	6,969	441	77,098	83,523	6,805	77,159	70,293	73,726
2032	4.46%	6,968	441	70,674	89,948	7,246	70,293	63,427	66,860
2033	4.46%	6,969	441	64,249	96,373	7,688	63,427	56,561	59,994
2034	4.46%	6,968	441	57,824	102,798	8,128	56,561	49,695	53,128
2035	4.46%	6,969	441	51,399	109,223	8,570	49,695	42,829	46,262
2036	4.46%	6,968	441	44,974	115,648	9,011	42,829	35,963	39,396
2037	4.46%	6,969	441	38,549	122,072	9,452	35,963	29,097	32,530
2038	4.46%	6,968	441	32,124	128,497	9,893	29,097	22,231	25,664
2039	2.23%	3,485	(903)	25,699	134,922	8,990	22,231	16,709	19,470
2040	0.00%	0	(2,247)	19,275	141,347	6,743	16,709	12,532	14,621
2041	0.00%	0	(2,247)	12,850	147,772	4,496	12,532	8,354	10,443
2042	0.00%	0	(2,247)	6,425	154,197	2,249	8,354	4,176	6,265
2043	0.00%	0	(2,247)	(0)	160,622	2	4,176	-2	2,087

* 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	(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	136,959	136,959	136,959
EQUITY AFUDC	14,992		
DEBT AFUDC	8,670	8,670	
CPI			19,237
TOTAL	160,622	145,629	156,196

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (C&Wh)	(5) AVOIDED MARGINAL FUEL COST (C&Wh)	(6)* INCREASED MARGINAL FUEL COST (C&Wh)	(7) REPLACEMENT FUEL COST (C&Wh)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	12,940	12,940	6.41	8.81	6.74	0.00	1.00	1.00
2011	39,895	39,895	6.35	8.34	6.64	0.00	1.00	1.00
2012	72,004	72,004	6.43	8.30	6.69	0.00	1.00	1.00
2013	109,109	109,109	7.06	8.30	7.25	0.00	1.00	1.00
2014	150,284	150,284	7.53	8.57	7.70	0.00	1.00	1.00
2015	194,523	194,523	8.11	9.46	8.34	0.00	1.00	1.00
2016	236,870	236,870	9.00	11.34	9.35	0.00	1.00	1.00
2017	278,661	278,661	9.75	12.46	10.10	0.00	1.00	1.00
2018	315,244	315,244	10.52	13.30	10.90	0.00	1.00	1.00
2019	315,244	315,244	11.50	14.97	11.99	10.41	1.00	1.00
2020	315,244	315,244	12.08	15.61	12.63	10.50	1.00	1.00
2021	315,244	315,244	12.57	16.19	13.15	10.74	1.00	1.00
2022	315,244	315,244	13.06	16.78	13.65	10.81	1.00	1.00
2023	315,244	315,244	13.39	16.78	13.96	10.80	1.00	1.00
2024	315,244	315,244	13.95	17.45	14.52	10.84	1.00	1.00
2025	315,244	315,244	14.40	17.87	14.97	10.96	1.00	1.00
2026	315,244	315,244	14.70	17.97	15.24	11.05	1.00	1.00
2027	315,244	315,244	15.13	18.18	15.65	11.17	1.00	1.00
2028	315,244	315,244	15.60	18.53	16.10	11.36	1.00	1.00
2029	315,244	315,244	16.02	18.53	16.48	11.41	1.00	1.00
2030	315,244	315,244	16.52	18.95	16.96	11.59	1.00	1.00
2031	315,244	315,244	17.06	19.56	17.52	11.80	1.00	1.00
2032	315,244	315,244	17.50	19.39	17.87	11.88	1.00	1.00
2033	315,244	315,244	18.27	20.13	18.53	12.10	1.00	1.00
2034	315,244	315,244	18.73	19.93	18.88	12.14	1.00	1.00
2035	315,244	315,244	19.57	21.15	19.77	12.29	1.00	1.00
2036	315,244	315,244	20.40	22.15	20.57	12.55	1.00	1.00
2037	315,244	315,244	21.11	22.71	21.27	12.70	1.00	1.00
2038	315,244	315,244	22.02	23.65	22.19	13.04	1.00	1.00
2039	315,244	315,244	22.78	24.29	22.92	13.32	1.00	1.00
2040	315,244	315,244	23.59	24.86	23.70	13.44	1.00	1.00
2041	315,244	315,244	24.54	25.76	24.64	13.75	1.00	1.00
2042	315,244	315,244	25.50	26.71	25.61	14.10	1.00	1.00
2043	315,244	315,244	26.74	28.43	26.88	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: Residential Building Envelope

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	34,385	18,861	796	48,030	60,766	41,306
2020	33,363	19,332	1147	70,765	86,211	38,396
2021	32,038	19,815	1201	73,833	90,040	36,847
2022	30,762	20,311	1275	78,145	93,871	36,623
2023	29,529	20,819	1346	82,157	96,571	37,280
2024	28,338	21,339	1426	86,788	100,195	37,696
2025	27,185	21,872	1524	92,731	105,686	37,626
2026	26,067	22,419	1632	99,094	111,331	37,882
2027	24,982	22,980	1727	104,596	116,098	38,187
2028	23,903	23,554	1777	107,373	118,600	38,008
2029	22,825	24,143	1861	111,894	121,718	39,005
2030	21,747	24,747	1954	117,132	126,584	38,996
2031	20,670	25,365	2002	119,546	128,880	38,703
2032	19,594	25,999	2060	123,770	131,528	39,516
2033	18,519	26,649	2289	136,786	143,824	39,819
2034	17,444	27,316	2395	141,750	147,234	41,671
2035	16,371	27,999	2461	144,976	149,506	42,300
2036	15,298	28,699	2545	149,305	153,941	41,906
2037	14,227	29,416	2615	152,698	156,155	42,801
2038	13,156	30,151	2690	156,508	160,919	41,587
2039	12,086	30,905	2760	159,726	164,613	40,864
2040	11,212	31,678	2836	163,405	166,495	42,636
2041	10,533	32,470	2913	166,990	170,685	42,220
2042	9,855	33,282	2992	170,793	175,441	41,480
2043	9,178	34,114	3082	175,186	179,953	41,606
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	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	523,268	644,234	51,326	3,033,377	3,256,845	995,360
NPV	117,052	106,959	7,750	464,259	516,387	179,634

AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME : Residential Building Envelope

(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	537	0
2011	232	18	250	19	5	24	2,055	0
2012	722	58	780	60	16	76	4,313	0
2013	1,310	162	1,472	109	29	138	6,832	0
2014	1,993	229	2,222	166	45	211	10,019	0
2015	2,756	304	3,060	230	63	292	14,784	0
2016	3,581	380	3,961	298	83	382	22,602	0
2017	4,265	458	4,823	364	104	468	29,771	0
2018	5,136	531	5,667	428	126	553	36,535	0
2019	5,789	544	6,333	482	146	628	43,926	0
2020	5,588	558	6,146	465	149	615	45,762	0
2021	5,390	572	5,962	449	153	602	47,426	0
2022	5,199	586	5,785	433	157	590	49,106	0
2023	5,012	601	5,613	417	161	578	48,842	0
2024	4,829	616	5,445	402	165	567	50,752	0
2025	4,649	631	5,281	387	169	556	51,868	0
2026	4,471	647	5,118	372	173	545	51,980	0
2027	4,293	663	4,956	358	177	535	52,380	0
2028	4,116	680	4,795	343	182	525	53,214	0
2029	3,938	697	4,635	328	186	514	52,866	0
2030	3,761	714	4,475	313	191	504	53,935	0
2031	3,584	732	4,316	298	196	494	55,631	0
2032	3,410	750	4,161	284	201	485	54,662	0
2033	3,243	769	4,012	270	206	476	56,659	0
2034	3,083	788	3,872	257	211	468	55,560	0
2035	2,934	808	3,741	244	216	461	59,213	0
2036	2,795	828	3,623	233	222	454	62,121	0
2037	2,667	849	3,516	222	227	449	63,507	0
2038	2,552	870	3,422	213	233	445	66,091	0
2039	2,449	892	3,341	204	239	443	67,737	0
2040	2,354	914	3,268	196	245	441	69,102	0
2041	2,262	937	3,199	188	251	439	71,537	0
2042	2,170	960	3,130	181	257	438	74,093	0
2043	2,078	984	3,062	173	263	436	79,217	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	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.	112,712	20,730	133,442	9,388	5,444	14,832	1,564,638	0
NPV	31,368	4,282	35,650	2,613	1,086	3,699	313,465	0

* 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 Building Envelope

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	3	0	3
2011	0	0	8	0	8
2012	0	0	17	0	17
2013	0	0	572	0	572
2014	0	0	904	0	904
2015	0	0	1,335	0	1,335
2016	0	0	1,907	0	1,907
2017	0	0	2,512	0	2,512
2018	0	0	3,142	0	3,142
2019	5,743	7,509	3,613	0	1,846
2020	8,745	11,326	3,958	0	1,377
2021	9,634	12,490	4,218	0	1,363
2022	11,250	14,552	4,747	0	1,446
2023	12,415	16,048	5,018	0	1,385
2024	14,295	18,433	5,600	0	1,463
2025	16,499	21,213	6,152	0	1,438
2026	18,297	23,384	6,478	0	1,391
2027	20,698	26,414	7,051	0	1,334
2028	22,695	28,916	7,668	0	1,448
2029	25,960	32,952	8,549	0	1,558
2030	28,784	36,512	9,219	0	1,492
2031	31,283	39,656	10,006	0	1,633
2032	34,448	43,576	10,843	0	1,714
2033	40,137	50,744	11,739	0	1,133
2034	44,428	56,120	12,698	0	1,007
2035	48,256	60,983	13,766	0	1,039
2036	52,681	66,561	14,904	0	1,024
2037	57,097	72,119	16,095	0	1,074
2038	61,893	78,165	17,386	0	1,114
2039	66,844	84,525	18,741	0	1,060
2040	72,235	91,329	20,166	0	1,072
2041	77,831	98,392	21,684	0	1,123
2042	77,831	98,392	23,305	0	2,744
2043	77,831	98,392	25,061	0	4,500
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	937,811	1,188,701	299,066	0	48,176
NPV	113,545	144,476	43,279	0	12,348

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Building Envelope

(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	298	16,537	0	16,835	0	0	537	3	540	(16,295)	(14,965)
2011	0	1,082	22,173	0	23,256	0	274	2,055	8	2,337	(20,919)	(32,608)
2012	0	1,346	28,834	0	30,180	0	856	4,313	17	5,185	(24,995)	(51,969)
2013	0	1,632	37,219	0	38,851	0	1,610	6,832	572	9,013	(29,838)	(73,195)
2014	0	1,898	44,274	0	46,172	0	2,432	10,019	904	13,356	(32,816)	(94,634)
2015	0	2,136	49,457	0	51,593	0	3,352	14,784	1,335	19,472	(32,121)	(113,907)
2016	0	1,974	53,489	0	55,462	0	4,342	22,602	1,907	28,851	(26,611)	(128,571)
2017	0	2,037	57,461	0	59,498	0	5,290	29,771	2,512	37,573	(21,925)	(139,666)
2018	0	2,022	58,512	0	60,534	0	6,220	36,535	3,142	45,897	(14,637)	(146,468)
2019	0	0	0	0	0	41,306	6,961	43,926	1,846	94,039	94,039	(106,331)
2020	0	131	16,611	0	16,743	38,396	6,761	45,762	1,377	92,296	75,553	(76,715)
2021	0	813	19,635	0	20,448	36,847	6,564	47,426	1,363	92,200	71,752	(50,885)
2022	0	1,019	26,276	0	27,295	36,623	6,375	49,106	1,446	93,549	66,254	(28,980)
2023	0	1,247	35,124	0	36,371	37,280	6,191	48,842	1,385	93,699	57,328	(11,574)
2024	0	1,452	42,440	0	43,892	37,696	6,012	50,752	1,463	95,923	52,031	2,935
2025	0	1,623	47,544	0	49,167	37,626	5,837	51,868	1,438	96,769	47,601	15,125
2026	0	1,325	51,939	0	53,264	37,882	5,664	51,980	1,391	96,917	43,654	25,392
2027	0	1,317	56,492	0	57,809	38,187	5,492	52,380	1,334	97,392	39,583	33,942
2028	0	1,341	59,865	0	61,207	38,008	5,320	53,214	1,448	97,989	36,782	41,238
2029	0	0	0	0	0	39,005	5,149	52,866	1,558	98,578	98,578	59,197
2030	0	463	26,944	0	27,407	38,996	4,979	53,935	1,492	99,402	71,995	71,242
2031	0	1,554	35,019	0	36,573	38,703	4,810	55,631	1,633	100,778	64,205	81,107
2032	0	1,923	45,550	0	47,473	39,916	4,645	54,662	1,714	100,937	53,465	88,652
2033	0	2,316	58,835	0	61,151	39,819	4,488	56,659	1,133	102,098	40,947	93,958
2034	0	2,665	69,875	0	72,540	41,671	4,339	55,560	1,007	102,577	30,037	97,533
2035	0	2,954	77,761	0	80,715	42,300	4,202	59,213	1,039	106,754	26,039	100,379
2036	0	2,591	83,787	0	86,378	41,906	4,077	62,121	1,024	109,127	22,750	102,663
2037	0	2,580	89,613	0	92,193	42,801	3,965	63,507	1,074	111,347	19,154	104,429
2038	0	2,461	90,762	0	93,223	41,587	3,868	66,091	1,114	112,660	19,437	106,075
2039	0	0	0	0	0	40,864	3,783	67,737	1,060	113,444	113,444	114,896
2040	0	248	27,417	0	27,665	42,636	3,709	69,102	1,072	116,519	88,854	121,241
2041	0	1,613	33,857	0	35,470	42,220	3,638	71,537	1,123	118,519	83,049	126,687
2042	0	2,032	45,230	0	47,261	41,480	3,568	74,093	2,744	121,886	74,625	131,182
2043	0	2,502	60,311	0	62,813	41,606	3,499	79,217	4,500	128,822	66,009	134,833
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	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	50,597	1,468,843	0	1,519,440	995,360	148,274	1,564,638	48,176	2,756,448	1,237,009	
NPV	0	14,331	395,631	0	409,963	179,634	39,349	313,465	12,348	544,795	134,833	

Discount Rate: 8.89 %

Benefit/Cost Ratio (Col(11) / Col(6)) : 1.33

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV. REQ
PROGRAM NAME: Residential Building Envelope

(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	866	0	7,627	0	8,493	16,537	0	0	16,537	(8,044)	(7,388)
2011	3,114	0	10,551	0	13,666	22,173	0	0	22,173	(8,508)	(14,563)
2012	6,431	0	13,217	0	19,648	28,834	0	0	28,834	(9,186)	(21,679)
2013	10,855	0	16,377	0	27,232	37,219	0	0	37,219	(9,987)	(28,783)
2014	16,677	0	18,851	0	35,528	44,274	0	0	44,274	(8,746)	(34,497)
2015	23,535	0	20,486	0	44,021	49,457	0	0	49,457	(5,436)	(37,759)
2016	31,002	0	21,435	0	52,438	53,489	0	0	53,489	(1,051)	(38,338)
2017	39,345	0	22,299	0	61,644	57,461	0	0	57,461	4,182	(36,221)
2018	47,972	0	21,757	0	69,730	58,512	0	0	58,512	11,218	(31,008)
2019	53,622	0	0	0	53,622	0	0	0	0	53,622	(8,121)
2020	53,789	0	5,172	0	58,962	16,611	0	0	16,611	42,351	8,480
2021	54,961	0	6,043	0	61,004	19,635	0	0	19,635	41,369	23,372
2022	56,555	0	7,881	0	64,437	26,276	0	0	26,276	38,161	35,989
2023	58,269	0	10,266	0	68,535	35,124	0	0	35,124	33,410	46,133
2024	60,856	0	12,095	0	72,952	42,440	0	0	42,440	30,511	54,641
2025	63,041	0	13,219	0	76,260	47,544	0	0	47,544	28,716	61,995
2026	65,574	0	14,042	0	79,616	51,939	0	0	51,939	27,677	68,504
2027	69,003	0	14,896	0	83,899	56,492	0	0	56,492	27,406	74,424
2028	71,807	0	15,394	0	87,201	59,865	0	0	59,865	27,336	79,846
2029	75,021	0	0	0	75,021	0	0	0	0	75,021	93,513
2030	78,691	0	7,584	0	86,275	26,944	0	0	26,944	59,332	103,440
2031	82,375	0	10,137	0	92,512	35,019	0	0	35,019	57,393	112,258
2032	87,136	0	12,693	0	99,828	45,550	0	0	45,550	54,279	119,918
2033	94,928	0	15,728	0	110,655	58,835	0	0	58,835	51,820	126,634
2034	96,708	0	18,063	0	114,771	69,875	0	0	69,875	44,896	131,977
2035	100,512	0	19,541	0	120,053	77,761	0	0	77,761	42,292	136,600
2036	107,704	0	20,347	0	128,050	83,787	0	0	83,787	44,264	141,043
2037	113,468	0	21,046	0	134,514	89,613	0	0	89,613	44,901	145,182
2038	118,406	0	20,378	0	138,784	90,762	0	0	90,762	48,022	149,248
2039	123,830	0	0	0	123,830	0	0	0	0	123,830	158,877
2040	129,600	0	5,215	0	134,815	27,417	0	0	27,417	107,398	166,546
2041	136,450	0	6,458	0	142,908	33,857	0	0	33,857	109,051	173,698
2042	143,763	0	8,405	0	152,168	45,230	0	0	45,230	106,939	180,139
2043	151,571	0	10,915	0	162,486	60,311	0	0	60,311	102,174	185,790
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	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	2,427,339	0	428,117	0	2,855,456	1,468,843	0	0	1,468,843	1,386,613	
NPV	441,003	0	140,419	0	581,421	395,631	0	0	395,631	185,790	

In Service of Gen Unit:
Discount Rate : 2019 8.89 %
Benefit/Cost Ratio (Col(6) / Col(10)) 1.47

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Building Envelope

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	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	298	7,627	658	0	8,583	537	0	0	3	540	(8,043)	(7,387)
2011	0	1,082	10,551	2,367	0	14,000	2,055	274	0	8	2,337	(11,663)	(17,224)
2012	0	1,346	13,217	4,888	0	19,451	4,313	856	0	17	5,185	(14,265)	(28,273)
2013	0	1,632	16,377	8,250	0	26,259	6,832	1,610	0	572	9,013	(17,246)	(40,542)
2014	0	1,898	18,851	12,675	0	33,424	10,019	2,432	0	904	13,356	(20,067)	(53,652)
2015	0	2,136	20,486	17,886	0	40,509	14,784	3,352	0	1,335	19,472	(21,037)	(66,274)
2016	0	1,974	21,435	23,562	0	46,971	22,602	4,342	0	1,907	28,851	(18,120)	(76,259)
2017	0	2,037	22,299	29,902	0	54,238	29,771	5,290	0	2,512	37,573	(16,665)	(84,692)
2018	0	2,022	21,757	36,459	0	60,239	36,535	6,220	0	3,142	45,897	(14,341)	(91,357)
2019	0	0	0	40,753	0	40,753	85,232	6,961	0	1,846	94,039	53,286	(68,613)
2020	0	131	5,172	40,880	0	46,184	84,158	6,761	0	1,377	92,296	46,112	(50,538)
2021	0	813	6,043	41,770	0	48,626	84,273	6,564	0	1,363	92,200	43,574	(34,852)
2022	0	1,019	7,881	42,982	0	51,882	85,728	6,375	0	1,446	93,549	41,667	(21,076)
2023	0	1,247	10,266	44,284	0	55,797	86,122	6,191	0	1,385	93,699	37,902	(9,568)
2024	0	1,452	12,095	46,251	0	59,798	88,448	6,012	0	1,463	95,923	36,125	505
2025	0	1,623	13,219	47,911	0	62,753	89,494	5,837	0	1,438	96,769	34,015	9,216
2026	0	1,325	14,042	49,836	0	65,203	89,863	5,664	0	1,391	96,917	31,715	16,675
2027	0	1,317	14,896	52,442	0	68,655	90,567	5,492	0	1,334	97,392	28,738	22,882
2028	0	1,341	15,394	54,573	0	71,309	91,222	5,320	0	1,448	97,989	26,680	28,175
2029	0	0	0	57,016	0	57,016	91,871	5,149	0	1,558	98,578	41,562	35,746
2030	0	463	7,584	59,805	0	67,853	92,931	4,979	0	1,492	99,402	31,549	41,025
2031	0	1,554	10,137	62,529	0	74,220	94,325	4,810	0	1,623	100,776	26,558	45,105
2032	0	1,923	12,693	66,223	0	80,839	94,578	4,645	0	1,714	100,937	20,098	47,942
2033	0	2,316	15,728	72,145	0	90,189	96,477	4,488	0	1,133	102,098	11,909	49,485
2034	0	2,665	18,063	73,498	0	94,226	97,231	4,339	0	1,007	102,577	8,352	50,479
2035	0	2,954	19,541	76,389	0	98,884	101,513	4,202	0	1,039	106,754	7,870	51,339
2036	0	2,591	20,347	81,855	0	104,792	104,027	4,077	0	1,024	109,127	4,335	51,774
2037	0	2,580	21,046	86,236	0	109,861	106,308	3,965	0	1,074	111,347	1,446	51,911
2038	0	2,461	20,378	89,989	0	112,828	107,678	3,868	0	1,114	112,660	(168)	51,897
2039	0	0	0	94,111	0	94,111	108,601	3,783	0	1,060	113,444	19,333	53,400
2040	0	248	5,215	98,496	0	103,959	111,738	3,709	0	1,072	116,519	12,560	54,297
2041	0	1,613	6,458	103,702	0	111,772	113,757	3,638	0	1,123	118,519	6,746	54,740
2042	0	2,032	8,405	109,260	0	119,697	115,574	3,568	0	2,744	121,886	2,189	54,871
2043	0	2,502	10,915	115,194	0	128,611	120,823	3,499	0	4,500	128,822	211	54,883
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	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	50,597	428,117	1,844,777	0	2,323,491	2,559,998	148,274	0	48,176	2,756,448	432,957	
NPV	0	14,331	140,419	335,162	0	489,912	493,099	39,349	0	12,348	544,795	54,883	

Discount Rate 8.89 %
Benefit/Cost Ratio (Col(12) / Col(7)) : 1.11

RESIDENTIAL NEW CONSTRUCTION

INPUT DATA - PART I CONTINUED
PROGRAM/METHOD SELECTED: EBV_REQ
PROGRAM NAME: Residential New Construction - BulkSmart

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 KW REDUCTION PER CUSTOMER	1.54521 KW
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	3.20 KVA

II. ECONOMIC LIFE & X FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	33 YEARS
(4) X FACTOR FOR GENERATION	1.7878
(5) X FACTOR FOR T & D	1.6254

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	3.39 %
(11) UTILITY AFUDC RATE	2.63 %
(12) UTILITY NONRECURRING REBATE INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE INCENTIVE	*** \$/CUST
(14) UTILITY REBATE INCENTIVE ESCALATION RATE	*** %

* SUPPLEMENTAL INFORMATION NOT SERVICED 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	725.30 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/KW
(6) BASE YEAR DISTRIBUTION COST	26.64 \$/KW
(7) GEN, TRANS & DIST COST ESCALATION RATE	3.00 %
(8) GENERATOR FIXED O & M COST	77.66 \$/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	1.81 \$/KW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS\$/KW
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	89% ** (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\$/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW&D
(4) DEMAND CHARGE ESCALATION RATE	*** %

* INPUT DATA -- PART 1 CONTINUED
 PROGRAM AGENCY SELECTED: FIV, INC
 PROGRAM NAME: Residential New Construction - Baltimore

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	
2010	794	2,982	0	3,687	216	0	3,974	0	3,974	
2011	1,385	5,764	0	7,150	878	0	7,873	0	7,873	
2012	1,841	7,485	0	9,327	1,977	0	11,508	0	11,508	
2013	2,267	9,890	0	11,357	3,428	0	13,085	0	13,085	
2014	2,772	11,903	0	13,775	5,678	0	16,239	0	16,239	
2015	2,694	12,612	0	15,306	7,776	0	16,200	0	16,200	
2016	2,890	12,762	0	15,652	10,228	0	16,757	0	16,757	
2017	2,901	12,878	0	15,780	12,639	0	17,341	0	17,341	
2018	2,941	11,125	0	14,166	15,333	0	18,177	0	18,177	
2019	0	0	0	0	17,096	0	0	0	0	
2020	0	0	0	0	17,149	0	0	0	0	
2021	0	0	0	0	17,323	0	0	0	0	
2022	0	0	0	0	18,131	0	0	0	0	
2023	0	0	0	0	18,377	0	0	0	0	
2024	0	0	0	0	19,482	0	0	0	0	
2025	0	0	0	0	20,029	0	0	0	0	
2026	0	0	0	0	20,946	0	0	0	0	
2027	0	0	0	0	21,599	0	0	0	0	
2028	0	0	0	0	22,873	0	0	0	0	
2029	0	0	0	0	23,913	0	0	0	0	
2030	0	0	0	0	25,088	0	0	0	0	
2031	0	0	0	0	26,231	0	0	0	0	
2032	0	0	0	0	27,780	0	0	0	0	
2033	0	0	0	0	30,265	0	0	0	0	
2034	0	0	0	0	30,822	0	0	0	0	
2035	0	0	0	0	32,845	0	0	0	0	
2036	0	0	0	0	34,338	0	0	0	0	
2037	0	0	0	0	36,176	0	0	0	0	
2038	0	0	0	0	37,739	0	0	0	0	
2039	0	0	0	0	38,480	0	0	0	0	
2040	1,477	2,982	0	4,460	41,319	0	8,335	0	8,335	
2041	2,927	5,764	0	8,691	43,503	0	16,513	0	16,513	
2042	3,862	7,485	0	11,348	45,824	0	22,025	0	22,025	
2043	4,754	9,890	0	13,845	48,224	0	27,447	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	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
NORM	31,438	165,024	0	196,462	774,501	0	194,366	0	194,366	
NPV	13,588	51,571	0	65,179	140,890	0	78,982	0	78,982	

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

CALCULATION OF K-FACTOR
PROGRAMMED SELECTED KEY_REQ
PROGRAMNAME: Residential New Construction - Bulkmarket

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	REG-YEAR RATEBASE \$'(000)	DEBT \$'(000)	DEFERRED 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	89,648	2,785	0	6,256	4,327	1,511	333	3,497	7	18,716	18,716	18,716	87,429
2020	86,144	2,676	0	6,012	2,826	1,448	347	3,497	1,144	18,160	16,678	35,394	89,615
2021	81,922	2,532	0	5,688	2,810	1,385	380	3,497	347	17,439	14,709	50,103	91,855
2022	77,038	2,393	0	5,376	2,778	1,322	374	3,497	304	16,744	12,970	63,073	94,152
2023	72,737	2,260	0	5,076	2,742	1,259	389	3,497	631	16,073	11,494	74,567	96,505
2024	68,590	2,131	0	4,787	2,701	1,196	403	3,497	510	15,425	10,077	84,584	98,918
2025	64,382	2,006	0	4,507	2,655	1,133	418	3,497	383	14,777	8,878	93,462	101,391
2026	60,705	1,886	0	4,236	2,606	1,070	434	3,497	268	14,139	7,818	101,281	103,926
2027	56,949	1,769	0	3,974	2,461	1,007	450	3,497	240	13,501	6,881	108,162	106,594
2028	53,211	1,653	0	3,713	2,297	944	466	3,497	240	12,863	6,047	114,209	109,127
2029	49,474	1,537	0	3,453	2,133	881	483	3,497	240	12,224	5,303	120,512	111,917
2030	45,736	1,421	0	3,192	1,970	818	500	3,497	240	11,587	4,640	126,152	114,715
2031	41,999	1,305	0	2,931	1,805	755	517	3,497	240	10,951	4,050	131,202	117,582
2032	38,262	1,189	0	2,670	1,641	692	535	3,497	240	10,305	3,526	135,728	120,522
2033	34,525	1,073	0	2,409	1,478	629	554	3,497	240	9,660	3,041	139,789	123,535
2034	30,787	956	0	2,149	1,314	567	572	3,497	240	9,005	2,618	143,437	126,623
2035	27,050	840	0	1,888	1,150	504	592	3,497	240	8,351	2,252	146,719	129,789
2036	23,313	724	0	1,627	987	441	612	3,497	240	7,697	1,938	149,677	133,034
2037	19,575	608	0	1,366	825	378	632	3,497	240	7,044	1,673	152,350	136,360
2038	15,838	492	0	1,105	659	315	653	3,497	240	6,391	1,450	154,770	139,769
2039	12,101	376	0	844	497	252	674	3,497	(491)	5,737	1,198	156,949	143,263
2040	9,095	260	0	583	337	189	696	3,497	(1,223)	5,083	1,021	158,990	146,844
2041	6,821	218	0	476	177	126	718	3,497	(1,223)	4,430	881	160,871	150,515
2042	4,547	141	0	317	1,027	63	741	3,497	(1,223)	3,776	757	162,628	154,278
2043	2,273	71	0	159	1,328	0	765	3,497	(1,223)	3,122	647	164,275	158,133

IN SERVICE COST (\$000)	87,429
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPREC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.82
E/S	0%	0.00
C/S	56%	12.50

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

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

(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) TAXRATE \$(000)	SALVAGE TAXRATE \$(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	3,161	0	0	7	7	
2020	7.25%	6,138	9,326	3,497	6,994	3,171	6,341	1,144	3,161	0	0	1,144	1,147	
2021	6.00%	5,677	15,003	3,497	10,491	3,171	9,512	967	3,161	0	0	967	2,114	
2022	6.18%	5,254	20,257	3,497	13,989	3,171	12,683	804	3,161	0	0	804	2,918	
2023	5.71%	4,827	25,114	3,497	17,486	3,171	15,854	651	3,161	0	0	651	3,569	
2024	5.29%	4,403	29,607	3,497	20,983	3,171	19,024	510	3,161	0	0	510	4,079	
2025	4.89%	4,156	33,763	3,497	24,480	3,171	22,185	380	3,161	0	0	380	4,459	
2026	4.59%	3,846	37,609	3,497	27,977	3,171	25,546	260	3,161	0	0	260	4,719	
2027	4.40%	3,794	41,401	3,497	31,474	3,171	28,337	240	3,161	0	0	240	4,959	
2028	4.40%	3,793	45,194	3,497	34,972	3,171	31,707	240	3,161	0	0	240	5,199	
2029	4.40%	3,794	48,988	3,497	38,469	3,171	34,878	240	3,161	0	0	240	5,439	
2030	4.40%	3,793	52,780	3,497	41,966	3,171	38,049	240	3,161	0	0	240	5,679	
2031	4.40%	3,794	56,574	3,497	45,463	3,171	41,220	240	3,161	0	0	240	5,919	
2032	4.40%	3,793	60,367	3,497	48,960	3,171	44,390	240	3,161	0	0	240	6,159	
2033	4.40%	3,794	64,161	3,497	52,457	3,171	47,561	240	3,161	0	0	240	6,399	
2034	4.40%	3,793	67,953	3,497	55,953	3,171	50,732	240	3,161	0	0	240	6,639	
2035	4.40%	3,794	71,747	3,497	59,450	3,171	53,903	240	3,161	0	0	240	6,879	
2036	4.40%	3,793	75,539	3,497	62,946	3,171	57,073	240	3,161	0	0	240	7,119	
2037	4.40%	3,794	79,333	3,497	66,443	3,171	60,244	240	3,161	0	0	240	7,359	
2038	4.40%	3,793	83,126	3,497	69,939	3,171	63,415	240	3,161	0	0	240	7,599	
2039	2.25%	1,897	85,023	3,497	73,440	3,171	66,586	(491)	3,161	0	0	(491)	7,839	
2040	0.00%	0	85,023	3,497	76,938	3,171	69,756	(1,022)	3,161	0	0	(1,022)	8,079	
2041	0.00%	0	85,023	3,497	80,435	3,171	72,927	(1,223)	3,161	0	0	(1,223)	8,319	
2042	0.00%	0	85,023	3,497	83,932	3,171	76,098	(1,223)	3,161	0	0	(1,223)	8,559	
2043	0.00%	0	85,023	3,497	87,429	3,171	79,268	(1,223)	3,161	0	0	(1,223)	8,799	

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)	3,161
BOOK DEPR RATE - USEFUL LIFE	4.00%

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

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(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)
2819	3.75%	3,188	7	83,922	3,497	(2,212)	89,693	86,144	87,896
2820	7.22%	6,128	1,344	80,435	6,994	(1,047)	96,144	81,582	88,823
2821	6.88%	5,677	967	76,938	10,491	(891)	83,592	71,828	79,270
2822	6.18%	5,254	884	73,440	13,989	703	77,038	72,757	74,888
2823	5.71%	4,857	651	69,943	17,486	1,354	72,737	68,390	70,664
2824	5.28%	4,493	510	66,446	20,983	1,864	68,399	64,582	66,586
2825	4.89%	4,156	380	62,949	24,480	2,364	64,592	61,705	62,944
2826	4.52%	3,845	260	59,451	27,977	2,904	61,705	58,948	59,827
2827	4.18%	3,574	140	55,954	31,474	2,744	58,948	56,311	57,479
2828	4.46%	3,793	240	52,457	34,972	2,594	56,311	53,736	55,442
2829	4.46%	3,794	240	48,960	38,469	3,224	49,474	46,736	47,605
2830	4.46%	3,793	240	45,463	41,966	3,464	45,736	43,989	45,888
2831	4.46%	3,794	240	41,966	45,463	3,704	41,989	41,292	42,130
2832	4.46%	3,793	240	38,469	48,960	3,944	38,292	34,323	36,393
2833	4.46%	3,794	240	34,972	52,457	4,184	34,525	30,787	32,636
2834	4.46%	3,793	240	31,474	55,954	4,424	31,787	27,838	29,919
2835	4.46%	3,794	240	27,977	59,451	4,664	27,850	23,313	25,181
2836	4.46%	3,793	240	24,480	62,948	4,904	23,313	19,575	21,444
2837	4.46%	3,794	240	20,983	66,445	5,144	19,575	15,838	17,707
2838	4.46%	3,793	240	17,486	69,942	5,384	15,838	12,101	13,978
2839	2.23%	1,897	(491)	13,989	73,440	4,880	12,101	8,595	10,498
2840	0.00%	0	(1,223)	10,491	76,938	3,678	8,595	6,821	7,958
2841	0.00%	0	(1,223)	6,994	80,435	2,477	6,821	4,587	5,684
2842	0.00%	0	(1,223)	3,497	83,932	1,274	4,587	2,973	3,418
2843	0.00%	0	(1,223)	0	87,429	1	2,223	-1	1,156

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (\$K)	(6) ANNUAL SPENDING (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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	0.12%	1.24	0.62
2014	-5	3.00%	1.159	1.90%	15.29	7.24
2015	-4	3.00%	1.194	4.57%	35.61	37.83
2016	-3	3.00%	1.230	37.28%	351.67	222.77
2017	-2	3.00%	1.267	45.74%	428.27	298.84
2018	-1	3.00%	1.305	10.44%	38.73	828.36

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING W/PLANT ESCALATION (\$K/W)	(4) DEBT AFUDC (\$K/W)	(5) CUMULATIVE DEBT AFUDC (\$K/W)	(6) YEARLY TOTAL AFUDC (\$K/W)	(7) CUMULATIVE TOTAL AFUDC (\$K/W)	(8) CONSTRUCTION PERIOD INTEREST (\$K/W)	(9) CUMULATIVE CPI (\$K/W)	(10) DEFERRED TAXES (\$K/W)	(11) DEFERRED TAXES (\$K/W)	(12) YEAR-END BOOK VALUE (\$K/W)	(13) YEAR-END BOOK VALUE (\$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
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	0.62	0.65	0.65	0.64	0.64	(0.01)	(0.01)	1.29	1.29
2014	-5	5.22	0.29	0.30	0.79	0.84	0.85	4.70	(0.14)	(0.15)	16.29	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	15.98	39.25	(3.41)	(4.15)	331.16	432.04
2017	-2	622.00	19.46	28.81	53.16	76.45	43.67	62.22	(9.28)	(13.35)	473.37	885.43
2018	-1	534.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.43)	(27.02)	279.18	1,064.61

IN SERVICE YEAR	2019
PLANT COST	725,389,865
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	74,549	74,549	74,549		
DEFERRED TAX	8,161				
DEBT AFUDC	4,719	4,719			
CPI			10,471		
TOTAL	57,429	79,268	85,020		

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM-GENERATED SELECTED KEY FIGS
 PROGRAM NAME: Residential New Construction - Boldsmart

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	VELOCITY AVERAGE SYSTEM FUEL COST (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM/AV EFFECTIVENESS FACTOR	PROGRAM/AV EFFECTIVENESS FACTOR
2009	0	0	6.29	9.37	6.57	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	7.63	0.00	1.00	1.00
2015	44,209	44,209	8.11	9.98	8.28	0.00	1.00	1.00
2016	54,980	54,980	9.00	12.06	9.25	0.00	1.00	1.00
2017	64,657	64,657	9.75	13.17	9.98	0.00	1.00	1.00
2018	74,261	74,261	10.30	13.94	10.77	0.00	1.00	1.00
2019	74,261	74,261	11.58	16.78	11.85	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	11.53	1.00	1.00
2031	74,261	74,261	17.08	20.08	17.40	11.80	1.00	1.00
2032	74,261	74,261	17.58	20.32	17.78	11.88	1.00	1.00
2033	74,261	74,261	18.27	21.06	18.45	12.10	1.00	1.00
2034	74,261	74,261	18.73	20.53	18.83	12.14	1.00	1.00
2035	74,261	74,261	19.57	21.39	19.70	12.29	1.00	1.00
2036	74,261	74,261	20.40	22.09	20.49	12.55	1.00	1.00
2037	74,261	74,261	21.11	23.25	21.20	12.70	1.00	1.00
2038	74,261	74,261	22.01	24.51	22.13	13.04	1.00	1.00
2039	74,261	74,261	22.78	25.06	22.86	13.22	1.00	1.00
2040	74,261	74,261	23.39	25.37	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	25.25	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	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.

AVOIDED GENERATING BENEFITS
PROGRAM/METHOD SELECTED: REV, RSG
PROGRAM/NAME: Residential New Construction - Buldiment

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	10,966	-433	26,144	21,076	22,483
2020	18,160	10,823	-625	28,518	46,926	20,998
2021	17,439	10,786	-694	40,189	49,011	20,056
2022	16,744	11,655	-694	42,536	51,095	19,994
2023	16,973	11,382	-732	44,790	52,585	20,292
2024	15,425	11,615	-776	47,240	54,538	20,519
2025	14,797	11,904	-829	50,475	57,527	20,490
2026	14,189	12,203	-889	53,999	60,599	20,620
2027	13,598	12,508	-940	56,933	63,194	20,786
2028	13,911	12,811	-987	58,445	64,536	20,688
2029	12,424	13,141	-1013	60,906	66,233	21,231
2030	11,837	13,470	-1064	63,757	68,902	21,226
2031	11,251	13,807	-1090	65,971	70,152	21,067
2032	10,665	14,132	-1132	67,370	71,593	21,727
2033	10,080	14,506	-1246	74,128	78,296	21,674
2034	9,495	14,898	-1394	77,137	80,342	22,862
2035	8,911	15,299	-1540	78,913	81,779	23,025
2036	8,327	15,621	-1585	81,569	83,795	22,818
2037	7,744	16,012	-1493	83,116	84,998	23,297
2038	7,161	16,432	-1464	83,190	87,591	23,436
2039	6,579	16,822	-1582	86,942	89,602	22,983
2040	6,183	17,243	-1544	88,944	90,625	23,297
2041	5,723	17,674	-1585	90,891	92,907	22,981
2042	5,364	18,116	-1629	92,945	94,496	22,578
2043	4,996	18,569	-1678	95,387	97,932	22,047
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	264,823	339,667	27,938	1,651,118	1,772,756	543,791
REV	63,734	58,228	4,319	252,794	281,078	97,728

AVOIDED GENERATING EMISSION IMPACT
 PROGRAM METHOD SELECTED: KEY_REQ
 PROGRAM NAME Residential New Construction - Buldsmart

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	2	0	2
2011	0	0	4	0	4
2012	0	0	5	0	5
2013	0	0	225	0	225
2014	0	0	368	0	368
2015	0	0	545	0	545
2016	0	0	786	0	786
2017	0	0	1,042	0	1,042
2018	0	0	1,323	0	1,323
2019	3,126	4,057	1,563	0	691
2020	4,760	6,165	1,609	0	284
2021	5,244	6,798	1,816	0	262
2022	6,124	7,921	2,042	0	245
2023	6,798	8,735	2,142	0	185
2024	7,781	10,033	2,395	0	143
2025	8,981	11,547	2,633	0	67
2026	9,959	12,728	2,732	0	(17)
2027	11,266	14,378	2,986	0	(125)
2028	12,353	15,739	3,242	0	(143)
2029	14,131	17,836	3,604	0	(202)
2030	15,668	19,874	3,882	0	(225)
2031	17,028	21,585	4,215	0	(242)
2032	18,791	23,719	4,556	0	(243)
2033	21,247	27,221	4,942	0	(231)
2034	24,183	30,547	5,337	0	(1,027)
2035	26,266	33,194	5,767	0	(1,141)
2036	28,673	36,230	6,289	0	(1,286)
2037	31,079	39,236	6,767	0	(1,410)
2038	33,689	42,546	7,302	0	(1,555)
2039	36,384	46,069	7,881	0	(1,744)
2040	39,319	49,712	8,460	0	(1,934)
2041	42,365	53,556	9,097	0	(2,095)
2042	41,565	53,556	9,776	0	(1,415)
2043	0	0	10,513	0	(679)
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NCR4	510,466	647,030	121,953	0	(10,610)
NPV	67,805	78,641	12,261	0	1,425

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	8.25 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: Residential Load Management Program

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES COSTS \$(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	
2010	515	216	0	731	10	0	0	0	0	
2011	1,168	649	0	1,817	31	0	0	0	0	
2012	1,811	1,082	0	2,893	55	0	0	0	0	
2013	2,192	1,416	0	3,608	75	0	0	0	0	
2014	2,439	1,633	0	4,072	92	0	0	0	0	
2015	2,400	1,798	0	4,198	106	0	0	0	0	
2016	2,136	1,933	0	4,069	118	0	0	0	0	
2017	1,890	2,068	0	3,959	131	0	0	0	0	
2018	1,752	2,203	0	3,955	144	0	0	0	0	
2019	1,546	2,271	0	3,817	153	0	0	0	0	
2020	1,344	2,271	0	3,615	154	0	0	0	0	
2021	1,184	2,271	0	3,455	157	0	0	0	0	
2022	1,032	2,271	0	3,302	162	0	0	0	0	
2023	888	2,271	0	3,158	167	0	0	0	0	
2024	824	2,271	0	3,094	174	0	0	0	0	
2025	844	2,271	0	3,115	180	0	0	0	0	
2026	865	2,271	0	3,136	188	0	0	0	0	
2027	887	2,271	0	3,158	197	0	0	0	0	
2028	909	2,271	0	3,180	205	0	0	0	0	
2029	932	2,271	0	3,203	215	0	0	0	0	
2030	955	2,271	0	3,226	225	0	0	0	0	
2031	979	2,271	0	3,250	235	0	0	0	0	
2032	1,005	2,271	0	3,274	249	0	0	0	0	
2033	1,029	2,271	0	3,299	272	0	0	0	0	
2034	1,054	2,271	0	3,325	277	0	0	0	0	
2035	1,081	2,271	0	3,351	288	0	0	0	0	
2036	1,108	2,271	0	3,378	308	0	0	0	0	
2037	1,135	2,271	0	3,406	325	0	0	0	0	
2038	1,164	2,271	0	3,434	339	0	0	0	0	
2039	1,193	2,271	0	3,464	354	0	0	0	0	
2040	1,621	2,271	0	3,891	371	0	0	0	0	
2041	1,661	2,271	0	3,932	390	0	0	0	0	
2042	1,703	2,271	0	3,973	411	0	0	0	0	
2043	1,551	2,271	0	3,822	434	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	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	44,794	69,766	0	114,560	7,193	0	0	0	0	
NPV	15,465	18,334	0	33,800	1,428	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	82,774	2,571	0	5,777	3,811	1,395	492	3,229	6	17,281	17,281	80,725
2020	79,538	2,471	0	5,551	2,618	1,337	505	3,229	1,057	16,767	15,399	82,743
2021	75,253	2,338	0	5,252	2,595	1,279	517	3,229	893	16,102	13,581	84,812
2022	71,131	2,210	0	4,964	2,565	1,221	530	3,229	742	15,460	11,975	86,932
2023	67,160	2,086	0	4,687	2,532	1,162	544	3,229	601	14,841	10,557	89,105
2024	63,330	1,967	0	4,420	2,494	1,104	557	3,229	471	14,242	9,305	91,333
2025	59,630	1,852	0	4,161	2,452	1,046	571	3,229	351	13,663	8,198	93,616
2026	56,050	1,741	0	3,912	2,406	988	585	3,229	240	13,101	7,219	95,957
2027	52,581	1,633	0	3,670	2,272	930	600	3,229	222	12,556	6,354	98,356
2028	49,131	1,526	0	3,429	2,121	872	615	3,229	222	12,013	5,583	100,815
2029	45,680	1,419	0	3,188	1,969	814	630	3,229	222	11,471	4,896	110,348
2030	42,229	1,312	0	2,947	1,818	756	646	3,229	222	10,930	4,284	118,372
2031	38,779	1,205	0	2,706	1,667	697	662	3,229	222	10,388	3,740	126,566
2032	35,328	1,097	0	2,465	1,516	639	679	3,229	222	9,848	3,256	134,833
2033	31,877	990	0	2,225	1,365	581	696	3,229	222	9,307	2,826	143,166
2034	28,426	883	0	1,984	1,214	523	713	3,229	222	8,767	2,445	151,462
2035	24,976	776	0	1,743	1,062	465	731	3,229	222	8,228	2,107	159,714
2036	21,525	669	0	1,502	911	407	749	3,229	222	7,689	1,808	167,937
2037	18,074	561	0	1,261	760	349	768	3,229	222	7,150	1,544	176,119
2038	14,624	454	0	1,021	609	291	787	3,229	222	6,612	1,312	184,250
2039	11,173	347	0	780	458	232	807	3,229	(454)	6,074	1,107	192,327
2040	8,398	261	0	586	307	174	827	3,229	(1,129)	5,635	943	200,354
2041	6,298	196	0	440	159	116	848	3,229	(1,129)	5,293	813	208,381
2042	4,198	130	0	293	1,503	58	869	3,229	(1,129)	4,953	699	216,408
2043	2,099	65	0	146	1,411	(0)	891	3,229	(1,129)	4,613	598	224,435

IN SERVICE COST (\$000)	80,725
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: 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%	2,944	2,944	3,229	3,229	2,928	2,928	6	7,535	0	0	0	6	(2,042)
2020	7.22%	5,667	8,611	3,229	6,458	2,928	5,855	1,057	7,535	0	0	0	1,057	(986)
2021	6.68%	5,241	13,852	3,229	9,687	2,928	8,783	893	7,535	0	0	0	893	(93)
2022	6.18%	4,851	18,704	3,229	12,916	2,928	11,710	742	7,535	0	0	0	742	649
2023	5.71%	4,485	23,188	3,229	16,145	2,928	14,638	601	7,535	0	0	0	601	1,250
2024	5.29%	4,149	27,337	3,229	19,374	2,928	17,566	471	7,535	0	0	0	471	1,721
2025	4.89%	3,837	31,174	3,229	22,603	2,928	20,493	351	7,535	0	0	0	351	2,072
2026	4.52%	3,550	34,724	3,229	25,832	2,928	23,421	240	7,535	0	0	0	240	2,312
2027	4.46%	3,503	38,227	3,229	29,061	2,928	26,348	222	7,535	0	0	0	222	2,534
2028	4.46%	3,502	41,729	3,229	32,290	2,928	29,276	222	7,535	0	0	0	222	2,755
2029	4.46%	3,503	45,231	3,229	35,519	2,928	32,204	222	7,535	0	0	0	222	2,977
2030	4.46%	3,502	48,733	3,229	38,748	2,928	35,131	222	7,535	0	0	0	222	3,198
2031	4.46%	3,503	52,236	3,229	41,977	2,928	38,059	222	7,535	0	0	0	222	3,420
2032	4.46%	3,502	55,738	3,229	45,206	2,928	40,987	222	7,535	0	0	0	222	3,642
2033	4.46%	3,503	59,241	3,229	48,435	2,928	43,914	222	7,535	0	0	0	222	3,864
2034	4.46%	3,502	62,742	3,229	51,664	2,928	46,842	222	7,535	0	0	0	222	4,085
2035	4.46%	3,503	66,245	3,229	54,893	2,928	49,769	222	7,535	0	0	0	222	4,307
2036	4.46%	3,502	69,747	3,229	58,122	2,928	52,697	222	7,535	0	0	0	222	4,529
2037	4.46%	3,503	73,250	3,229	61,351	2,928	55,625	222	7,535	0	0	0	222	4,750
2038	4.46%	3,502	76,752	3,229	64,580	2,928	58,552	222	7,535	0	0	0	222	4,972
2039	2.23%	1,751	78,503	3,229	67,809	2,928	61,480	(454)	7,535	0	0	0	(454)	4,518
2040	0.00%	0	78,503	3,229	71,058	2,928	64,407	(1,129)	7,535	0	0	0	(1,129)	3,589
2041	0.00%	0	78,503	3,229	74,267	2,928	67,335	(1,129)	7,535	0	0	0	(1,129)	2,260
2042	0.00%	0	78,503	3,229	77,496	2,928	70,263	(1,129)	7,535	0	0	0	(1,129)	1,130
2043	0.00%	0	78,503	3,229	80,725	2,928	73,190	(1,129)	7,535	0	0	0	(1,129)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,049)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	7,535
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 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%	2,944	6	77,496	3,229	(2,042)	82,774	79,538	81,156
2020	7.22%	5,667	1,057	74,267	6,458	(986)	79,538	75,253	77,395
2021	6.68%	5,241	893	71,038	9,687	(93)	75,253	71,131	73,192
2022	6.18%	4,851	742	67,809	12,916	649	71,131	67,160	69,146
2023	5.71%	4,485	601	64,580	16,145	1,250	67,160	63,330	65,245
2024	5.29%	4,149	471	61,351	19,374	1,721	63,330	59,630	61,480
2025	4.89%	3,837	351	58,122	22,603	2,072	59,630	56,050	57,840
2026	4.52%	3,550	240	54,893	25,832	2,312	56,050	52,581	54,316
2027	4.46%	3,503	222	51,664	29,061	2,534	52,581	49,131	50,856
2028	4.46%	3,502	222	48,435	32,290	2,755	49,131	45,680	47,405
2029	4.46%	3,503	222	45,206	35,519	2,977	45,680	42,229	43,955
2030	4.46%	3,502	222	41,977	38,748	3,198	42,229	38,779	40,504
2031	4.46%	3,503	222	38,748	41,977	3,420	38,779	35,328	37,053
2032	4.46%	3,502	222	35,519	45,206	3,642	35,328	31,877	33,602
2033	4.46%	3,503	222	32,290	48,435	3,864	31,877	28,426	30,152
2034	4.46%	3,502	222	29,061	51,664	4,085	28,426	24,976	26,701
2035	4.46%	3,503	222	25,832	54,893	4,307	24,976	21,525	23,250
2036	4.46%	3,502	222	22,603	58,122	4,529	21,525	18,074	19,800
2037	4.46%	3,503	222	19,374	61,351	4,750	18,074	14,624	16,349
2038	4.46%	3,502	222	16,145	64,580	4,972	14,624	11,173	12,898
2039	2.23%	1,751	(454)	12,916	67,809	4,518	11,173	8,398	9,785
2040	0.00%	0	(1,129)	9,687	71,038	3,589	8,398	6,298	7,348
2041	0.00%	0	(1,129)	6,458	74,267	2,260	6,298	4,198	5,248
2042	0.00%	0	(1,129)	3,229	77,496	1,130	4,198	2,099	3,149
2043	0.00%	0	(1,129)	(0)	80,725	1	2,099	-1	1,049

* 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

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)	(11)
											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
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS	
CONSTRUCTION CASH	68,833	68,833	68,833	
EQUITY AFUDC	7,535			
DEBT AFUDC	4,357	4,357		
CPI			9,668	
TOTAL	80,725	73,190	78,501	

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	(5) AVOIDED MARGINAL FUEL COST (C/kWh)	(6)* INCREASED MARGINAL FUEL COST (C/kWh)	(7) REPLACEMENT FUEL COST (C/kWh)	(8) PROGRAM kW EFFECTIVENESS FACTOR	(9) 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	34,100	34,100	7.06	9.99	7.06	0.00	1.00	1.00
2014	38,460	38,460	7.53	10.61	7.53	0.00	1.00	1.00
2015	41,460	41,460	8.11	13.20	8.11	0.00	1.00	1.00
2016	44,460	44,460	9.00	13.90	9.00	0.00	1.00	1.00
2017	47,460	47,460	9.75	15.09	9.75	0.00	1.00	1.00
2018	50,460	50,460	10.52	15.46	10.52	0.00	1.00	1.00
2019	50,460	50,460	11.50	21.44	11.50	10.41	1.00	1.00
2020	50,460	50,460	12.08	20.17	12.08	10.50	1.00	1.00
2021	50,460	50,460	12.57	21.76	12.57	10.74	1.00	1.00
2022	50,460	50,460	13.06	23.66	13.06	10.81	1.00	1.00
2023	50,460	50,460	13.39	20.91	13.39	10.80	1.00	1.00
2024	50,460	50,460	13.95	22.19	13.95	10.84	1.00	1.00
2025	50,460	50,460	14.40	22.20	14.40	10.96	1.00	1.00
2026	50,460	50,460	14.70	22.41	14.70	11.05	1.00	1.00
2027	50,460	50,460	15.13	23.05	15.13	11.17	1.00	1.00
2028	50,460	50,460	15.60	23.70	15.60	11.36	1.00	1.00
2029	50,460	50,460	16.02	22.95	16.02	11.41	1.00	1.00
2030	50,460	50,460	16.52	23.78	16.52	11.59	1.00	1.00
2031	50,460	50,460	17.08	24.53	17.08	11.80	1.00	1.00
2032	50,460	50,460	17.50	24.55	17.50	11.88	1.00	1.00
2033	50,460	50,460	18.27	25.51	18.27	12.10	1.00	1.00
2034	50,460	50,460	18.73	25.89	18.73	12.14	1.00	1.00
2035	50,460	50,460	19.57	27.04	19.57	12.29	1.00	1.00
2036	50,460	50,460	20.40	28.26	20.40	12.55	1.00	1.00
2037	50,460	50,460	21.11	29.22	21.11	12.70	1.00	1.00
2038	50,460	50,460	22.02	30.23	22.02	13.04	1.00	1.00
2039	50,460	50,460	22.78	31.29	22.78	13.32	1.00	1.00
2040	50,460	50,460	23.59	32.02	23.59	13.44	1.00	1.00
2041	50,460	50,460	24.54	33.28	24.54	13.75	1.00	1.00
2042	50,460	50,460	25.50	34.66	25.50	14.10	1.00	1.00
2043	50,460	50,460	26.74	36.49	26.74	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.

AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management 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	17,281	9,479	400	24,139	30,540	20,759
2020	16,767	9,716	577	35,565	43,328	19,297
2021	16,102	9,959	603	37,107	45,252	18,519
2022	15,460	10,208	641	39,274	47,177	18,406
2023	14,841	10,463	676	41,291	48,535	18,736
2024	14,242	10,725	717	43,618	50,356	18,945
2025	13,663	10,993	766	46,604	53,116	18,910
2026	13,101	11,267	820	49,803	55,953	19,039
2027	12,556	11,549	868	52,568	58,349	19,192
2028	12,013	11,838	893	53,963	59,606	19,102
2029	11,471	12,134	935	56,236	61,173	19,603
2030	10,930	12,437	982	58,868	63,619	19,598
2031	10,388	12,748	1006	60,081	64,772	19,452
2032	9,848	13,067	1045	62,204	66,103	20,061
2033	9,307	13,393	1150	68,444	72,283	20,012
2034	8,767	13,728	1204	71,240	73,997	20,943
2035	8,228	14,071	1237	72,862	75,139	21,259
2036	7,689	14,423	1279	75,037	77,367	21,061
2037	7,150	14,784	1314	76,743	78,480	21,511
2038	6,612	15,153	1352	78,658	80,874	20,901
2039	6,074	15,532	1387	80,275	82,731	20,537
2040	5,635	15,921	1425	82,124	83,677	21,428
2041	5,293	16,319	1464	83,926	85,783	21,219
2042	4,953	16,727	1504	85,837	88,175	20,847
2043	4,613	17,145	1549	88,045	90,441	20,910
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	262,983	323,778	25,795	1,524,511	1,636,821	500,247
NPV	58,828	53,755	3,895	233,327	259,525	90,280

AVOIDED T&D AND PROGRAM FUEL SAVINGS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME : Residential Load Management Program

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$(000)	(3) AVOIDED TRANSMISSION O&M COST \$(000)	(4) TOTAL AVOIDED TRANSMISSION COST \$(000)	(5) AVOIDED DISTRIBUTION CAP COST \$(000)	(6) AVOIDED DISTRIBUTION O&M COST \$(000)	(7) TOTAL AVOIDED DISTRIBUTION COST \$(000)	(8) PROGRAM FUEL SAVINGS \$(000)	(8a)* PROGRAM OFF-PEAK PAYBACK \$(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	195	49
2013	1,620	159	1,779	81	36	117	180	71
2014	1,888	184	2,072	94	44	138	220	87
2015	2,099	204	2,302	105	51	155	310	103
2016	2,221	224	2,445	111	56	167	347	123
2017	2,346	245	2,590	117	61	179	403	143
2018	2,472	267	2,738	124	67	191	436	164
2019	2,600	274	2,873	130	73	203	649	185
2020	2,509	280	2,789	125	75	200	600	195
2021	2,419	287	2,706	121	77	198	651	202
2022	2,331	295	2,625	116	79	195	713	210
2023	2,244	302	2,546	112	81	193	615	216
2024	2,158	309	2,467	108	83	191	655	225
2025	2,072	317	2,389	104	85	188	651	232
2026	1,987	325	2,312	99	87	186	656	237
2027	1,903	333	2,236	95	89	184	675	244
2028	1,818	342	2,159	91	91	182	693	251
2029	1,733	350	2,083	87	94	180	664	258
2030	1,648	359	2,007	82	96	178	688	266
2031	1,565	368	1,933	78	98	177	710	275
2032	1,488	377	1,865	74	101	175	707	282
2033	1,418	386	1,804	71	103	174	734	294
2034	1,354	396	1,750	68	106	174	743	302
2035	1,296	406	1,702	65	109	173	776	315
2036	1,241	416	1,657	62	111	173	812	328
2037	1,188	427	1,615	59	114	174	839	340
2038	1,139	437	1,576	57	117	174	866	355
2039	1,092	448	1,540	55	120	175	897	367
2040	1,048	459	1,507	52	123	175	916	380
2041	1,004	471	1,475	50	126	176	952	395
2042	960	483	1,442	48	129	177	991	411
2043	916	495	1,411	46	132	178	1,045	431
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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.	55,396	10,756	66,152	2,768	2,850	5,618	21,324	7,976
NPV	17,479	2,382	19,861	873	620	1,494	4,542	1,608

* 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

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	3	0	2
2012	0	0	4	1	3
2013	0	0	19	8	11
2014	0	0	24	10	13
2015	0	0	31	13	19
2016	0	0	37	15	22
2017	0	0	45	17	27
2018	0	0	49	20	29
2019	2,886	3,774	58	23	(852)
2020	4,395	5,692	63	24	(1,258)
2021	4,842	6,277	67	26	(1,394)
2022	5,654	7,313	77	30	(1,612)
2023	6,240	8,065	76	32	(1,781)
2024	7,184	9,264	85	35	(2,030)
2025	8,292	10,661	91	39	(2,317)
2026	9,195	11,752	91	41	(2,507)
2027	10,402	13,275	97	45	(2,820)
2028	11,406	14,532	105	48	(3,070)
2029	13,047	16,561	120	53	(3,447)
2030	14,466	18,350	128	57	(3,813)
2031	15,722	19,930	139	62	(4,121)
2032	17,313	21,901	146	67	(4,509)
2033	20,172	25,503	158	72	(5,245)
2034	22,329	28,205	161	78	(5,793)
2035	24,252	30,649	180	84	(6,301)
2036	26,476	33,452	193	91	(6,873)
2037	28,696	36,245	208	98	(7,439)
2038	31,106	39,284	221	106	(8,063)
2039	33,594	42,481	236	114	(8,764)
2040	36,304	45,900	235	123	(9,484)
2041	39,116	49,450	252	132	(10,213)
2042	39,116	49,450	271	141	(10,204)
2043	39,116	49,450	291	152	(10,194)
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	471,324	597,416	3,962	1,858	(123,988)
NPV	57,066	72,611	637	281	(15,189)

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(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	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	2,192	0	0	2,192	0	1,896	109	11	2,016	(176)	(1,292)
2014	0	2,439	0	0	2,439	0	2,211	133	13	2,356	(83)	(1,346)
2015	0	2,400	0	0	2,400	0	2,458	206	19	2,682	283	(1,176)
2016	0	2,136	0	0	2,136	0	2,612	224	22	2,858	721	(779)
2017	0	1,890	0	0	1,890	0	2,769	260	27	3,057	1,166	(188)
2018	0	1,752	0	0	1,752	0	2,929	272	29	3,230	1,478	498
2019	0	1,546	0	0	1,546	20,759	3,076	464	(852)	23,447	21,901	9,846
2020	0	1,344	0	0	1,344	19,297	2,989	405	(1,258)	21,433	20,089	17,721
2021	0	1,184	0	0	1,184	18,519	2,904	449	(1,394)	20,477	19,293	24,666
2022	0	1,032	0	0	1,032	18,406	2,820	503	(1,612)	20,116	19,085	30,976
2023	0	888	0	0	888	18,736	2,738	399	(1,781)	20,092	19,205	36,807
2024	0	824	0	0	824	18,945	2,658	430	(2,030)	20,003	19,179	42,155
2025	0	844	0	0	844	18,910	2,578	419	(2,317)	19,590	18,746	46,955
2026	0	865	0	0	865	19,039	2,499	419	(2,507)	19,450	18,585	51,326
2027	0	887	0	0	887	19,192	2,420	431	(2,820)	19,223	18,336	55,287
2028	0	909	0	0	909	19,102	2,342	442	(3,070)	18,816	17,907	58,839
2029	0	932	0	0	932	19,603	2,263	406	(3,447)	18,826	17,894	62,098
2030	0	955	0	0	955	19,598	2,186	422	(3,813)	18,393	17,438	65,016
2031	0	979	0	0	979	19,452	2,110	425	(4,121)	17,865	16,886	67,510
2032	0	1,003	0	0	1,003	20,061	2,040	425	(4,509)	18,017	17,013	70,011
2033	0	1,029	0	0	1,029	20,012	1,978	440	(5,245)	17,185	16,157	72,105
2034	0	1,054	0	0	1,054	20,943	1,924	442	(5,793)	17,516	16,462	74,064
2035	0	1,081	0	0	1,081	21,259	1,875	461	(6,301)	17,294	16,214	75,837
2036	0	1,108	0	0	1,108	21,061	1,830	483	(6,873)	16,501	15,393	77,382
2037	0	1,135	0	0	1,135	21,511	1,789	499	(7,439)	16,359	15,223	78,785
2038	0	1,164	0	0	1,164	20,901	1,750	512	(8,063)	15,100	13,936	79,965
2039	0	1,193	0	0	1,193	20,537	1,715	530	(8,764)	14,018	12,825	80,962
2040	0	1,621	0	0	1,621	21,428	1,682	536	(9,484)	14,161	12,541	81,858
2041	0	1,661	0	0	1,661	21,219	1,651	556	(10,213)	13,213	11,552	82,616
2042	0	1,703	0	0	1,703	20,847	1,620	581	(10,204)	12,844	11,141	83,287
2043	0	1,551	0	0	1,551	20,910	1,589	614	(10,194)	12,920	11,369	83,915
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	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	44,794	0	0	44,794	500,247	71,769	13,149	(123,988)	461,177	416,382	
NPV	0	15,465	0	0	15,465	90,280	21,355	2,934	(15,189)	99,381	83,915	

Discount Rate: 8.89 %
Benefit/Cost Ratio (Col(11) / Col(6)) : 6.43

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(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	13	0	216	0	230	0	0	0	0	230	211
2011	41	0	649	0	690	0	0	0	0	690	793
2012	72	0	1,082	0	1,154	0	0	0	0	1,154	1,687
2013	99	0	1,416	0	1,515	0	0	0	0	1,515	2,765
2014	121	0	1,633	0	1,754	0	0	0	0	1,754	3,910
2015	140	0	1,798	0	1,938	0	0	0	0	1,938	5,073
2016	156	0	1,933	0	2,089	0	0	0	0	2,089	6,224
2017	173	0	2,068	0	2,241	0	0	0	0	2,241	7,358
2018	189	0	2,203	0	2,392	0	0	0	0	2,392	8,470
2019	202	0	2,271	0	2,473	0	0	0	0	2,473	9,525
2020	202	0	2,271	0	2,473	0	0	0	0	2,473	10,495
2021	207	0	2,271	0	2,478	0	0	0	0	2,478	11,387
2022	213	0	2,271	0	2,484	0	0	0	0	2,484	12,208
2023	219	0	2,271	0	2,490	0	0	0	0	2,490	12,964
2024	229	0	2,271	0	2,500	0	0	0	0	2,500	13,661
2025	237	0	2,271	0	2,508	0	0	0	0	2,508	14,303
2026	247	0	2,271	0	2,518	0	0	0	0	2,518	14,895
2027	260	0	2,271	0	2,530	0	0	0	0	2,530	15,442
2028	270	0	2,271	0	2,541	0	0	0	0	2,541	15,946
2029	282	0	2,271	0	2,553	0	0	0	0	2,553	16,411
2030	296	0	2,271	0	2,567	0	0	0	0	2,567	16,840
2031	310	0	2,271	0	2,580	0	0	0	0	2,580	17,227
2032	328	0	2,271	0	2,599	0	0	0	0	2,599	17,604
2033	357	0	2,271	0	2,628	0	0	0	0	2,628	17,944
2034	364	0	2,271	0	2,635	0	0	0	0	2,635	18,258
2035	378	0	2,271	0	2,649	0	0	0	0	2,649	18,547
2036	405	0	2,271	0	2,676	0	0	0	0	2,676	18,816
2037	427	0	2,271	0	2,698	0	0	0	0	2,698	19,065
2038	446	0	2,271	0	2,716	0	0	0	0	2,716	19,295
2039	466	0	2,271	0	2,737	0	0	0	0	2,737	19,507
2040	488	0	2,271	0	2,759	0	0	0	0	2,759	19,704
2041	514	0	2,271	0	2,784	0	0	0	0	2,784	19,887
2042	541	0	2,271	0	2,812	0	0	0	0	2,812	20,056
2043	571	0	2,271	0	2,841	0	0	0	0	2,841	20,213
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
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	9,464	0	69,766	0	79,230	0	0	0	0	79,230	
NPV	1,879	0	18,334	0	20,213	0	0	0	0	20,213	

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

2019
8.89 %
Infinite

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Residential Load Management Program

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) INCENTIVES \$(000)	(5) REVENUE LOSSES \$(000)	(6) OTHER COSTS \$(000)	(7) TOTAL COSTS \$(000)	(8) AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	(9) AVOIDED T&D BENEFITS \$(000)	(10) REVENUE GAINS \$(000)	(11) OTHER BENEFITS \$(000)	(12) TOTAL BENEFITS \$(000)	(13) NET BENEFITS \$(000)	(14) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
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	2,192	1,416	75	0	3,683	109	1,896	0	11	2,016	(1,667)	(4,015)
2014	0	2,439	1,633	92	0	4,164	133	2,211	0	13	2,356	(1,808)	(5,196)
2015	0	2,400	1,798	106	0	4,304	206	2,458	0	19	2,682	(1,622)	(6,169)
2016	0	2,136	1,933	118	0	4,188	224	2,612	0	22	2,858	(1,330)	(6,902)
2017	0	1,890	2,068	131	0	4,090	260	2,769	0	27	3,057	(1,033)	(7,424)
2018	0	1,752	2,203	144	0	4,099	272	2,929	0	29	3,230	(869)	(7,828)
2019	0	1,546	2,271	153	0	3,970	21,223	3,076	0	(852)	23,447	19,477	485
2020	0	1,344	2,271	154	0	3,769	19,702	2,989	0	(1,258)	21,433	17,664	7,409
2021	0	1,184	2,271	157	0	3,612	18,967	2,904	0	(1,394)	20,477	16,865	13,480
2022	0	1,032	2,271	162	0	3,464	18,908	2,820	0	(1,612)	20,116	16,652	18,986
2023	0	888	2,271	167	0	3,325	19,135	2,738	0	(1,781)	20,092	16,767	24,077
2024	0	824	2,271	174	0	3,268	19,375	2,658	0	(2,030)	20,003	16,734	28,743
2025	0	844	2,271	180	0	3,295	19,329	2,578	0	(2,317)	19,590	16,295	32,916
2026	0	865	2,271	188	0	3,324	19,458	2,499	0	(2,507)	19,450	16,126	36,709
2027	0	887	2,271	197	0	3,355	19,623	2,420	0	(2,820)	19,223	15,868	40,136
2028	0	909	2,271	205	0	3,385	19,544	2,342	0	(3,070)	18,816	15,430	43,197
2029	0	932	2,271	215	0	3,417	20,009	2,263	0	(3,447)	18,826	15,409	46,004
2030	0	955	2,271	225	0	3,451	20,021	2,186	0	(3,813)	18,393	14,942	48,504
2031	0	979	2,271	235	0	3,485	19,886	2,110	0	(4,121)	17,865	14,380	50,712
2032	0	1,003	2,271	249	0	3,523	20,486	2,040	0	(4,509)	18,017	14,494	52,759
2033	0	1,029	2,271	272	0	3,571	20,452	1,978	0	(5,245)	17,185	13,614	54,523
2034	0	1,054	2,271	277	0	3,602	21,385	1,924	0	(5,793)	17,516	13,915	56,179
2035	0	1,081	2,271	288	0	3,639	21,720	1,875	0	(6,301)	17,294	13,655	57,672
2036	0	1,108	2,271	308	0	3,686	21,544	1,830	0	(6,873)	16,501	12,814	58,958
2037	0	1,135	2,271	325	0	3,731	22,010	1,789	0	(7,439)	16,359	12,628	60,122
2038	0	1,164	2,271	339	0	3,773	21,413	1,750	0	(8,063)	15,100	11,327	61,081
2039	0	1,193	2,271	354	0	3,818	21,067	1,715	0	(8,764)	14,018	10,200	61,874
2040	0	1,621	2,271	371	0	4,262	21,963	1,682	0	(9,484)	14,161	9,899	62,581
2041	0	1,661	2,271	390	0	4,322	21,775	1,651	0	(10,213)	13,213	8,891	63,164
2042	0	1,703	2,271	411	0	4,385	21,428	1,620	0	(10,204)	12,844	8,459	63,674
2043	0	1,551	2,271	434	0	4,255	21,525	1,589	0	(10,194)	12,920	8,665	64,153
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	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	44,794	69,766	7,193	0	121,753	513,396	71,769	0	(123,988)	461,177	339,424	
NPV	0	15,465	18,334	1,428	0	35,228	93,214	21,355	0	(15,189)	99,381	64,153	

Discount Rate

8.89 %

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

2.82

RESIDENTIAL AC TUNE-UP AND MAINTENANCE

INPUT DATA - PART I CONTINUED
PROGRAM(METHOD SELECTED): REV. MSQ
PROGRAM(NAME): Residential AC Tune-up and Maintenance

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.21 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.28 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	44.65 KWH
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.60 KVA

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	38 YEARS
(4) K FACTOR FOR GENERATION	1.70728
(5) K FACTOR FOR T & D	1.62254

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	*** %**
+ INCREASED SUPPLY COSTS	*** \$CUST/YR
+ SUPPLY COSTS ESCALATION RATE	*** %**
- UTILITY DISCOUNT RATE	8.80 %
+ UTILITY AFDG RATE	8.48 %
* UTILITY NON-RECURRING REBATE/INCENTIVE	*** \$CUST
+ UTILITY RECURRING REBATE/INCENTIVE	*** \$CUST
* 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	185.22 \$/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	1.81 \$/KW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN FUEL VARIABLE O & M COSTS	0.106 CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	094 ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.23 CENTS PER KWHR** (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&O
(4) DEMAND CHARGE ESCALATION RATE	*** %

**CALCULATION OF GENX-FACTOR
PROGRAMMED SUBCATED REV. REQ
PROGRAM NAME: Residential AC Tune-up and Maintenance**

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
ISO-YEAR	RATE-BASE \$ (000)	DEBT \$ (000)	PREFERRED STOCK \$ (000)	COMMON EQUITY \$ (000)	INCOME TAXES \$ (000)	PROPERTY TAX \$ (000)	PROPERTY INSURANCE \$ (000)	DEPRECIATION \$ (000)	DEFERRED TAXES \$ (000)	TOTAL ADDED CHARGES \$ (000)	PRESENT WORTH ADDED CHARGES \$ (000)	CUMULATIVE PW ADDED CHARGES \$ (000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$ (000)
2019	23,391	727	0	1,632	1,077	394	139	912	2	4,394	4,394	4,394	22,812
2020	22,477	698	0	1,569	740	378	143	912	289	4,788	4,332	8,725	23,383
2021	21,564	661	0	1,484	733	361	146	912	332	4,539	3,839	12,563	23,947
2022	20,191	634	0	1,403	725	345	150	912	218	4,249	3,384	15,947	24,566
2023	18,979	590	0	1,324	716	328	154	912	179	4,134	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	295	161	912	99	3,961	2,317	24,387	26,455
2026	15,839	492	0	1,105	680	279	165	912	68	3,792	2,040	26,427	27,117
2027	14,830	462	0	1,037	642	263	170	912	43	3,548	1,726	28,222	27,795
2028	13,884	431	0	969	599	246	174	912	23	3,295	1,578	29,800	28,490
2029	12,909	401	0	901	557	230	178	912	13	3,202	1,384	31,184	29,202
2030	11,904	371	0	833	514	214	183	912	6	3,089	1,211	32,394	29,932
2031	10,859	340	0	765	471	197	187	912	1	2,956	1,057	33,451	30,680
2032	9,883	310	0	697	428	181	192	912	1	2,783	920	34,371	31,447
2033	8,888	280	0	629	385	164	197	912	1	2,630	799	35,170	32,230
2034	7,883	250	0	561	343	148	202	912	1	2,478	691	35,861	33,039
2035	6,858	220	0	493	300	131	207	912	1	2,325	595	36,456	33,865
2036	5,803	189	0	425	257	115	212	912	1	2,173	511	36,967	34,712
2037	4,716	159	0	356	215	99	217	912	1	2,021	436	37,404	35,580
2038	4,133	128	0	288	172	82	222	912	1	1,868	371	37,774	36,469
2039	3,157	98	0	220	130	66	228	912	(10)	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	220	38,583	39,273
2042	1,386	37	0	83	425	16	246	912	(319)	1,400	198	38,781	40,253
2043	993	18	0	41	389	(9)	252	912	(315)	1,303	169	38,959	41,261

IN SERVICE COST (\$000)	22,812
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	75
DEPR. RATE	38.57%
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 = CPWC / IN-SVC COST =

1.79738

DEFERRED TAX AND MID-YEAR RATE-BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_98Q
 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 DEPRECIATION FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR. RATE MINUS LINES	(10)*(11) TAC GRADE \$(000)	SALVAGE TAC GRADE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	832	832	912	912	827	827	3	2,129	0	0	0	2	(377)
2020	7.25%	1,681	2,433	912	1,825	827	1,655	209	2,129	0	0	0	209	(229)
2021	6.85%	1,481	3,915	912	2,737	827	2,482	232	2,129	0	0	0	232	(26)
2022	6.15%	1,371	5,286	912	3,650	827	3,329	210	2,129	0	0	0	210	183
2023	5.75%	1,267	6,553	912	4,562	827	4,137	179	2,129	0	0	0	179	353
2024	5.25%	1,172	7,725	912	5,475	827	4,964	133	2,129	0	0	0	133	486
2025	4.85%	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%	425	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)	(379)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	2,129
BOOK DEPR. RATE - USEFUL LIFE	4.80%

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

(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)
2013	3.75%	332	2	21,999	912	(577)	21,391	22,477	22,934
2020	7.22%	1,601	299	20,987	1,825	(529)	22,477	21,266	21,871
2021	6.88%	1,491	282	20,075	2,737	(26)	21,266	20,181	20,684
2022	6.18%	1,371	210	19,162	3,650	183	20,181	18,979	19,540
2023	5.75%	1,287	170	18,258	4,562	333	18,979	17,897	18,408
2024	5.29%	1,172	133	17,337	5,475	486	17,897	16,851	17,374
2025	4.83%	1,084	99	16,425	6,387	585	16,851	15,839	16,345
2026	4.52%	1,000	68	15,512	7,300	633	15,839	14,829	15,348
2027	4.40%	990	63	14,600	8,212	716	14,829	13,884	14,372
2028	4.40%	990	63	13,687	9,125	779	13,884	12,900	13,396
2029	4.40%	990	63	12,775	10,037	841	12,900	11,934	12,421
2030	4.40%	990	63	11,862	10,950	904	11,934	10,939	11,446
2031	4.40%	990	63	10,950	11,862	967	10,939	9,963	10,471
2032	4.40%	990	63	10,037	12,775	1,029	9,963	8,988	9,496
2033	4.40%	990	63	9,125	13,687	1,092	8,988	8,033	8,521
2034	4.40%	990	63	8,212	14,600	1,154	8,033	7,058	7,546
2035	4.40%	990	63	7,300	15,512	1,217	7,058	6,083	6,579
2036	4.40%	990	63	6,387	16,425	1,280	6,083	5,108	5,595
2037	4.40%	990	63	5,475	17,337	1,342	5,108	4,133	4,620
2038	4.40%	990	63	4,562	18,250	1,405	4,133	3,157	3,645
2039	3.22%	453	(128)	3,650	19,162	1,577	3,157	2,373	2,765
2040	0.00%	0	(319)	2,737	20,075	938	2,373	1,786	2,074
2041	0.00%	0	(319)	1,825	20,987	639	1,786	1,196	1,483
2042	0.00%	0	(319)	912	21,900	319	1,196	599	599
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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
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	1.30%	15.09	5.24
2015	-4	3.00%	1.194	4.57%	39.61	37.63
2016	-3	3.00%	1.230	37.50%	331.57	222.77
2017	-2	3.00%	1.267	45.74%	438.27	394.84
2018	-1	3.00%	1.305	10.44%	98.79	833.38

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(4) DEBT AFUDC (\$K/W)	100.00%		(6) CUMULATIVE TOTAL AFUDC (\$K/W)	(7) CONSTRUCTION PERIOD INTEREST (\$K/W)	(8) CUMULATIVE CFI (\$K/W)	(9) DEFERRED TAXES (\$K/W)	(10) CUMULATIVE DEFERRED TAXES (\$K/W)	(11) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(12) CUMULATIVE YEAR-END BOOK VALUE (\$K/W)
				(5) CUMULATIVE DEBT AFUDC (\$K/W)	(5) YEARLY TOTAL AFUDC (\$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
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	0.62	0.62	0.85	0.65	0.04	0.64	(0.01)	(0.01)	1.29	1.29
2014	-5	5.29	0.29	0.30	0.79	0.84	0.65	0.79	(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)	(0.79)	42.83	60.90
2016	-3	226.84	7.87	8.56	19.29	23.56	15.98	19.25	(4.14)	(4.15)	251.16	412.06
2017	-2	622.20	19.16	28.01	59.10	76.45	43.47	62.72	(9.28)	(13.39)	473.37	885.43
2018	-1	934.83	29.16	57.47	88.39	156.84	64.78	127.50	(13.63)	(27.02)	179.15	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,889,885
AFUDC RATE	8.48%

57.47	156.84	237.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEBT TAX	TAX BASIS	
	CONSTRUCTION CASH	19,432	19,432	19,432
	EQUITY AFUDC	2,129		
	DEBT AFUDC	1,231	1,231	
	CFI			2,732
	TOTAL	22,812	20,663	22,164

* Columns not specified in workbook

INPUT DATA - PART 2
 PROGRAMS/SCHEM SELECTED: RESV REQ
 PROGRAM/NAME: Residential AC Turn-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 (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM/AV EFFECTIVENESS FACTOR	PROGRAM/AV INEFFECTIVENESS FACTOR
2009	0	0	4.79	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	6,697	6,697	6.35	8.64	6.58	0.00	1.00	1.00
2012	14,185	14,185	6.43	8.62	6.43	0.00	1.00	1.00
2013	22,294	22,294	7.06	8.53	7.28	0.00	1.00	1.00
2014	31,304	31,304	7.59	8.80	7.67	0.00	1.00	1.00
2015	41,304	41,304	8.11	9.77	8.29	0.00	1.00	1.00
2016	52,285	52,285	9.00	11.78	9.28	0.00	1.00	1.00
2017	64,305	64,305	9.75	13.94	10.02	0.00	1.00	1.00
2018	77,635	77,635	10.82	15.73	10.81	0.00	1.00	1.00
2019	77,635	77,635	11.90	15.53	10.41	0.00	1.00	1.00
2020	77,635	77,635	12.08	16.18	12.51	0.00	1.00	1.00
2021	77,635	77,635	12.57	16.83	13.02	0.00	1.00	1.00
2022	77,635	77,635	13.06	17.52	13.54	0.00	1.00	1.00
2023	77,635	77,635	13.59	17.56	13.86	0.00	1.00	1.00
2024	77,635	77,635	13.95	18.19	14.42	0.00	1.00	1.00
2025	77,635	77,635	14.40	18.66	14.87	0.00	1.00	1.00
2026	77,635	77,635	14.70	18.69	15.15	0.00	1.00	1.00
2027	77,635	77,635	15.13	18.94	15.56	0.00	1.00	1.00
2028	77,635	77,635	15.60	19.24	16.02	0.00	1.00	1.00
2029	77,635	77,635	16.02	19.22	16.48	0.00	1.00	1.00
2030	77,635	77,635	16.52	19.69	16.88	0.00	1.00	1.00
2031	77,635	77,635	17.08	20.24	17.44	0.00	1.00	1.00
2032	77,635	77,635	17.50	19.82	17.81	0.00	1.00	1.00
2033	77,635	77,635	18.27	20.69	18.47	0.00	1.00	1.00
2034	77,635	77,635	18.73	20.28	18.84	0.00	1.00	1.00
2035	77,635	77,635	19.57	21.64	19.72	0.00	1.00	1.00
2036	77,635	77,635	20.40	22.69	20.51	0.00	1.00	1.00
2037	77,635	77,635	21.11	23.18	21.22	0.00	1.00	1.00
2038	77,635	77,635	22.02	24.15	22.14	0.00	1.00	1.00
2039	77,635	77,635	22.78	24.74	22.87	0.00	1.00	1.00
2040	77,635	77,635	23.59	25.27	23.66	0.00	1.00	1.00
2041	77,635	77,635	24.34	26.14	24.50	0.00	1.00	1.00
2042	77,635	77,635	25.50	27.05	25.37	0.00	1.00	1.00
2043	77,635	77,635	26.74	28.55	26.83	0.00	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.

TOTAL RESOURCE COST TEST
PROGRAM/METHOD SEARCHED: REV_REQ
PROGRAM/NAME: Residential AC Tune-up and Maintenance

(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	0	0	0	0	0	0	0	0	0	0	(0)
2011	0	534	1,257	0	1,771	0	0	340	1	341	(1,430)	(1,575)
2012	0	485	1,483	0	2,068	0	84	433	2	519	(1,480)	(2,329)
2013	0	483	1,490	0	2,223	0	185	731	40	976	(1,299)	(3,453)
2014	0	776	1,759	0	2,575	0	291	1,181	97	1,489	(1,060)	(4,163)
2015	0	1,141	2,506	0	3,667	0	498	1,678	146	2,223	(1,426)	(5,927)
2016	0	1,289	2,832	0	4,121	0	539	2,645	216	3,400	(722)	(5,415)
2017	0	1,453	3,196	0	4,631	0	683	3,639	298	4,621	(51)	(5,430)
2018	0	1,640	3,601	0	5,242	0	848	4,577	387	5,912	649	(5,119)
2019	0	725	1,289	0	2,094	5,266	1,816	5,827	913	12,923	10,899	(407)
2020	0	826	1,469	0	2,289	5,453	917	6,061	135	12,636	10,348	3,589
2021	0	1,303	2,695	0	3,998	5,233	338	6,261	135	12,628	8,629	6,695
2022	0	1,472	3,047	0	4,519	5,261	338	6,587	139	12,807	8,318	9,443
2023	0	1,284	2,764	0	4,048	5,285	344	6,544	131	12,873	8,325	12,325
2024	0	1,453	3,127	0	4,580	5,254	377	6,774	139	13,124	8,334	14,310
2025	0	1,612	3,534	0	5,176	5,344	330	6,937	119	13,233	8,976	16,378
2026	0	1,853	3,988	0	5,841	5,380	327	6,916	103	13,227	7,286	18,313
2027	0	1,672	3,789	0	5,421	5,423	302	6,983	31	13,239	7,878	20,617
2028	0	1,887	4,329	0	6,116	5,298	777	7,127	84	13,399	7,283	21,461
2029	0	1,198	2,822	0	3,150	5,540	773	7,016	32	13,400	10,250	23,529
2030	0	1,273	2,881	0	3,554	5,338	728	7,136	75	13,478	9,923	24,989
2031	0	1,458	3,073	0	4,520	5,497	704	7,243	83	13,607	9,117	26,394
2032	0	1,650	3,479	0	5,129	5,669	688	7,373	78	13,690	8,471	27,285
2033	0	1,866	3,955	0	5,811	5,655	636	7,637	(14)	13,733	7,524	28,613
2034	0	2,107	4,445	0	6,552	5,918	634	7,801	(49)	13,704	7,132	29,465
2035	0	1,869	4,107	0	5,976	6,048	634	7,928	(63)	14,280	8,315	30,573
2036	0	2,112	4,690	0	6,725	5,952	395	8,118	(79)	14,586	7,833	31,180
2037	0	2,385	5,237	0	7,621	6,079	378	8,264	(91)	14,831	7,210	31,824
2038	0	2,694	5,902	0	8,596	5,906	362	8,408	(104)	14,973	6,389	32,363
2039	0	1,188	2,128	0	3,316	5,804	330	8,793	(133)	15,013	11,697	33,224
2040	0	1,343	2,407	0	3,751	6,025	330	8,947	(133)	15,385	11,635	34,105
2041	0	2,235	4,416	0	6,592	5,994	328	9,229	(171)	15,393	9,841	34,698
2042	0	2,413	4,992	0	7,405	5,831	318	9,549	34	15,993	8,382	35,215
2043	0	2,105	4,529	0	6,634	5,969	308	10,283	257	16,937	10,323	35,784
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	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	48,957	105,662	0	135,620	141,367	21,117	283,330	2,238	348,671	211,622	
NPV	0	11,692	24,931	0	36,533	25,513	3,487	40,330	1,049	72,329	35,786	

Discount Rate:
Benefit/Cost Ratio (Col(11) / Col(6)) : 1.32 %

RESIDENTIAL REFRIGERATOR REPLACEMENT

INPUT DATA - PART I 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	2.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	107.61 KW
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KW INCREASE AT METER	0.00 KW

II. ECONOMIC LIFE & X FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) X FACTOR FOR GENERATION	1.79708
(5) X 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	2.89 %
(11) UTILITY AFDG RATE	2.48 %
(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	2010
(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	185.32 \$/KW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/KW
(7) GEN. TRAN & DIST. COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.05 \$/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/KW
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	6% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.25 CENTS PER KW/H** (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/KW
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	*** %

CALCULATION OF GENE-FACTOR
PROGRAMMED SELECTED REV_REQ
PROGRAMNAME: Residential Refrigerator Replacement

(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)	DEPRECI- \$(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	233	0	327	249	127	48	307	106	1,893	1,463	3,163	7,962
2021	7,139	222	0	499	247	121	49	307	83	1,539	1,290	4,393	8,658
2022	6,758	210	0	472	244	116	50	307	71	1,463	1,118	5,533	8,260
2023	6,381	198	0	443	241	110	52	307	57	1,410	1,003	6,536	2,665
2024	6,017	187	0	428	237	105	53	307	45	1,353	884	7,420	1,678
2025	5,666	176	0	385	233	99	54	307	33	1,298	779	8,199	8,891
2026	5,326	165	0	372	229	94	56	307	23	1,245	698	8,883	9,117
2027	4,996	155	0	349	214	88	57	307	11	1,193	604	9,489	9,343
2028	4,668	145	0	324	202	83	58	307	21	1,141	530	10,019	9,579
2029	4,340	135	0	343	187	77	60	307	21	1,096	465	10,485	9,818
2030	4,012	125	0	280	173	72	61	307	21	1,058	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	11,554	10,573
2033	3,029	94	0	211	130	56	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	165	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	43	21	77	307	(43)	577	105	12,806	12,568
2040	798	23	0	56	26	17	79	307	(107)	533	90	12,893	12,882
2041	598	19	0	42	12	11	81	307	(107)	503	77	12,973	13,205
2042	399	12	0	28	6	6	83	307	(107)	471	66	13,049	13,535
2043	199	6	0	14	3	3	85	307	(107)	438	57	13,126	13,873

IN SERVICE COST (\$000)	7,670
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EXPR. TAX RATE	38.575
DISCOUNT RATE	8.5%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	%
DEBT	44%	7.83	%
PS	9%	0.80	%
CS	50%	12.50	%

K-FACTOR = $\frac{CFWFC}{IN-SVC COST} = 1.79738$

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

(2)	(3)	(5)	(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 DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	5.75%	280	280	307	307	278	278	1	716	0	0	0	1	(34)
2020	7.22%	338	618	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	82
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	4.87%	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	3,989	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	(45)	716	0	0	0	(45)	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 - USEFUL LIFE	4.80%

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

(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	2.75%	280	1	7,563	307	(394)	7,865	7,537	7,711
2020	7.25%	538	100	7,026	614	(94)	7,557	7,130	7,354
2021	6.88%	498	85	6,750	920	(9)	7,150	6,738	6,954
2022	6.18%	461	71	6,443	1,227	82	6,758	6,381	6,578
2023	5.75%	426	57	6,134	1,534	119	6,381	6,017	6,189
2024	5.25%	394	45	5,829	1,841	164	6,017	5,668	5,842
2025	4.89%	365	35	5,522	2,148	197	5,666	5,326	5,496
2026	4.52%	337	23	5,216	2,454	230	5,306	4,996	5,161
2027	4.40%	330	21	4,909	2,761	241	4,996	4,668	4,832
2028	4.40%	333	21	4,602	3,068	282	4,668	4,340	4,504
2029	4.40%	333	21	4,295	3,375	283	4,340	4,012	4,176
2030	4.40%	333	21	3,988	3,682	304	4,012	3,685	3,849
2031	4.40%	333	21	3,682	3,988	325	3,685	3,357	3,521
2032	4.40%	333	21	3,375	4,295	346	3,357	3,029	3,193
2033	4.40%	333	21	3,068	4,602	367	3,029	2,701	2,865
2034	4.40%	333	21	2,761	4,909	388	2,701	2,373	2,537
2035	4.40%	333	21	2,454	5,216	409	2,373	2,045	2,209
2036	4.40%	330	21	2,148	5,522	430	2,045	1,717	1,881
2037	4.40%	333	21	1,841	5,829	451	1,717	1,389	1,553
2038	4.40%	333	21	1,534	6,134	472	1,389	1,062	1,226
2039	2.25%	166	(45)	1,227	6,443	429	1,062	794	958
2040	0.00%	0	(107)	920	6,750	322	794	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	300

* 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	1.00%	1.030	0.00%	0.00	0.00
2011	-8	1.00%	1.061	0.00%	0.00	0.00
2012	-7	1.00%	1.093	0.00%	0.00	0.00
2013	-6	1.00%	1.126	0.15%	1.34	0.62
2014	-5	1.00%	1.159	1.50%	13.99	5.24
2015	-4	1.00%	1.194	4.57%	39.61	37.03
2016	-3	1.00%	1.230	37.20%	331.87	222.77
2017	-2	1.00%	1.267	45.76%	428.37	398.84
2018	-1	1.00%	1.305	18.44%	98.73	658.38

YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (\$/KW)	(9a)* DEBT AFUDC (\$/KW)	100.00%		(9b)* CUMULATIVE DEBT AFUDC (\$/KW)	(9c)* YEARLY TOTAL AFUDC (\$/KW)	(9d)* CUMULATIVE TOTAL AFUDC (\$/KW)	(9e)* CONSTRUCTION PERIOD INTEREST (\$/KW)	(9f)* CUMULATIVE CPI	(9g)* DEFERRED TAXES (\$/KW)	(9h)* CUMULATIVE DEFERRED TAXES (\$/KW)	(10)	(11)
				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	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
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
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
2013	-6	0.62	0.62	0.62	0.62	0.62	0.62	0.04	0.04	0.00	0.00	(0.01)	1.29	1.29
2014	-5	5.29	0.29	0.29	0.29	0.29	0.29	0.63	0.70	0.14	0.14	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	1.22	1.22	4.06	2.65	3.35	0.57	0.57	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	15.90	19.25	1.41	1.41	(4.13)	251.16	412.06
2017	-2	622.20	19.46	28.61	33.10	76.45	43.47	43.47	62.72	0.26	0.26	(13.39)	473.37	885.43
2018	-1	934.83	29.46	57.47	80.23	156.84	64.78	64.78	127.50	13.83	13.83	(27.82)	179.18	1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725,389,805
AFUDC RATE	0.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION COST	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 1
 PROGRAM NUMBER SELECTED : REV_XBQ
 PROGRAM NAME: Residential Refrigerator Replacement

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	(5) AVOIDED MARGINAL FUEL COST (\$/KWH)	(6)* INCREASED MARGINAL FUEL COST (\$/KWH)	(7) REPLACEMENT FUEL COST (\$/KWH)	(8) PROGRAM/NEW EFFECTIVENESS FACTOR	(9) PROGRAM/OLD EFFECTIVENESS FACTOR
2009	0	0	6.77	9.37	6.78	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	81,696	81,696	7.06	7.94	7.98	0.00	1.00	1.00
2014	121,538	121,538	7.53	8.28	7.90	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	9.09	10.60	9.54	0.00	1.00	1.00
2017	166,636	166,636	9.75	11.38	10.34	0.00	1.00	1.00
2018	166,636	166,636	10.32	12.42	11.15	0.00	1.00	1.00
2019	166,636	166,636	11.50	13.91	12.98	10.41	1.00	1.00
2020	166,636	166,636	12.08	14.53	12.95	10.30	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	14.03	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	14.78	16.87	15.32	11.05	1.00	1.00
2027	166,636	166,636	15.13	17.12	15.00	11.17	1.00	1.00
2028	166,636	166,636	15.60	17.50	16.28	11.26	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	16.40	18.12	17.18	11.59	1.00	1.00
2031	166,636	166,636	17.08	18.72	17.74	11.50	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	18.75	19.33	19.01	12.14	1.00	1.00
2035	166,636	166,636	19.57	19.39	19.94	12.29	1.00	1.00
2036	166,636	166,636	20.40	21.33	20.75	12.53	1.00	1.00
2037	166,636	166,636	21.11	22.14	21.43	12.76	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	23.88	13.32	1.00	1.00
2040	166,636	166,636	23.39	24.42	23.85	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	27.87	14.48	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.

RATE IMPACT TEST
PROGRAM/TITLE: RESIDENTIAL REFRIGERATOR REPLACEMENT
PROGRAM NAME: Residential Refrigerator Replacement

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	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	897	1,570	116	0	2,583	90	0	0	0	91	(2,492)	(2,102)
2012	0	1,963	2,157	413	0	3,533	303	40	0	1	344	(3,189)	(4,806)
2013	0	1,703	2,872	845	0	5,440	392	101	0	32	745	(4,695)	(6,144)
2014	0	2,267	3,685	1,466	0	7,418	1,004	178	0	94	1,276	(6,142)	(12,156)
2015	0	1,606	2,547	2,104	0	6,256	1,506	234	0	143	1,923	(4,334)	(14,756)
2016	0	0	0	2,415	0	2,415	1,987	335	0	179	2,501	84	(14,769)
2017	0	0	0	2,503	0	2,503	2,176	326	0	196	2,698	195	(14,610)
2018	0	0	0	2,572	0	2,572	2,331	316	0	213	2,861	288	(14,476)
2019	0	0	0	2,667	0	2,667	4,398	307	0	148	5,052	2,385	(13,459)
2020	0	0	0	2,675	0	2,675	4,571	298	0	130	4,999	2,304	(12,547)
2021	0	0	0	2,733	0	2,733	4,615	289	0	135	5,039	2,306	(11,713)
2022	0	0	0	2,813	0	2,813	4,676	281	0	147	5,104	2,291	(10,953)
2023	0	0	0	2,898	0	2,898	4,712	273	0	151	5,136	2,239	(10,299)
2024	0	0	0	3,024	0	3,024	4,840	265	0	164	5,269	2,193	(9,654)
2025	0	1,967	1,570	3,135	0	5,972	4,913	257	0	173	5,344	(928)	(9,815)
2026	0	1,784	2,157	3,261	0	7,282	4,959	250	0	177	5,376	(1,826)	(10,944)
2027	0	2,435	2,872	3,402	0	8,709	5,001	242	0	185	5,428	(3,516)	(10,999)
2028	0	3,203	3,685	3,571	0	10,459	5,055	234	0	202	5,492	(4,969)	(11,943)
2029	0	2,969	2,547	3,731	0	9,247	5,119	226	0	222	5,567	(2,990)	(12,488)
2030	0	0	0	3,913	0	3,913	5,196	218	0	231	5,646	1,733	(12,198)
2031	0	0	0	4,092	0	4,092	5,291	211	0	253	5,734	1,663	(11,949)
2032	0	0	0	4,333	0	4,333	5,340	203	0	271	5,814	1,481	(11,703)
2033	0	0	0	4,722	0	4,722	5,400	194	0	289	5,911	1,191	(11,494)
2034	0	0	0	4,889	0	4,889	5,530	189	0	271	5,991	1,182	(11,438)
2035	0	0	0	4,999	0	4,999	5,764	184	0	291	6,239	1,263	(11,363)
2036	0	0	0	5,356	0	5,356	5,919	180	0	311	6,409	1,053	(11,197)
2037	0	0	0	5,643	0	5,643	6,065	176	0	335	6,576	933	(11,111)
2038	0	0	0	5,888	0	5,888	6,173	173	0	359	6,794	816	(11,042)
2039	0	1,790	1,570	6,158	0	9,518	6,257	169	0	390	6,897	(2,712)	(11,023)
2040	0	2,921	2,157	6,445	0	11,123	6,454	165	0	408	7,028	(4,093)	(11,543)
2041	0	3,440	2,872	6,786	0	13,097	6,691	163	0	437	7,201	(5,896)	(11,970)
2042	0	4,326	3,685	7,149	0	15,360	6,733	160	0	513	7,436	(7,928)	(12,429)
2043	0	3,206	2,547	7,538	0	13,291	7,031	157	0	639	7,844	(5,645)	(12,710)
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
NPV	0	24,197	26,093	124,283	0	196,293	146,252	7,037	0	7,718	161,697	(65,286)	
NPV	0	8,718	12,226	21,967	0	45,211	29,033	2,015	0	1,433	32,581	(12,710)	

Discount Rate: 3.89 %
Benefit/Cost Ratio (Col(13) / Col(7)) : 0.72

BUSINESS HEATING, VENTILATING AND AIR CONDITIONING

INPUT DATA - PART I 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	1.05 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.40 kW
(3) kW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	4,985.18 kWh ****
(5) kWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER kWh INCREASE AT METER	433.17 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

**** 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

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	
2010	813	21,800	0	22,613	1,640	543	31,820	0	31,820	
2011	1,173	23,443	0	24,617	5,934	2,001	39,572	0	39,572	
2012	1,671	27,751	0	29,422	13,042	4,316	52,754	0	52,754	
2013	1,839	29,470	0	31,309	23,317	7,198	58,547	0	58,547	
2014	1,783	28,499	0	30,282	35,595	10,592	58,758	0	58,758	
2015	1,640	23,949	0	25,589	47,745	13,983	50,135	0	50,135	
2016	1,530	22,475	0	24,005	58,129	16,503	42,820	0	42,820	
2017	585	13,876	0	14,461	65,508	18,780	24,740	0	24,740	
2018	441	12,890	0	13,331	70,795	19,562	21,907	0	21,907	
2019	0	0	0	0	76,065	19,548	0	0	0	
2020	0	0	0	0	76,632	19,119	0	0	0	
2021	0	0	0	0	79,294	18,796	0	0	0	
2022	0	0	0	0	83,072	18,597	0	0	0	
2023	0	0	0	0	86,538	18,715	0	0	0	
2024	0	0	0	0	91,755	18,898	0	0	0	
2025	464	9,978	0	10,442	96,976	18,378	20,123	0	20,123	
2026	723	13,767	0	14,490	102,124	18,441	30,889	0	30,889	
2027	687	14,249	0	14,937	109,189	18,604	31,812	0	31,812	
2028	746	15,085	0	15,831	114,828	18,808	34,785	0	34,785	
2029	726	14,509	0	15,235	121,511	18,931	34,016	0	34,016	
2030	1,249	21,770	0	23,019	129,059	19,112	50,644	0	50,644	
2031	1,521	19,262	0	20,783	136,543	19,235	50,461	0	50,461	
2032	2,266	21,215	0	23,481	146,277	19,610	66,099	0	66,099	
2033	2,481	22,070	0	24,551	161,750	20,277	72,537	0	72,537	
2034	2,100	13,990	0	16,090	164,974	20,590	57,797	0	57,797	
2035	2,187	14,001	0	16,187	173,948	20,190	58,087	0	58,087	
2036	2,036	12,889	0	14,925	188,877	20,476	46,898	0	46,898	
2037	613	6,163	0	6,776	200,297	20,984	22,834	0	22,834	
2038	370	5,205	0	5,575	210,797	21,051	17,844	0	17,844	
2039	0	0	0	0	222,291	21,145	0	0	0	
2040	673	9,978	0	10,651	234,565	21,220	29,144	0	29,144	
2041	1,048	13,767	0	14,815	249,105	21,330	44,737	0	44,737	
2042	996	14,249	0	15,245	264,638	21,439	46,074	0	46,074	
2043	1,080	15,085	0	16,165	281,231	21,549	50,379	0	50,379	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	
	0	0	0	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	33,443	461,385	0	494,828	4,124,041	588,522	1,146,210	0	1,146,210	
NPV	10,652	176,406	0	187,058	730,876	142,614	359,344	0	359,344	

* 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)
2019	246,811	7,667	0	17,224	11,363	4,159	1,468	9,628	19	51,528	51,528	240,703
2020	237,165	7,367	0	16,551	7,808	3,986	1,505	9,628	3,151	49,996	45,916	246,721
2021	224,386	6,970	0	15,659	7,737	3,813	1,543	9,628	2,661	48,012	40,494	252,889
2022	212,096	6,589	0	14,802	7,647	3,639	1,581	9,628	2,213	46,099	35,708	259,211
2023	200,255	6,221	0	13,975	7,550	3,466	1,621	9,628	1,791	44,252	31,480	265,691
2024	188,836	5,866	0	13,178	7,436	3,293	1,661	9,628	1,405	42,467	27,744	272,333
2025	177,803	5,523	0	12,408	7,311	3,120	1,703	9,628	1,046	40,739	24,443	279,142
2026	167,129	5,192	0	11,664	7,173	2,946	1,745	9,628	716	39,064	21,525	286,120
2027	156,785	4,870	0	10,942	6,774	2,773	1,789	9,628	661	37,438	18,946	293,273
2028	146,496	4,551	0	10,224	6,324	2,600	1,834	9,628	661	35,821	16,648	300,605
2029	136,207	4,231	0	9,506	5,872	2,426	1,880	9,628	661	34,205	14,599	308,120
2030	125,917	3,912	0	8,787	5,422	2,253	1,927	9,628	661	32,590	12,775	315,823
2031	115,629	3,592	0	8,069	4,971	2,080	1,975	9,628	661	30,976	11,151	323,719
2032	105,339	3,272	0	7,351	4,520	1,906	2,024	9,628	661	29,363	9,708	331,812
2033	95,050	2,953	0	6,633	4,069	1,733	2,075	9,628	661	27,752	8,426	340,107
2034	84,761	2,633	0	5,915	3,619	1,560	2,127	9,628	661	26,142	7,290	348,610
2035	74,472	2,313	0	5,197	3,167	1,386	2,180	9,628	661	24,533	6,283	357,325
2036	64,182	1,994	0	4,479	2,717	1,213	2,234	9,628	661	22,926	5,392	366,258
2037	53,894	1,674	0	3,761	2,265	1,040	2,290	9,628	661	21,320	4,605	375,415
2038	43,604	1,355	0	3,043	1,815	867	2,347	9,628	661	19,715	3,911	384,800
2039	33,315	1,035	0	2,325	1,377	693	2,406	9,628	(1,353)	18,112	3,300	394,420
2040	25,040	778	0	1,747	1,029	520	2,466	9,628	(3,367)	16,801	2,811	404,281
2041	18,780	583	0	1,311	4,755	347	2,528	9,628	(3,367)	15,784	2,425	414,388
2042	12,515	389	0	874	4,480	173	2,591	9,628	(5,367)	14,768	2,084	424,747
2043	6,258	194	0	437	4,206	0	2,656	9,628	(3,367)	13,754	1,782	435,366

IN SERVICE COST (\$000)	240,703
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 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%	8,778	8,778	9,628	9,628	8,729	8,729	19	22,467	0	0	0	19	(6,090)
2020	7.22%	16,898	25,675	9,628	19,256	8,729	17,459	3,151	22,467	0	0	0	3,151	(2,939)
2021	6.68%	15,629	41,304	9,628	28,884	8,729	26,188	2,661	22,467	0	0	0	2,661	(277)
2022	6.18%	14,466	55,770	9,628	38,512	8,729	34,918	2,213	22,467	0	0	0	2,213	1,935
2023	5.71%	13,372	69,142	9,628	48,141	8,729	43,647	1,791	22,467	0	0	0	1,791	3,726
2024	5.29%	12,371	81,513	9,628	57,769	8,729	52,377	1,405	22,467	0	0	0	1,405	5,131
2025	4.89%	11,441	92,954	9,628	67,397	8,729	61,106	1,046	22,467	0	0	0	1,046	6,177
2026	4.52%	10,585	103,539	9,628	77,025	8,729	69,835	716	22,467	0	0	0	716	6,893
2027	4.46%	10,444	113,983	9,628	86,653	8,729	78,565	661	22,467	0	0	0	661	7,554
2028	4.46%	10,442	124,425	9,628	96,281	8,729	87,294	661	22,467	0	0	0	661	8,215
2029	4.46%	10,444	134,869	9,628	105,909	8,729	96,024	661	22,467	0	0	0	661	8,876
2030	4.46%	10,442	145,311	9,628	115,537	8,729	104,753	661	22,467	0	0	0	661	9,537
2031	4.46%	10,444	155,755	9,628	125,166	8,729	113,483	661	22,467	0	0	0	661	10,198
2032	4.46%	10,442	166,197	9,628	134,794	8,729	122,212	661	22,467	0	0	0	661	10,859
2033	4.46%	10,444	176,641	9,628	144,422	8,729	130,942	661	22,467	0	0	0	661	11,520
2034	4.46%	10,442	187,083	9,628	154,050	8,729	139,671	661	22,467	0	0	0	661	12,181
2035	4.46%	10,444	197,527	9,628	163,678	8,729	148,400	661	22,467	0	0	0	661	12,843
2036	4.46%	10,442	207,969	9,628	173,306	8,729	157,130	661	22,467	0	0	0	661	13,503
2037	4.46%	10,444	218,414	9,628	182,934	8,729	165,859	661	22,467	0	0	0	661	14,165
2038	4.46%	10,442	228,855	9,628	192,562	8,729	174,589	661	22,467	0	0	0	661	14,825
2039	2.23%	5,222	234,078	9,628	202,191	8,729	183,318	(1,353)	22,467	0	0	0	(1,353)	13,472
2040	0.00%	0	234,078	9,628	211,819	8,729	192,048	(3,367)	22,467	0	0	0	(3,367)	10,105
2041	0.00%	0	234,078	9,628	221,447	8,729	200,777	(3,367)	22,467	0	0	0	(3,367)	6,737
2042	0.00%	0	234,078	9,628	231,075	8,729	209,506	(3,367)	22,467	0	0	0	(3,367)	3,370
2043	0.00%	0	234,078	9,628	240,703	8,729	218,236	(3,367)	22,467	0	0	0	(3,367)	3

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(6,108)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	22,467
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, Ventilating and Air-Conditioning

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(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)
2019	3.75%	8,778	19	231,075	9,628	(6,090)	246,811	237,165	241,988
2020	7.22%	16,898	3,151	221,447	19,256	(2,939)	237,165	224,386	230,775
2021	6.68%	15,629	2,661	211,819	28,884	(277)	224,386	212,096	218,241
2022	6.18%	14,466	2,213	202,191	38,512	1,935	212,096	200,255	206,176
2023	5.71%	13,372	1,791	192,562	48,141	3,726	200,255	188,836	194,546
2024	5.29%	12,371	1,405	182,934	57,769	5,131	188,836	177,803	183,320
2025	4.89%	11,441	1,046	173,306	67,397	6,177	177,803	167,129	172,466
2026	4.52%	10,585	716	163,678	77,025	6,893	167,129	156,785	161,957
2027	4.46%	10,444	661	154,050	86,653	7,554	156,785	146,496	151,640
2028	4.46%	10,442	661	144,422	96,281	8,215	146,496	136,207	141,351
2029	4.46%	10,444	661	134,794	105,909	8,876	136,207	125,917	131,062
2030	4.46%	10,442	661	125,166	115,537	9,537	125,917	115,629	120,773
2031	4.46%	10,444	661	115,537	125,166	10,198	115,629	105,339	110,484
2032	4.46%	10,442	661	105,909	134,794	10,859	105,339	95,050	100,195
2033	4.46%	10,444	661	96,281	144,422	11,520	95,050	84,761	89,906
2034	4.46%	10,442	661	86,653	154,050	12,181	84,761	74,472	79,616
2035	4.46%	10,444	661	77,025	163,678	12,843	74,472	64,182	69,327
2036	4.46%	10,442	661	67,397	173,306	13,503	64,182	53,894	59,038
2037	4.46%	10,444	661	57,769	182,934	14,165	53,894	43,604	48,749
2038	4.46%	10,442	661	48,141	192,562	14,825	43,604	33,315	38,460
2039	2.23%	5,222	(1,353)	38,512	202,191	13,472	33,315	25,040	29,178
2040	0.00%	0	(3,367)	28,884	211,819	10,105	25,040	18,780	21,910
2041	0.00%	0	(3,367)	19,256	221,447	6,737	18,780	12,519	15,649
2042	0.00%	0	(3,367)	9,628	231,075	3,370	12,519	6,258	9,388
2043	0.00%	0	(3,367)	0	240,703	3	6,258	-3	3,128

* 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	

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	205,243	205,243	205,243
EQUITY AFUDC	22,467		
DEBT AFUDC	12,993	12,993	
CPI			28,828
TOTAL	240,703	218,236	234,071

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	(5) AVOIDED MARGINAL FUEL COST (C/kWh)	(6)* INCREASED MARGINAL FUEL COST (C/kWh)	(7) REPLACEMENT FUEL COST (C/kWh)	(8) PROGRAM kW EFFECTIVENESS FACTOR	(9) PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	12,321	12,321	6.41	7.27	7.52	0.00	1.00	1.00
2011	30,634	30,634	6.35	7.13	7.33	0.00	1.00	1.00
2012	55,396	55,396	6.43	7.14	7.34	0.00	1.00	1.00
2013	82,401	82,401	7.06	7.54	7.66	0.00	1.00	1.00
2014	108,463	108,463	7.53	7.94	8.04	0.00	1.00	1.00
2015	130,149	130,149	8.11	8.61	8.74	0.00	1.00	1.00
2016	149,229	149,229	9.00	9.84	10.09	0.00	1.00	1.00
2017	156,159	156,159	9.75	10.69	10.98	0.00	1.00	1.00
2018	161,547	161,547	10.52	11.51	11.80	0.00	1.00	1.00
2019	161,547	161,547	11.50	12.76	13.14	10.41	1.00	1.00
2020	161,547	161,547	12.08	13.39	13.74	10.50	1.00	1.00
2021	161,547	161,547	12.57	13.94	14.32	10.74	1.00	1.00
2022	161,547	161,547	13.06	14.39	14.75	10.81	1.00	1.00
2023	161,547	161,547	13.39	14.62	14.94	10.80	1.00	1.00
2024	161,547	161,547	13.95	15.19	15.51	10.84	1.00	1.00
2025	161,547	161,547	14.40	15.65	15.95	10.96	1.00	1.00
2026	161,547	161,547	14.70	15.90	16.18	11.05	1.00	1.00
2027	161,547	161,547	15.13	16.26	16.51	11.17	1.00	1.00
2028	161,547	161,547	15.60	16.68	16.92	11.36	1.00	1.00
2029	161,547	161,547	16.02	17.00	17.20	11.41	1.00	1.00
2030	161,547	161,547	16.52	17.47	17.66	11.59	1.00	1.00
2031	161,547	161,547	17.02	17.95	18.23	11.80	1.00	1.00
2032	161,547	161,547	17.50	18.30	18.44	11.88	1.00	1.00
2033	161,547	161,547	18.27	18.97	19.12	12.10	1.00	1.00
2034	161,547	161,547	18.73	19.22	19.31	12.14	1.00	1.00
2035	161,547	161,547	19.57	20.18	20.31	12.29	1.00	1.00
2036	161,547	161,547	20.40	21.02	21.17	12.55	1.00	1.00
2037	161,547	161,547	21.11	21.69	21.82	12.70	1.00	1.00
2038	161,547	161,547	22.02	22.61	22.74	13.04	1.00	1.00
2039	161,547	161,547	22.78	23.34	23.46	13.32	1.00	1.00
2040	161,547	161,547	23.59	24.09	24.19	13.44	1.00	1.00
2041	161,547	161,547	24.54	25.02	25.12	13.75	1.00	1.00
2042	161,547	161,547	25.50	25.98	26.07	14.10	1.00	1.00
2043	161,547	161,547	26.74	27.35	27.50	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: Business Heating, Ventilating and Air-Conditioning

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	51,528	28,264	1192	71,977	91,062	61,900
2020	49,996	28,970	1720	106,046	129,193	57,539
2021	48,012	29,695	1799	110,644	134,932	55,218
2022	46,099	30,437	1911	117,107	140,672	54,882
2023	44,252	31,198	2017	123,119	144,719	55,867
2024	42,467	31,978	2137	130,057	150,149	56,490
2025	40,739	32,777	2284	138,963	158,379	56,385
2026	39,064	33,597	2446	148,500	166,837	56,770
2027	37,438	34,437	2587	156,745	173,982	57,225
2028	35,821	35,298	2664	160,906	177,730	56,957
2029	34,205	36,180	2789	167,681	182,403	58,453
2030	32,590	37,085	2928	175,531	189,696	58,438
2031	30,976	38,012	3000	179,148	193,136	58,000
2032	29,363	38,962	3117	183,478	197,104	59,816
2033	27,752	39,936	3430	204,084	215,531	59,671
2034	26,142	40,935	3589	212,422	220,640	62,448
2035	24,533	41,958	3688	217,256	224,046	63,390
2036	22,926	43,007	3814	223,744	230,691	62,799
2037	21,320	44,082	3919	228,829	234,010	64,140
2038	19,715	45,184	4031	234,539	241,148	62,321
2039	18,112	46,314	4136	239,361	246,685	61,238
2040	16,801	47,471	4250	244,874	249,504	63,893
2041	15,784	48,658	4365	250,247	255,784	63,270
2042	14,768	49,875	4484	255,945	262,911	62,161
2043	13,754	51,122	4619	262,529	269,673	62,350
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	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	784,154	965,431	76,916	4,545,733	4,880,615	1,491,618
NPV	175,411	160,286	11,614	695,725	773,842	269,194

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

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$(000)	(3) AVOIDED TRANSMISSION O&M COST \$(000)	(4) TOTAL AVOIDED TRANSMISSION COST \$(000)	(5) AVOIDED DISTRIBUTION CAP COST \$(000)	(6) AVOIDED DISTRIBUTION O&M COST \$(000)	(7) TOTAL AVOIDED DISTRIBUTION COST \$(000)	(8) PROGRAM FUEL SAVINGS \$(000)	(8a)* PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	2,287	184
2011	646	51	697	54	14	67	7,802	635
2012	1,615	130	1,745	134	35	169	15,620	1,288
2013	2,939	359	3,297	245	65	309	26,234	2,264
2014	4,387	484	4,871	365	98	464	38,169	3,342
2015	5,776	595	6,371	481	133	614	51,839	4,504
2016	6,896	700	7,596	574	163	738	69,736	5,850
2017	7,852	750	8,602	654	192	846	82,814	6,929
2018	8,027	796	8,822	669	206	874	92,732	7,776
2019	8,103	816	8,919	675	218	893	104,823	8,647
2020	7,819	836	8,655	651	224	875	109,976	9,081
2021	7,542	857	8,399	628	229	857	114,576	9,444
2022	7,273	878	8,151	606	235	841	118,043	9,815
2023	7,008	900	7,908	584	241	825	119,731	10,067
2024	6,747	923	7,670	562	247	809	124,343	10,484
2025	6,488	946	7,433	540	253	793	128,058	10,822
2026	6,229	969	7,199	519	259	778	130,050	11,051
2027	5,971	994	6,965	497	266	763	132,770	11,372
2028	5,713	1,019	6,731	476	273	748	136,115	11,723
2029	5,455	1,044	6,499	454	279	734	138,474	12,044
2030	5,197	1,070	6,267	433	286	719	142,300	12,417
2031	4,941	1,097	6,038	412	293	705	146,930	12,835
2032	4,692	1,124	5,817	391	301	692	148,733	13,157
2033	4,457	1,152	5,610	371	308	680	153,921	13,736
2034	4,240	1,181	5,421	353	316	669	155,619	14,078
2035	4,042	1,211	5,252	337	324	661	163,531	14,712
2036	3,863	1,241	5,104	322	332	654	170,350	15,330
2037	3,703	1,272	4,975	308	340	649	175,628	15,870
2038	3,556	1,304	4,860	296	349	645	183,085	16,550
2039	3,417	1,336	4,753	285	358	642	188,865	17,123
2040	3,287	1,370	4,652	273	367	640	194,836	17,735
2041	3,148	1,404	4,552	262	376	638	202,285	18,442
2042	3,015	1,439	4,454	251	385	636	209,992	19,170
2043	2,881	1,475	4,356	240	395	635	221,320	20,095
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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	166,919	31,723	198,642	13,903	8,359	22,262	4,201,588	368,570
NPV	49,810	6,832	56,642	4,149	1,749	5,897	841,610	72,209

* 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: **Business Heating, Ventilating and Air-Conditioning**

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	REPLACEMENT EMISSION COST \$(000)	PROGRAM EMISSION BENEFIT \$(000)	OFF-PEAK EMISSION PAYBACK COST \$(000)	NET EMISSION BENEFIT \$(000)
2009	0	0	0	0	0
2010	0	0	11	2	9
2011	0	0	22	7	15
2012	0	0	50	15	35
2013	0	0	2,471	258	2,213
2014	0	0	3,794	396	3,398
2015	0	0	5,247	546	4,701
2016	0	0	6,871	702	6,168
2017	0	0	8,250	840	7,411
2018	0	0	9,333	952	8,381
2019	8,606	11,253	10,309	1,051	6,610
2020	13,104	16,973	11,152	1,139	6,144
2021	14,437	18,717	12,046	1,231	6,536
2022	16,860	21,807	13,540	1,383	7,209
2023	18,605	24,049	14,451	1,486	7,521
2024	21,422	27,623	16,057	1,652	8,204
2025	24,725	31,789	17,772	1,827	8,888
2026	27,419	35,042	18,763	1,919	9,220
2027	31,017	39,583	20,537	2,080	9,891
2028	34,011	43,332	22,373	2,249	10,802
2029	38,904	49,380	24,950	2,495	11,979
2030	43,135	54,716	26,961	2,684	12,696
2031	46,880	59,427	29,289	2,898	13,845
2032	51,623	65,302	31,745	3,129	14,936
2033	60,149	76,043	34,443	3,376	15,172
2034	66,579	84,100	37,293	3,644	16,129
2035	72,315	91,388	40,421	3,937	17,411
2036	78,946	99,746	43,749	4,249	18,700
2037	85,565	108,075	47,273	4,583	20,179
2038	92,751	117,135	51,043	4,939	21,720
2039	100,170	126,667	55,091	5,318	23,276
2040	108,249	136,863	59,373	5,722	25,038
2041	116,636	147,447	63,843	6,143	26,888
2042	116,636	147,447	68,614	6,592	31,209
2043	116,636	147,447	73,783	7,080	35,891
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	1,403,377	1,781,354	880,920	86,525	418,419
NPV	170,156	216,508	129,390	12,939	70,099

TOTAL RESOURCE COST TEST
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

(1) YEAR	(2) INCREASED SUPPLY COSTS \$(000)	(3) UTILITY PROGRAM COSTS \$(000)	(4) PARTICIPANT PROGRAM COSTS \$(000)	(5) OTHER COSTS \$(000)	(6) TOTAL COSTS \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)	(8) AVOIDED T&D BENEFITS \$(000)	(9) PROGRAM FUEL SAVINGS \$(000)	(10) OTHER BENEFITS \$(000)	(11) TOTAL BENEFITS \$(000)	(12) NET BENEFITS \$(000)	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
2009	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	813	31,820	0	32,633	0	0	2,103	9	2,112	(30,521)	(28,030)
2011	0	1,173	39,572	0	40,746	0	764	7,167	15	7,946	(32,799)	(55,694)
2012	0	1,671	52,754	0	54,425	0	1,914	14,332	35	16,281	(38,144)	(83,240)
2013	0	1,839	58,547	0	60,386	0	3,607	23,970	2,213	29,790	(30,597)	(107,906)
2014	0	1,783	58,758	0	60,542	0	5,335	34,827	3,398	43,560	(16,982)	(118,100)
2015	0	1,640	50,135	0	51,774	0	6,985	47,335	4,701	59,021	7,247	(113,752)
2016	0	1,530	42,820	0	44,350	0	8,333	63,886	6,168	78,388	34,037	(94,997)
2017	0	585	24,740	0	25,325	0	9,448	75,885	7,411	92,744	67,420	(60,879)
2018	0	441	21,907	0	22,348	0	9,697	84,956	8,381	103,034	80,686	(23,380)
2019	0	0	0	0	0	61,900	9,812	96,177	6,610	174,499	174,499	51,100
2020	0	0	0	0	0	57,539	9,530	100,895	6,144	174,109	174,109	119,348
2021	0	0	0	0	0	55,218	9,257	105,132	6,536	176,142	176,142	182,758
2022	0	0	0	0	0	54,882	8,992	108,228	7,209	179,310	179,310	242,040
2023	0	0	0	0	0	55,867	8,733	109,664	7,521	181,785	181,785	297,235
2024	0	0	0	0	0	56,490	8,479	113,858	8,204	187,031	187,031	349,388
2025	0	464	20,123	0	20,587	56,385	8,227	117,236	8,880	196,728	170,141	392,960
2026	0	723	30,889	0	31,612	56,770	7,977	118,999	9,220	192,966	161,353	430,908
2027	0	687	31,812	0	32,500	57,225	7,728	121,398	9,891	196,243	163,743	466,276
2028	0	746	34,785	0	35,530	56,957	7,480	124,392	10,802	199,631	164,101	498,828
2029	0	726	34,016	0	34,742	58,453	7,232	126,430	11,979	204,094	169,352	529,679
2030	0	1,249	50,644	0	51,893	58,438	6,986	129,883	12,696	208,004	156,110	555,798
2031	0	1,521	50,461	0	51,982	58,000	6,743	134,095	13,843	212,663	160,791	580,490
2032	0	2,266	66,099	0	68,365	59,816	6,508	135,576	14,936	216,837	148,472	601,441
2033	0	2,481	72,537	0	75,018	59,671	6,289	140,186	15,172	221,318	146,300	620,401
2034	0	2,100	57,797	0	59,897	62,448	6,090	141,541	16,129	226,207	166,310	640,194
2035	0	2,187	58,087	0	60,273	63,390	5,913	148,820	17,411	235,534	175,261	659,351
2036	0	2,036	46,898	0	48,934	62,799	5,758	155,020	18,700	242,276	193,342	678,760
2037	0	613	22,834	0	23,446	64,140	5,624	159,757	20,179	249,700	226,254	699,618
2038	0	370	17,844	0	18,214	62,321	5,505	166,535	21,720	256,080	237,867	719,757
2039	0	0	0	0	0	61,238	5,396	171,742	23,276	261,651	261,651	740,102
2040	0	673	29,144	0	29,817	63,893	5,292	177,101	25,038	271,323	241,507	757,348
2041	0	1,048	44,737	0	45,784	63,270	5,190	183,842	26,888	279,190	233,406	772,655
2042	0	996	46,074	0	47,069	62,161	5,090	190,822	31,209	289,283	242,213	787,244
2043	0	1,080	50,379	0	51,459	62,350	4,991	201,225	35,891	304,457	252,998	801,238
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	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	33,443	1,146,210	0	1,179,653	1,491,618	220,903	3,833,018	418,419	5,963,958	4,784,305	
NPV	0	10,652	359,344	0	369,996	269,194	62,539	769,401	70,099	1,171,234	801,238	

Discount Rate: 8.89 %
 Benefit/Cost Ratio (Col(11) / Col(6)) : 3.17

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Heating, Ventilating and 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	2,519	0	21,800	0	24,319	31,820	0	0	31,820	(7,501)	(6,889)
2011	9,150	0	23,443	0	32,594	39,572	0	0	39,572	(6,979)	(12,775)
2012	20,029	0	27,751	0	47,780	52,754	0	0	52,754	(4,974)	(16,628)
2013	35,291	0	29,470	0	64,761	58,547	0	0	58,547	6,214	(12,207)
2014	53,477	0	28,499	0	81,976	58,758	0	0	58,758	23,217	2,961
2015	71,507	0	23,949	0	95,456	50,135	0	0	50,135	45,322	30,154
2016	86,538	0	22,475	0	109,013	42,820	0	0	42,820	66,193	66,627
2017	97,706	0	13,876	0	111,582	24,740	0	0	24,740	86,842	110,574
2018	104,858	0	12,890	0	117,748	21,907	0	0	21,907	95,841	155,116
2019	111,193	0	0	0	111,193	0	0	0	0	111,193	202,576
2020	111,446	0	0	0	111,446	0	0	0	0	111,446	246,261
2021	114,330	0	0	0	114,330	0	0	0	0	114,330	287,419
2022	118,683	0	0	0	118,683	0	0	0	0	118,683	326,658
2023	122,978	0	0	0	122,978	0	0	0	0	122,978	363,997
2024	129,446	0	0	0	129,446	0	0	0	0	129,446	400,093
2025	135,217	0	9,978	0	145,195	20,123	0	0	20,123	125,072	432,123
2026	141,483	0	13,767	0	155,250	30,889	0	0	30,889	124,361	461,371
2027	150,157	0	14,249	0	164,407	31,812	0	0	31,812	132,594	490,010
2028	157,155	0	15,085	0	172,240	34,785	0	0	34,785	137,455	517,277
2029	165,329	0	14,509	0	179,838	34,016	0	0	34,016	145,822	543,842
2030	174,605	0	21,770	0	196,375	50,644	0	0	50,644	145,733	568,224
2031	182,745	0	19,262	0	202,007	50,461	0	0	50,461	152,546	591,663
2032	195,847	0	21,215	0	217,062	66,099	0	0	66,099	150,963	612,965
2033	215,156	0	22,070	0	237,226	72,537	0	0	72,537	164,690	634,308
2034	219,354	0	13,990	0	233,344	57,797	0	0	57,797	175,548	655,202
2035	229,765	0	14,001	0	243,766	58,087	0	0	58,087	185,679	675,497
2036	248,039	0	12,889	0	260,928	46,898	0	0	46,898	214,030	696,982
2037	262,306	0	6,163	0	268,468	22,834	0	0	22,834	245,635	719,627
2038	275,023	0	5,205	0	280,228	17,844	0	0	17,844	262,384	741,843
2039	288,965	0	0	0	288,965	0	0	0	0	288,965	764,311
2040	303,829	0	9,978	0	313,807	29,144	0	0	29,144	284,663	784,639
2041	321,457	0	13,767	0	335,224	44,737	0	0	44,737	290,487	803,690
2042	340,280	0	14,249	0	354,529	46,074	0	0	46,074	308,456	822,268
2043	360,381	0	15,085	0	375,466	50,379	0	0	50,379	325,088	840,250
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	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	5,557,246	0	461,385	0	6,018,631	1,146,210	0	0	1,146,210	4,872,421	
NPV	1,023,187	0	176,406	0	1,199,594	359,344	0	0	359,344	840,250	

In Service of Gen Unit:

Discount Rate :

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

2019
8.89 %

3.34

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: **Business Heating, Ventilating and Air-Conditioning**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	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	813	21,800	2,183	0	24,796	2,103	0	0	9	2,112	(22,684)	(20,832)
2011	0	1,173	23,443	7,935	0	32,552	7,167	764	0	15	7,946	(24,605)	(41,585)
2012	0	1,671	27,751	17,358	0	46,780	14,332	1,914	0	35	16,281	(30,499)	(65,209)
2013	0	1,839	29,470	30,515	0	61,824	23,970	3,607	0	2,213	29,790	(32,035)	(87,998)
2014	0	1,783	28,499	46,186	0	76,469	34,827	5,335	0	3,398	43,560	(32,909)	(109,498)
2015	0	1,640	23,949	61,728	0	87,317	47,335	6,985	0	4,701	59,021	(28,296)	(126,475)
2016	0	1,530	22,475	74,632	0	98,637	63,886	8,333	0	6,168	78,388	(20,249)	(137,633)
2017	0	585	13,876	84,288	0	98,749	75,885	9,448	0	7,411	92,744	(6,005)	(140,672)
2018	0	441	12,890	90,358	0	103,689	84,956	9,697	0	8,381	103,034	(655)	(140,976)
2019	0	0	0	95,613	0	95,613	158,076	9,812	0	6,610	174,499	78,885	(107,306)
2020	0	0	0	95,751	0	95,751	158,434	9,530	0	6,144	174,109	78,358	(76,591)
2021	0	0	0	98,089	0	98,089	160,350	9,257	0	6,536	176,142	78,053	(48,493)
2022	0	0	0	101,669	0	101,669	163,109	8,992	0	7,209	179,310	77,642	(22,823)
2023	0	0	0	105,253	0	105,253	165,531	8,733	0	7,521	181,785	76,532	414
2024	0	0	0	110,653	0	110,653	170,348	8,479	0	8,204	187,031	76,378	21,712
2025	0	464	9,978	115,355	0	125,797	173,621	8,227	0	8,880	190,728	64,931	38,340
2026	0	723	13,767	120,566	0	135,056	175,769	7,977	0	9,220	192,966	57,910	51,960
2027	0	687	14,249	127,793	0	142,730	178,624	7,728	0	9,891	196,243	53,513	63,518
2028	0	746	15,085	133,636	0	149,467	181,349	7,480	0	10,802	199,631	50,165	73,469
2029	0	726	14,509	140,441	0	155,676	184,883	7,232	0	11,979	204,094	48,418	82,289
2030	0	1,249	21,770	148,171	0	171,191	188,321	6,986	0	12,696	208,004	36,813	88,448
2031	0	1,521	19,262	155,779	0	176,561	192,025	6,743	0	13,845	212,682	36,121	93,999
2032	0	2,266	21,215	165,887	0	189,368	195,392	6,508	0	14,936	216,837	27,469	97,875
2033	0	2,481	22,070	182,027	0	206,578	199,857	6,289	0	15,172	221,318	14,740	99,785
2034	0	2,100	13,990	185,565	0	201,655	203,989	6,090	0	16,129	226,207	24,552	102,707
2035	0	2,187	14,001	194,138	0	210,325	212,210	5,913	0	17,411	235,534	25,209	105,463
2036	0	2,036	12,889	209,353	0	224,279	217,819	5,758	0	18,700	242,276	17,998	107,269
2037	0	613	6,163	221,281	0	228,057	223,897	5,624	0	20,179	249,700	21,643	109,265
2038	0	370	5,205	231,848	0	237,423	228,855	5,505	0	21,720	256,080	18,658	110,844
2039	0	0	0	243,435	0	243,435	232,979	5,396	0	23,276	261,651	18,216	112,261
2040	0	673	9,978	255,785	0	266,436	240,994	5,292	0	25,038	271,323	4,887	112,610
2041	0	1,048	13,767	270,435	0	285,250	247,112	5,190	0	26,888	279,190	(6,059)	112,212
2042	0	996	14,249	286,077	0	301,322	252,983	5,090	0	31,209	289,283	(12,040)	111,487
2043	0	1,080	15,085	302,780	0	318,945	263,575	4,991	0	35,891	304,457	(14,488)	110,686
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	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	33,443	461,385	4,712,563	0	5,207,391	5,324,636	220,903	0	418,419	5,963,958	756,567	
NPV	0	10,652	176,406	873,490	0	1,060,548	1,038,595	62,539	0	70,099	1,171,234	110,686	

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

BUSINESS LIGHTING

INPUT DATA - PART 1 CONTINUED
PROGRAMMECS00 SELECTED: KEV_000
PROGRAMNAME: Business Lighting

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.91 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.27 KW
(3) KW LINE LOSS PERCENTAGE	3.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	3.11640 KW
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	1.79738
(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 RATE	*** %
(10) UTILITY DISCOUNT RATE	3.29 %
(11) UTILITY AFUDC RATE	3.48 %
(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	185.24 \$/KW
(6) BASE YEAR DISTRIBUTION COST	28.64 \$/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	3.50 %
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/KVA
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	0% (in-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.23 CENTS PER KW-HR (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/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW/HR
(4) DEMAND CHARGE ESCALATION RATE	*** %

**CALCULATION OF GENK-FACTOR
PROGRAM/METHOD SELECTED KEY_REQ
PROGRAMNAME: Business Lighting**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	REG-YEAR RATEBASE \$(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)	EXCESS FIXED CHARGES \$(000)	CUMULATIVE FWFIXED CHARGES \$(000)	REPLACEMENT COSTBASE FOR PROPERTY INSURANCE \$(000)
2019	55,694	2,891	0	6,494	4,284	1,568	554	3,630	7	19,427	19,427	19,427	90,751
2020	59,417	2,778	0	6,240	2,944	1,503	567	3,630	1,183	18,850	17,211	36,739	93,619
2021	64,209	2,628	0	5,904	2,917	1,407	582	3,630	1,003	18,182	15,267	52,006	95,245
2022	70,905	2,484	0	5,581	2,883	1,372	596	3,630	834	17,380	13,443	65,449	97,729
2023	75,901	2,345	0	5,269	2,846	1,307	611	3,630	675	16,694	11,869	77,337	100,172
2024	71,196	2,212	0	4,969	2,803	1,261	626	3,630	530	16,011	10,440	87,799	102,676
2025	67,094	2,082	0	4,678	2,758	1,176	642	3,630	394	15,260	9,216	97,013	105,243
2026	63,012	1,957	0	4,397	2,715	1,111	658	3,630	270	14,728	8,116	105,329	107,874
2027	59,112	1,836	0	4,125	2,654	1,045	674	3,630	169	14,115	7,143	112,272	110,571
2028	55,321	1,716	0	3,853	2,584	980	691	3,630	99	13,545	6,277	118,548	113,335
2029	51,853	1,595	0	3,584	2,514	915	709	3,630	209	12,916	5,504	124,692	116,169
2030	47,474	1,475	0	3,313	2,444	849	725	3,630	349	12,287	4,816	130,849	118,973
2031	43,395	1,354	0	3,042	2,374	784	745	3,630	509	11,679	4,204	136,973	121,850
2032	39,715	1,234	0	2,772	2,304	719	763	3,630	649	11,071	3,650	143,000	125,181
2033	35,836	1,113	0	2,501	2,234	653	782	3,630	769	10,463	3,177	149,118	128,228
2034	31,957	993	0	2,230	2,164	588	802	3,630	869	9,856	2,794	155,238	131,434
2035	28,078	872	0	1,959	2,094	523	822	3,630	949	9,250	2,369	161,327	134,720
2036	24,198	752	0	1,689	2,024	457	842	3,630	1,049	8,644	2,033	167,668	138,088
2037	20,319	631	0	1,418	1,954	392	863	3,630	1,169	8,038	1,704	174,296	141,540
2038	16,440	511	0	1,147	1,884	327	885	3,630	1,269	7,433	1,474	181,270	145,479
2039	12,561	390	0	877	1,812	261	907	3,630	(300)	6,829	1,244	188,796	149,796
2040	8,641	269	0	609	1,736	196	930	3,630	(1,270)	6,234	1,060	196,423	154,423
2041	7,086	220	0	494	1,700	131	953	3,630	(1,270)	5,651	914	199,489	159,224
2042	4,720	147	0	329	1,620	65	977	3,630	(1,270)	5,068	786	199,224	160,140
2043	2,359	73	0	165	1,586	(9)	1,001	3,630	(1,270)	5,185	672	194,946	164,143

IN SERVICE COST (\$000)	90,751
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPR. RATE	38.57%
DISCOUNT RATE	8.5%
PROPERTY TAX	1.89%
PROPERTY INSURANCE	0.51%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.83 %
PS	0%	0.00 %
CS	56%	12.50 %

$K-FACTOR = CPWFC / IN-SVC COST = 1.70736$

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 DEDUCTION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK/DEPR RATE MONTHS LIVES	(10)*(11)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(5)-(12)+(13)	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	(2,295)
2020	7.52%	6,371	9,680	3,630	7,260	3,291	6,582	1,188	8,471	0	0	0	1,188	(1,100)
2021	6.68%	5,892	15,573	3,630	10,890	3,291	9,874	1,043	8,471	0	0	0	1,043	(700)
2022	6.18%	5,454	21,028	3,630	14,520	3,291	13,165	834	8,471	0	0	0	834	79
2023	5.71%	5,042	26,468	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%	4,324	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	4.18%	3,698	42,974	3,630	32,670	3,291	29,621	169	8,471	0	0	0	169	2,768
2028	4.48%	3,937	46,911	3,630	36,300	3,291	32,912	149	8,471	0	0	0	149	3,017
2029	4.48%	3,938	50,849	3,630	39,930	3,291	36,203	149	8,471	0	0	0	149	3,167
2030	4.48%	3,937	54,786	3,630	43,560	3,291	39,494	149	8,471	0	0	0	149	3,316
2031	4.48%	3,938	58,723	3,630	47,190	3,291	42,786	149	8,471	0	0	0	149	3,465
2032	4.48%	3,937	62,660	3,630	50,820	3,291	46,077	149	8,471	0	0	0	149	3,614
2033	4.48%	3,938	66,598	3,630	54,450	3,291	49,368	149	8,471	0	0	0	149	3,763
2034	4.48%	3,937	70,535	3,630	58,080	3,291	52,659	149	8,471	0	0	0	149	3,912
2035	4.48%	3,938	74,472	3,630	61,710	3,291	55,950	149	8,471	0	0	0	149	4,061
2036	4.48%	3,937	78,409	3,630	65,340	3,291	59,241	149	8,471	0	0	0	149	4,210
2037	4.48%	3,938	82,347	3,630	68,970	3,291	62,532	149	8,471	0	0	0	149	4,359
2038	4.48%	3,937	86,284	3,630	72,600	3,291	65,823	149	8,471	0	0	0	149	4,508
2039	2.23%	1,909	88,223	3,630	76,230	3,291	69,114	(510)	8,471	0	0	0	(510)	5,079
2040	0.80%	0	88,223	3,630	79,860	3,291	72,406	(1,270)	8,471	0	0	0	(1,270)	5,330
2041	0.80%	0	88,223	3,630	83,490	3,291	75,698	(1,270)	8,471	0	0	0	(1,270)	5,580
2042	0.80%	0	88,223	3,630	87,120	3,291	78,989	(1,270)	8,471	0	0	0	(1,270)	5,830
2043	0.80%	0	88,223	3,630	90,750	3,291	82,280	(1,270)	8,471	0	0	0	(1,270)	6,080

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,245)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	8,471
BOOK/DEPR RATE - USEFUL LIFE	4.88%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/PROJECT SELECTED: REV_99Q
 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	3.25%	3,300	7	37,121	3,630	(3,286)	33,454	39,427	31,235
2020	7.22%	6,371	1,198	33,461	7,260	(1,388)	39,417	34,399	37,068
2021	6.69%	5,892	1,003	79,861	10,859	(305)	34,329	79,965	32,282
2022	6.18%	5,454	834	76,231	14,329	730	79,965	73,361	77,733
2023	5.71%	5,042	675	72,601	18,139	1,485	75,501	71,196	75,348
2024	5.29%	4,664	530	68,971	21,789	1,935	71,196	67,036	69,116
2025	4.89%	4,314	394	65,341	25,419	2,329	67,036	63,012	63,024
2026	4.52%	3,991	270	61,711	29,049	2,939	63,012	59,113	61,942
2027	4.16%	3,698	249	58,081	32,679	2,948	59,112	55,232	57,172
2028	4.46%	3,937	249	54,451	36,309	3,097	55,232	51,333	53,293
2029	4.46%	3,938	249	50,821	39,939	3,247	51,333	47,474	49,414
2030	4.46%	3,937	249	47,191	43,569	3,396	47,474	43,595	45,234
2031	4.46%	3,938	249	43,561	47,199	3,545	43,595	39,715	41,685
2032	4.46%	3,937	249	39,931	50,829	4,694	39,715	35,836	37,776
2033	4.46%	3,938	249	36,301	54,459	4,843	35,836	31,957	33,897
2034	4.46%	3,937	249	32,671	58,089	4,993	31,957	28,078	30,017
2035	4.46%	3,938	249	29,041	61,719	4,842	28,078	24,198	26,138
2036	4.46%	3,937	249	25,411	65,349	5,091	24,198	20,319	22,259
2037	4.46%	3,938	249	21,781	68,979	5,340	20,319	16,440	18,379
2038	4.46%	3,937	249	18,151	72,609	5,589	16,440	12,561	14,500
2039	2.23%	1,969	(310)	14,520	76,239	5,739	12,561	9,441	11,001
2040	0.00%	0	(1,270)	10,890	79,869	3,810	9,441	7,060	8,261
2041	0.00%	0	(1,270)	7,260	83,499	2,540	7,060	4,720	5,900
2042	0.00%	0	(1,270)	3,630	87,129	1,270	4,720	3,450	4,400
2043	0.00%	0	(1,270)	(0)	90,759	1	3,450	-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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
2009	-10	3.00%	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%	1.54	0.62
2014	-5	3.00%	1.161	1.00%	15.39	9.04
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%	428.27	398.84
2018	-1	3.00%	1.305	18.44%	98.79	358.38

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(3a) DEBT AFUDC (\$K/W)	104.00%		(7) TOTAL AFUDC (\$K/W)	(8) CONSTRUCTION PERIOD INTEREST (\$K/W)	(9) CUMULATIVE CPI (\$K/W)	(9a) DEFERRED TAXES (\$K/W)	(9b) DEFERRED TAXES (\$K/W)	(10) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$K/W)
				(3b) CUMULATIVE AFUDC (\$K/W)	(7) TOTAL AFUDC (\$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
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	0.62	0.65	0.65	0.04	0.04	(0.01)	(0.01)	1.29	1.29	1.29
2014	-5	9.29	0.29	0.34	0.79	0.54	4.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.37	1.18	1.49	3.22	4.66	2.65	3.35	(0.57)	(0.52)	42.83	61.90
2016	-3	226.84	7.07	8.56	19.29	23.95	15.90	19.25	(3.47)	(4.13)	251.16	412.06
2017	-2	622.90	19.46	28.01	33.19	76.45	43.47	62.72	(9.26)	(13.39)	473.57	885.49
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.65)	(27.02)	179.18	1,064.61

57.47	156.84	127.50	(27.02)	1,064.61																								
IN SERVICE YEAR: 2019 PLANT COSTS: 725,389,845 AFUDC RATE: 3.48%	<table border="1"> <thead> <tr> <th></th> <th>BOOK BASIS</th> <th>BOOK BASIS FOR DEF TAX</th> <th>TAC BASIS</th> </tr> </thead> <tbody> <tr> <td>CONSTRUCTION CASE</td> <td>77,381</td> <td>77,381</td> <td>77,381</td> </tr> <tr> <td>EQUITY AFUDC</td> <td>8,471</td> <td></td> <td></td> </tr> <tr> <td>DEBT AFUDC</td> <td>4,899</td> <td>4,899</td> <td></td> </tr> <tr> <td>CPI</td> <td></td> <td></td> <td>10,969</td> </tr> <tr> <td>TOTAL</td> <td>90,751</td> <td>82,280</td> <td>88,350</td> </tr> </tbody> </table>		BOOK BASIS	BOOK BASIS FOR DEF TAX	TAC BASIS	CONSTRUCTION CASE	77,381	77,381	77,381	EQUITY AFUDC	8,471			DEBT AFUDC	4,899	4,899		CPI			10,969	TOTAL	90,751	82,280	88,350			
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAC BASIS																									
CONSTRUCTION CASE	77,381	77,381	77,381																									
EQUITY AFUDC	8,471																											
DEBT AFUDC	4,899	4,899																										
CPI			10,969																									
TOTAL	90,751	82,280	88,350																									

* Columns not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KW)	(5) AVOIDED MARGINAL FUEL COST (\$/KW)	(6)* INCREASED MARGINAL FUEL COST (\$/KW)	(7) REPLACEMENT FUEL COST (\$/KW)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KW EFFECTIVENESS FACTOR
2009	0	0	6.29	9.17	6.29	0.00	1.00	1.00
2010	4,372	4,353	6.41	7.78	7.09	0.00	1.00	1.00
2011	12,340	12,240	6.55	7.54	6.97	0.00	1.00	1.00
2012	20,394	20,394	6.43	7.33	7.00	0.00	1.00	1.00
2013	28,784	28,784	7.06	7.29	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	9.49	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	11.30	13.49	12.72	10.41	1.00	1.00
2020	67,258	67,258	12.08	14.09	13.15	10.59	1.00	1.00
2021	67,258	67,258	12.57	14.76	13.69	10.74	1.00	1.00
2022	67,258	67,258	13.06	15.11	14.34	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	10.86	1.00	1.00
2026	67,258	67,258	14.74	16.47	15.70	11.03	1.00	1.00
2027	67,258	67,258	15.13	16.76	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	17.59	16.84	11.41	1.00	1.00
2030	67,258	67,258	16.32	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	17.22	18.22	17.78	11.88	1.00	1.00
2033	67,258	67,258	18.27	19.27	18.34	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	22.82	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	23.90	13.44	1.00	1.00
2041	67,258	67,258	24.34	25.00	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	26.34	27.04	27.22	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.

AVOIDED GENERATING BENEFITS
 PROGRAM/METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Lighting

YEAR	(1) AVOIDED GEN UNIT CAPACITY COST \$(000)	(2) 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	19,427	10,656	449	27,137	34,332	23,338
2020	18,850	10,923	648	39,982	48,769	21,694
2021	18,102	11,196	678	41,716	50,873	20,818
2022	17,380	11,475	721	44,152	53,037	20,092
2023	16,684	11,762	768	46,419	54,562	21,043
2024	16,011	12,056	806	49,035	56,618	21,298
2025	15,360	12,358	861	52,392	59,712	21,258
2026	14,728	12,667	922	55,988	62,902	21,483
2027	14,115	12,983	976	59,897	65,595	21,575
2028	13,505	13,308	1004	64,085	67,698	21,474
2029	12,896	13,641	1052	68,220	69,770	22,038
2030	12,287	13,982	1104	72,739	71,520	22,032
2031	11,679	14,331	1151	77,543	73,817	21,867
2032	11,071	14,690	1175	82,529	75,513	22,532
2033	10,443	15,057	1293	87,944	81,260	22,497
2034	9,856	15,433	1333	93,088	83,187	23,544
2035	9,250	15,819	1391	98,911	84,471	23,960
2036	8,644	16,215	1458	104,337	86,976	23,677
2037	8,038	16,620	1477	109,274	88,227	24,182
2038	7,433	17,035	1520	114,427	90,918	23,496
2039	6,829	17,461	1559	119,945	93,006	23,088
2040	6,234	17,898	1602	125,323	94,009	24,089
2041	5,651	18,345	1646	130,349	96,437	23,854
2042	5,068	18,804	1691	136,497	99,134	23,436
2043	5,185	19,274	1741	143,980	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
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
NCR	295,644	363,990	28,999	1,713,848	1,840,106	562,375
NEV	66,134	60,432	4,379	562,365	281,757	181,493

BUSINESS REFRIGERATION

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.98 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.51 KW
(3) KW LINE LOSS PERCENTAGE	8.65 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	9,588.68 KWH
(5) KW LINE LOSS PERCENTAGE	6.99 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	3.00 KVA

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	1.83254

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 RATE	*** %**
(10) UTILITY DISCOUNT RATE	8.25 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON-RECORDING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECORDING 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	2015-2019
(4) BASE YEAR AVOIDED GENERATING COST	725.29 \$/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	1.00 %**
(8) GENERATOR FIXED O & M COST	57.66 \$/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	0.186 CENTS/KVA
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	8% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	2.25 CENTS PER KW-HR** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.78 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	*** CENTS/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW-HR
(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 GEMFACTOR
PROGRAM#6800 SELECTED REV_REQ
PROGRAM NAME: Business Refinement

YEAR	(2) REQ-YEAR RATE RATE \$(000)	(3) DEBT \$(000)	(4) PREFERRED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPREC. \$(000)	(10) DEBT TAXES \$(000)	(11) TOTAL FIXED CHARGES \$(000)	(12) PRESENT FIXED CHARGES \$(000)	(13) CUMULATIVE PW FIXED CHARGES \$(000)	(14) REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	11,887	344	0	774	510	187	66	433	1	2,315	2,315	2,315	10,813
2020	10,654	331	0	744	351	179	68	433	142	2,246	2,643	4,577	11,083
2021	10,080	313	0	783	348	271	49	433	128	2,157	1,819	6,196	11,368
2022	9,328	296	0	685	344	163	71	433	59	2,071	1,694	7,801	11,644
2023	8,594	279	0	623	320	156	73	433	80	1,988	1,414	9,215	11,925
2024	8,483	264	0	592	324	148	75	433	63	1,908	1,246	10,461	12,234
2025	7,997	248	0	537	328	140	76	433	47	1,830	1,098	11,539	12,548
2026	7,508	230	0	524	322	132	78	433	32	1,755	987	12,526	12,853
2027	7,043	219	0	492	304	125	80	433	30	1,682	851	13,377	13,154
2028	6,581	204	0	459	284	117	83	433	30	1,609	748	14,125	13,504
2029	6,119	190	0	427	264	109	84	433	30	1,537	656	14,781	13,841
2030	5,656	176	0	395	244	101	87	433	30	1,464	594	15,355	14,187
2031	5,194	161	0	362	223	93	89	433	30	1,391	561	15,855	14,542
2032	4,732	147	0	330	203	85	91	433	30	1,319	456	16,282	14,906
2033	4,270	133	0	298	183	78	93	433	30	1,247	379	16,678	15,278
2034	3,808	118	0	266	163	70	96	433	30	1,174	327	16,998	15,660
2035	3,345	104	0	233	142	62	98	433	30	1,102	282	17,280	16,032
2036	2,883	90	0	201	122	54	100	433	30	1,030	242	17,522	16,433
2037	2,421	75	0	169	102	47	103	433	30	958	207	17,729	16,864
2038	1,959	61	0	137	82	39	105	433	30	886	176	17,905	17,286
2039	1,497	46	0	104	62	31	108	433	(80)	814	148	18,053	17,718
2040	1,125	35	0	79	42	23	111	433	(151)	753	126	18,179	18,161
2041	844	26	0	59	214	16	114	433	(151)	709	109	18,288	18,615
2042	562	17	0	39	201	8	116	433	(151)	665	94	18,382	19,080
2043	281	9	0	20	189	0	119	433	(151)	618	80	18,462	19,537

IN SERVICE COST (000)	10,813
IN SERVICE YEAR	2019
BOOK LINE (DEB)	25
DEPRE. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.63%

SOURCE	WEIGHT	COST
DEBT	44%	7.83 %
PFS	0%	0.00 %
CFS	56%	12.50 %

$X\text{-FACTOR} = \frac{C\text{-PWFC}}{I\text{-SVC COST}} = 1.7028$

DEFERRED TAX AND MID-REAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Business Reintegration

(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 ADJUST LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	394	394	433	433	392	392	1	1,009	0	0	0	1	(274)
2020	7.25%	729	1,123	433	865	392	784	182	1,009	0	0	0	142	(132)
2021	6.58%	702	1,825	433	1,298	392	1,176	120	1,009	0	0	0	120	(12)
2022	6.18%	630	2,455	433	1,730	392	1,568	33	1,009	0	0	0	33	87
2023	5.71%	601	3,106	433	2,163	392	1,961	80	1,009	0	0	0	80	167
2024	5.29%	556	3,662	433	2,595	392	2,353	63	1,009	0	0	0	63	230
2025	4.89%	514	4,176	433	3,028	392	2,745	47	1,009	0	0	0	47	277
2026	4.52%	475	4,651	433	3,459	392	3,137	32	1,009	0	0	0	32	310
2027	4.16%	440	5,120	433	3,893	392	3,529	30	1,009	0	0	0	30	339
2028	4.6%	409	5,589	433	4,325	392	3,921	30	1,009	0	0	0	30	369
2029	4.16%	409	6,029	433	4,758	392	4,314	30	1,009	0	0	0	30	399
2030	4.16%	409	6,528	433	5,190	392	4,706	30	1,009	0	0	0	30	429
2031	4.16%	409	6,997	433	5,623	392	5,098	30	1,009	0	0	0	30	458
2032	4.16%	409	7,466	433	6,055	392	5,490	30	1,009	0	0	0	30	488
2033	4.16%	409	7,955	433	6,488	392	5,882	30	1,009	0	0	0	30	518
2034	4.16%	409	8,464	433	6,920	392	6,274	30	1,009	0	0	0	30	547
2035	4.16%	409	8,973	433	7,353	392	6,666	30	1,009	0	0	0	30	577
2036	4.16%	409	9,492	433	7,785	392	7,059	30	1,009	0	0	0	30	607
2037	4.16%	409	9,992	433	8,218	392	7,451	30	1,009	0	0	0	30	636
2038	4.16%	409	10,513	433	8,650	392	7,843	30	1,009	0	0	0	30	666
2039	2.23%	225	10,515	433	9,083	392	8,235	(21)	1,009	0	0	0	(61)	605
2040	0.00%	0	10,515	433	9,515	392	8,627	(151)	1,009	0	0	0	(151)	454
2041	0.00%	0	10,515	433	9,948	392	9,019	(151)	1,009	0	0	0	(151)	303
2042	0.00%	0	10,515	433	10,380	392	9,411	(151)	1,009	0	0	0	(151)	151
2043	0.00%	0	10,515	433	10,813	392	9,804	(151)	1,009	0	0	0	(151)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE/ COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(274)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	1,009
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/METHOD SELECTED: F5V_1BQ
 PROGRAM NAME: Business Refrigeration

(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)
2019	3.75%	394	1	10,390	435	(25)	11,067	10,654	10,871
2020	7.22%	759	142	9,948	865	(132)	10,654	10,089	10,367
2021	6.68%	792	126	9,515	1,298	(22)	10,080	9,528	9,804
2022	6.18%	650	99	9,063	1,730	87	9,323	8,596	9,282
2023	5.71%	602	80	8,650	2,163	167	8,996	8,403	8,729
2024	5.29%	556	63	8,218	2,595	230	8,483	7,987	8,235
2025	4.89%	514	47	7,785	3,028	277	7,987	7,508	7,747
2026	4.52%	475	32	7,353	3,460	310	7,508	7,043	7,275
2027	4.16%	440	20	6,920	3,893	338	7,043	6,581	6,812
2028	4.80%	409	20	6,488	4,325	369	6,581	6,119	6,350
2029	4.46%	409	20	6,055	4,758	399	6,119	5,656	5,888
2030	4.16%	409	20	5,623	5,190	428	5,656	5,194	5,425
2031	4.46%	409	20	5,190	5,623	458	5,194	4,732	4,963
2032	4.16%	409	20	4,758	6,055	488	4,732	4,270	4,501
2033	4.46%	409	20	4,325	6,488	518	4,270	3,808	4,039
2034	4.16%	409	20	3,893	6,920	547	3,808	3,345	3,577
2035	4.16%	409	20	3,460	7,353	577	3,345	2,883	3,114
2036	4.46%	409	20	3,028	7,785	607	2,883	2,421	2,652
2037	4.46%	409	20	2,595	8,218	636	2,421	1,959	2,190
2038	4.16%	409	20	2,163	8,650	666	1,959	1,497	1,728
2039	2.23%	215	(61)	1,730	9,083	695	1,497	1,125	1,311
2040	0.00%	0	(151)	1,298	9,515	724	1,125	844	884
2041	0.00%	0	(151)	865	9,948	753	844	562	703
2042	0.00%	0	(151)	433	10,380	781	562	281	422
2043	0.00%	0	(151)	0	10,813	0	281	0	141

* Column not specified in worksheet

(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	3.00%	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	1.30%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.28%	331.87	221.77
2017	-2	3.00%	1.267	45.74%	420.27	598.34
2018	-1	3.00%	1.305	18.44%	98.79	858.38

100.00% 907.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING WITH AFUDC (\$/KW)	(10)* DEBT AFUDC (\$/KW)	(11)* CUMULATIVE DEBT AFUDC (\$/KW)	(12) YEARLY TOTAL AFUDC (\$/KW)	(13)* CUMULATIVE TOTAL AFUDC (\$/KW)	(14)** CONSTRUCTION PERIOD INTEREST (\$/KW)	(15)* CUMULATIVE CPI (\$/KW)	(16)* DEFERRED TAXES (\$/KW)	(17)** CUMULATIVE DEFERRED TAXES (\$/KW)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$/KW)	(19) 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	0.62	0.62	0.65	0.65	0.04	0.04	(0.01)	0.55	1.29	1.29
2014	-5	3.29	0.29	0.34	0.29	0.94	0.65	0.70	(0.16)	2.55	14.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.96	2.65	3.35	(0.57)	11.55	42.93	61.98
2016	-3	226.84	7.07	8.56	19.29	23.36	13.90	29.25	(4.41)	37.03	371.16	412.96
2017	-2	622.30	19.46	28.01	33.10	76.45	48.47	87.72	(9.04)	107.50	473.57	885.43
2018	-1	934.83	29.46	57.47	82.39	156.84	64.78	127.50	(31.63)	277.02	179.18	1,064.61

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COST	725,389,815
AFUDC RATE	8.63%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAXBASIS
CONSTRUCTION CASE	9,220	9,220	9,220
EQUITY AFUDC	1,009		
DEBT AFUDC	584	584	
CPI			1,295
TOTAL	10,813	9,804	10,515

* Column not specified in workbook

INFODATA - PART 2
 PROGRAM METHOD SELECTED: REV_XBQ
 PROGRAM NAME: Business Registration

(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)	PROGRAMMATIC EFFECTIVENESS FACTOR	PROGRAMMATIC EFFECTIVENESS FACTOR
2009	0	0	6.29	9.17	6.29	0.00	1.00	1.00
2010	535	535	6.41	6.41	16.51	0.00	1.00	1.00
2011	1,794	1,794	6.35	6.35	10.38	0.00	1.00	1.00
2012	2,701	2,701	6.43	6.43	13.34	0.00	1.00	1.00
2013	3,666	3,666	7.06	7.06	9.39	0.00	1.00	1.00
2014	4,572	4,572	7.53	7.53	10.61	0.00	1.00	1.00
2015	5,377	5,377	8.11	8.11	13.00	0.00	1.00	1.00
2016	6,158	6,158	9.00	9.00	13.90	0.00	1.00	1.00
2017	6,962	6,962	9.75	9.75	15.09	0.00	1.00	1.00
2018	7,771	7,771	10.32	10.32	15.46	0.00	1.00	1.00
2019	7,771	7,771	11.50	11.50	21.44	10.41	1.00	1.00
2020	7,771	7,771	12.08	12.08	20.37	10.50	1.00	1.00
2021	7,771	7,771	12.57	12.57	21.76	10.74	1.00	1.00
2022	7,771	7,771	13.06	13.06	23.66	10.81	1.00	1.00
2023	7,771	7,771	13.39	13.39	20.91	10.80	1.00	1.00
2024	7,771	7,771	13.95	13.95	22.19	10.84	1.00	1.00
2025	7,771	7,771	14.40	14.40	22.20	10.96	1.00	1.00
2026	7,771	7,771	14.70	14.70	22.41	11.05	1.00	1.00
2027	7,771	7,771	15.13	15.13	23.05	11.17	1.00	1.00
2028	7,771	7,771	15.60	15.60	23.70	11.30	1.00	1.00
2029	7,771	7,771	16.02	16.02	22.95	11.41	1.00	1.00
2030	7,771	7,771	16.52	16.52	23.78	11.53	1.00	1.00
2031	7,771	7,771	17.08	17.08	24.53	11.80	1.00	1.00
2032	7,771	7,771	17.50	17.50	24.55	11.88	1.00	1.00
2033	7,771	7,771	18.27	18.27	23.51	12.10	1.00	1.00
2034	7,771	7,771	18.73	18.73	23.89	12.14	1.00	1.00
2035	7,771	7,771	19.57	19.57	27.84	12.20	1.00	1.00
2036	7,771	7,771	20.40	20.40	28.26	12.26	1.00	1.00
2037	7,771	7,771	21.11	21.11	29.22	12.70	1.00	1.00
2038	7,771	7,771	22.02	22.02	20.23	13.04	1.00	1.00
2039	7,771	7,771	22.78	22.78	31.28	13.32	1.00	1.00
2040	7,771	7,771	23.59	23.59	32.02	13.44	1.00	1.00
2041	7,771	7,771	24.54	24.54	33.28	13.75	1.00	1.00
2042	7,771	7,771	25.50	25.50	34.66	14.10	1.00	1.00
2043	7,771	7,771	26.74	26.74	34.49	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.

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	0.85 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.15 KW
(3) KW LINE LOSS PERCENTAGE	8.65 %
(4) GENERATOR KW/LINE REDUCTION PER CUSTOMER	2,135.08 KWH
(5) KW/LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	1.70788
(5) K FACTOR FOR T & D	1.62254

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 RATE	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFDISC RATE	8.43 %
(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	185.32 \$/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	1.81 \$/KW
(12) T&D FIXED O&M ESCALATION RATE	2.58 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.58 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	2.23 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/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW&D
(4) DEMAND CHARGE ESCALATION RATE	*** %

CALCULATION OF DEBT FACTOR
 PROGRAM (METHOD SPECIFIED REV REQ)
 PROGRAM NAME: Business Building Develops Program

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
YEAR	REG-YEAR RATE-BASE \$(000)	DEBT \$(000)	DEFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRECC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST-BASES FOR PROPERTY INSURANCE \$(000)
2019	156,044	4,847	0	10,390	7,184	2,630	928	6,087	12	32,578	32,578	32,578	132,182
2020	149,945	4,638	0	10,464	4,936	2,280	832	6,087	1,992	31,610	29,000	61,608	155,987
2021	141,866	4,407	0	9,900	4,892	2,411	975	6,087	1,683	30,355	25,602	87,210	159,886
2022	134,096	4,166	0	9,358	4,835	2,301	1,000	6,087	1,399	29,146	21,576	108,786	163,884
2023	126,609	3,933	0	8,836	4,775	2,191	1,025	6,087	1,132	27,978	19,503	128,689	167,981
2024	119,390	3,709	0	8,332	4,701	2,082	1,039	6,087	888	26,840	17,541	147,230	172,180
2025	112,414	3,492	0	7,845	4,622	1,972	1,077	6,087	661	25,737	15,654	163,684	176,485
2026	105,686	3,282	0	7,374	4,535	1,863	1,109	6,087	452	24,696	13,809	178,293	180,897
2027	99,126	3,079	0	6,918	4,439	1,753	1,151	6,087	218	23,670	11,978	191,271	185,419
2028	92,820	2,877	0	6,464	4,358	1,644	1,189	6,087	418	22,667	10,285	202,796	190,005
2029	86,116	2,675	0	6,010	4,275	1,534	1,188	6,087	418	21,625	8,730	208,627	194,696
2030	79,610	2,473	0	5,556	4,188	1,424	1,238	6,087	418	20,684	7,377	214,103	199,476
2031	73,105	2,271	0	5,102	4,103	1,315	1,248	6,087	418	19,784	6,100	221,130	204,488
2032	66,600	2,069	0	4,648	4,028	1,205	1,280	6,087	418	18,965	5,128	228,291	209,785
2033	60,095	1,867	0	4,194	3,952	1,094	1,312	6,087	418	17,546	4,397	234,619	215,029
2034	53,589	1,665	0	3,740	3,888	986	1,344	6,087	418	16,328	4,009	239,227	220,485
2035	47,084	1,463	0	3,286	3,822	877	1,378	6,087	418	15,511	3,972	243,199	225,915
2036	40,579	1,261	0	2,832	3,758	767	1,413	6,087	418	14,495	3,489	246,698	231,563
2037	34,074	1,058	0	2,378	3,692	657	1,448	6,087	418	13,479	2,911	249,820	237,332
2038	27,568	856	0	1,924	3,627	548	1,484	6,087	418	12,465	2,473	251,992	243,286
2039	21,063	654	0	1,470	3,563	438	1,521	6,087	(825)	11,451	2,086	254,678	249,568
2040	15,851	492	0	1,105	3,500	329	1,559	6,087	(2,129)	10,622	1,777	255,856	255,692
2041	11,873	369	0	829	3,436	219	1,598	6,087	(2,129)	9,979	1,533	257,389	261,992
2042	7,915	246	0	531	3,373	110	1,638	6,087	(2,129)	9,337	1,318	258,787	268,542
2043	3,957	123	0	276	3,309	0	1,679	6,087	(2,129)	8,696	1,127	259,883	275,256

IN SERVICE COST (\$000)	132,182
IN SERVICE YEAR	2019
BOOKING (YRS)	25
DEFEC. FAC RATE	38.575
DISCOUNT RATE	8.9%
PROPERTY TAX	1.89%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	46%	7.03
P/S	0%	0.00
C/S	56%	12.50

$L\text{-FACTOR} = \frac{CPWFC}{IN\text{-SVC COST}} = 1.7078$

DEFERRED TAX AND MID-YEAR RATE-BASE CALCULATION
 PROGRAM/METHOD SELECTED: REV_XBQ
 PROGRAM/NAME: Business Building Renovation 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 14.6%	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	5,530	5,530	6,087	6,087	5,519	5,519	52	14,205	0	0	0	52	(3,850)
2020	7.22%	10,683	16,213	6,087	12,175	5,519	11,038	1,192	14,205	0	0	0	1,992	(1,838)
2021	6.89%	9,881	26,114	6,087	18,262	5,519	16,557	1,643	14,205	0	0	0	1,483	(1,75)
2022	6.18%	9,144	35,259	6,087	24,349	5,519	22,076	1,392	14,205	0	0	0	1,209	1,224
2023	5.71%	8,455	43,714	6,087	30,436	5,519	27,596	1,133	14,205	0	0	0	1,133	2,356
2024	5.29%	7,821	51,536	6,087	36,524	5,519	33,115	866	14,205	0	0	0	866	3,224
2025	4.89%	7,234	58,769	6,087	42,611	5,519	38,634	601	14,205	0	0	0	601	3,825
2026	4.52%	6,692	65,461	6,087	48,698	5,519	44,153	432	14,205	0	0	0	432	4,258
2027	4.19%	6,193	72,055	6,087	54,785	5,519	49,672	263	14,205	0	0	0	263	4,521
2028	4.46%	6,492	78,466	6,087	60,873	5,519	55,191	94	14,205	0	0	0	94	4,615
2029	4.46%	6,492	85,278	6,087	66,960	5,519	60,710	418	14,205	0	0	0	418	5,033
2030	4.46%	6,492	91,871	6,087	73,047	5,519	66,229	418	14,205	0	0	0	418	5,451
2031	4.46%	6,492	98,475	6,087	79,135	5,519	71,748	418	14,205	0	0	0	418	5,869
2032	4.46%	6,492	105,076	6,087	85,222	5,519	77,267	418	14,205	0	0	0	418	6,287
2033	4.46%	6,492	111,680	6,087	91,309	5,519	82,787	418	14,205	0	0	0	418	6,705
2034	4.46%	6,492	118,281	6,087	97,397	5,519	88,306	418	14,205	0	0	0	418	7,123
2035	4.46%	6,492	124,885	6,087	103,484	5,519	93,825	418	14,205	0	0	0	418	7,541
2036	4.46%	6,492	131,487	6,087	109,571	5,519	99,344	418	14,205	0	0	0	418	7,959
2037	4.46%	6,492	138,090	6,087	115,658	5,519	104,863	418	14,205	0	0	0	418	8,377
2038	4.46%	6,492	144,692	6,087	121,746	5,519	110,382	418	14,205	0	0	0	418	8,795
2039	2.23%	3,382	147,993	6,087	127,833	5,519	115,901	(835)	14,205	0	0	0	(835)	8,960
2040	0.00%	0	147,993	6,087	133,920	5,519	121,420	(2,129)	14,205	0	0	0	(2,129)	9,125
2041	0.00%	0	147,993	6,087	140,007	5,519	126,939	(2,129)	14,205	0	0	0	(2,129)	9,290
2042	0.00%	0	147,993	6,087	146,095	5,519	132,458	(2,129)	14,205	0	0	0	(2,129)	9,455
2043	0.00%	0	147,993	6,087	152,182	5,519	137,977	(2,129)	14,205	0	0	0	(2,129)	9,620

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,862)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	14,205
BOOK/DEPR RATE - USEFUL LIFE	4.80%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/METHOD SELECTED: REV X8Q
 PROGRAM NAME: Business Building Envelope Program

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION (\$'000)	(4) DEFERRED TAX (\$'000)	(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)
2019	3.75%	5,590	12	144,095	6,487	(3,850)	156,044	149,945	152,994
2020	7.28%	10,683	1,982	140,908	12,125	(7,838)	149,945	141,866	145,905
2021	6.68%	9,881	1,825	133,920	18,282	(179)	141,866	134,694	137,981
2022	6.18%	9,144	1,789	127,833	24,349	1,324	134,694	126,609	130,532
2023	5.71%	8,455	1,732	121,746	30,436	2,385	126,609	119,390	123,000
2024	5.29%	7,821	1,658	115,658	36,524	3,244	119,390	112,414	115,902
2025	4.89%	7,234	1,561	109,571	42,611	3,985	112,414	105,666	109,040
2026	4.52%	6,692	1,442	103,484	48,698	4,538	105,666	99,126	102,286
2027	4.18%	6,103	1,302	97,397	54,785	4,726	99,126	92,820	95,873
2028	4.48%	6,602	1,138	91,309	60,873	5,194	92,820	86,116	89,248
2029	4.48%	6,603	1,138	85,222	66,960	5,612	86,116	79,610	82,843
2030	4.48%	6,602	1,138	79,135	73,047	6,030	79,610	73,105	76,538
2031	4.48%	6,603	1,138	73,047	79,135	6,448	73,105	66,600	69,832
2032	4.48%	6,602	1,138	66,960	85,222	6,865	66,600	60,095	63,247
2033	4.48%	6,603	1,138	60,873	91,309	7,284	60,095	53,589	56,842
2034	4.48%	6,602	1,138	54,786	97,397	7,701	53,589	47,084	50,337
2035	4.48%	6,603	1,138	48,699	103,484	8,128	47,084	40,579	43,831
2036	4.48%	6,602	1,138	42,611	109,571	8,537	40,579	34,074	37,226
2037	4.48%	6,603	1,138	36,524	115,658	8,925	34,074	27,568	30,621
2038	4.48%	6,602	1,138	30,436	121,746	9,303	27,568	21,063	24,016
2039	2.23%	3,301	(835)	24,349	127,833	9,518	21,063	15,851	18,447
2040	0.00%	0	(2,129)	18,262	133,920	9,389	15,851	11,873	13,823
2041	0.00%	0	(2,129)	12,175	140,008	9,280	11,873	7,915	9,894
2042	0.00%	0	(2,129)	6,087	146,095	9,151	7,915	3,957	5,936
2043	0.00%	0	(2,129)	0	152,182	9,022	3,957	-2	1,977

* 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%	1.00	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	0.22
2014	-5	3.00%	1.159	1.90%	15.59	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.27	222.77
2017	-2	3.00%	1.267	45.74%	420.27	394.84
2018	-1	3.00%	1.305	10.44%	98.79	258.38

100.00% 507.77

(11) YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(9) 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 INTEREST (\$/KW)	(9c)** CUMULATIVE CPI (\$/KW)	(9d)* DEFERRED TAXES (\$/KW)	(9e)* 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	0.22	0.22	0.22	0.22	0.22	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.24	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.03	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	222.77	7.07	8.56	19.29	23.36	15.50	19.25	(3.41)	(4.15)	351.15	412.06
2017	-2	622.28	19.46	28.81	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

136.84

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	TAXBASIS
CONSTRUCTION CASE	129,763	129,763	129,763
EQUALIFY AFUDC	14,285		
DEBT AFUDC	8,215	8,215	
CPI			18,226
TOTAL	152,182	137,978	147,989

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM/METHOD SELECTED: KEV_REQ
 PROGRAMNAME: Business Building Envelope Program

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	WELLEY AVERAGE SYSTEM FUEL COST (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAMM'W EFFECTIVENESS FACTOR	PROGRAMM'W EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	5,719	5,719	6.41	9.01	6.70	0.00	1.00	1.00
2011	20,793	20,793	6.26	8.68	6.61	0.00	1.00	1.00
2012	38,918	38,918	6.43	8.45	6.66	0.00	1.00	1.00
2013	57,349	57,349	7.06	8.41	7.23	0.00	1.00	1.00
2014	73,849	73,849	7.53	8.67	7.48	0.00	1.00	1.00
2015	93,905	93,905	8.11	9.61	8.31	0.00	1.00	1.00
2016	106,306	106,306	9.00	11.53	9.31	0.00	1.00	1.00
2017	118,265	118,265	9.75	12.72	10.66	0.00	1.00	1.00
2018	124,282	124,282	10.32	13.23	10.86	0.00	1.00	1.00
2019	124,282	124,282	11.39	13.23	11.94	0.00	1.00	1.00
2020	124,282	124,282	12.08	13.83	12.57	0.00	1.00	1.00
2021	124,282	124,282	12.57	14.33	13.08	0.00	1.00	1.00
2022	124,282	124,282	13.06	14.84	13.59	0.00	1.00	1.00
2023	124,282	124,282	13.29	15.32	13.92	0.00	1.00	1.00
2024	124,282	124,282	13.85	15.82	14.47	0.00	1.00	1.00
2025	124,282	124,282	14.48	16.22	14.92	0.00	1.00	1.00
2026	124,282	124,282	14.70	16.32	15.19	0.00	1.00	1.00
2027	124,282	124,282	15.13	16.54	15.60	0.00	1.00	1.00
2028	124,282	124,282	15.60	16.91	16.05	0.00	1.00	1.00
2029	124,282	124,282	16.02	17.26	16.44	0.00	1.00	1.00
2030	124,282	124,282	16.32	17.56	16.82	0.00	1.00	1.00
2031	124,282	124,282	17.08	18.36	17.67	0.00	1.00	1.00
2032	124,282	124,282	17.50	19.02	17.94	0.00	1.00	1.00
2033	124,282	124,282	18.27	20.38	18.50	0.00	1.00	1.00
2034	124,282	124,282	18.73	20.88	18.86	0.00	1.00	1.00
2035	124,282	124,282	19.57	21.37	19.75	0.00	1.00	1.00
2036	124,282	124,282	20.40	22.39	20.54	0.00	1.00	1.00
2037	124,282	124,282	21.11	22.91	21.24	0.00	1.00	1.00
2038	124,282	124,282	22.02	23.88	22.16	0.00	1.00	1.00
2039	124,282	124,282	22.78	24.49	22.89	0.00	1.00	1.00
2040	124,282	124,282	23.59	25.04	23.68	0.00	1.00	1.00
2041	124,282	124,282	24.54	25.93	24.62	0.00	1.00	1.00
2042	124,282	124,282	25.58	26.84	25.39	0.00	1.00	1.00
2043	124,282	124,282	26.74	28.65	26.85	0.00	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.

BUSINESS WATER HEATING

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: KEV_NBO
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 KW REDUCTION PER CUSTOMER	7.09549 KVA
(5) KVA LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	1.6254

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 RATE	--- %**
~ (10) UTILITY DISCOUNT RATE	2.89 %
~ (11) UTILITY AFUDC RATE	2.48 %
* (12) UTILITY NON RECURRING KEBATE INCENTIVE	--- \$/CUST
* (13) UTILITY RECURRING KEBATE INCENTIVE	--- \$/CUST
* (14) UTILITY KEBATE INCENTIVE ESCALATION RATE	--- %

- SUPPLEMENTAL INFORMATION NOT RECEIVED 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	2013
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING COST	723.59 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.02 \$/KW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/KW
(7) GEN. TRANS & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	57.66 \$/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	0.104 CENTS/KVA
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% -- (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	8.25 CENTS PER KW-HR -- (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/KVA
(2) NON-FUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CUSTOMER BILL	--- \$/KW/HR
(4) DEMAND CHARGE ESCALATION RATE	--- %

CALCULATION OF GENERATOR
 PROGRAM(M)STED SELECTED KEY REQ
 PROGRAMNAME: Business Water Heating

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	REQ-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRCC. \$(000)	DEPRCCD TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COSTS/ASST FOR PROPERTY INSURANCE \$(000)
2019	6,579	196	0	440	290	106	37	246	0	1,315	1,315	1,315	6,144
2020	6,093	188	0	422	199	102	38	246	80	1,376	1,172	2,487	6,297
2021	5,727	178	0	400	197	97	39	246	68	1,225	1,094	3,521	6,456
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	4,829	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	626	6,568	7,125
2026	4,266	133	0	298	183	75	43	246	18	997	549	7,117	7,303
2027	4,002	124	0	279	179	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	7,678
2029	3,476	108	0	243	159	62	48	246	17	873	373	8,398	7,864
2030	3,234	100	0	224	138	58	49	246	17	832	326	8,728	8,051
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	750	248	9,256	8,469
2033	2,426	75	0	169	104	44	53	246	17	708	215	9,472	8,681
2034	2,183	67	0	151	92	40	54	246	17	667	186	9,658	8,896
2035	1,901	59	0	133	81	35	56	246	17	626	160	9,818	9,120
2036	1,634	51	0	114	69	31	57	246	17	585	138	9,956	9,340
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	9,822
2039	854	26	0	59	36	18	61	246	(25)	462	84	10,257	10,067
2040	639	28	0	45	28	13	63	246	(86)	429	72	10,329	10,319
2041	479	15	0	30	21	9	65	246	(86)	403	62	10,391	10,577
2042	300	10	0	22	14	4	66	246	(86)	377	53	10,444	10,841
2043	160	5	0	11	107	(0)	68	246	(86)	351	45	10,489	11,132

IN SERVICE COST (\$000)	6,144
IN SERVICE YEAR	2019
BOOKING PERIOD	75
DEPRCC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.62%

SOURCE	WEIGHT	COST
DEBT	44%	7.05%
P/E	0%	0.00%
C/S	56%	12.50%

K-FACTOR = GP/SPC / IN-SVC COST = 1.79238

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 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	(156)
2020	7.22%	431	655	246	491	223	446	88	573	0	0	0	80	(75)
2021	6.89%	399	1,054	246	737	223	669	68	573	0	0	0	68	(7)
2022	6.18%	368	1,423	246	983	223	891	58	573	0	0	0	58	49
2023	5.75%	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	(83)	573	0	0	0	(83)	344
2040	0.00%	0	5,974	246	5,406	223	4,902	(80)	573	0	0	0	(80)	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	5,897	223	5,347	(72)	573	0	0	0	(72)	86
2043	0.00%	0	5,974	246	6,144	223	5,570	(80)	573	0	0	0	(80)	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 - USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: MDV_03Q
 PROGRAM NAME: Business Water Heating

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(6)* ACCUMULATED DEPRECIATION \$(000)	(6)* ACCUMULATED DEF TAXES \$(000)	(6) BEGINNING YEAR RATE BASE \$(000)	(7) ENDING OF YEAR RATE BASE \$(000)	(8) MID-YEAR RATE BASE \$(000)
2010	3.23%	224	0	5,858	266	(133)	6,359	6,933	6,176
2020	7.22%	431	88	5,632	491	(75)	6,093	5,727	5,806
2021	6.69%	399	68	5,406	737	(7)	5,727	5,413	5,579
2022	6.18%	369	36	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	1,674	131	4,820	4,538	4,673
2025	4.89%	292	27	4,423	1,720	158	4,538	4,266	4,442
2026	4.52%	270	18	4,178	1,966	176	4,266	4,002	4,134
2027	4.18%	267	17	3,932	2,212	193	4,002	3,739	3,879
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	3,194	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	(15)	983	5,161	344	850	639	745
2040	0.00%	0	(8)	737	5,406	298	639	479	589
2041	0.00%	0	(5)	491	5,632	172	479	300	399
2042	0.00%	0	(8)	246	5,858	96	300	160	246
2043	0.00%	0	(8)	(7)	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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
2009	-10	3.00%	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	1.00%	15.09	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%	428.27	598.94
2018	-1	3.00%	1.305	18.44%	98.79	833.33

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(3a)* DDBT AFUDC (\$K/W)	(3b)* CUMULATIVE DDBT AFUDC (\$K/W)	(4) YEARLY TOTAL AFUDC (\$K/W)	(5a)* TOTAL AFUDC (\$K/W)	(5b)* CONSTRUCTION PERIOD INTEREST (\$K/W)	(6c)* CUMULATIVE CRF (\$K/W)	(6d)* DESERVED TAXES (\$K/W)	(7a)* CUMULATIVE DEFERRED TAXES (\$K/W)	(8) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(11) CUMULATIVE YEAR-END BOOK VALUE (\$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
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	0.02	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	3.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.37	1.18	1.49	3.22	4.06	2.65	3.35	(0.72)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	8.56	19.29	23.56	15.90	19.23	(3.41)	(4.15)	351.16	412.06
2017	-2	622.20	19.46	28.91	53.18	76.45	43.47	62.72	(9.26)	(13.29)	473.29	885.43
2018	-1	934.53	29.46	37.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR	2019	37.49			154.84			127.50			(27.02)			1,064.61		
		CONSTRUCTION CASH	BOOK BASIS	TAXBASIS												
CONSTRUCTION CASH	725,389,000	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239	5,239
EQUITY AFUDC	8.48%	573	332	736	573	332	736	573	332	736	573	332	736	573	332	736
DDBT AFUDC																
CRF																
TOTAL		6,144	5,570	5,974	6,144	5,570	5,974	6,144	5,570	5,974	6,144	5,570	5,974	6,144	5,570	5,974

* Columns not specified in worksheet

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/KW)	AVOIDED MARGINAL FUEL COST (\$/KW)	INCREASED MARGINAL FUEL COST (\$/KW)	REPLACEMENT FUEL COST (\$/KW)	PROGRAMMIV EFFECTIVENESS FACTOR	PROGRAMMIV EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	465	465	6.41	6.72	6.91	0.00	1.00	1.00
2011	592	592	6.35	6.62	6.49	0.00	1.00	1.00
2012	1,570	1,570	6.43	6.68	6.37	0.00	1.00	1.00
2013	2,686	2,686	7.96	7.24	8.35	0.00	1.00	1.00
2014	3,377	3,377	7.53	7.69	8.02	0.00	1.00	1.00
2015	3,803	3,803	8.11	8.32	9.53	0.00	1.00	1.00
2016	4,602	4,602	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	10.32	10.86	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	12.88	12.60	15.76	18.28	1.00	1.00
2021	4,579	4,579	12.57	13.12	16.34	16.74	1.00	1.00
2022	4,579	4,579	13.06	13.62	16.94	16.81	1.00	1.00
2023	4,579	4,579	13.29	13.84	16.94	16.30	1.00	1.00
2024	4,579	4,579	13.95	14.49	17.62	18.84	1.00	1.00
2025	4,579	4,579	14.40	14.95	18.05	18.94	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	11.34	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	16.32	16.94	19.10	11.39	1.00	1.00
2031	4,579	4,579	17.68	17.90	19.71	11.80	1.00	1.00
2032	4,579	4,579	17.50	17.86	19.59	11.88	1.00	1.00
2033	4,579	4,579	18.27	18.22	20.10	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	19.74	21.25	12.29	1.00	1.00
2036	4,579	4,579	20.40	20.55	22.27	12.25	1.00	1.00
2037	4,579	4,579	21.13	21.25	23.81	12.78	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	23.29	23.49	24.94	13.44	1.00	1.00
2041	4,579	4,579	24.54	24.43	25.85	13.75	1.00	1.00
2042	4,579	4,579	25.50	25.60	26.77	14.19	1.00	1.00
2043	4,579	4,579	26.74	26.86	28.22	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.

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 KVA REDUCTION PER CUSTOMER	2.65 KVA ****
(5) KVA LINE LOSS PERCENTAGE	4.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	1.46 KVA ****

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	1.7078
(5) K FACTOR FOR T & D	1.6324

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NONRECORDING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECORDING 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	*** %**
** INCREASED SUPPLY COSTS	*** \$/CUST/YR
** SUPPLY COSTS ESCALATION RATE	*** %**
** UTILITY DISCOUNT RATE	8.89 %
** UTILITY AFDG RATE	8.88 %
** UTILITY NONRECORDING REBATE INCENTIVE	*** \$/CUST
** UTILITY RECORDING REBATE INCENTIVE	*** \$/CUST
** 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	724.29 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	184.21 \$/KW
(6) BASE YEAR DISTRIBUTION COST	12.38 \$/KW
(7) GEN. TRAN & DIST COST ESCALATION RATE	1.08 %**
(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/KVA
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	6% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	2.23 CENTS PER KW-HR ** (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/KVA
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/KW&M
(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 KW\$/CUST SHIFTED AWAY FROM PEAKERS. VALUE SHOWN IN ITEM (7) IS ANNUAL KW\$/CUST THAT IS PAID BACK DURING OFF-PEAK.

CALCULATION OF GENE-FACTOR
PROGRAM(METHOD SELECTED REV_REQ)
PROGRAMNAME: Business On Call

(1)	(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	44,790	1,267	0	2,947	1,872	687	243	1,591	3	8,516	8,516	8,516	39,781
2020	38,196	1,228	0	2,725	1,290	659	949	1,591	321	8,263	7,982	16,104	48,775
2021	37,084	1,152	0	2,588	1,229	630	235	1,591	440	7,933	6,892	22,797	41,284
2022	34,043	1,039	0	2,446	1,264	601	261	1,591	366	7,619	5,901	28,698	42,839
2023	33,696	1,023	0	2,310	1,248	573	268	1,591	286	7,313	5,293	33,901	43,910
2024	31,209	909	0	2,178	1,229	544	275	1,591	222	7,018	4,585	38,485	45,008
2025	29,385	913	0	2,051	1,206	516	281	1,591	133	6,721	4,040	42,526	46,133
2026	27,621	858	0	1,928	1,186	487	288	1,591	118	6,436	3,557	46,083	47,287
2027	25,912	805	0	1,806	1,120	458	296	1,591	109	6,187	3,231	49,214	48,469
2028	24,211	752	0	1,690	1,045	430	303	1,591	109	5,920	2,731	51,966	49,681
2029	22,511	699	0	1,571	971	401	311	1,591	109	5,633	2,413	54,378	50,923
2030	20,810	646	0	1,452	896	372	318	1,591	109	5,396	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	333	1,591	109	4,853	1,604	59,937	54,828
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	4,300	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	65,223	62,044
2038	7,206	224	0	503	300	143	388	1,591	109	3,258	646	65,871	63,593
2039	5,506	171	0	384	225	115	398	1,591	(224)	2,993	549	66,416	65,185
2040	4,158	129	0	265	151	86	408	1,591	(337)	2,777	485	66,881	66,815
2041	3,104	96	0	217	78	57	418	1,591	(337)	2,600	401	67,282	68,485
2042	2,049	64	0	144	70	29	428	1,591	(337)	2,441	344	67,626	70,197
2043	1,034	32	0	72	69	(9)	439	1,591	(337)	2,273	295	67,921	71,952

IN SERVICE COST (\$000)	39,781
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPR. RATE	38.57%
DISCOUNT RATE	8.5%
PROPERTY TAX	1.89%
PROPERTY INSURANCE	0.412%

SOURCE	WEIGHT	COST
DEBT	40%	7.0%
PRE	0%	0.0%
EQ	60%	12.5%

K-FACTOR = $\frac{C^*WFC}{IN-SVC COST} = 1.7078$

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 DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK/DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (7)-(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	(1,005)
2020	7.22%	2,793	4,243	1,591	3,182	1,443	2,985	231	3,713	0	0	0	231	(486)
2021	6.68%	2,583	6,826	1,591	4,774	1,443	4,328	446	3,713	0	0	0	446	(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	10,199	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	4.18%	1,726	18,838	1,591	14,221	1,443	12,984	109	3,713	0	0	0	109	1,248
2028	4.46%	1,726	20,563	1,591	15,913	1,443	14,427	109	3,713	0	0	0	109	1,358
2029	4.46%	1,726	22,289	1,591	17,593	1,443	15,870	109	3,713	0	0	0	109	1,467
2030	4.46%	1,726	24,015	1,591	19,295	1,443	17,312	109	3,713	0	0	0	109	1,576
2031	4.46%	1,726	25,741	1,591	20,996	1,443	18,755	109	3,713	0	0	0	109	1,685
2032	4.46%	1,726	27,467	1,591	22,697	1,443	20,198	109	3,713	0	0	0	109	1,794
2033	4.46%	1,726	29,193	1,591	24,398	1,443	21,640	109	3,713	0	0	0	109	1,904
2034	4.46%	1,726	30,919	1,591	26,100	1,443	23,083	109	3,713	0	0	0	109	2,013
2035	4.46%	1,726	32,645	1,591	27,801	1,443	24,526	109	3,713	0	0	0	109	2,122
2036	4.46%	1,726	34,371	1,591	29,502	1,443	25,969	109	3,713	0	0	0	109	2,232
2037	4.46%	1,726	36,097	1,591	31,203	1,443	27,411	109	3,713	0	0	0	109	2,341
2038	4.46%	1,726	37,823	1,591	32,904	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	(257)	3,713	0	0	0	(257)	1,670
2041	0.00%	0	38,686	1,591	36,598	1,443	33,182	(257)	3,713	0	0	0	(257)	1,113
2042	0.00%	0	38,686	1,591	38,189	1,443	34,625	(257)	3,713	0	0	0	(257)	557
2043	0.00%	0	38,686	1,591	39,781	1,443	36,067	(257)	3,713	0	0	0	(257)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,005)
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_RRQ
 PROGRAM NAME: Business On Call

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(6)* ACCUMULATED DEPRECIATION	(6)* ACCUMULATED DEF TAGES	(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%	1,451	3	36,189	1,591	(1,006)	48,790	39,194	39,393
2020	7.22%	2,793	521	36,528	3,182	(886)	39,194	37,084	38,140
2021	6.08%	2,383	440	33,607	4,774	(44)	37,084	35,053	36,068
2022	6.18%	2,391	366	33,416	6,365	329	35,053	33,026	34,074
2023	5.71%	2,210	296	31,824	7,956	616	33,026	31,269	32,152
2024	5.29%	2,044	232	30,233	9,547	948	31,269	29,385	30,097
2025	4.89%	1,891	173	28,642	11,139	1,021	29,385	27,621	28,303
2026	4.52%	1,749	118	27,051	12,730	1,139	27,621	25,913	26,766
2027	4.16%	1,726	109	25,460	14,321	1,248	25,913	24,211	25,061
2028	4.16%	1,726	109	23,868	15,912	1,358	24,211	22,511	23,361
2029	4.16%	1,726	109	22,277	17,503	1,467	22,511	20,810	21,660
2030	4.16%	1,726	109	20,686	19,095	1,576	20,810	19,110	19,960
2031	4.16%	1,726	109	19,095	20,686	1,685	19,110	17,409	18,260
2032	4.16%	1,726	109	17,503	22,277	1,795	17,409	15,709	16,560
2033	4.16%	1,726	109	15,912	23,868	1,904	15,709	14,008	14,860
2034	4.16%	1,726	109	14,321	25,460	2,013	14,008	12,308	13,160
2035	4.16%	1,726	109	12,730	27,051	2,122	12,308	10,607	11,460
2036	4.16%	1,726	109	11,139	28,642	2,232	10,607	8,907	9,760
2037	4.16%	1,726	109	9,547	30,233	2,341	8,907	7,206	8,060
2038	4.16%	1,726	109	7,956	31,824	2,450	7,206	5,506	6,360
2039	2.25%	803	(234)	6,365	33,416	2,557	5,506	4,128	4,822
2040	0.00%	0	(537)	4,774	35,007	1,670	4,128	3,104	3,621
2041	0.00%	0	(537)	3,182	36,598	1,113	3,104	2,509	2,596
2042	0.00%	0	(537)	1,591	38,189	577	2,009	1,934	1,934
2043	0.00%	0	(537)	(0)	39,780	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	3.00%	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%	1.34	0.62
2014	-5	3.00%	1.159	1.90%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	20.61	37.03
2016	-3	3.00%	1.230	37.20%	231.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	79.79	638.28

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFUDC (\$/KW)	(4)* DEBT AFUDC (\$/KW)	(5)* CUMULATIVE DEBT AFUDC (\$/KW)	(6) YEARLY TOTAL AFUDC (\$/KW)	(7)* CUMULATIVE TOTAL AFUDC (\$/KW)	(8)* CONSTRUCTION PERIOD INTEREST (\$/KW)	(9)* CUMULATIVE CFI (\$/KW)	(10)* DEFERRED TAXES (\$/KW)	(11)* DEFERRED TAXES (\$/KW)	(12) INCREMENTAL YEAR-END BOOK VALUE (\$/KW)	(13) 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	0.62	0.62	0.65	0.65	0.04	0.04	(0.01)	(0.11)	1.29	1.29
2014	-5	9.29	0.29	0.29	0.79	0.84	0.45	0.70	(0.16)	(0.15)	14.78	16.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.85	3.35	(0.57)	(0.72)	42.85	61.90
2016	-3	226.84	7.07	2.54	19.29	25.36	15.96	19.25	(3.41)	(4.13)	351.16	412.06
2017	-2	622.28	19.46	28.61	53.10	76.45	43.47	62.72	(9.39)	(13.29)	473.37	885.43
2018	-1	734.83	29.46	57.47	90.39	156.84	64.78	127.50	(13.03)	(27.82)	179.13	1,064.51

IN SERVICE YEAR	2019
PLANT COSTS	725,349,805
AFUDC RATE	4.48%

	57.47	156.84	127.50	(27.82)	1,064.51
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASE	33,920	33,920	33,920		
EQUITY AFUDC	3,715	2,147			
DEBT AFUDC	2,147		4,764		
CFI					
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 (\$/kWh)	AVOIDED MARGINAL FUEL COST (\$/kWh)	INCREASED MARGINAL FUEL COST (\$/kWh)	REPLACEMENT FUEL COST (\$/kWh)	PROGRAM W EFFECTIVENESS FACTOR	PROGRAM W 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	9.90	13.90	9.90	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	11.90	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	18.07	25.51	18.07	12.10	1.00	1.00
2034	32,911	32,911	18.78	25.89	18.78	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	12.53	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	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
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.

RATE IMPACT TEST
PROGRAM/AGENCY/SELECTED: REV_REQ
PROGRAM/NAME: Business On Call

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	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	84	84	0	0	148	1	0	0	0	1	(148)	(148)
2011	0	249	249	1	0	442	1	179	0	180	(262)	(410)	
2012	0	422	422	1	0	723	3	328	0	361	(362)	(811)	
2013	0	572	572	2	0	1,024	2	551	0	553	(471)	(1,282)	
2014	0	729	729	2	0	1,307	3	731	0	734	(573)	(1,855)	
2015	0	837	837	3	0	1,544	5	912	0	917	(637)	(2,492)	
2016	0	894	894	3	0	1,729	6	1,029	0	1,100	(635)	(3,127)	
2017	0	983	983	4	0	1,917	8	1,294	0	1,294	(633)	(3,760)	
2018	0	1,016	1,016	5	0	2,107	8	1,429	0	1,469	(638)	(4,398)	
2019	0	973	1,182	4	0	2,129	10,243	1,629	0	(436)	11,436	7,038	
2020	0	835	1,182	5	0	1,990	9,322	1,383	0	(638)	10,447	8,407	
2021	0	639	1,182	5	0	1,854	9,140	1,327	0	(706)	9,971	8,115	
2022	0	571	1,182	5	0	1,728	9,006	1,493	0	(816)	9,763	6,825	
2023	0	450	1,182	5	0	1,607	9,246	1,428	0	(884)	9,797	5,991	
2024	0	392	1,182	5	0	1,549	9,350	1,408	0	(1,023)	9,735	5,185	
2025	0	402	1,182	5	0	1,539	9,382	1,367	0	(1,160)	9,533	4,974	
2026	0	412	1,182	6	0	1,578	9,396	1,326	0	(1,288)	9,463	4,804	
2027	0	422	1,182	6	0	1,580	9,471	1,284	0	(1,416)	9,343	4,763	
2028	0	435	1,182	6	0	1,591	9,427	1,243	0	(1,529)	9,134	4,743	
2029	0	444	1,182	6	0	1,602	9,673	1,203	0	(1,729)	9,149	4,747	
2030	0	455	1,182	7	0	1,613	9,671	1,163	0	(1,910)	8,925	4,732	
2031	0	466	1,182	7	0	1,625	9,589	1,124	0	(2,071)	8,684	4,689	
2032	0	478	1,182	7	0	1,637	9,489	1,085	0	(2,233)	8,750	4,692	
2033	0	484	1,182	8	0	1,650	9,376	1,046	0	(2,404)	8,305	4,655	
2034	0	502	1,182	8	0	1,662	10,205	1,020	0	(2,603)	8,462	4,680	
2035	0	515	1,182	9	0	1,675	10,491	996	0	(2,819)	8,332	4,657	
2036	0	528	1,182	9	0	1,689	10,294	982	0	(3,049)	7,923	4,624	
2037	0	541	1,182	10	0	1,702	10,616	937	0	(3,277)	7,897	4,613	
2038	0	554	1,182	10	0	1,716	10,216	915	0	(3,526)	7,885	4,609	
2039	0	568	1,182	11	0	1,731	10,138	894	0	(3,775)	6,638	4,928	
2040	0	582	1,182	12	0	1,746	10,577	878	0	(4,025)	6,730	4,984	
2041	0	597	1,182	12	0	1,761	10,474	882	0	(4,288)	6,248	4,488	
2042	0	612	1,182	13	0	1,776	10,292	846	0	(4,558)	6,050	4,294	
2043	0	627	1,182	13	0	1,792	10,204	830	0	(4,827)	6,067	4,294	
2044	0	0	0	0	0	0	0	0	0	0	0	0	
2045	0	0	0	0	0	0	0	0	0	0	0	0	
2046	0	0	0	0	0	0	0	0	0	0	0	0	
2047	0	0	0	0	0	0	0	0	0	0	0	0	
2048	0	0	0	0	0	0	0	0	0	0	0	0	
2049	0	0	0	0	0	0	0	0	0	0	0	0	
2050	0	0	0	0	0	0	0	0	0	0	0	0	
2051	0	0	0	0	0	0	0	0	0	0	0	0	
2052	0	0	0	0	0	0	0	0	0	0	0	0	
2053	0	0	0	0	0	0	0	0	0	0	0	0	
2054	0	0	0	0	0	0	0	0	0	0	0	0	
2055	0	0	0	0	0	0	0	0	0	0	0	0	
2056	0	0	0	0	0	0	0	0	0	0	0	0	
2057	0	0	0	0	0	0	0	0	0	0	0	0	
2058	0	0	0	0	0	0	0	0	0	0	0	0	
2059	0	0	0	0	0	0	0	0	0	0	0	0	
2060	0	0	0	0	0	0	0	0	0	0	0	0	
2061	0	0	0	0	0	0	0	0	0	0	0	0	
2062	0	0	0	0	0	0	0	0	0	0	0	0	
2063	0	0	0	0	0	0	0	0	0	0	0	0	
2064	0	0	0	0	0	0	0	0	0	0	0	0	
2065	0	0	0	0	0	0	0	0	0	0	0	0	
2066	0	0	0	0	0	0	0	0	0	0	0	0	
2067	0	0	0	0	0	0	0	0	0	0	0	0	
2068	0	0	0	0	0	0	0	0	0	0	0	0	
2069	0	0	0	0	0	0	0	0	0	0	0	0	
2070	0	0	0	0	0	0	0	0	0	0	0	0	
2071	0	0	0	0	0	0	0	0	0	0	0	0	
2072	0	0	0	0	0	0	0	0	0	0	0	0	
2073	0	0	0	0	0	0	0	0	0	0	0	0	
2074	0	0	0	0	0	0	0	0	0	0	0	0	
2075	0	0	0	0	0	0	0	0	0	0	0	0	
2076	0	0	0	0	0	0	0	0	0	0	0	0	
2077	0	0	0	0	0	0	0	0	0	0	0	0	
2078	0	0	0	0	0	0	0	0	0	0	0	0	
2079	0	0	0	0	0	0	0	0	0	0	0	0	
2080	0	0	0	0	0	0	0	0	0	0	0	0	
2081	0	0	0	0	0	0	0	0	0	0	0	0	
2082	0	0	0	0	0	0	0	0	0	0	0	0	
2083	0	0	0	0	0	0	0	0	0	0	0	0	
2084	0	0	0	0	0	0	0	0	0	0	0	0	
2085	0	0	0	0	0	0	0	0	0	0	0	0	
2086	0	0	0	0	0	0	0	0	0	0	0	0	
2087	0	0	0	0	0	0	0	0	0	0	0	0	
2088	0	0	0	0	0	0	0	0	0	0	0	0	
2089	0	0	0	0	0	0	0	0	0	0	0	0	
2090	0	0	0	0	0	0	0	0	0	0	0	0	
2091	0	0	0	0	0	0	0	0	0	0	0	0	
2092	0	0	0	0	0	0	0	0	0	0	0	0	
2093	0	0	0	0	0	0	0	0	0	0	0	0	
2094	0	0	0	0	0	0	0	0	0	0	0	0	
2095	0	0	0	0	0	0	0	0	0	0	0	0	
2096	0	0	0	0	0	0	0	0	0	0	0	0	
2097	0	0	0	0	0	0	0	0	0	0	0	0	
2098	0	0	0	0	0	0	0	0	0	0	0	0	
2099	0	0	0	0	0	0	0	0	0	0	0	0	
2100	0	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	19,291	33,381	212	0	53,884	246,929	35,657	0	(62,966)	220,990	167,035	
NPV	0	6,966	8,243	49	0	14,448	44,876	9,206	0	(7,649)	44,794	32,285	

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

8.89 %
3.23

COMMERCIAL / INDUSTRIAL DEMAND REDUCTION

INPUT DATA - PART 1 CONTINUED
PROGRAM/METHOD SELECTED: ENY_NRG
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	1.79738
(5) K FACTOR FOR T & D	1.62254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECORDING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECORDING 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	8.80 %
^ (11) UTILITY AFUDC RATE	8.40 %
* (12) UTILITY NON RECORDING REBATE INCENTIVE	*** \$/CUST
* (13) UTILITY RECORDING 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	2010
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATING T&D	725.99 \$/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	97.06 \$/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 \$/KWH
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	3.70 %**
(15) GENERATOR CAPACITY FACTOR	894 ** (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&D
(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 SHEDDING PROGRAM. VALUE SHOWN IN ITEM (4) IS ANNUAL KWH/COST SHEDD AWAY FROM PEAKERS. VALUE SHOWN IN ITEM (7) IS ANNUAL KWH/COST THAT IS PAID BACK DURING OFF-PEAK.

CALCULATION OF GENX-FACTOR
PROGRAM/EMERGENCY SELECTED REV. REQ
PROGRAM/NAME: Commercial/Industrial Demand Reduction

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
YEAR	REG-YEAR RATEBASE (\$000)	DEBT (\$000)	PREFERRED STOCK (\$000)	COMMON EQUITY (\$000)	INCOME TAXES (\$000)	PROPERTY TAX (\$000)	PROPERTY INSURANCE (\$000)	DEPRECIATION (\$000)	DEPRECIATION (\$000)	TOTAL FIXED CHARGES (\$000)	PRESENT WORTH FIXED CHARGES (\$000)	CUMULATIVE PW FIXED CHARGES (\$000)	REPLACEMENT COSTS FOR PROPERTY INSURANCE (\$000)
2019	170,978	5,311	0	11,922	7,871	2,881	1,017	6,670	13	35,696	35,696	35,696	166,797
2020	164,295	5,104	0	11,466	5,409	2,762	1,043	6,670	2,193	34,635	31,806	67,504	178,915
2021	155,443	4,829	0	10,848	5,360	2,641	1,049	6,670	1,844	33,260	28,622	95,527	179,188
2022	146,929	4,594	0	10,254	5,298	2,521	1,095	6,670	1,533	31,915	24,737	120,263	179,568
2023	138,727	4,369	0	9,681	5,230	2,401	1,123	6,670	1,241	30,685	21,908	142,101	180,257
2024	130,816	4,164	0	9,129	5,151	2,281	1,151	6,670	973	29,419	19,220	161,381	180,639
2025	123,173	3,926	0	8,596	5,065	2,161	1,180	6,670	725	28,222	16,933	178,254	183,375
2026	115,778	3,697	0	8,090	4,969	2,041	1,209	6,670	496	27,062	14,912	193,165	186,210
2027	108,613	3,574	0	7,580	4,870	1,921	1,239	6,670	458	25,935	13,124	206,390	189,165
2028	101,485	3,153	0	7,082	4,781	1,801	1,270	6,670	458	24,815	11,573	217,822	192,244
2029	94,357	2,931	0	6,585	4,688	1,681	1,302	6,670	458	23,695	10,114	227,936	194,450
2030	87,229	2,710	0	6,088	4,588	1,561	1,335	6,670	458	22,576	8,850	236,785	196,786
2031	80,102	2,488	0	5,590	4,483	1,441	1,368	6,670	458	21,458	7,725	244,510	198,256
2032	72,974	2,267	0	5,093	4,372	1,321	1,402	6,670	458	20,341	6,725	251,235	199,862
2033	65,846	2,045	0	4,595	4,259	1,201	1,437	6,670	458	19,225	5,837	257,073	200,610
2034	58,718	1,824	0	4,098	4,147	1,081	1,473	6,670	458	18,110	5,038	262,123	201,499
2035	51,590	1,603	0	3,600	4,034	961	1,510	6,670	458	16,995	4,322	266,475	202,337
2036	44,462	1,381	0	3,103	3,922	841	1,548	6,670	458	15,882	3,785	270,210	203,225
2037	37,335	1,160	0	2,606	3,809	721	1,586	6,670	458	14,769	3,190	273,400	204,068
2038	30,207	938	0	2,108	3,697	601	1,625	6,670	458	13,657	2,769	276,169	204,870
2039	23,079	717	0	1,611	3,584	481	1,667	6,670	(937)	12,547	2,286	278,395	205,634
2040	17,347	520	0	1,114	3,474	361	1,708	6,670	(2,333)	11,439	1,947	280,342	206,365
2041	13,009	404	0	908	3,364	241	1,751	6,670	(2,333)	10,334	1,680	282,022	207,067
2042	8,672	269	0	605	3,254	121	1,795	6,670	(2,333)	9,230	1,444	283,466	207,743
2043	4,335	135	0	303	3,144	0	1,840	6,670	(2,333)	8,128	1,225	284,701	208,399

IN SERVICE COST (\$000)	166,797
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EMERGENCY TAX RATE	38.57%
DISCOUNT RATE	8.5%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	40%	7.03%
P/S	0%	0.00%
C/S	50%	12.50%

K-FACTOR = CFWC / IN-SVC COST = 1.78728

DEFERRED TAX AND MID-YEAR RATE-BASE CALCULATION
 PROGRAM(METHOD) SELECTED: REV_REQ
 PROGRAMNAME: 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 LADIE	(10)*(11) TAXRATE \$(000)	SALVAGE TACRANE \$(000)	ANNUAL DEFERRED TAX (7)-(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	13	(4,207)	
2020	7.22%	11,706	17,786	6,670	13,349	6,047	12,095	2,183	15,564	0	0	2,183	(2,036)	
2021	6.88%	10,827	28,613	6,670	20,019	6,047	18,342	1,944	15,564	0	0	1,944	(192)	
2022	6.18%	10,021	38,634	6,670	26,679	6,047	24,189	1,535	15,564	0	0	1,535	1,341	
2023	5.71%	9,264	47,898	6,670	33,349	6,047	30,237	1,261	15,564	0	0	1,261	2,582	
2024	5.29%	8,578	56,488	6,670	40,019	6,047	36,284	973	15,564	0	0	973	3,555	
2025	4.87%	7,926	64,394	6,670	46,689	6,047	42,331	725	15,564	0	0	725	4,229	
2026	4.52%	7,320	71,726	6,670	53,359	6,047	48,378	496	15,564	0	0	496	4,725	
2027	4.26%	7,235	78,562	6,670	60,029	6,047	54,425	438	15,564	0	0	438	5,233	
2028	4.06%	7,224	86,195	6,670	66,699	6,047	60,473	438	15,564	0	0	438	5,671	
2029	4.06%	7,225	93,430	6,670	73,369	6,047	66,520	438	15,564	0	0	438	6,149	
2030	4.06%	7,224	101,664	6,670	80,028	6,047	72,568	438	15,564	0	0	438	6,607	
2031	4.06%	7,225	107,889	6,670	86,708	6,047	78,615	438	15,564	0	0	438	7,045	
2032	4.06%	7,224	115,123	6,670	93,378	6,047	84,662	438	15,564	0	0	438	7,523	
2033	4.06%	7,225	122,368	6,670	100,048	6,047	90,710	438	15,564	0	0	438	7,941	
2034	4.06%	7,224	129,602	6,670	106,728	6,047	96,757	438	15,564	0	0	438	8,438	
2035	4.06%	7,225	136,837	6,670	113,398	6,047	102,804	438	15,564	0	0	438	8,897	
2036	4.06%	7,224	144,071	6,670	120,068	6,047	108,852	438	15,564	0	0	438	9,394	
2037	4.06%	7,225	151,306	6,670	126,728	6,047	114,899	438	15,564	0	0	438	9,813	
2038	4.06%	7,224	158,539	6,670	133,397	6,047	120,946	438	15,564	0	0	438	10,270	
2039	2.23%	3,618	162,157	6,670	140,067	6,047	126,993	(937)	15,564	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	(2,333)	7,000	
2041	0.00%	0	162,157	6,670	153,407	6,047	139,088	(2,333)	15,564	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	(2,333)	2,333	
2043	0.00%	0	162,157	6,670	166,747	6,047	151,183	(2,333)	15,564	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 - USEFUL LIFE	4.00%

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

(1) YEAR	(2) TAX DEPRECIATION SCHEDULE	(3) TAX DEPRECIATION \$(000)	(4) DEFERRED TAX \$(000)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(5)* ACCUMULATED DEPRECIATION \$(000)	(5)** ACCUMULATED DEF TAXES \$(000)	(6) BEGINNING YEAR RATE BASE \$(000)	(7) ENDING OF YEAR RATE BASE \$(000)	(8) MID-YEAR RATE BASE \$(000)
2019	3.75%	6,061	13	184,077	6,670	(4,219)	178,978	164,265	167,637
2020	7.22%	11,706	2,180	183,447	13,340	(2,016)	164,285	155,440	159,869
2021	6.69%	10,827	1,944	146,737	20,610	(192)	155,443	146,929	151,186
2022	6.18%	10,021	1,733	140,967	26,679	1,341	146,929	138,727	142,828
2023	5.71%	9,264	1,541	133,997	33,349	2,582	138,727	130,816	134,771
2024	5.29%	8,570	973	126,728	40,019	3,453	130,816	123,173	126,994
2025	4.89%	7,926	725	120,058	46,689	4,229	123,173	115,778	119,476
2026	4.52%	7,333	496	113,388	53,359	4,775	115,778	108,613	112,194
2027	4.16%	7,235	438	106,048	60,029	5,220	108,613	101,485	105,040
2028	4.46%	7,234	438	100,048	66,699	5,691	101,485	94,357	97,921
2029	4.46%	7,235	438	93,378	73,369	6,140	94,357	87,229	90,793
2030	4.46%	7,234	438	86,708	80,038	6,607	87,229	80,102	83,665
2031	4.46%	7,235	438	80,038	86,708	7,065	80,102	72,974	76,538
2032	4.46%	7,234	438	73,369	93,378	7,523	72,974	65,846	69,410
2033	4.46%	7,235	438	66,699	100,048	7,981	65,846	58,718	62,282
2034	4.46%	7,234	438	60,029	106,718	8,438	58,718	51,590	55,154
2035	4.46%	7,235	438	53,359	113,388	8,897	51,590	44,462	48,026
2036	4.46%	7,234	438	46,689	120,058	9,354	44,462	37,335	40,899
2037	4.46%	7,235	438	40,019	126,728	9,813	37,335	30,207	33,771
2038	4.46%	7,234	438	33,349	133,397	10,270	30,207	23,079	26,643
2039	2.23%	3,613	(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	153,447	4,667	13,009	8,672	10,841
2042	0.00%	0	(2,333)	6,670	160,077	2,335	8,672	4,335	5,304
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 (\$K/W)	(7) CUMULATIVE AVERAGE SPENDING (\$K/W)
2009	-10	3.00%	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%	1.34	0.62
2014	-5	3.00%	1.159	1.90%	15.39	5.34
2015	-4	3.00%	1.194	4.57%	39.61	37.83
2016	-3	3.00%	1.230	37.39%	331.87	222.77
2017	-2	3.00%	1.267	45.78%	420.27	398.84
2018	-1	3.00%	1.305	18.44%	94.79	358.38

100.00% 507.77

YEAR	(8) NO. YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING WITH AFUDC (\$K/W)	(10)* DEBT AFUDC (\$K/W)	(11)* CUMULATIVE DEBT AFUDC (\$K/W)	(12) YEARLY TOTAL AFUDC (\$K/W)	(13)* TOTAL AFUDC (\$K/W)	(14)* CONSTRUCTION PERIOD INTEREST (\$K/W)	(15)* CUMULATIVE CFI (\$K/W)	(16)* DEFERRED TAXES (\$K/W)	(17)* CUMULATIVE DEFERRED TAXES (\$K/W)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$K/W)	(19) CUMULATIVE YEAR-END BOOK VALUE (\$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
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	0.02	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	0.63	0.70	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.18	1.49	3.22	4.06	2.63	3.35	(0.57)	(0.72)	42.83	60.90
2016	-3	226.84	7.07	3.56	19.29	23.36	15.90	19.25	(2.41)	(4.13)	351.16	412.06
2017	-2	622.20	19.46	28.01	51.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	985.43
2018	-1	594.83	29.46	57.47	80.29	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	725,389,801.5
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEBT TAX	TAX BASIS
CONSTRUCTION CASE	142,182	142,182	142,182
EQUITY AFUDC	15,564		
DEBT AFUDC	9,061	9,061	
CFI			19,970
TOTAL	166,747	151,183	162,152

* Column not specified in workbook

INPUT DATA - PART 2
PROGRAM NUMBER SELECTED : REV_REQ
PROGRAM NAME : Commercial/Industrial Demand Restriction

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (¢/KWH)	AVOIDED MARGINAL FUEL COST (¢/KWH)	INCREASED MARGINAL FUEL COST (¢/KWH)	REPLACEMENT FUEL COST (¢/KWH)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KW EFFECTIVENESS FACTOR
2000	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	18.38	6.35	0.00	1.00	1.00
2012	39,219	39,219	6.43	23.34	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	65,366	65,366	7.53	18.61	7.53	0.00	1.00	1.00
2015	78,439	78,439	8.11	13.90	8.11	0.00	1.00	1.00
2016	91,512	91,512	9.00	13.90	9.00	0.00	1.00	1.00
2017	104,586	104,586	9.75	15.09	9.75	0.00	1.00	1.00
2018	117,660	117,660	10.52	15.46	10.52	0.00	1.00	1.00
2019	117,660	117,660	11.50	21.44	11.50	10.41	1.00	1.00
2020	117,660	117,660	12.48	20.17	12.06	10.50	1.00	1.00
2021	117,660	117,660	12.57	21.76	12.57	10.74	1.00	1.00
2022	117,660	117,660	13.46	23.67	13.06	10.81	1.00	1.00
2023	117,660	117,660	13.29	20.91	13.29	10.80	1.00	1.00
2024	117,660	117,660	13.85	22.19	13.85	10.84	1.00	1.00
2025	117,660	117,660	14.40	22.20	14.40	10.96	1.00	1.00
2026	117,660	117,660	14.70	22.41	14.70	11.05	1.00	1.00
2027	117,660	117,660	15.15	23.05	15.15	11.17	1.00	1.00
2028	117,660	117,660	15.60	23.70	15.60	11.36	1.00	1.00
2029	117,660	117,660	16.02	22.95	16.02	11.41	1.00	1.00
2030	117,660	117,660	16.52	23.78	16.52	11.59	1.00	1.00
2031	117,660	117,660	17.08	24.53	17.08	11.80	1.00	1.00
2032	117,660	117,660	17.50	24.35	17.50	11.88	1.00	1.00
2033	117,660	117,660	18.07	25.21	18.07	12.10	1.00	1.00
2034	117,660	117,660	18.73	25.89	18.73	12.34	1.00	1.00
2035	117,660	117,660	19.57	27.04	19.57	12.59	1.00	1.00
2036	117,660	117,660	20.40	28.26	20.40	12.55	1.00	1.00
2037	117,660	117,660	21.11	29.22	21.11	12.70	1.00	1.00
2038	117,660	117,660	22.02	30.23	22.02	13.04	1.00	1.00
2039	117,660	117,660	22.78	31.29	22.78	13.32	1.00	1.00
2040	117,660	117,660	23.59	31.82	23.59	13.44	1.00	1.00
2041	117,660	117,660	24.54	33.23	24.54	13.75	1.00	1.00
2042	117,660	117,660	25.50	34.66	25.50	14.10	1.00	1.00
2043	117,660	117,660	26.74	36.49	26.74	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 COST.

AVOIDED GENERATING BENEFITS
PROGRAM NUMBER: 0000 SUBJECT: 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	34,696	19,580	826	43,342	63,083	42,881
2020	34,635	20,069	1191	73,443	89,698	29,860
2021	33,260	20,571	1347	76,649	93,474	28,232
2022	31,935	21,085	1334	81,125	97,450	28,819
2023	30,633	21,612	1307	85,280	100,294	28,782
2024	29,419	22,153	1480	90,097	104,015	29,133
2025	28,222	22,707	1582	94,987	107,717	29,061
2026	27,042	23,274	1695	100,095	111,576	29,327
2027	25,885	23,856	1792	104,285	115,526	29,643
2028	24,815	24,432	1945	111,467	120,123	29,457
2029	23,695	25,064	1932	116,161	126,339	40,499
2030	22,576	25,690	2028	121,599	131,412	40,483
2031	21,458	26,333	2078	124,105	134,795	40,179
2032	20,341	26,991	2159	128,480	136,540	41,438
2033	19,225	27,666	2376	141,979	149,369	41,137
2034	18,110	28,357	2487	147,155	152,948	43,361
2035	16,995	29,066	2535	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	167,035	43,173
2039	12,547	32,084	2865	165,817	170,891	40,422
2040	11,439	32,886	2944	169,636	172,944	44,282
2041	10,334	33,708	3024	173,538	177,194	43,830
2042	10,230	34,551	3106	177,346	182,131	43,062
2043	9,228	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
	0	0	0	0	0	0
NPV	543,322	608,891	53,283	3,149,631	3,381,040	1,033,517
NPV	171,516	111,038	8,946	431,963	536,478	186,494

BUSINESS MOTORS

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: NEW_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	2.66 %
(4) GENERATOR KVA REDUCTION PER CUSTOMER	1.39341 KVA
(5) KVA LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.00 KVA

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	1.7778
(5) K FACTOR FOR T & D	1.6324

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	2.89 %
(11) UTILITY AFD GRADE	5.48 %
(12) UTILITY NONRECURRING 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	725.89 \$/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	3.80 %**
(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	0.06 CENTS/KVA
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (Re-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	2.21 CENTS PER KW-HR** (Re-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/KVA
(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 Meters

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 OPER. COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	
2110	0	0	0	0	0	0	0	0	0	
2111	4	5	0	9	15	4	34	0	34	
2112	4	5	0	9	46	14	30	0	30	
2113	4	6	0	10	84	25	96	0	96	
2114	4	6	0	10	128	37	102	0	102	
2115	5	6	0	11	177	51	108	0	108	
2116	5	6	0	11	232	64	113	0	113	
2117	5	6	0	11	290	80	118	0	118	
2118	5	6	0	11	351	93	122	0	122	
2119	0	0	0	0	397	98	0	0	0	
2120	0	0	0	0	401	96	0	0	0	
2121	0	0	0	0	415	94	0	0	0	
2122	0	0	0	0	433	93	0	0	0	
2123	0	0	0	0	453	94	0	0	0	
2124	0	0	0	0	481	95	0	0	0	
2125	0	0	0	0	508	92	0	0	0	
2126	5	5	0	10	535	93	121	0	121	
2127	6	5	0	11	573	93	130	0	130	
2128	6	6	0	12	623	95	139	0	139	
2129	6	6	0	12	636	95	144	0	144	
2130	7	6	0	13	678	96	156	0	156	
2131	7	6	0	13	717	97	164	0	164	
2132	7	6	0	13	769	99	171	0	171	
2133	8	6	0	14	850	102	177	0	177	
2134	0	0	0	0	877	100	0	0	0	
2135	0	0	0	0	915	101	0	0	0	
2136	0	0	0	0	964	103	0	0	0	
2137	0	0	0	0	1,054	105	0	0	0	
2138	0	0	0	0	1,110	106	0	0	0	
2139	0	0	0	0	1,171	106	0	0	0	
2140	0	0	0	0	1,236	107	0	0	0	
2141	8	5	0	13	1,312	107	176	0	176	
2142	8	5	0	13	1,393	108	189	0	189	
2143	9	6	0	14	1,482	108	201	0	201	
2144	0	0	0	0	0	0	0	0	0	
2145	0	0	0	0	0	0	0	0	0	
2146	0	0	0	0	0	0	0	0	0	
2147	0	0	0	0	0	0	0	0	0	
2148	0	0	0	0	0	0	0	0	0	
2149	0	0	0	0	0	0	0	0	0	
2150	0	0	0	0	0	0	0	0	0	
2151	0	0	0	0	0	0	0	0	0	
2152	0	0	0	0	0	0	0	0	0	
2153	0	0	0	0	0	0	0	0	0	
2154	0	0	0	0	0	0	0	0	0	
2155	0	0	0	0	0	0	0	0	0	
2156	0	0	0	0	0	0	0	0	0	
2157	0	0	0	0	0	0	0	0	0	
2158	0	0	0	0	0	0	0	0	0	
2159	0	0	0	0	0	0	0	0	0	
2160	0	0	0	0	0	0	0	0	0	
NSM	112	108	0	220	21,312	2,335	2,603	0	2,603	
RPV	33	32	0	71	3,610	622	762	0	762	

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

CALCULATION OF GENK-FACTOR
 PROGRAM(METHOD SELECTED) KEY_REQ
 PROGRAMNAME: Business Motors

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
REG-YEAR	BASE	DEBT	PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY	DEPRECI	DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
YEAR	RATEBASE	\$'(000)	STOCK	EQUITY	TAXES	TAX	INSURANCE	\$'(000)	TAXES	FIXED	WORTH	YWEDED	COST BASE
	\$'(000)		\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)		\$'(000)	CHANGES	CHANGES	CHANGES	FOR
										\$'(000)	\$'(000)	\$'(000)	PROPERTY INSURANCE
													\$'(000)
2019	892	28	0	82	41	15	5	35	0	186	186	186	879
2020	858	27	0	80	28	14	5	35	11	181	166	332	892
2021	811	25	0	57	28	14	6	35	10	174	146	489	914
2022	767	24	0	54	28	13	6	35	8	167	129	628	937
2023	724	23	0	51	27	13	6	35	6	160	114	782	961
2024	683	21	0	48	27	12	6	35	5	154	100	943	985
2025	643	20	0	45	26	11	6	35	4	147	88	1069	1009
2026	604	19	0	42	26	11	6	35	3	141	78	1208	1035
2027	567	18	0	40	24	10	6	35	2	135	69	1357	1060
2028	530	16	0	37	23	9	7	35	2	129	60	1517	1087
2029	492	15	0	34	21	9	7	35	2	124	53	1680	1114
2030	455	14	0	32	20	8	7	35	2	118	46	1846	1142
2031	418	13	0	29	18	8	7	35	2	112	40	2016	1170
2032	381	12	0	27	16	7	7	35	2	106	35	2191	1200
2033	344	11	0	24	15	6	8	35	2	100	30	2369	1230
2034	306	10	0	21	13	6	8	35	2	95	26	2548	1260
2035	269	8	0	19	11	5	8	35	2	89	23	2729	1292
2036	232	7	0	16	10	4	8	35	2	83	19	2910	1324
2037	195	6	0	14	8	4	8	35	2	77	17	3092	1357
2038	158	5	0	11	7	3	8	35	1	71	14	3275	1391
2039	120	4	0	8	5	3	9	35	(5)	65	12	3458	1425
2040	81	3	0	6	3	2	9	35	(12)	61	10	3642	1462
2041	48	2	0	5	2	1	9	35	(20)	57	9	3827	1498
2042	15	1	0	3	1	1	9	35	(27)	53	8	4012	1536
2043	2	1	0	2	1	0	10	35	(34)	50	6	4198	1574

IN SERVICE COST (\$000)	879
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
DEPRECIATION RATE	38.57%
DISCOUNT RATE	8.5%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.613%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	44%	7.03
EQ	56%	0.00
C/S	58%	12.50

K-FACTOR = GPWPC / IN-SVC COST = 1.7738

DEFERRED TAX AND MID-YEAR RATE-BASE CALCULATION
 PROGRAM METHOD SELECTED: KEY_REQ
 PROGRAM NAME: Boston 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 LLIFE	(10)*(11) TAXRATE \$(000)	SALVAGE TAXRATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	32	32	35	35	32	32	0	81	0	0	0	0	(22)
2020	7.22%	61	93	35	70	32	63	11	81	0	0	0	11	(11)
2021	6.68%	57	149	35	104	32	95	16	81	0	0	0	16	(5)
2022	6.18%	52	202	35	139	32	126	8	81	0	0	0	8	7
2023	5.71%	48	250	35	174	32	158	6	81	0	0	0	6	13
2024	5.29%	45	295	35	209	32	189	5	81	0	0	0	5	19
2025	4.89%	41	336	35	244	32	221	4	81	0	0	0	4	22
2026	4.52%	38	374	35	278	32	253	3	81	0	0	0	3	25
2027	4.18%	35	412	35	313	32	284	2	81	0	0	0	2	27
2028	4.48%	38	450	35	348	32	315	2	81	0	0	0	2	30
2029	4.48%	38	488	35	383	32	347	2	81	0	0	0	2	32
2030	4.48%	38	525	35	418	32	379	2	81	0	0	0	2	34
2031	4.48%	38	563	35	453	32	410	2	81	0	0	0	2	37
2032	4.48%	38	601	35	487	32	442	2	81	0	0	0	2	39
2033	4.48%	38	639	35	522	32	473	2	81	0	0	0	2	42
2034	4.48%	38	678	35	557	32	505	2	81	0	0	0	2	44
2035	4.48%	38	714	35	592	32	537	2	81	0	0	0	2	46
2036	4.48%	38	752	35	627	32	568	2	81	0	0	0	2	49
2037	4.48%	38	790	35	662	32	599	2	81	0	0	0	2	51
2038	4.48%	38	827	35	696	32	631	2	81	0	0	0	2	54
2039	2.23%	19	846	35	731	32	663	(5)	81	0	0	0	(5)	49
2040	0.00%	0	846	35	766	32	694	(12)	81	0	0	0	(12)	37
2041	0.00%	0	846	35	801	32	725	(23)	81	0	0	0	(13)	24
2042	0.00%	0	846	35	834	32	758	(12)	81	0	0	0	(12)	12
2043	0.00%	0	846	35	870	32	789	(12)	81	0	0	0	(12)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(12)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	81
BOOK DEPR. RATE - 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) 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%	32	0	835	35	(22)	892	898	875
2020	7.22%	61	11	801	70	(11)	858	811	834
2021	6.68%	57	10	765	184	(1)	811	767	789
2022	6.18%	52	8	731	139	7	767	724	745
2023	5.71%	48	5	696	174	13	724	683	703
2024	5.28%	45	5	661	209	19	683	645	663
2025	4.87%	41	4	627	244	22	645	604	624
2026	4.52%	38	3	592	278	25	604	567	586
2027	4.24%	38	2	557	313	27	567	530	548
2028	4.02%	38	2	522	348	30	530	492	511
2029	4.02%	38	2	487	383	32	492	455	474
2030	4.02%	39	2	453	418	34	455	418	437
2031	4.02%	38	2	418	453	37	418	381	399
2032	4.02%	38	2	383	487	39	381	344	362
2033	4.02%	38	2	348	522	42	344	306	325
2034	4.02%	38	2	313	557	44	306	269	288
2035	4.02%	38	2	278	592	46	269	232	251
2036	4.02%	38	2	244	627	49	232	195	213
2037	4.02%	38	2	209	661	51	195	158	176
2038	4.02%	38	2	174	696	54	158	120	138
2039	2.23%	19	(5)	139	731	49	120	91	105
2040	0.00%	0	(12)	104	765	37	91	62	79
2041	0.00%	0	(12)	70	801	24	62	45	57
2042	0.00%	0	(12)	35	835	12	45	26	34
2043	0.00%	0	(12)	(5)	870	0	26	0	11

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT RESCALATION RATE	(4) CUMULATIVE RESCALATION FACTOR	(5) YEARLY EXPENDITURE (C)	(6) ANNUAL SPENDING (B*W)	(7) CUMULATIVE AVERAGE SPENDING (B*W)
2009	-10	3.00%	1.000	0.00%	0.00	0.00
2010	-9	3.00%	1.004	0.00%	0.00	0.00
2011	-8	3.00%	1.008	0.00%	0.00	0.00
2012	-7	3.00%	1.013	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.19%	1.24	0.82
2014	-5	3.00%	1.139	1.98%	15.99	9.34
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.00%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	400.27	398.84
2018	-1	3.00%	1.305	10.44%	58.79	858.38

YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SPENDING WITH AFUDC (B*W)	(9A)* DEBT AFUDC (B*W)	(9B)* CUMULATIVE DEBT AFUDC (B*W)	(9C) YEARLY TOTAL AFUDC (B*W)	(9D)* CUMULATIVE TOTAL AFUDC (B*W)	(9E)* CONSTRUCTION INTEREST (B*W)	(9F)* CUMULATIVE CPI (B*W)	(9G)* DEFERRED TAXES (B*W)	(9H)* CUMULATIVE DEFERRED TAXES (B*W)	(10)	(11)
											INCREMENTAL YEAR-END BOOK VALUE (B*W)	CUMULATIVE YEAR-END BOOK VALUE (B*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
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	0.02	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	9.39	0.29	0.30	0.79	0.94	0.65	0.76	(0.34)	(0.15)	16.78	18.07
2015	-4	37.47	1.18	1.69	3.22	4.04	2.65	3.35	(0.77)	(0.72)	42.83	60.90
2016	-3	226.84	7.97	8.56	19.29	93.36	15.90	19.25	(3.41)	(4.15)	351.16	412.06
2017	-2	622.26	19.46	28.01	53.10	76.45	43.47	62.73	(9.06)	(13.39)	473.57	885.43
2018	-1	594.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(22.62)	179.18	1,064.61

	39.49	156.84	127.54	(22.62)	1,064.61
IN SERVICE YEAR	2019				
PLANT COSTS	725,388,805				
AFUDC RATE	3.68%				
		BOOK BASIS	BOOK BASIS FOR THE TAX	TAC BASIS	
CONSTRUCTION CASH		742	742	742	
EQUITY AFUDC		81			
DEBT AFUDC		47	47		
CPI				194	
TOTAL		870	789	936	

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	(5) AVOIDED MARGINAL FUEL COST (\$/KWH)	(6) INCREASED MARGINAL FUEL COST (\$/KWH)	(7) REPLACEMENT FUEL COST (\$/KWH)	(8) PROGRAM KW EFFECTIVENESS FACTOR	(9) PROGRAM KW EFFECTIVENESS FACTOR
2009	0	0	6.79	8.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	79	79	6.35	7.06	7.39	0.00	1.00	1.00
2012	162	162	6.43	7.03	7.49	0.00	1.00	1.00
2013	248	248	7.06	7.46	7.76	0.00	1.00	1.00
2014	337	337	7.53	7.88	8.13	0.00	1.00	1.00
2015	429	429	8.11	8.55	8.85	0.00	1.00	1.00
2016	523	523	9.80	9.72	10.27	0.00	1.00	1.00
2017	619	619	9.75	10.54	11.28	0.00	1.00	1.00
2018	716	716	10.52	11.85	12.02	0.00	1.00	1.00
2019	716	716	11.59	12.57	13.41	10.41	1.00	1.00
2020	716	716	12.08	13.20	14.82	10.58	1.00	1.00
2021	716	716	12.57	13.74	14.82	10.74	1.00	1.00
2022	716	716	13.06	14.19	15.83	10.81	1.00	1.00
2023	716	716	13.59	14.45	15.80	10.80	1.00	1.00
2024	716	716	13.95	15.02	15.74	10.84	1.00	1.00
2025	716	716	14.49	15.48	16.18	10.96	1.00	1.00
2026	716	716	14.70	15.74	16.40	11.05	1.00	1.00
2027	716	716	15.13	16.11	16.72	11.17	1.00	1.00
2028	716	716	15.60	16.54	17.22	11.26	1.00	1.00
2029	716	716	16.02	16.87	17.35	11.41	1.00	1.00
2030	716	716	16.52	17.35	17.81	11.59	1.00	1.00
2031	716	716	17.08	17.92	18.29	11.80	1.00	1.00
2032	716	716	17.58	18.28	18.55	11.88	1.00	1.00
2033	716	716	18.27	18.87	19.23	12.10	1.00	1.00
2034	716	716	18.73	19.15	19.28	12.14	1.00	1.00
2035	716	716	19.57	20.09	20.48	12.29	1.00	1.00
2036	716	716	20.40	20.92	21.28	12.55	1.00	1.00
2037	716	716	21.11	21.59	21.92	12.70	1.00	1.00
2038	716	716	22.02	22.52	22.85	13.04	1.00	1.00
2039	716	716	22.78	23.25	23.55	13.32	1.00	1.00
2040	716	716	23.59	24.01	24.27	13.44	1.00	1.00
2041	716	716	24.54	24.94	25.18	13.75	1.00	1.00
2042	716	716	25.50	25.90	26.14	14.10	1.00	1.00
2043	716	716	26.74	27.25	27.61	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
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.

PARTICIPANT COSTS AND BENEFITS
PROGRAM/METHOD SELECTED: REV_1BQ
PROGRAM NAME: Business Motors

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANT BILLS \$(000)	TAX CREDITS \$(000)	UTILITY REBATES \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	CUSTOMER EQUIPMENT COSTS \$(000)	CUSTOMER CARE 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	0	0	0	0	0	0	0	0	0	0	0
2011	22	0	5	0	27	84	0	0	84	(57)	(48)
2012	76	0	5	0	81	90	0	0	90	(15)	(63)
2013	126	0	6	0	131	96	0	0	96	35	(28)
2014	192	0	6	0	197	102	0	0	102	95	28
2015	265	0	6	0	271	106	0	0	106	163	121
2016	340	0	6	0	346	110	0	0	110	254	254
2017	428	0	6	0	434	116	0	0	116	317	416
2018	514	0	6	0	520	122	0	0	122	400	622
2019	577	0	0	0	577	0	0	0	0	577	848
2020	579	0	0	0	579	0	0	0	0	579	1,075
2021	594	0	0	0	594	0	0	0	0	594	1,289
2022	617	0	0	0	617	0	0	0	0	617	1,488
2023	640	0	0	0	640	0	0	0	0	640	1,687
2024	674	0	0	0	674	0	0	0	0	674	1,875
2025	705	0	0	0	705	0	0	0	0	705	2,055
2026	738	0	5	0	743	121	0	0	121	621	2,202
2027	784	0	5	0	789	130	0	0	130	639	2,344
2028	820	0	6	0	826	139	0	0	139	637	2,480
2029	864	0	6	0	870	148	0	0	148	722	2,622
2030	913	0	6	0	919	156	0	0	156	763	2,739
2031	961	0	6	0	967	164	0	0	164	803	2,863
2032	1,025	0	6	0	1,031	171	0	0	171	860	2,984
2033	1,127	0	6	0	1,133	177	0	0	177	955	3,108
2034	1,149	0	0	0	1,149	0	0	0	0	1,149	3,245
2035	1,204	0	0	0	1,204	0	0	0	0	1,204	3,376
2036	1,300	0	0	0	1,300	0	0	0	0	1,300	3,507
2037	1,376	0	0	0	1,376	0	0	0	0	1,376	3,634
2038	1,443	0	0	0	1,443	0	0	0	0	1,443	3,736
2039	1,517	0	0	0	1,517	0	0	0	0	1,517	3,824
2040	1,595	0	0	0	1,595	0	0	0	0	1,595	3,988
2041	1,688	0	5	0	1,694	176	0	0	176	1,511	4,087
2042	1,788	0	5	0	1,793	189	0	0	189	1,695	4,184
2043	1,894	0	6	0	1,900	201	0	0	201	1,694	4,278
2044	0	0	0	0	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0	0
2051	0	0	0	0	0	0	0	0	0	0	0
2052	0	0	0	0	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0	0	0
2065	0	0	0	0	0	0	0	0	0	0	0
2066	0	0	0	0	0	0	0	0	0	0	0
2067	0	0	0	0	0	0	0	0	0	0	0
2068	0	0	0	0	0	0	0	0	0	0	0
2069	0	0	0	0	0	0	0	0	0	0	0
2070	0	0	0	0	0	0	0	0	0	0	0
2071	0	0	0	0	0	0	0	0	0	0	0
2072	0	0	0	0	0	0	0	0	0	0	0
2073	0	0	0	0	0	0	0	0	0	0	0
2074	0	0	0	0	0	0	0	0	0	0	0
2075	0	0	0	0	0	0	0	0	0	0	0
2076	0	0	0	0	0	0	0	0	0	0	0
2077	0	0	0	0	0	0	0	0	0	0	0
2078	0	0	0	0	0	0	0	0	0	0	0
2079	0	0	0	0	0	0	0	0	0	0	0
2080	0	0	0	0	0	0	0	0	0	0	0
2081	0	0	0	0	0	0	0	0	0	0	0
2082	0	0	0	0	0	0	0	0	0	0	0
2083	0	0	0	0	0	0	0	0	0	0	0
2084	0	0	0	0	0	0	0	0	0	0	0
2085	0	0	0	0	0	0	0	0	0	0	0
2086	0	0	0	0	0	0	0	0	0	0	0
2087	0	0	0	0	0	0	0	0	0	0	0
2088	0	0	0	0	0	0	0	0	0	0	0
2089	0	0	0	0	0	0	0	0	0	0	0
2090	0	0	0	0	0	0	0	0	0	0	0
2091	0	0	0	0	0	0	0	0	0	0	0
2092	0	0	0	0	0	0	0	0	0	0	0
2093	0	0	0	0	0	0	0	0	0	0	0
2094	0	0	0	0	0	0	0	0	0	0	0
2095	0	0	0	0	0	0	0	0	0	0	0
2096	0	0	0	0	0	0	0	0	0	0	0
2097	0	0	0	0	0	0	0	0	0	0	0
2098	0	0	0	0	0	0	0	0	0	0	0
2099	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0
TOTAL	28,532	0	108	0	28,639	2,625	0	0	2,625	26,014	4,278
NPV	5,002	0	38	0	5,040	782	0	0	782	4,278	

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

2019
3.89 %
4.61

