

**BEFORE THE FLORIDA PUBLIC SERVICE
COMMISSION**

DOCKET NO. 100155-EG

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

ALTERNATE PLAN APPENDIX A

March 25, 2011

COM	_____
APA	_____
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DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

RESIDENTIAL LOW INCOME WEATHERIZATION

INPUT DATA - PART 1 CONTINUED
PROGRAM/SHED SELECTED: REV_189
PROGRAM NAME: Residential Low Income Weatherization

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.39 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.39 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	781.39 KW
(5) KW LINE LOSS PERCENTAGE	6.99 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KW INCREASE AT METER	0.00 KW

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	1.7825
(5) K FACTOR FOR T & D	1.0254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON-FUELLING COST PER CUSTOMER	--- \$/CUST
(2) UTILITY REWORKING 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 COST ESCALATION RATE	--- %
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFFORD RATE	8.85 %
(12) UTILITY NON-FUELLING REBATE INCENTIVE	--- \$/CUST
(13) UTILITY REWORKING REBATE INCENTIVE	--- \$/CUST
(14) UTILITY REBATE INCENTIVE ESCALATION RATE	--- %

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

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2002
(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	725.20 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	265.00 \$/KW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/KW
(7) GEN. TRANS & 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	0.196 CENTS/KWH
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	66 % (in-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	9.23 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 MTR	--- CENTS/KWH
(2) NON-FUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CUSTOMER MTR	--- CENTS/KWH
(4) DEMAND CHARGE ESCALATION RATE	--- %

- INPUT DATA - PART 1 CONTINUED
 PROGRAM-OVERVIEW SHEET: LSV REQ
 PROGRAM NAME: Residential Low Income Weatherization

(1) YEAR	(2) UTILITY PROGRAM COSTS INCENTIVES \$(000)	(3) UTILITY INCENTIVES \$(000)	(4) OTHER UTILITY COSTS \$(000)	(5) TOTAL UTILITY PROGRAM COSTS \$(000)	(6) ENERGY CHARGE REDUCTIONS \$(000)	(7) DEMAND CHARGE REDUCTIONS LOSSES \$(000)	(8) PARTICIPANT EQUIPMENT COSTS \$(000)	(9) PARTICIPANT O&M COSTS \$(000)	(10) OTHER PARTICIPANT COSTS \$(000)	(11) TOTAL PARTICIPANT COSTS \$(000)
2000	0	0	0	0	0	0	0	0	0	0
2010	180	297	0	477	40	0	304	0	0	304
2011	180	297	0	477	120	0	302	0	0	302
2012	180	297	0	477	220	0	300	0	0	300
2013	180	297	0	477	324	0	300	0	0	300
2014	180	297	0	477	442	0	301	0	0	301
2015	180	433	0	613	565	0	301	0	0	301
2016	180	433	0	613	691	0	301	0	0	301
2017	180	433	0	613	827	0	306	0	0	306
2018	180	433	0	613	963	0	304	0	0	304
2019	180	433	0	613	1,107	0	300	0	0	300
2020	180	433	0	613	1,261	0	307	0	0	307
2021	180	433	0	613	1,424	0	301	0	0	301
2022	180	433	0	613	1,595	0	300	0	0	300
2023	180	433	0	613	1,774	0	300	0	0	300
2024	180	433	0	613	1,960	0	301	0	0	301
2025	180	433	0	613	2,153	0	300	0	0	300
2026	180	433	0	613	2,353	0	300	0	0	300
2027	180	433	0	613	2,560	0	300	0	0	300
2028	180	433	0	613	2,774	0	300	0	0	300
2029	180	433	0	613	2,995	0	300	0	0	300
2030	180	433	0	613	3,222	0	300	0	0	300
2031	180	433	0	613	3,455	0	300	0	0	300
2032	180	433	0	613	3,694	0	300	0	0	300
2033	180	433	0	613	3,939	0	300	0	0	300
2034	180	433	0	613	4,190	0	300	0	0	300
2035	180	433	0	613	4,447	0	300	0	0	300
2036	180	433	0	613	4,710	0	300	0	0	300
2037	180	433	0	613	4,978	0	300	0	0	300
2038	180	433	0	613	5,251	0	300	0	0	300
2039	180	433	0	613	5,528	0	300	0	0	300
2040	180	433	0	613	5,810	0	300	0	0	300
2041	180	433	0	613	6,096	0	300	0	0	300
2042	180	433	0	613	6,387	0	300	0	0	300
2043	180	433	0	613	6,682	0	300	0	0	300
2044	180	433	0	613	6,981	0	300	0	0	300
2045	180	433	0	613	7,284	0	300	0	0	300
2046	180	433	0	613	7,591	0	300	0	0	300
2047	180	433	0	613	7,902	0	300	0	0	300
2048	180	433	0	613	8,216	0	300	0	0	300
2049	180	433	0	613	8,534	0	300	0	0	300
2050	180	433	0	613	8,855	0	300	0	0	300
2051	180	433	0	613	9,180	0	300	0	0	300
2052	180	433	0	613	9,508	0	300	0	0	300
2053	180	433	0	613	9,840	0	300	0	0	300
2054	180	433	0	613	10,175	0	300	0	0	300
2055	180	433	0	613	10,514	0	300	0	0	300
2056	180	433	0	613	10,856	0	300	0	0	300
2057	180	433	0	613	11,202	0	300	0	0	300
2058	180	433	0	613	11,551	0	300	0	0	300
2059	180	433	0	613	11,903	0	300	0	0	300
2060	180	433	0	613	12,258	0	300	0	0	300
2061	180	433	0	613	12,616	0	300	0	0	300
2062	180	433	0	613	12,977	0	300	0	0	300
2063	180	433	0	613	13,341	0	300	0	0	300
2064	180	433	0	613	13,708	0	300	0	0	300
2065	180	433	0	613	14,078	0	300	0	0	300
2066	180	433	0	613	14,450	0	300	0	0	300
2067	180	433	0	613	14,825	0	300	0	0	300
2068	180	433	0	613	15,202	0	300	0	0	300
2069	180	433	0	613	15,582	0	300	0	0	300
2070	180	433	0	613	15,964	0	300	0	0	300
2071	180	433	0	613	16,348	0	300	0	0	300
2072	180	433	0	613	16,734	0	300	0	0	300
2073	180	433	0	613	17,122	0	300	0	0	300
2074	180	433	0	613	17,512	0	300	0	0	300
2075	180	433	0	613	17,904	0	300	0	0	300
2076	180	433	0	613	18,298	0	300	0	0	300
2077	180	433	0	613	18,694	0	300	0	0	300
2078	180	433	0	613	19,092	0	300	0	0	300
2079	180	433	0	613	19,492	0	300	0	0	300
2080	180	433	0	613	19,894	0	300	0	0	300
2081	180	433	0	613	20,298	0	300	0	0	300
2082	180	433	0	613	20,704	0	300	0	0	300
2083	180	433	0	613	21,112	0	300	0	0	300
2084	180	433	0	613	21,522	0	300	0	0	300
2085	180	433	0	613	21,934	0	300	0	0	300
2086	180	433	0	613	22,348	0	300	0	0	300
2087	180	433	0	613	22,764	0	300	0	0	300
2088	180	433	0	613	23,182	0	300	0	0	300
2089	180	433	0	613	23,602	0	300	0	0	300
2090	180	433	0	613	24,024	0	300	0	0	300
2091	180	433	0	613	24,448	0	300	0	0	300
2092	180	433	0	613	24,874	0	300	0	0	300
2093	180	433	0	613	25,302	0	300	0	0	300
2094	180	433	0	613	25,732	0	300	0	0	300
2095	180	433	0	613	26,164	0	300	0	0	300
2096	180	433	0	613	26,598	0	300	0	0	300
2097	180	433	0	613	27,034	0	300	0	0	300
2098	180	433	0	613	27,472	0	300	0	0	300
2099	180	433	0	613	27,912	0	300	0	0	300
2100	180	433	0	613	28,354	0	300	0	0	300
2101	180	433	0	613	28,798	0	300	0	0	300
2102	180	433	0	613	29,244	0	300	0	0	300
2103	180	433	0	613	29,692	0	300	0	0	300
2104	180	433	0	613	30,142	0	300	0	0	300
2105	180	433	0	613	30,594	0	300	0	0	300
2106	180	433	0	613	31,048	0	300	0	0	300
2107	180	433	0	613	31,504	0	300	0	0	300
2108	180	433	0	613	31,962	0	300	0	0	300
2109	180	433	0	613	32,422	0	300	0	0	300
2110	180	433	0	613	32,884	0	300	0	0	300
2111	180	433	0	613	33,348	0	300	0	0	300
2112	180	433	0	613	33,814	0	300	0	0	300
2113	180	433	0	613	34,282	0	300	0	0	300
2114	180	433	0	613	34,752	0	300	0	0	300
2115	180	433	0	613	35,224	0	300	0	0	300
2116	180	433	0	613	35,698	0	300	0	0	300
2117	180	433	0	613	36,174	0	300	0	0	300
2118	180	433	0	613	36,652	0	300	0	0	300
2119	180	433	0	613	37,132	0	300	0	0	300
2120	180	433	0	613	37,614	0	300	0	0	300
2121	180	433	0	613	38,098	0	300	0	0	300
2122	180	433	0	613	38,584	0	300	0	0	300
2123	180	433	0	613	39,072	0	300	0	0	300
2124	180	433	0	613	39,562	0	300	0	0	300
2125	180	433	0	613	40,054	0	300	0	0	300
2126	180	433	0	613	40,548	0	300	0	0	300
2127	180	433	0	613	41,044	0	300	0	0	300
2128	180	433	0	613	41,542	0	300	0	0	300
2129	180	433	0	613	42,042	0	300	0	0	300
2130	180	433	0	613	42,544	0	300	0	0	300
2131	180	433	0	613	43,048	0	300	0	0	300
2132	180	433	0	613	43,554	0	300	0	0	300
2133	180	433	0	613	44,062	0	300	0	0	300
2134	180	433	0	613	44,572	0	300	0	0	300
2135	180	433	0	613	45,084	0	300	0	0	300
2136	180	433	0	613	45,598	0	300	0	0	300
2137	180	433	0	613	46,114	0	300	0	0	300
2138	180	433	0	613	46,632	0	300	0	0	300
2139	180	433	0	613	47,152	0	300	0	0	300
2140	180	433	0	613	47,674	0	300	0	0	300
2141	180	433	0	613	48,198	0	300	0	0	300
2142	180	433	0	613	48,724	0	300	0	0	300
2143	180	433	0	613	49,252	0	300	0	0	300
2144	180	43								

CALCULATION OF GENE FACTOR
PROGRAM METHOD SELECTED NOV. 1980
PROGRAM NAME: Residential Low Income Westchester

FSC FORM CE 11A
PAGE 1 OF 2

YEAR	(2) REG-YEAR RATEBASE \$(000)	(3) DEBT \$(000)	(4) EXERCISED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPRIC \$(000)	(10) DEPRECI TAXES \$(000)	(11) TOTAL FIXED CHARGES \$(000)	(12) PRESENT WORTH FIXED CHARGES \$(000)	(13) CUMULATIVE FIXED CHARGES \$(000)	(14) REPLACEMENT CONTRAST FOR PROPERTY INSURANCE \$(000)
2019	1,858	120	0	280	128	65	23	150	9	385	385	385	3,762
2020	1,907	115	0	289	132	68	24	150	10	391	718	1,523	3,886
2021	1,957	109	0	295	131	69	24	150	10	398	833	2,356	3,983
2022	1,915	103	0	301	129	67	25	150	10	391	938	2,714	4,081
2023	1,930	97	0	313	118	64	25	150	10	382	1,022	3,086	4,153
2024	2,051	92	0	306	116	61	26	150	10	364	1,164	3,686	4,256
2025	2,079	86	0	194	114	49	27	150	10	337	1,302	4,022	4,363
2026	2,622	81	0	181	112	46	27	150	11	311	1,416	4,338	4,472
2027	2,659	76	0	171	106	43	28	150	10	285	1,501	4,634	4,584
2028	2,599	71	0	160	99	41	29	150	10	258	1,560	4,914	4,692
2029	2,229	66	0	149	92	38	29	150	10	231	1,600	5,140	4,806
2030	1,963	61	0	137	85	35	30	150	10	204	1,620	5,342	4,914
2031	1,907	56	0	126	78	33	31	150	10	177	1,630	5,517	5,020
2032	1,644	51	0	115	71	30	32	150	10	150	1,630	5,668	5,126
2033	1,436	46	0	104	64	27	33	150	10	123	1,620	5,800	5,236
2034	1,225	41	0	92	57	24	34	150	10	96	1,595	5,912	5,340
2035	1,164	36	0	81	49	22	34	150	10	69	1,555	6,012	5,440
2036	1,003	31	0	70	42	19	35	150	10	42	1,500	6,100	5,538
2037	842	26	0	59	35	16	36	150	11	15	1,433	6,175	5,624
2038	682	21	0	48	28	14	37	150	11	11	1,355	6,231	5,695
2039	521	16	0	36	21	11	38	150	11	11	1,265	6,278	5,759
2040	391	12	0	27	14	8	39	150	11	11	1,165	6,317	5,817
2041	294	9	0	20	7	5	40	150	11	11	1,055	6,348	5,869
2042	196	4	0	14	0	3	41	150	11	11	935	6,371	5,915
2043	98	3	0	7	0	0	42	150	11	11	805	6,386	5,955

IN SERVICE COST (\$000)	1,962
IN SERVICE YEAR	2019
BOOKING (YRS)	25
DEPRIC. RATE	38.5%
DISCOUNT RATE	5.5%
PROPERTY TAX	1.88%
PROPERTY INSURANCE	0.02%

CAPITAL STRUCTURE		
DEBT	EQUITY	COST
DE	40%	7.00
PE	60%	5.00
CE	50%	12.50

$$K-FACR = CF/FC / IN-SVC COST = 1.7425$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM NAME: Residual/Lv/Income Worksheet

NSC FORM CE-11A
 PAGE 2 OF 2

(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 AT DEC \$(000)	BOOK DEPR RATE MINUS LIFE	(10)-(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.33%	137	137	150	150	136	136	0	351	0	0	0	0	(35)
2020	7.22%	294	431	150	301	136	273	40	351	0	0	0	40	(40)
2021	6.68%	244	676	150	451	136	409	42	351	0	0	0	42	(50)
2022	6.13%	226	902	150	602	136	546	35	351	0	0	0	35	(30)
2023	5.72%	209	1,091	150	752	136	682	28	351	0	0	0	28	(30)
2024	5.39%	193	1,284	150	903	136	819	21	351	0	0	0	21	(77)
2025	4.89%	179	1,463	150	1,053	136	955	16	351	0	0	0	16	104
2026	4.52%	165	1,628	150	1,204	136	1,092	11	351	0	0	0	11	115
2027	4.40%	163	1,792	150	1,354	136	1,228	10	351	0	0	0	10	125
2028	4.40%	163	1,955	150	1,505	136	1,364	10	351	0	0	0	10	139
2029	4.40%	163	2,118	150	1,655	136	1,501	10	351	0	0	0	10	149
2030	4.40%	163	2,281	150	1,806	136	1,637	10	351	0	0	0	10	159
2031	4.40%	163	2,444	150	1,956	136	1,774	10	351	0	0	0	10	170
2032	4.40%	163	2,608	150	2,107	136	1,910	10	351	0	0	0	10	180
2033	4.40%	163	2,772	150	2,257	136	2,047	10	351	0	0	0	10	190
2034	4.40%	163	2,935	150	2,408	136	2,183	10	351	0	0	0	10	201
2035	4.40%	163	3,099	150	2,558	136	2,319	10	351	0	0	0	10	211
2036	4.40%	163	3,262	150	2,709	136	2,456	10	351	0	0	0	10	221
2037	4.40%	163	3,426	150	2,859	136	2,592	10	351	0	0	0	10	232
2038	4.40%	163	3,590	150	3,010	136	2,729	10	351	0	0	0	10	242
2039	2.22%	32	3,622	150	3,160	136	2,865	(3)	351	0	0	0	(3)	245
2040	0.00%	0	3,622	150	3,311	136	3,002	(3)	351	0	0	0	(3)	245
2041	0.00%	0	3,622	150	3,461	136	3,138	(3)	351	0	0	0	(3)	245
2042	0.00%	0	3,622	150	3,612	136	3,275	(3)	351	0	0	0	(3)	245
2043	0.00%	0	3,622	150	3,762	136	3,411	(3)	351	0	0	0	(3)	245

SALVAGE/REMOVAL COST	4.00
YTD SALVAGE/ COST OF REMOVAL	202
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 3)	(35)
TOTAL EQUITY AT DEC CAPITALIZED (SEE PAGE 3)	351
BOOK DEPR RATE - USEFUL LIFE	4.89%

DESIGNED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: NEW MKI
 PROGRAM NAME: Residential Low Income Water Rates

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(6)* ACCUMULATED DEPRECIATION \$(000)	(7)* ACCUMULATED DEF TAXES \$(000)	(8) BEGINNING YEAR RATE BASE \$(000)	(9) ENDING OF YEAR RATE BASE \$(000)	(10) MID-YEAR RATE BASE \$(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DESIGNED TAX \$(000)						
2019	3.75%	137	0	3,632	150	(75)	3,858	3,707	3,782
2020	7.22%	264	49	3,461	301	(46)	3,707	3,597	3,647
2021	6.68%	244	42	3,311	451	(4)	3,597	3,515	3,411
2022	6.18%	226	35	3,160	602	30	3,515	3,430	3,322
2023	5.71%	209	28	3,010	752	58	3,430	3,351	3,341
2024	5.29%	193	22	2,859	903	90	3,351	3,279	3,265
2025	4.89%	179	16	2,709	1,053	97	3,279	3,212	3,096
2026	4.52%	165	11	2,558	1,204	108	3,212	3,149	2,931
2027	4.18%	153	10	2,408	1,354	118	3,149	3,090	2,870
2028	4.46%	163	10	2,257	1,505	128	3,090	3,129	2,887
2029	4.46%	163	10	2,107	1,655	139	3,129	3,168	2,908
2030	4.46%	163	10	1,956	1,806	149	3,168	3,207	2,932
2031	4.46%	163	10	1,806	1,956	159	3,207	3,246	2,956
2032	4.46%	163	10	1,655	2,107	170	3,246	3,285	2,980
2033	4.46%	163	10	1,505	2,257	180	3,285	3,325	3,004
2034	4.46%	163	10	1,354	2,408	190	3,325	3,364	3,028
2035	4.46%	163	10	1,204	2,558	201	3,364	3,403	3,052
2036	4.46%	163	10	1,053	2,709	211	3,403	3,442	3,076
2037	4.46%	163	10	903	2,859	221	3,442	3,481	3,100
2038	4.46%	163	10	752	3,010	232	3,481	3,520	3,124
2039	2.23%	0	(1)	602	3,160	241	3,520	3,559	3,148
2040	3.80%	0	(2)	451	3,311	250	3,559	3,598	3,172
2041	6.80%	0	(3)	301	3,461	260	3,598	3,637	3,196
2042	6.80%	0	(3)	150	3,612	270	3,637	3,676	3,220
2043	6.80%	0	(3)	(0)	3,762	280	3,676	3,715	3,244

* 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\$)	(6) ANNUAL SPENDING (\$K\$)	(7) CUMULATIVE AVERAGE SPENDING (\$K\$)
2009	-10	0.00%	1.000	0.00%	0.00	0.00
2010	-9	1.00%	1.010	0.00%	0.00	0.00
2011	-8	1.00%	1.061	0.00%	0.00	0.00
2012	-7	1.00%	1.083	0.00%	0.00	0.00
2013	-6	1.00%	1.126	0.15%	1.26	0.02
2014	-5	1.00%	1.129	1.50%	15.50	3.24
2015	-4	1.00%	1.134	4.57%	35.61	37.80
2016	-3	1.00%	1.130	37.20%	331.87	222.77
2017	-2	1.00%	1.067	45.76%	420.27	398.34
2018	-1	1.00%	1.085	10.44%	98.29	596.38

100.00% 507.77													
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$K\$)	DEBT AFUDC (\$K\$)	CUMULATIVE DEBT AFUDC (\$K\$)	YEARLY TOTAL AFUDC (\$K\$)	CUMULATIVE TOTAL AFUDC (\$K\$)	CONSTRUCTION PERIOD INTEREST (\$K\$)	CUMULATIVE CPI (\$K\$)	DEFERRED TAXES (\$K\$)	CUMULATIVE DEFERRED TAXES (\$K\$)	INCREMENTAL YEAR-END BOOK VALUE (\$K\$)	CUMULATIVE YEAR-END BOOK VALUE (\$K\$)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.02	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.20	1.20	
2014	-5	3.29	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.13)	16.78	18.07	
2015	-4	37.87	1.33	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.34	7.07	8.56	19.29	23.36	15.50	19.25	(1.61)	(4.33)	257.36	422.86	
2017	-2	622.20	19.46	25.01	51.30	76.45	43.47	62.72	(9.28)	(13.39)	471.37	945.43	
2018	-1	339.43	29.46	57.47	30.39	156.84	0.43	227.50	(11.63)	(27.02)	179.38	1,064.61	

IN SERVICE YEAR	2019
BLANK COSTS	725.388855
AFUDC RATE	0.05%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TDC BASIS
CONSTRUCTION CASE	3,208	3,208	3,208
DEBT AFUDC	351		
DEBT AFUDC	203	203	
CPI			451
TOTAL	3,962	3,411	3,659

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAMS/SECT SELECTED: RBY, REQ
 PROGRAM NAME: Residential Low Income Weatherization

FSC FORM CE-12
 PAGE 1 OF 1

(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	6.29	0.00	1.00	1.00
2010	1,000	1,000	6.41	8.81	6.24	0.00	1.00	1.00
2011	2,000	2,000	6.35	8.34	6.44	0.00	1.00	1.00
2012	3,000	3,000	6.43	8.30	6.03	0.00	1.00	1.00
2013	4,000	4,000	7.06	8.50	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	9.44	8.34	0.00	1.00	1.00
2016	7,000	7,000	9.08	11.34	9.35	0.00	1.00	1.00
2017	8,000	8,000	9.25	12.44	10.10	0.00	1.00	1.00
2018	9,000	9,000	10.32	13.30	10.90	0.00	1.00	1.00
2019	9,000	9,000	11.50	14.97	11.59	10.41	1.00	1.00
2020	9,000	9,000	12.06	15.61	12.03	10.50	1.00	1.00
2021	9,000	9,000	12.57	16.19	12.15	10.74	1.00	1.00
2022	9,000	9,000	13.04	16.78	12.65	10.81	1.00	1.00
2023	9,000	9,000	13.39	16.78	13.06	10.83	1.00	1.00
2024	9,000	9,000	13.35	17.45	14.32	10.84	1.00	1.00
2025	9,000	9,000	14.48	17.87	14.97	10.96	1.00	1.00
2026	9,000	9,000	14.70	17.97	15.04	11.05	1.00	1.00
2027	9,000	9,000	15.13	18.10	15.05	11.17	1.00	1.00
2028	9,000	9,000	15.00	18.53	15.10	11.26	1.00	1.00
2029	9,000	9,000	16.02	18.53	16.08	11.61	1.00	1.00
2030	9,000	9,000	16.32	18.95	16.96	11.59	1.00	1.00
2031	9,000	9,000	17.08	19.56	17.52	11.80	1.00	1.00
2032	9,000	9,000	17.00	19.20	17.87	11.89	1.00	1.00
2033	9,000	9,000	18.27	20.13	18.53	12.10	1.00	1.00
2034	9,000	9,000	18.73	19.93	18.88	12.14	1.00	1.00
2035	9,000	9,000	19.47	21.15	19.77	12.29	1.00	1.00
2036	9,000	9,000	20.40	22.15	20.57	12.55	1.00	1.00
2037	9,000	9,000	21.11	21.71	21.27	12.70	1.00	1.00
2038	9,000	9,000	22.02	21.65	22.19	13.04	1.00	1.00
2039	9,000	9,000	22.78	24.29	22.92	13.32	1.00	1.00
2040	9,000	9,000	23.50	24.86	23.70	13.44	1.00	1.00
2041	9,000	9,000	24.34	25.76	24.64	13.75	1.00	1.00
2042	9,000	9,000	25.59	26.71	25.61	14.16	1.00	1.00
2043	9,000	9,000	26.74	28.43	26.83	14.49	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/ADDITIONAL SELECTED GEN UNIT
PROJECT/NAME: Residential Low Income Weatherization

YEAR	(1) AVOIDED GEN UNIT CAPACITY COST \$(000)	(2) AVOIDED GEN UNIT FIXED O&M \$(000)	(3) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(4) AVOIDED GEN UNIT FUEL COST \$(000)	(5) 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	835	442	19	1,125	1,423	367
2020	781	433	27	1,637	2,419	329
2021	739	464	23	1,722	2,339	303
2022	721	476	30	1,834	2,139	254
2023	692	488	32	1,924	2,282	273
2024	624	580	33	2,038	2,347	283
2025	617	512	36	2,172	2,475	281
2026	611	525	38	2,321	2,628	277
2027	585	538	43	2,438	2,739	284
2028	569	552	42	2,515	2,778	290
2029	535	545	44	2,621	2,851	314
2030	509	580	46	2,943	2,945	213
2031	484	594	47	2,998	3,119	287
2032	439	609	49	2,899	3,261	335
2033	434	624	54	3,129	3,469	353
2034	409	649	56	3,328	3,449	376
2035	383	666	58	3,394	3,582	391
2036	258	672	60	3,497	3,636	382
2037	333	689	61	3,577	3,637	3,862
2038	369	706	63	3,666	3,720	374
2039	283	724	65	3,741	3,856	387
2040	263	742	66	3,827	3,900	389
2041	247	761	68	3,911	3,938	389
2042	231	780	70	4,000	4,109	372
2043	215	799	72	4,103	4,225	375
2044	0	0	0	0	0	0
2045	0	0	0	0	0	0
2046	0	0	0	0	0	0
2047	0	0	0	0	0	0
2048	0	0	0	0	0	0
2049	0	0	0	0	0	0
2050	0	0	0	0	0	0
2051	0	0	0	0	0	0
2052	0	0	0	0	0	0
2053	0	0	0	0	0	0
2054	0	0	0	0	0	0
2055	0	0	0	0	0	0
2056	0	0	0	0	0	0
2057	0	0	0	0	0	0
2058	0	0	0	0	0	0
2059	0	0	0	0	0	0
2060	0	0	0	0	0	0
2061	0	0	0	0	0	0
2062	0	0	0	0	0	0
2063	0	0	0	0	0	0
2064	0	0	0	0	0	0
2065	0	0	0	0	0	0
2066	0	0	0	0	0	0
2067	0	0	0	0	0	0
2068	0	0	0	0	0	0
2069	0	0	0	0	0	0
2070	0	0	0	0	0	0
2071	0	0	0	0	0	0
2072	0	0	0	0	0	0
2073	0	0	0	0	0	0
2074	0	0	0	0	0	0
2075	0	0	0	0	0	0
2076	0	0	0	0	0	0
2077	0	0	0	0	0	0
2078	0	0	0	0	0	0
2079	0	0	0	0	0	0
2080	0	0	0	0	0	0
2081	0	0	0	0	0	0
2082	0	0	0	0	0	0
2083	0	0	0	0	0	0
2084	0	0	0	0	0	0
2085	0	0	0	0	0	0
2086	0	0	0	0	0	0
2087	0	0	0	0	0	0
2088	0	0	0	0	0	0
2089	0	0	0	0	0	0
2090	0	0	0	0	0	0
2091	0	0	0	0	0	0
2092	0	0	0	0	0	0
2093	0	0	0	0	0	0
2094	0	0	0	0	0	0
2095	0	0	0	0	0	0
2096	0	0	0	0	0	0
2097	0	0	0	0	0	0
2098	0	0	0	0	0	0
2099	0	0	0	0	0	0
2100	0	0	0	0	0	0
2101	0	0	0	0	0	0
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2103	0	0	0	0	0	0
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2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
2113	0	0	0	0	0	0
2114	0	0	0	0	0	0
2115	0	0	0	0	0	0
2116	0	0	0	0	0	0
2117	0	0	0	0	0	0
2118	0	0	0	0	0	0
2119	0	0	0	0	0	0
2120	0	0	0	0	0	0
2121	0	0	0	0	0	0
2122	0	0	0	0	0	0
2123	0	0	0	0	0	0
2124	0	0	0	0	0	0
2125	0	0	0	0	0	0
2126	0	0	0	0	0	0
2127	0	0	0	0	0	0
2128	0	0	0	0	0	0
2129	0	0	0	0	0	0
2130	0	0	0	0	0	0
2131	0	0	0	0	0	0
2132	0	0	0	0	0	0
2133	0	0	0	0	0	0
2134	0	0	0	0	0	0
2135	0	0	0	0	0	0
2136	0	0	0	0	0	0
2137	0	0	0	0	0	0
2138	0	0	0	0	0	0
2139	0	0	0	0	0	0
2140	0	0	0	0	0	0
2141	0	0	0	0	0	0
2142	0	0	0	0	0	0
2143	0	0	0	0	0	0
2144	0	0	0	0	0	0
2145	0	0	0	0	0	0
2146	0	0	0	0	0	0
2147	0	0	0	0	0	0
2148	0	0	0	0	0	0
2149	0	0	0	0	0	0
2150	0	0	0	0	0	0
2151	0	0	0	0	0	0
2152	0	0	0	0	0	0
2153	0	0	0	0	0	0
2154	0	0	0	0	0	0
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2156	0	0	0	0	0	0
2157	0	0	0	0	0	0
2158	0	0	0	0	0	0
2159	0	0	0	0	0	0
2160	0	0	0	0	0	0
2161	0	0	0	0	0	0
2162	0	0	0	0	0	0
2163	0	0	0	0	0	0
2164	0	0	0	0	0	0
2165	0	0	0	0	0	0
2166	0	0	0	0	0	0
2167	0	0	0	0	0	0
2168	0	0	0	0	0	0
2169	0	0	0	0	0	0
2170	0	0	0	0	0	0
2171	0	0	0	0	0	0
2172	0	0	0	0	0	0
2173	0	0	0	0	0	0
2174	0	0	0	0	0	0
2175	0	0	0	0	0	0
2176	0	0	0	0	0	0
2177	0	0	0	0	0	0
2178	0	0	0	0	0	0
2179	0	0	0	0	0	0
2180	0	0	0	0	0	0
2181	0	0	0	0	0	0
2182	0	0	0	0	0	0
2183	0	0	0	0	0	0
2184	0	0	0	0	0	0
2185	0	0	0	0	0	0
2186	0	0	0	0	0	0
2187	0	0	0	0	0	0
2188	0	0	0	0	0	0
2189	0	0	0	0	0	0
2190	0	0	0	0	0	0
2191	0	0	0	0	0	0
2192	0	0	0	0	0	0
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2195	0	0	0	0	0	0
2196	0	0	0	0	0	0
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2198	0	0	0	0	0	0
2199	0	0	0	0	0	0
2200	0	0	0	0	0	0
2201	0	0	0	0	0	0
2202	0	0	0	0	0	0
2203	0	0	0	0	0	0
2204	0	0	0	0	0	0
2205	0	0	0	0	0	0
2206	0	0	0	0	0	0
2207	0	0	0	0	0	0
2208	0	0	0	0	0	0
2209	0	0	0	0	0	0
2210	0	0	0	0	0	0
2211	0	0	0	0	0	0
2212	0	0	0	0	0	0
2213	0	0	0	0	0	0
2214	0	0	0	0	0	0
2215	0	0	0	0	0	0
2216	0	0	0	0	0	0
2217	0	0	0	0	0	0
2218	0	0	0	0	0	0
2219	0	0	0	0	0	0
2220	0	0	0	0	0	0
2221	0	0	0	0	0	0
2222	0	0	0	0	0	0
2223	0	0	0	0	0	0
2224	0	0	0	0	0	0
2225	0	0	0	0	0	0
2226	0	0	0	0	0	0
2227	0	0	0	0	0	0
2228	0	0	0	0	0	0
2229	0	0	0	0	0	0
2230	0	0	0	0	0	0
2231	0	0	0	0	0	0
2232	0	0	0	0	0	0
2233	0	0	0	0	0	0
2234	0	0	0	0	0	0
2235	0	0	0	0	0	0
2236	0	0	0	0	0	0
2237	0	0	0	0	0	0
2238	0	0	0	0	0	0
2239	0	0	0	0	0	0
2240	0	0	0	0	0	0
2241	0	0	0	0	0	

AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED: RES_EQ
PROGRAM NAME: Residential Low Income Weatherization

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
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 DEFERRED PAYBACK \$('000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	38	0
2011	15	1	16	1	0	2	106	0
2012	29	2	31	2	1	3	175	0
2013	44	5	49	4	1	5	241	0
2014	59	6	65	5	1	6	316	0
2015	73	8	81	6	2	8	429	0
2016	88	9	97	7	2	9	619	0
2017	102	11	113	9	3	11	787	0
2018	117	12	129	10	3	13	950	0
2019	131	13	144	11	3	14	1,146	0
2020	137	13	149	11	3	14	1,387	0
2021	122	13	136	10	4	14	1,231	0
2022	118	14	132	10	4	13	1,294	0
2023	114	14	128	9	4	13	1,267	0
2024	109	14	124	9	4	13	1,317	0
2025	103	15	118	9	4	13	1,346	0
2026	101	15	116	8	4	12	1,349	0
2027	97	16	113	8	4	12	1,359	0
2028	93	16	109	8	4	12	1,361	0
2029	89	16	105	7	4	12	1,372	0
2030	85	17	101	7	4	12	1,389	0
2031	81	17	98	7	5	11	1,443	0
2032	77	18	94	6	5	11	1,418	0
2033	73	18	91	6	5	11	1,478	0
2034	70	18	88	6	5	11	1,442	0
2035	66	19	85	6	5	11	1,596	0
2036	63	19	83	5	5	10	1,632	0
2037	60	20	80	5	5	10	1,668	0
2038	58	20	78	5	5	10	1,715	0
2039	55	21	76	5	6	10	1,758	0
2040	53	21	75	4	6	10	1,793	0
2041	51	22	73	4	6	10	1,836	0
2042	49	22	72	4	6	10	1,922	0
2043	47	23	70	4	6	10	2,055	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	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.	2,622	490	3,112	218	229	347	40,950	0
KPV	759	104	863	63	27	90	3,303	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 ORDERED SELECTED: KDV, KZQ
 PROGRAM NAME: Tishon 501 Low Income Weatherization

YEAR	(2) AVOIDED GENERATING EMISSION BENEFIT \$(000)	(3) REPLACEMENT EMISSION COST \$(000)	(4) PROGRAM EMISSION BENEFIT \$(000)	(5) GROSS-UP EMISSION PAYBACK COST \$(000)	(6) NET EMISSION BENEFIT \$(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	0	0	0
2012	0	0	1	0	1
2013	0	0	20	0	20
2014	0	0	29	0	29
2015	0	0	39	0	39
2016	0	0	52	0	52
2017	0	0	66	0	66
2018	0	0	82	0	82
2019	135	136	94	0	22
2020	205	205	103	0	42
2021	226	223	109	0	43
2022	264	241	123	0	46
2023	291	206	136	0	45
2024	335	432	145	0	43
2025	387	497	149	0	49
2026	429	545	158	0	49
2027	483	619	163	0	49
2028	522	677	169	0	53
2029	602	772	222	0	58
2030	674	855	239	0	58
2031	733	929	260	0	64
2032	807	1,021	281	0	66
2033	940	1,109	303	0	76
2034	1,041	1,204	329	0	76
2035	1,139	1,408	357	0	79
2036	1,234	1,529	387	0	66
2037	1,337	1,639	418	0	70
2038	1,450	1,831	451	0	72
2039	1,566	1,930	486	0	76
2040	1,692	2,139	523	0	81
2041	1,823	2,303	563	0	123
2042	1,823	2,305	605	0	102
2043	1,823	2,305	639	0	102
2044	0	0	0	0	0
2045	0	0	0	0	0
2046	0	0	0	0	0
2047	0	0	0	0	0
2048	0	0	0	0	0
2049	0	0	0	0	0
2050	0	0	0	0	0
2051	0	0	0	0	0
2052	0	0	0	0	0
2053	0	0	0	0	0
2054	0	0	0	0	0
2055	0	0	0	0	0
2056	0	0	0	0	0
2057	0	0	0	0	0
2058	0	0	0	0	0
2059	0	0	0	0	0
2060	0	0	0	0	0
2061	0	0	0	0	0
2062	0	0	0	0	0
2063	0	0	0	0	0
2064	0	0	0	0	0
2065	0	0	0	0	0
2066	0	0	0	0	0
2067	0	0	0	0	0
2068	0	0	0	0	0
2069	0	0	0	0	0
2070	0	0	0	0	0
2071	0	0	0	0	0
2072	0	0	0	0	0
2073	0	0	0	0	0
2074	0	0	0	0	0
2075	0	0	0	0	0
2076	0	0	0	0	0
2077	0	0	0	0	0
2078	0	0	0	0	0
2079	0	0	0	0	0
2080	0	0	0	0	0
2081	0	0	0	0	0
2082	0	0	0	0	0
2083	0	0	0	0	0
2084	0	0	0	0	0
2085	0	0	0	0	0
2086	0	0	0	0	0
2087	0	0	0	0	0
2088	0	0	0	0	0
2089	0	0	0	0	0
2090	0	0	0	0	0
2091	0	0	0	0	0
2092	0	0	0	0	0
2093	0	0	0	0	0
2094	0	0	0	0	0
2095	0	0	0	0	0
2096	0	0	0	0	0
2097	0	0	0	0	0
2098	0	0	0	0	0
2099	0	0	0	0	0
2100	0	0	0	0	0
2101	0	0	0	0	0
2102	0	0	0	0	0
2103	0	0	0	0	0
2104	0	0	0	0	0
2105	0	0	0	0	0
2106	0	0	0	0	0
2107	0	0	0	0	0
2108	0	0	0	0	0
2109	0	0	0	0	0
2110	0	0	0	0	0
2111	0	0	0	0	0
2112	0	0	0	0	0
2113	0	0	0	0	0
2114	0	0	0	0	0
2115	0	0	0	0	0
2116	0	0	0	0	0
2117	0	0	0	0	0
2118	0	0	0	0	0
2119	0	0	0	0	0
2120	0	0	0	0	0
2121	0	0	0	0	0
2122	0	0	0	0	0
2123	0	0	0	0	0
2124	0	0	0	0	0
2125	0	0	0	0	0
2126	0	0	0	0	0
2127	0	0	0	0	0
2128	0	0	0	0	0
2129	0	0	0	0	0
2130	0	0	0	0	0
2131	0	0	0	0	0
2132	0	0	0	0	0
2133	0	0	0	0	0
2134	0	0	0	0	0
2135	0	0	0	0	0
2136	0	0	0	0	0
2137	0	0	0	0	0
2138	0	0	0	0	0
2139	0	0	0	0	0
2140	0	0	0	0	0
2141	0	0	0	0	0
2142	0	0	0	0	0
2143	0	0	0	0	0
2144	0	0	0	0	0
2145	0	0	0	0	0
2146	0	0	0	0	0
2147	0	0	0	0	0
2148	0	0	0	0	0
2149	0	0	0	0	0
2150	0	0	0	0	0
2151	0	0	0	0	0
2152	0	0	0	0	0
2153	0	0	0	0	0
2154	0	0	0	0	0
2155	0	0	0	0	0
2156	0	0	0	0	0
2157	0	0	0	0	0
2158	0	0	0	0	0
2159	0	0	0	0	0
2160	0	0	0	0	0
2161	0	0	0	0	0
2162	0	0	0	0	0
2163	0	0	0	0	0
2164	0	0	0	0	0
2165	0	0	0	0	0
2166	0	0	0	0	0
2167	0	0	0	0	0
2168	0	0	0	0	0
2169	0	0	0	0	0
2170	0	0	0	0	0
2171	0	0	0	0	0
2172	0	0	0	0	0
2173	0	0	0	0	0
2174	0	0	0	0	0
2175	0	0	0	0	0
2176	0	0	0	0	0
2177	0	0	0	0	0
2178	0	0	0	0	0
2179	0	0	0	0	0
2180	0	0	0	0	0
2181	0	0	0	0	0
2182	0	0	0	0	0
2183	0	0	0	0	0
2184	0	0	0	0	0
2185	0	0	0	0	0
2186	0	0	0	0	0
2187	0	0	0	0	0
2188	0	0	0	0	0
2189	0	0	0	0	0
2190	0	0	0	0	0
2191	0	0	0	0	0
2192	0	0	0	0	0
2193	0	0	0	0	0
2194	0	0	0	0	0
2195	0	0	0	0	0
2196	0	0	0	0	0
2197	0	0	0	0	0
2198	0	0	0	0	0
2199	0	0	0	0	0
2200	0	0	0	0	0
2201	0	0	0	0	0
2202	0	0	0	0	0
2203	0	0	0	0	0
2204	0	0	0	0	0
2205	0	0	0	0	0
2206	0	0	0	0	0
2207	0	0	0	0	0
2208	0	0	0	0	0
2209	0	0	0	0	0
2210	0	0	0	0	0
2211	0	0	0	0	0
2212	0	0	0	0	0
2213	0	0	0	0	0
2214	0	0	0	0	0
2215	0	0	0	0	0
2216	0	0	0	0	0
2217	0	0	0	0	0
2218	0	0	0	0	0
2219	0	0	0	0	0
2220	0	0	0	0	0
2221	0	0	0	0	0
2222	0	0	0	0	0
2223	0	0	0	0	0
2224	0	0	0	0	0
2225	0	0	0	0	0
2226	0	0	0	0	0
2227	0	0	0	0	0
2228	0	0	0	0	0
2229	0	0	0	0	0
2230	0	0	0	0	0
2231	0	0	0	0	0
2232	0	0	0	0	0
2233	0	0	0	0	0
2234	0	0	0	0	0
2235	0	0	0	0	0
2236	0	0	0	0	0
2237	0	0	0	0	0
2238	0	0	0	0	0
2239	0	0	0	0	0
2240	0	0	0	0	0
2241	0	0	0	0	0
2242	0	0	0	0	0
2243	0	0	0	0	0
2244	0	0	0	0	0
2245	0	0	0	0	0
2246	0	0	0	0	0
2247	0	0	0	0	0
2248	0	0	0	0	0
2249	0	0	0	0	0
2250	0	0	0	0	0
2251	0	0	0	0	0
2252	0	0	0	0	0
2253	0	0	0	0	0
2254	0	0	0	0	0
2255	0	0	0	0	0
2256	0	0	0	0	0
2257	0	0	0	0	0
2258	0	0	0	0	0
2259	0	0	0	0	0
2260	0	0	0	0	0
2261	0	0	0	0	0
2262	0	0	0	0	0
2263	0	0	0	0	0
2264	0	0	0	0	0
2265	0	0	0	0	0
2266	0	0	0	0	0
2267	0	0	0	0	0
2268	0	0	0	0	0
2269	0	0	0	0	0
2270	0	0	0	0	0
2271	0	0	0	0	0
2272	0	0	0	0	0
2273	0	0	0	0	0
2274	0	0	0	0	0
2275	0	0	0	0	0
2276	0	0	0	0	0
2277	0	0	0	0	0
2278	0	0			

3.89	%
1.20	

2019	
2019	20
2018	20

DATE/IMPACT TEST
PROGRAM/METHOD SELECTED: REV_YBQ
PROGRAM/NAME: Renters/Low Income Weatherization

(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 EAD BENEFITS \$(000)	REVENUE GAINING \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE UNRECOVERED NET BENEFITS \$(000)
2007	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	220	287	40	0	498	38	0	0	0	38	(460)	(380)
2011	0	225	287	125	0	545	106	17	0	0	124	(423)	(703)
2012	0	226	287	220	0	603	175	35	0	1	211	(393)	(1,076)
2013	0	229	287	234	0	650	248	54	0	29	331	(319)	(1,397)
2014	0	170	357	442	0	969	316	71	0	29	416	(553)	(1,749)
2015	0	203	482	566	0	1,221	429	89	0	39	556	(665)	(2,314)
2016	0	220	432	691	0	1,322	619	106	0	32	756	(573)	(2,466)
2017	0	216	432	327	0	1,094	757	124	0	66	946	(150)	(2,725)
2018	0	282	482	943	0	1,708	950	142	0	82	1,174	(538)	(2,987)
2019	0	139	185	1,057	0	1,322	2,107	188	0	32	2,318	996	(2,992)
2020	0	253	432	1,461	0	1,745	2,007	154	0	42	2,093	347	(2,645)
2021	0	230	432	1,036	0	1,770	2,094	149	0	48	2,084	311	(2,337)
2022	0	312	492	1,115	0	1,919	2,132	145	0	46	2,323	404	(2,006)
2023	0	372	492	1,149	0	1,883	2,148	141	0	45	2,335	473	(1,533)
2024	0	318	357	1,200	0	1,775	2,200	117	0	48	2,395	618	(1,239)
2025	0	286	432	1,293	0	1,961	2,227	113	0	49	2,409	448	(1,135)
2026	0	344	482	1,259	0	2,085	2,256	109	0	49	2,414	335	(1,108)
2027	0	300	482	1,261	0	2,043	2,223	105	0	50	2,427	374	(1,095)
2028	0	308	432	1,416	0	2,156	2,271	121	0	50	2,445	289	(1,039)
2029	0	178	286	1,479	0	1,853	2,285	117	0	58	2,460	608	(1,025)
2030	0	380	492	1,653	0	2,623	2,313	111	0	58	2,484	61	(1,318)
2031	0	331	432	1,632	0	2,394	2,350	109	0	64	2,523	137	(1,097)
2032	0	340	432	1,718	0	2,490	2,353	105	0	68	2,526	56	(1,097)
2033	0	348	432	1,872	0	2,652	2,408	102	0	56	2,561	(91)	(1,206)
2034	0	341	437	1,977	0	2,665	2,428	99	0	56	2,572	(93)	(1,313)
2035	0	366	432	1,982	0	2,780	2,527	96	0	59	2,682	(93)	(1,336)
2036	0	375	432	2,124	0	2,911	2,583	93	0	62	2,748	(133)	(1,394)
2037	0	384	432	2,238	0	3,054	2,630	91	0	66	2,807	(97)	(1,387)
2038	0	463	492	2,335	0	3,293	2,689	88	0	70	2,847	(42)	(1,408)
2039	0	228	185	2,442	0	2,863	2,715	87	0	72	2,873	3	(1,403)
2040	0	414	432	2,556	0	3,402	2,792	85	0	76			

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

1.07	%
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	1.66 %
(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	1.89 %
(11) UTILITY AFUDC RATE	1.48 %
(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 Home Energy Survey

[illegible]

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Residential Low Income Home Energy Survey

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	7,140	222	0	498	329	120	42	279	1	1,491	1,491	1,491	6,963
2020	6,861	213	0	479	226	115	44	279	91	1,446	1,328	2,819	7,137
2021	6,491	202	0	453	224	110	45	279	77	1,389	1,171	3,990	7,316
2022	6,136	191	0	428	221	105	46	279	64	1,334	1,033	5,023	7,499
2023	5,793	180	0	404	218	100	47	279	52	1,280	911	5,934	7,686
2024	5,463	170	0	381	215	95	48	279	41	1,229	803	6,737	7,878
2025	5,144	160	0	359	211	90	49	279	30	1,179	707	7,444	8,075
2026	4,835	150	0	337	208	85	50	279	21	1,130	623	8,067	8,277
2027	4,536	141	0	317	196	80	52	279	19	1,083	548	8,615	8,484
2028	4,238	132	0	296	183	75	53	279	19	1,036	482	9,096	8,696
2029	3,940	122	0	275	170	70	54	279	19	990	422	9,519	8,914
2030	3,643	113	0	254	157	65	56	279	19	943	370	9,888	9,136
2031	3,345	104	0	233	144	60	57	279	19	896	323	10,211	9,365
2032	3,047	95	0	213	131	55	59	279	19	849	281	10,492	9,599
2033	2,750	85	0	192	118	50	60	279	19	803	244	10,735	9,839
2034	2,452	76	0	171	105	45	62	279	19	756	211	10,946	10,085
2035	2,154	67	0	150	92	40	63	279	19	710	182	11,128	10,337
2036	1,857	58	0	130	79	35	65	279	19	663	156	11,284	10,596
2037	1,559	48	0	109	66	30	66	279	19	617	133	11,417	10,860
2038	1,261	39	0	88	53	25	68	279	19	570	113	11,530	11,132
2039	964	30	0	67	38	20	70	279	(39)	524	95	11,626	11,410
2040	724	23	0	51	145	15	71	279	(97)	486	81	11,707	11,695
2041	543	17	0	38	138	10	73	279	(97)	457	70	11,777	11,968
2042	362	11	0	25	130	5	75	279	(97)	427	60	11,837	12,288
2043	181	6	0	13	122	(0)	77	279	(97)	398	52	11,889	12,595

IN SERVICE COST (\$000)	6,963
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFECT. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

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

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

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential 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) 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%	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	594.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

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

57.47

156.84

127.50

(27.02)

1,064.61

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

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	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)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/KWh)	AVOIDED MARGINAL FUEL COST (C/KWh)	INCREASED MARGINAL FUEL COST (C/KWh)	REPLACEMENT FUEL COST (C/KWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	0	0	6.41	16.51	6.41	0.00	1.00	1.00
2011	15,000	15,000	6.35	6.35	10.38	0.00	1.00	1.00
2012	30,000	30,000	6.43	6.43	13.34	0.00	1.00	1.00
2013	45,000	45,000	7.06	7.06	9.99	0.00	1.00	1.00
2014	60,000	60,000	7.53	7.53	10.61	0.00	1.00	1.00
2015	75,000	75,000	8.11	8.11	13.20	0.00	1.00	1.00
2016	90,000	90,000	9.00	9.00	13.90	0.00	1.00	1.00
2017	105,000	105,000	9.75	9.75	15.09	0.00	1.00	1.00
2018	120,000	120,000	10.52	10.52	15.46	0.00	1.00	1.00
2019	120,000	120,000	11.50	11.50	21.44	10.41	1.00	1.00
2020	120,000	120,000	12.08	12.08	20.17	10.50	1.00	1.00
2021	120,000	120,000	12.57	12.57	21.76	10.74	1.00	1.00
2022	120,000	120,000	13.06	13.06	23.66	10.81	1.00	1.00
2023	120,000	120,000	13.39	13.39	20.91	10.80	1.00	1.00
2024	120,000	120,000	13.95	13.95	22.19	10.84	1.00	1.00
2025	120,000	120,000	14.40	14.40	22.20	10.96	1.00	1.00
2026	120,000	120,000	14.70	14.70	22.41	11.05	1.00	1.00
2027	120,000	120,000	15.13	15.13	23.05	11.17	1.00	1.00
2028	120,000	120,000	15.60	15.60	23.70	11.26	1.00	1.00
2029	120,000	120,000	16.02	16.02	22.95	11.41	1.00	1.00
2030	120,000	120,000	16.52	16.52	23.78	11.59	1.00	1.00
2031	120,000	120,000	17.08	17.08	24.53	11.80	1.00	1.00
2032	120,000	120,000	17.50	17.50	24.55	11.88	1.00	1.00
2033	120,000	120,000	18.27	18.27	25.51	12.10	1.00	1.00
2034	120,000	120,000	18.73	18.73	25.89	12.14	1.00	1.00
2035	120,000	120,000	19.57	19.57	27.04	12.29	1.00	1.00
2036	120,000	120,000	20.40	20.40	28.26	12.55	1.00	1.00
2037	120,000	120,000	21.11	21.11	29.22	12.70	1.00	1.00
2038	120,000	120,000	22.02	22.02	30.23	13.04	1.00	1.00
2039	120,000	120,000	22.78	22.78	31.29	13.32	1.00	1.00
2040	120,000	120,000	23.59	23.59	32.02	13.44	1.00	1.00
2041	120,000	120,000	24.54	24.54	33.28	13.75	1.00	1.00
2042	120,000	120,000	25.50	25.50	34.66	14.10	1.00	1.00
2043	120,000	120,000	26.74	26.74	36.49	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
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.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
YEAR	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	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
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) AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	(3) REPLACEMENT EMISSION COST \$(000)	(4) PROGRAM EMISSION BENEFIT \$(000)	(5) OFF-PEAK EMISSION PAYBACK COST \$(000)	(6) NET EMISSION BENEFIT \$(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	1	0	1
2012	0	0	2	0	2
2013	0	0	133	0	133
2014	0	0	206	0	206
2015	0	0	293	0	293
2016	0	0	398	0	398
2017	0	0	516	0	516
2018	0	0	647	0	647
2019	249	326	752	0	676
2020	379	491	814	0	702
2021	418	541	879	0	755
2022	481	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	1,233
2028	984	1,254	1,636	0	1,366
2029	1,125	1,429	1,827	0	1,524
2030	1,248	1,583	1,976	0	1,641
2031	1,356	1,719	2,148	0	1,785
2032	1,493	1,889	2,330	0	1,934
2033	1,740	2,200	2,527	0	2,067
2034	1,926	2,433	2,738	0	2,231
2035	2,092	2,644	2,967	0	2,415
2036	2,284	2,886	3,211	0	2,609
2037	2,475	3,127	3,471	0	2,820
2038	2,683	3,389	3,748	0	3,042
2039	2,898	3,664	4,049	0	3,283
2040	3,132	3,959	4,364	0	3,536
2041	3,374	4,266	4,692	0	3,801
2042	3,374	4,266	5,043	0	4,152
2043	3,374	4,266	5,423	0	4,532
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	40,636	51,533	64,177	0	53,301
NPV	4,922	6,263	9,220	0	7,879

(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	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	19,063
2024	0	1,041	1,057	0	2,098	1,634	260	8,256	993	11,146	9,048	21,586
2025	0	1,067	1,084	0	2,150	1,631	253	8,522	1,089	11,499	9,348	23,980
2026	0	1,367	1,812	0	3,179	1,642	245	8,703	1,151	11,741	8,562	25,993
2027	0	1,401	1,858	0	3,259	1,655	238	8,955	1,253	12,101	8,843	27,903
2028	0	1,436	1,904	0	3,340	1,648	230	9,232	1,366	12,476	9,136	29,716
2029	0	589	1,007	0	1,596	1,691	223	9,484	1,524	12,922	11,326	31,779
2030	0	603	1,033	0	1,636	1,691	215	9,778	1,641	13,325	11,689	33,735
2031	0	1,546	2,050	0	3,597	1,678	208	10,108	1,785	13,778	10,181	35,299
2032	0	1,268	1,831	0	3,099	1,730	201	10,361	1,934	14,226	11,128	36,869
2033	0	1,300	1,876	0	3,176	1,726	194	10,817	2,067	14,804	11,628	38,376
2034	0	999	1,068	0	2,068	1,807	188	11,086	2,231	15,311	13,243	39,952
2035	0	1,024	1,095	0	2,119	1,834	182	11,585	2,415	16,016	13,896	41,471
2036	0	1,400	2,021	0	3,420	1,817	176	12,072	2,609	16,675	13,254	42,802
2037	0	1,793	2,378	0	4,171	1,856	172	12,498	2,820	17,345	13,173	44,016
2038	0	1,838	2,437	0	4,276	1,803	167	13,033	3,042	18,046	13,770	45,182
2039	0	754	1,289	0	2,043	1,772	164	13,484	3,283	18,702	16,659	46,478
2040	0	773	1,322	0	2,094	1,848	161	13,966	3,536	19,511	17,417	47,721
2041	0	1,980	2,625	0	4,604	1,830	157	14,523	3,801	20,312	15,708	48,751
2042	0	2,029	2,690	0	4,719	1,798	154	15,096	4,152	21,201	16,481	49,744
2043	0	2,080	2,758	0	4,837	1,804	151	15,825	4,532	22,312	17,474	50,711
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0		

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

3.89	%
3.46	

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

2019	
8.89	%
9.17	

(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	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)	(13,632)
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	13,531	0	16,268	11,785	208	0	1,785	13,778	(2,496)	(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)	(18,906)
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	
NOM.	0	36,978	30,161	401,184	0	468,323	328,609	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
Benefit/Cost Ratio (Col(12) / Col(7)) :

8.89	%
0.78	

RESIDENTIAL SOLAR WATER HEATING

INVOICEDATA - PART 1 CONTINUED
PROGRAMMED AND SERVICED BY HQ
PROGRAM NAME Residential Solar Water Heating

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT MEAS	0.25 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.34 KW
(3) KW LINE LOSS PERCENTAGE	2.65 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	1.9183 KVA
(5) KW LINE LOSS PERCENTAGE	4.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.08
(7) CUSTOMER KVA INCREASE AT MEAS	0.26 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) X FACTOR FOR GENERATION	1.0738
(5) X FACTOR FOR T & D	1.6254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY WORK RECOVERING COST PER CUSTOMER	--- \$/UNIT
(2) UTILITY RECOVERING COST PER CUSTOMER	--- \$/UNIT
(3) UTILITY COST ESCALATION RATE	--- %
(4) CUSTOMER EQUIPMENT COST	--- \$/UNIT
(5) CUSTOMER EQUIPMENT ESCALATION RATE	--- %
(6) CUSTOMER O & M COST	--- \$/CUSTOMER
(7) CUSTOMER O & M COST ESCALATION RATE	--- %
(8) INCREASED SURVEY COSTS	--- \$/CUSTOMER
(9) SURVEY COST ESCALATION RATE	--- %
(10) UTILITY DISCOUNT RATE	2.80 %
(11) UTILITY APUD RATE	2.40 %
(12) UTILITY WORK RECOVERING INCENTIVE	--- \$/UNIT
(13) UTILITY RECOVERING INCENTIVE	--- \$/UNIT
(14) UTILITY RECOVERING 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	2009
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2010-2019
(4) BASE YEAR AVOIDED GENERATING COST	282.39 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	181.52 \$/KW
(6) BASE YEAR DISTRIBUTION COST	12.38 \$/KW
(7) GEN. TRAN. & DIST. COST ESCALATION RATE	3.00 %
(8) GENERATOR FIXED O & M COST	27.81 \$/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 COST	0.165 \$/KW/YR
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	80 % (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	127 \$/KW/YR (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	*** \$/CUSTOMER
(2) NON-FUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CUSTOMER BILL	--- \$/KW/MO
(4) DEMAND CHARGE ESCALATION RATE	--- %

~~== NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR TAC AND KIM TENTS~~

CALCULATION OF DEFECT FACTOR
 PROGRAM/GENERAL SECTION NEW_F03
 PROGRAM/GENERAL Sectional Water Molding

PSCFORM/CELLA
 PAGE 1 OF 2

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	150-YEAR RATEBASE \$(000)	DEBT \$(000)	PREPARED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY RENTALANCE \$(000)	DEPRECI- ATION \$(000)	DEPRECI- ATION TAXES \$(000)	TOTAL EXPENSE CHANGES \$(000)	PRESENT WORTH CHANGES \$(000)	CUMULATIVE PRESENT WORTH CHANGES \$(000)	REPLACEMENT COST BASE FOR PROPERTY INSURANCE \$(000)	
2019	7,711	240	0	532	333	230	46	301	1	1,638	1,638	1,638	7,722	
2020	7,439	239	0	517	344	235	47	301	38	1,582	1,405	3,045	7,739	
2021	7,031	238	0	489	362	239	48	301	83	1,500	1,265	4,310	7,961	
2022	6,627	236	0	462	379	234	49	301	129	1,440	1,116	5,425	8,089	
2023	6,237	194	0	437	396	238	51	301	166	1,383	934	6,409	8,361	
2024	5,908	183	0	412	412	243	52	301	204	1,327	807	7,256	8,599	
2025	5,535	173	0	388	428	248	53	301	243	1,273	644	8,040	8,722	
2026	5,222	162	0	364	444	254	55	301	282	1,221	503	8,722	8,940	
2027	4,889	152	0	342	459	257	56	301	322	1,170	382	9,384	9,163	
2028	4,577	142	0	319	473	261	57	301	363	1,119	289	9,934	9,392	
2029	4,286	132	0	297	483	266	59	301	404	1,069	205	10,380	9,627	
2030	3,994	122	0	275	490	270	60	301	446	1,019	139	10,690	9,868	
2031	3,713	112	0	252	495	275	62	301	489	968	84	11,028	10,114	
2032	3,431	102	0	229	501	280	63	301	533	917	39	11,331	10,367	
2033	3,170	92	0	207	507	284	65	301	577	867	25	11,595	10,624	
2034	2,928	82	0	185	513	289	66	301	622	817	22	11,822	10,892	
2035	2,707	72	0	162	519	293	68	301	667	767	19	12,019	11,164	
2036	2,495	62	0	140	525	298	70	301	713	716	16	12,187	11,444	
2037	2,294	52	0	118	531	303	72	301	760	665	14	12,331	11,726	
2038	2,103	42	0	95	537	308	75	301	807	614	11	12,452	11,999	
2039	1,921	32	0	73	543	313	77	301	855	563	9	12,559	12,263	
2040	1,748	24	0	51	549	318	80	301	903	512	8	12,644	12,522	
2041	1,584	18	0	30	555	323	83	301	952	461	7	12,715	12,771	
2042	1,429	12	0	10	561	328	86	301	1,001	410	6	12,841	13,020	
2043	1,282	6	0	0	567	333	89	301	1,051	359	5	12,941	13,269	

IN SERVICE COST	\$(000)	7,722
IN SERVICE TAX		283
MOCK-UP (FIS)		25
DEPRECIATION		26,575
DISCOUNT RATE		2.5%
PROPERTY TAX		1,804
PROPERTY INSURANCE		1,024

CAPITAL STRUCTURE

SOURCE	PERCENT	COST
DEBT	40%	7.5%
EQ	60%	9.0%
CS	50%	12.5%

$$X-FACTOR = CF/IC/IN-SVC COST =$$

1.7078

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/VERSION: DEFERRED-TAX_V02
 PROGRAM/DATE: 10/10/2010 10:10:10

FSC FORM 911A
 PAGE 2a OF 2

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEFERRED SCHEDULE	TAX DEFERRED \$(000)	ACCUMULATED TAX DEFERRED \$(000)	BOOK DEFERRED \$(000)	ACCUMULATED BOOK DEFERRED \$(000)	BOOK DEFERRED \$(000)	ACCUMULATED BOOK DEFERRED \$(000)	DEFERRED TAX DUE TO DEFERRED \$(000)	TOTAL EQUITY AFDC \$(000)	BOOK/DEFERRED RATE ADJUSTMENT	(12)/(11)	DEPRECIATION \$(000)	ANNUAL DEFERRED TAX \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	274	274	301	301	223	223	1	702	0	0	0	1	(19)
2020	7.22%	528	802	301	602	223	505	98	702	0	0	0	99	(99)
2021	6.68%	488	1,291	301	902	223	728	83	702	0	0	0	33	(7)
2022	6.38%	452	1,742	301	1,203	223	1,051	69	702	0	0	0	69	21
2023	5.72%	418	2,160	301	1,504	223	1,274	56	702	0	0	0	56	116
2024	5.29%	387	2,547	301	1,805	223	1,497	44	702	0	0	0	44	160
2025	4.89%	357	2,904	301	2,106	223	1,720	33	702	0	0	0	33	193
2026	4.52%	331	3,235	301	2,407	223	1,943	22	702	0	0	0	22	215
2027	4.16%	306	3,541	301	2,707	223	2,166	11	702	0	0	0	11	226
2028	3.82%	286	3,827	301	3,008	223	2,467	0	702	0	0	0	0	226
2029	3.50%	266	4,093	301	3,309	223	2,768	0	702	0	0	0	0	226
2030	3.20%	246	4,339	301	3,610	223	3,069	0	702	0	0	0	0	226
2031	2.92%	226	4,565	301	3,911	223	3,370	0	702	0	0	0	0	226
2032	2.66%	206	4,771	301	4,212	223	3,671	0	702	0	0	0	0	226
2033	2.42%	186	4,957	301	4,513	223	3,972	0	702	0	0	0	0	226
2034	2.20%	166	5,123	301	4,814	223	4,273	0	702	0	0	0	0	226
2035	2.00%	146	5,269	301	5,115	223	4,574	0	702	0	0	0	0	226
2036	1.82%	126	5,395	301	5,416	223	4,875	0	702	0	0	0	0	226
2037	1.66%	106	5,501	301	5,717	223	5,176	0	702	0	0	0	0	226
2038	1.52%	86	5,587	301	6,018	223	5,477	0	702	0	0	0	0	226
2039	1.40%	66	5,653	301	6,319	223	5,778	0	702	0	0	0	0	226
2040	1.30%	46	5,700	301	6,620	223	6,079	0	702	0	0	0	0	226
2041	1.22%	26	5,726	301	6,921	223	6,380	0	702	0	0	0	0	226
2042	1.16%	6	5,732	301	7,222	223	6,681	0	702	0	0	0	0	226
2043	1.12%	0	5,732	301	7,523	223	6,982	0	702	0	0	0	0	226

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE/COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(19)
TOTAL EQUITY AFDC CAPITALIZED (SEE PAGE 5)	702
BOOK/DEFERRED RATE - 100% FULLY	1.00%

DEERBERG TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM: DEERBERG TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM NAME: Deerberg Solar Water Heating

PCFORM 35.11A
 PAGE 2 OF 2

(1)	(2)	(3)	(4)	(5) END OF YEAR NET ELECTRIC SERVICE \$ (000)	(6)* ACCUMULATED DEPRECIATION \$ (000)	(7)* ACCUMULATED DEPRECIATION \$ (000)	(8) DEERBERG TAX RATE \$ (000)	(9) MID-YEAR RATE BASE \$ (000)	(10) MID-YEAR RATE BASE \$ (000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$ (000)	DEERBERG TAX \$ (000)						
2019	3.75%	274	1	7,229	361	(360)	7,711	7,439	7,561
2020	7.22%	528	26	4,729	682	(682)	7,439	7,921	7,229
2021	6.88%	493	23	4,638	902	(0)	7,921	6,827	6,829
2022	6.38%	452	20	4,317	1,203	0	6,827	6,227	6,442
2023	5.73%	418	16	4,317	1,504	116	6,227	5,944	6,478
2024	5.09%	387	14	4,316	1,805	160	5,944	5,535	5,778
2025	4.89%	357	13	4,415	2,106	198	5,535	5,228	5,389
2026	4.52%	331	12	4,114	2,407	215	5,228	4,829	5,040
2027	4.40%	326	11	4,323	2,707	236	4,829	4,577	4,738
2028	4.40%	326	11	4,323	3,008	257	4,577	4,326	4,446
2029	4.40%	326	11	4,323	3,309	277	4,326	3,924	4,085
2030	4.40%	326	11	3,921	3,610	298	3,924	3,623	3,773
2031	4.40%	326	11	3,610	3,911	319	3,623	3,321	3,432
2032	4.40%	326	11	3,309	4,212	339	3,321	2,978	3,131
2033	4.40%	326	11	3,008	4,512	360	2,978	2,648	2,809
2034	4.40%	326	11	2,707	4,813	381	2,648	2,307	2,468
2035	4.40%	326	11	2,407	5,114	401	2,307	2,005	2,166
2036	4.40%	326	11	2,106	5,415	422	2,005	1,694	1,855
2037	4.40%	326	11	1,805	5,716	443	1,694	1,503	1,593
2038	4.40%	326	11	1,504	6,017	463	1,503	1,041	1,202
2039	2.33%	163	(40)	1,203	6,317	481	1,041	782	912
2040	0.00%	0	(105)	902	6,618	505	782	587	685
2041	0.00%	0	(105)	602	6,919	511	587	351	489
2042	0.00%	0	(105)	301	7,220	515	351	196	295
2043	0.00%	0	(105)	(0)	7,521	0	196	0	28

* Column not specified in worksheet

(1) YEAR	(2) NO. YEARS SERVICE IN-SERVICE	(3) PLANT REPLACEMENT RATE	(4) CUMULATIVE REPLACEMENT FACTOR	(5) YEARLY REPLACEMENT (%)	(6) ANNUAL SERVING (\$/W)	(7) CUMULATIVE AVERAGE SERVING (\$/W)
2009	-10	0.00%	1.00	0.00%	0.00	0.00
2010	-9	3.00%	1.00	0.00%	0.00	0.00
2011	-8	3.00%	1.00	0.00%	0.00	0.00
2012	-7	3.00%	1.00	0.00%	0.00	0.00
2013	-6	3.00%	1.00	0.00%	0.00	0.00
2014	-5	3.00%	1.00	0.00%	0.00	0.00
2015	-4	3.00%	1.00	0.00%	0.00	0.00
2016	-3	3.00%	1.00	0.00%	0.00	0.00
2017	-2	3.00%	1.00	0.00%	0.00	0.00
2018	-1	3.00%	1.00	0.00%	0.00	0.00

100.00% 90.00%												
(1) YEAR	(2) NO. YEARS SERVICE IN-SERVICE	(3) CUMULATIVE SERVING WITH AFUDC (\$/W)	(4) DEBT AFUDC (\$/W)	(5) CUMULATIVE TOTAL AFUDC (\$/W)	(6) YEARLY TOTAL AFUDC (\$/W)	(7) CUMULATIVE TOTAL AFUDC (\$/W)	(8) CONSTRUCTION INTEREST (\$/W)	(9) CUMULATIVE CPI (\$/W)	(10) DEBT TAXES (\$/W)	(11) CUMULATIVE DEBT TAXES (\$/W)	(12) INCREASING TAXES (\$/W)	(13) CUMULATIVE TOTAL TAXES (\$/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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2014	-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015	-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2016	-3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017	-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2018	-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IN SERVICE YEAR	2019
PLANT COSTS	725,388,000
AFUDC RATE	3.40%

	BOOKBASE	BOOKBASE FOR DEBT TAX	TAX BASE
CONSTRUCTION COST	643	643	643
DEBT AFUDC	702	406	901
TOTAL	732	643	732

* Column not specified in workbook

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INFORMATION - PART 2
PROGRAM/OWNER: RSC/USQ
PROGRAM/OWNER: Residential Solar Water Heating

FORM 6512
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	WINDY AVERAGE SYSTEM FUEL COST (\$/GAL)	ADJUSTED MARGINAL FUEL COST (\$/GAL)	INCREASED MARGINAL FUEL COST (\$/GAL)	REPLACEMENT FUEL COST (\$/GAL)	PROGRAM EFFECTIVENESS FACTOR	PROGRAM/OWNER EFFECTIVENESS FACTOR
2000	0	0	6.79	9.37	6.59	0.00	1.00	1.00
2001	1364	1365	6.41	6.70	9.01	0.00	1.00	1.00
2002	1595	1595	6.35	6.61	8.48	0.00	1.00	1.00
2003	1827	1827	6.45	6.66	8.45	0.00	1.00	1.00
2004	15811	15811	7.06	7.23	8.41	0.00	1.00	1.00
2005	20.781	20.781	7.33	7.52	8.67	0.00	1.00	1.00
2006	20.781	20.781	8.11	8.38	9.61	0.00	1.00	1.00
2007	20.781	20.781	8.00	9.31	11.33	0.00	1.00	1.00
2008	20.781	20.781	9.75	10.06	11.72	0.00	1.00	1.00
2009	20.781	20.781	10.32	10.86	13.33	0.00	1.00	1.00
2010	20.781	20.781	11.50	11.96	15.25	10.41	1.00	1.00
2011	20.781	20.781	12.08	12.57	15.88	10.50	1.00	1.00
2012	20.781	20.781	12.57	13.08	16.53	10.78	1.00	1.00
2013	20.781	20.781	13.06	13.59	17.14	10.81	1.00	1.00
2014	20.781	20.781	13.59	13.92	17.76	10.80	1.00	1.00
2015	20.781	20.781	13.95	14.47	17.82	10.84	1.00	1.00
2016	20.781	20.781	14.44	14.92	18.22	10.95	1.00	1.00
2017	20.781	20.781	14.79	15.19	18.32	11.05	1.00	1.00
2018	20.781	20.781	15.23	15.60	18.74	11.17	1.00	1.00
2019	20.781	20.781	15.40	16.05	18.91	11.26	1.00	1.00
2020	20.781	20.781	16.02	16.44	19.35	11.61	1.00	1.00
2021	20.781	20.781	16.32	16.82	19.26	11.59	1.00	1.00
2022	20.781	20.781	17.08	17.47	19.34	11.80	1.00	1.00
2023	20.781	20.781	17.50	17.84	19.62	11.88	1.00	1.00
2024	20.781	20.781	18.17	18.50	20.38	12.10	1.00	1.00
2025	20.781	20.781	18.73	19.06	20.65	12.16	1.00	1.00
2026	20.781	20.781	19.57	19.75	21.57	12.29	1.00	1.00
2027	20.781	20.781	20.40	20.54	22.39	12.55	1.00	1.00
2028	20.781	20.781	21.11	21.94	22.91	12.70	1.00	1.00
2029	20.781	20.781	22.02	22.16	23.86	13.04	1.00	1.00
2030	20.781	20.781	22.78	22.89	24.49	13.22	1.00	1.00
2040	20.781	20.781	23.09	23.08	25.04	13.44	1.00	1.00
2041	20.781	20.781	24.54	24.62	25.93	13.75	1.00	1.00
2042	20.781	20.781	25.04	25.59	26.84	14.10	1.00	1.00
2043	20.781	20.781	26.74	26.85	28.65	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

* THIS COLUMN IS USED ONLY FOR LOAD SHEDDING PROGRAMS WHERE SHEDDING CONSUMPTION TO OFF-PEAK PERIODS.
THE VALUES REPRESENT THE OFF-PEAK SYSTEM FUEL COST.

Benefit/Cost Ratio (Col(2) / Col(7)):

1.88	%
1.26	

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

INPUT DATA - PART 1 CONTINUED
PROGRAM CHOSEN: RESIDENTIAL WATER HEATING (Low Income New Construction)
PROGRAM NAME: Residential Water Heating (Low Income New Construction)

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER LW REDUCTION AT RISK	0.25 kW
(2) GENERATOR LW REDUCTION PER CUSTOMER	0.34 kW
(3) LW LOSS PERCENTAGE	2.66 %
(4) GENERATOR LW REDUCTION PER CUSTOMER	1.58185 kW
(5) LW LOSS PERCENTAGE	0.90 %
(6) GROUP LINE LOSS AT RISK	1.60
(7) CUSTOMER LW INCREASE AT RISK	0.50 kW

II. ECONOMIC LIFE & FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	15 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) ZAD ECONOMIC LIFE	25 YEARS
(4) K FACTOR FOR GENERATOR	1.0728
(5) K FACTOR FOR ZAD	1.8224

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) SOWBY COST ESCALATION RATE	--- %
(10) UTILITY DISCOUNT RATE	8.50 %
(11) UTILITY APOC RATE	2.65 %
(12) UTILITY NONRECURRING 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	2000
(2) IN-SERVICE YEAR FOR AVOIDED GENERATION UNIT	2003
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2012-2019
(4) BASE YEAR AVOIDED GENERATION COST	725.39 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	181.32 \$/kW
(6) BASE YEAR DISTRIBUTION COST	26.6 \$/kW
(7) GEN. TRAN & DIST. COST ESCALATION RATE	3.00 %
(8) GENERATOR FIXED O & M COST	91.66 \$/CUST/YR
(9) GENERATOR FIXED O & M ESCALATION RATE	2.50 %
(10) TRANSMISSION FIXED O & M COST	2.33 \$/kW
(11) TRANSMISSION FIXED O & M ESCALATION RATE	1.81 \$/kW
(12) T&D FIXED O & M ESCALATION RATE	2.50 %
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 \$/CUST/YR
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	0.6 (in-curve year)
(16) AVOIDED GENERATOR UNIT FUEL COST	1.23 \$/CUST/YR (in-curve 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	--- \$/CUST/YR
(2) NON-FUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CUSTOMER BILL	--- \$/CUST/YR
(4) DEMAND CHARGE ESCALATION RATE	--- %

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

* INPUT DATA - PART 1 CONTINUED
 PROGRAM METHOD SELECTED: REV_XBQ
 PROJECT/CLIENT: Residential Solar Water Heating (Low-Demand New Construction)

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	34	100	0	134	2	0	100	0	0	100
2011	157	1,000	0	1,157	20	0	1,000	0	0	1,000
2012	146	1,000	0	1,146	57	0	1,000	0	0	1,000
2013	148	1,000	0	1,148	57	0	1,000	0	0	1,000
2014	150	1,000	0	1,150	140	0	1,000	0	0	1,000
2015	0	0	0	0	179	0	0	0	0	0
2016	0	0	0	0	176	0	0	0	0	0
2017	0	0	0	0	123	0	0	0	0	0
2018	0	0	0	0	108	0	0	0	0	0
2019	0	0	0	0	104	0	0	0	0	0
2020	0	0	0	0	125	0	0	0	0	0
2021	0	0	0	0	139	0	0	0	0	0
2022	0	0	0	0	260	0	0	0	0	0
2023	0	0	0	0	211	0	0	0	0	0
2024	0	0	0	0	221	0	0	0	0	0
2025	0	0	0	0	229	0	0	0	0	0
2026	0	0	0	0	238	0	0	0	0	0
2027	0	0	0	0	250	0	0	0	0	0
2028	0	0	0	0	260	0	0	0	0	0
2029	0	0	0	0	272	0	0	0	0	0
2030	0	0	0	0	283	0	0	0	0	0
2031	0	0	0	0	296	0	0	0	0	0
2032	0	0	0	0	316	0	0	0	0	0
2033	0	0	0	0	341	0	0	0	0	0
2034	0	0	0	0	351	0	0	0	0	0
2035	0	0	0	0	365	0	0	0	0	0
2036	0	0	0	0	391	0	0	0	0	0
2037	0	0	0	0	412	0	0	0	0	0
2038	0	0	0	0	429	0	0	0	0	0
2039	0	0	0	0	449	0	0	0	0	0
2040	0	0	0	0	479	0	0	0	0	0
2041	0	0	0	0	495	0	0	0	0	0
2042	0	0	0	0	521	0	0	0	0	0
2043	0	0	0	0	558	0	0	0	0	0
2044	0	0	0	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0
2051	0	0	0	0	0	0	0	0	0	0
2052	0	0	0	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0	0
2065	0	0	0	0	0	0	0	0	0	0
2066	0	0	0	0	0	0	0	0	0	0
2067	0	0	0	0	0	0	0	0	0	0
2068	0	0	0	0	0	0	0	0	0	0
2069	0	0	0	0	0	0	0	0	0	0
2070	0	0	0	0	0	0	0	0	0	0
2071	0	0	0	0	0	0	0	0	0	0
2072	0	0	0	0	0	0	0	0	0	0
2073	0	0	0	0	0	0	0	0	0	0
2074	0	0	0	0	0	0	0	0	0	0
2075	0	0	0	0	0	0	0	0	0	0
2076	0	0	0	0	0	0	0	0	0	0
2077	0	0	0	0	0	0	0	0	0	0
2078	0	0	0	0	0	0	0	0	0	0
2079	0	0	0	0	0	0	0	0	0	0
2080	0	0	0	0	0	0	0	0	0	0
2081	0	0	0	0	0	0	0	0	0	0
2082	0	0	0	0	0	0	0	0	0	0
2083	0	0	0	0	0	0	0	0	0	0
2084	0	0	0	0	0	0	0	0	0	0
2085	0	0	0	0	0	0	0	0	0	0
2086	0	0	0	0	0	0	0	0	0	0
2087	0	0	0	0	0	0	0	0	0	0
2088	0	0	0	0	0	0	0	0	0	0
2089	0	0	0	0	0	0	0	0	0	0
2090	0	0	0	0	0	0	0	0	0	0
2091	0	0	0	0	0	0	0	0	0	0
2092	0	0	0	0	0	0	0	0	0	0
2093	0	0	0	0	0	0	0	0	0	0
2094	0	0	0	0	0	0	0	0	0	0
2095	0	0	0	0	0	0	0	0	0	0
2096	0	0	0	0	0	0	0	0	0	0
2097	0	0	0	0	0	0	0	0	0	0
2098	0	0	0	0	0	0	0	0	0	0
2099	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0
NOM	635	4,308	0	4,933	2,194	0	4,308	0	0	4,308
REV	430	3,025	0	3,455	1,829	0	3,455	0	0	3,455

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

**CALCULATION OF COST FACTOR
PROGRAMMED SELECTED REV. REQ.
PROGRAM NAME: Residential Water Wasting (Low Income New Construction)**

YEAR	(2) 100-YEAR RAINFALL (\$/00)	(3) DEBT \$/(00)	(4) DEFERRED STOCK \$/(00)	(5) COMMON EQUITY \$/(00)	(6) INCOME TAXES \$/(00)	(7) PROPERTY TAX \$/(00)	(8) PROPERTY INSURANCE \$/(00)	(9) DEPRECIATION \$/(00)	(10) DEFERRED TAXES \$/(00)	(11) TOTAL FIXED CHARGES \$/(00)	(12) PROPERTY TAXES \$/(00)	(13) CUMULATIVE FIXED CHARGES \$/(00)	(14) REPLACEMENT COST BASE FOR PROPERTY INSURANCE \$/(00)
2019	304	9	0	21	14	5	2	22	0	24	66	66	207
2020	292	9	0	20	10	5	2	22	4	22	37	103	304
2021	277	9	0	19	10	5	2	22	3	25	39	142	312
2022	261	8	0	18	9	4	2	22	3	27	44	186	320
2023	247	8	0	17	9	4	2	22	2	29	49	235	328
2024	233	7	0	16	9	4	2	22	2	32	54	289	336
2025	219	7	0	15	9	4	2	22	1	36	59	348	344
2026	204	6	0	14	9	4	2	22	1	43	67	415	353
2027	193	6	0	13	8	3	2	22	1	46	73	488	362
2028	181	6	0	13	8	3	2	22	1	44	81	569	371
2029	169	6	0	12	7	3	2	22	1	42	88	657	379
2030	155	5	0	11	7	3	2	22	1	40	95	752	388
2031	143	4	0	10	6	3	2	22	1	38	104	856	397
2032	130	4	0	9	6	2	2	22	1	36	114	969	406
2033	117	4	0	8	5	2	3	22	1	34	125	1092	415
2034	105	3	0	7	4	2	3	22	1	32	137	1229	424
2035	92	3	0	6	4	2	3	22	1	30	150	1379	432
2036	79	2	0	6	3	1	3	22	1	28	164	1544	441
2037	66	2	0	5	3	1	3	22	1	26	179	1723	450
2038	54	2	0	4	2	1	3	22	1	24	195	1918	459
2039	41	1	0	3	4	1	3	22	(2)	22	213	2131	468
2040	31	1	0	2	6	1	3	22	(2)	21	234	2365	477
2041	23	1	0	2	6	1	3	22	(2)	19	255	2620	486
2042	15	0	0	1	6	1	3	22	(2)	18	277	2897	495
2043	8	0	0	1	5	(3)	3	22	(2)	17	2	317	504

IN SERVICE COST (\$/00)	207
IN SERVICE YEAR	2019
BOOKING (10%)	20
DEPR. RATE	24.5%
DISCOUNT RATE	2.5%
PROPERTY TAX	1.8%
PROPERTY INSURANCE	0.4%

CAPITAL STRUCTURE		
SOURCE	PERCENT	COST
DEBT	40%	2.0%
EQUITY	60%	8.0%
WACC		2.2%

WACC = (DEBT/CAPITAL) * DEBT COST + (EQUITY/CAPITAL) * EQUITY COST

1.74%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 REGULAR CHECKED SHEET (DO NOT FILL)
 PROGRAM NAME: Residential Water Heating Low I

PCFORM 971A
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(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 AFDC \$(000)	BOOK DEPR. RATE PERCENT	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2013	2.75%	11	11	12	12	11	11	0	28	0	0	0	0	(0)
2014	2.75%	11	22	12	24	11	22	4	28	0	0	0	4	(0)
2015	2.75%	11	33	12	36	11	33	3	28	0	0	0	3	(0)
2016	2.75%	11	44	12	48	11	44	3	28	0	0	0	3	(0)
2017	2.75%	11	55	12	60	11	55	2	28	0	0	0	2	5
2018	2.75%	11	66	12	72	11	66	2	28	0	0	0	2	7
2019	2.75%	11	77	12	84	11	77	1	28	0	0	0	1	8
2020	2.75%	11	88	12	96	11	88	1	28	0	0	0	1	9
2021	2.75%	11	99	12	108	11	99	1	28	0	0	0	1	10
2022	2.75%	11	110	12	120	11	110	1	28	0	0	0	1	11
2023	2.75%	11	121	12	132	11	121	1	28	0	0	0	1	12
2024	2.75%	11	132	12	144	11	132	1	28	0	0	0	1	13
2025	2.75%	11	143	12	156	11	143	1	28	0	0	0	1	14
2026	2.75%	11	154	12	168	11	154	1	28	0	0	0	1	15
2027	2.75%	11	165	12	180	11	165	1	28	0	0	0	1	16
2028	2.75%	11	176	12	192	11	176	1	28	0	0	0	1	17
2029	2.75%	11	187	12	204	11	187	1	28	0	0	0	1	18
2030	2.75%	11	198	12	216	11	198	1	28	0	0	0	1	19
2031	2.75%	11	209	12	228	11	209	1	28	0	0	0	1	20
2032	2.75%	11	220	12	240	11	220	1	28	0	0	0	1	21
2033	2.75%	11	231	12	252	11	231	1	28	0	0	0	1	22
2034	2.75%	11	242	12	264	11	242	1	28	0	0	0	1	23
2035	2.75%	11	253	12	276	11	253	1	28	0	0	0	1	24
2036	2.75%	11	264	12	288	11	264	1	28	0	0	0	1	25
2037	2.75%	11	275	12	300	11	275	1	28	0	0	0	1	26
2038	2.75%	11	286	12	312	11	286	1	28	0	0	0	1	27
2039	2.75%	11	297	12	324	11	297	1	28	0	0	0	1	28
2040	2.75%	11	308	12	336	11	308	1	28	0	0	0	1	29
2041	2.75%	11	319	12	348	11	319	1	28	0	0	0	1	30
2042	2.75%	11	330	12	360	11	330	1	28	0	0	0	1	31
2043	2.75%	11	341	12	372	11	341	1	28	0	0	0	1	32

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE/ COST OF REMOVAL	2028
DEFERRED TAX DURING CONSTRUCTION (SHEETAGE 5)	(0)
TOTAL EQUITY AT YTD CANCELLED (SHEETAGE 5)	28
BOOK DEPR. RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM: MTRCO SECTED: NEW_MCO
 PROGRAM OWNER: Rutland Water Limited (Low Income New Construction)

(1)	(2)	(3)	(4)	(5) END OF YEAR PER CENT PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION £(000)	(5b)* ACCUMULATED DEF TAGES £(000)	(6) BEGINNING YEAR RATE BASE £(000)	(7) ENDING OF YEAR RATE BASE £(000)	(8) MID-YEAR RATE BASE £(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION £(000)	DEFERRED TAX £(000)						
2019	5.75%	11	0	283	12	(0)	294	292	298
2020	7.25%	21	4	273	24	(0)	292	277	285
2021	6.85%	19	3	261	16	(0)	277	261	269
2022	6.18%	18	3	249	47	2	261	247	254
2023	5.75%	16	2	237	19	5	247	233	240
2024	5.15%	15	2	226	71	6	233	219	226
2025	4.85%	14	1	214	35	3	219	206	213
2026	4.55%	13	1	202	35	3	206	193	200
2027	4.45%	13	1	199	197	9	193	181	187
2028	4.45%	13	1	178	119	10	181	169	174
2029	4.45%	13	1	166	131	11	168	155	162
2030	4.45%	13	1	154	142	12	155	143	149
2031	4.45%	13	1	142	154	13	143	130	136
2032	4.45%	13	1	131	166	13	130	117	124
2033	4.45%	13	1	119	178	14	117	105	111
2034	4.45%	13	1	107	190	15	105	92	98
2035	4.45%	13	1	95	202	16	92	79	85
2036	4.45%	13	1	83	214	17	79	66	73
2037	4.45%	13	1	71	226	17	66	54	60
2038	4.45%	13	1	59	237	18	54	41	47
2039	5.25%	6	(0)	47	249	17	41	31	36
2040	6.95%	0	(0)	36	261	12	31	23	27
2041	8.80%	0	(0)	24	273	8	23	15	19
2042	8.80%	0	(0)	12	285	4	17	8	11
2043	8.80%	0	(0)	(0)	297	0	8	0	4

* Column not specified in workbook

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT REPLACEMENT FACTOR	(4) CUMULATIVE REPLACEMENT FACTOR	(5) YEARLY DEPRECIATION FACTOR	(6) ANNUAL SEEDING (\$/AC)	(7) CUMULATIVE AVERAGE SEEDING (\$/AC)
2009	-10	0.00%	1.00%	0.00%	0.00	0.00
2010	-9	0.00%	1.00%	0.00%	0.00	0.00
2011	-8	0.00%	1.00%	0.00%	0.00	0.00
2012	-7	0.00%	1.00%	0.00%	0.00	0.00
2013	-6	0.00%	1.00%	0.00%	0.00	0.00
2014	-5	0.00%	1.00%	0.00%	0.00	0.00
2015	-4	0.00%	1.00%	0.00%	0.00	0.00
2016	-3	0.00%	1.00%	0.00%	0.00	0.00
2017	-2	0.00%	1.00%	0.00%	0.00	0.00
2018	-1	0.00%	1.00%	0.00%	0.00	0.00

100.00% 307.27												
YEAR	NO. YEARS BEFORE IN-SERVICE	(8) CUMULATIVE SEEDING WITH AFDC (\$/AC)	(9) DEBT AFDC (\$/AC)	(10) CUMULATIVE DEBT AFDC (\$/AC)	(11) TOTAL AFDC (\$/AC)	(12) CUMULATIVE TOTAL AFDC (\$/AC)	(13) CUMULATIVE CONSTRUCTION SEEDING (\$/AC)	(14) CUMULATIVE DEBT (\$/AC)	(15) TOTAL SEEDING (\$/AC)	(16) TOTAL AFDC (\$/AC)	(17) TOTAL SEEDING (\$/AC)	(18) TOTAL AFDC (\$/AC)
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	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2014	-5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2015	-4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2016	-3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2017	-2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2018	-1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

IN SERVICE YEAR	2019
PLANT COST	255,888,663
AFDC RATE	2.48%

	BOOK BASIS	BOOK BASIS FOR DEPT. FOC	BOOK BASIS
CONSTRUCTION CASE	253	253	253
DEBT AFDC	16	16	16
CC			
TOTAL	277	277	277

- Column sets per 02.12.12 workbook

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

1	2	3	4	5	6*	7	8	9
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UNBIASED AVERAGE SYSTEM FUEL COST (\$/GAL)	ADJUSTED MARGINAL FUEL COST (\$/GAL)	INCREASED MARGINAL FUEL COST (\$/GAL)	REPLACEMENT FUEL COST (\$/GAL)	PROBABLY EFFICIENCY FACTOR	PROGRAMMING EFFICIENCY FACTOR
2000	0	0	6.29	6.17	6.29	6.00	1.00	1.00
2001	20	20	6.41	6.29	6.41	6.00	1.00	1.00
2002	120	120	6.53	6.41	6.53	6.00	1.00	1.00
2003	400	400	6.65	6.53	6.65	6.00	1.00	1.00
2004	600	600	7.04	7.23	6.61	6.00	1.00	1.00
2005	800	800	7.53	7.63	6.67	6.00	1.00	1.00
2006	1000	1000	8.11	8.31	6.61	6.00	1.00	1.00
2007	1200	1200	9.80	9.51	11.85	6.00	1.00	1.00
2008	1400	1400	9.75	10.06	12.72	6.00	1.00	1.00
2009	1600	1600	10.82	11.04	13.58	6.00	1.00	1.00
2010	1800	1800	11.59	11.94	15.25	10.01	1.00	1.00
2011	2000	2000	12.08	12.57	15.88	10.00	1.00	1.00
2012	2200	2200	12.57	13.06	16.53	10.76	1.00	1.00
2013	2400	2400	13.06	13.55	17.14	10.81	1.00	1.00
2014	2600	2600	13.55	14.04	17.76	10.80	1.00	1.00
2015	2800	2800	13.95	14.47	17.92	10.84	1.00	1.00
2016	3000	3000	14.44	14.92	18.22	10.96	1.00	1.00
2017	3200	3200	14.78	15.19	18.32	11.05	1.00	1.00
2018	3400	3400	15.13	15.49	18.34	11.17	1.00	1.00
2019	3600	3600	15.48	15.85	18.51	11.36	1.00	1.00
2020	3800	3800	15.82	16.14	18.85	11.61	1.00	1.00
2021	4000	4000	16.32	16.92	19.26	11.59	1.00	1.00
2022	4200	4200	17.08	17.47	19.46	11.80	1.00	1.00
2023	4400	4400	17.50	17.84	19.72	11.99	1.00	1.00
2024	4600	4600	17.87	18.50	19.78	12.10	1.00	1.00
2025	4800	4800	18.25	18.86	19.88	12.14	1.00	1.00
2026	5000	5000	19.57	19.75	21.27	12.29	1.00	1.00
2027	5200	5200	20.40	20.54	22.30	12.35	1.00	1.00
2028	5400	5400	21.11	21.24	22.91	12.70	1.00	1.00
2029	5600	5600	22.02	22.16	23.86	13.04	1.00	1.00
2030	5800	5800	22.78	22.89	24.49	13.22	1.00	1.00
2031	6000	6000	23.49	23.68	25.04	13.44	1.00	1.00
2032	6200	6200	24.54	24.67	25.92	13.78	1.00	1.00
2033	6400	6400	25.50	25.59	26.94	14.10	1.00	1.00
2034	6600	6600	26.24	26.25	27.65	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 SHEDDING PROGRAMS WHICH SHUT CONSUMPTION TO OFF-PEAK PERIODS.
THE VALUES REPRESENT THE OFF-PEAK SYSTEM FUEL COST.

BUSINESS SOLAR WATER HEATING

INPUT DATA - PART I (CONTINUED)
PROGRAM METHOD DESCRIBED: REV. REQ.
PROGRAM NAME: Business Sales Water Heating

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER WATER REDUCTION AT METER	0.85 %
(2) GENERATOR WATER REDUCTION PER CUSTOMER	1.15 %
(3) WATER LOSS PERCENTAGE	8.66 %
(4) GENERATOR WATER REDUCTION PER CUSTOMER	3.92% 1/2
(5) WATER LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS PERCENTAGE	1.00 %
(7) CUSTOMER WATER INCREASE AT METER	0.00 %

II. ECONOMIC LIFE & X FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	15 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	15 YEARS
(4) X FACTOR FOR GENERATOR	1.7078
(5) X FACTOR FOR T & D	1.6254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY WORKING BILLS COST PER CUSTOMER	--- \$/CUST
(2) UTILITY REWORKING 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 COST ESCALATION RATE	--- %
(10) UTILITY DEBIT RATE	3.80 %
(11) UTILITY ADEQUATE	3.68 %
(12) UTILITY WORKING BILLS REBATE INCENTIVE	--- \$/CUST
(13) UTILITY REWORKING 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	2010/2011
(4) BASE YEAR AVOIDED GENERATING COST	715.30 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.52 \$/KW
(6) BASE YEAR DISTRIBUTION COST	28.64 \$/KW
(7) GEN. TRAN & DIST COST ESCALATION RATE	3.40 %
(8) GENERATOR FIXED O & M COST	97.46 \$/KW/YR
(9) GENERATOR FIXED O & M COST ESCALATION RATE	2.50 %
(10) TRANSMISSION FIXED O & M COST	2.82 \$/KW
(11) DISTRIBUTION FIXED O & M COST	1.41 \$/KW
(12) T&D FIXED O & M ESCALATION RATE	2.50 %
(13) AVOIDED GEN UNIT VARIANCE O & M COSTS	0.385 CENTS/KWH
(14) GENERATOR VARIANCE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	0% ** (in service year)
(16) AVOIDED GENERATING UNIT FUEL COST	2.23 CENTS/KWH ** (in service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.78 %

V. NONFUEL ENERGY AND DEMAND CHARGES

(1) NONFUEL COST IN CUSTOMER BILL	--- CENTS/KWH
(2) NONFUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CUSTOMER BILL	--- \$/KW/HR
(4) DEMAND CHARGE ESCALATION RATE	--- %

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

CALCULATION OF X-FACTOR
PROGRAMMED AND SELECTED KEY REQ
PROGRAMMED: Business Sales Water Heating

FOCFORM CELIA
 PAGE 1 OF 2

YEAR	(1) REQ-YEAR BASEBASE \$(000)	(2) DEBT \$(000)	(3) PREFERRED STOCK \$(000)	(4) COMMON EQUITY \$(000)	(5) INCOME TAXES \$(000)	(6) PROPERTY TAX \$(000)	(7) PROPERTY INSURANCE \$(000)	(8) DEPRECI- ATION \$(000)	(9) DEPRECI- ATION \$(000)	(10) TOTAL FUND CHANGES \$(000)	(11) PRESENT WORK XEROX CHARGES \$(000)	(12) CUMULATIVE FUNDING CHARGES \$(000)	(13) REPLACEMENT COST BASE FOR PROPERTY INSURANCE \$(000)
2010	296	10	0	21	24	5	2	12	0	64	64	64	227
2020	294	9	0	21	20	5	2	12	4	62	57	121	206
2021	293	9	0	19	20	5	2	10	3	60	50	171	191
2022	293	8	0	18	9	5	2	12	3	57	44	215	182
2023	293	8	0	17	9	4	2	12	2	55	39	254	179
2024	294	7	0	16	9	4	2	12	2	53	34	289	188
2025	221	7	0	15	9	4	2	12	1	51	30	319	196
2026	207	6	0	14	9	4	2	12	1	48	27	346	205
2027	194	6	0	14	8	3	2	12	1	46	24	369	204
2028	182	6	0	13	8	3	2	12	1	44	21	399	213
2029	169	5	0	12	7	3	2	12	1	42	18	408	202
2030	156	5	0	11	7	3	2	12	1	40	16	424	192
2031	143	4	0	10	6	3	2	12	1	38	14	438	182
2032	131	4	0	9	6	2	3	12	1	36	12	450	182
2033	113	4	0	8	5	2	3	12	1	34	10	460	182
2034	106	3	0	7	4	2	3	12	1	32	9	468	182
2035	92	3	0	6	4	2	3	12	1	30	8	477	182
2036	80	2	0	6	3	2	3	12	1	28	7	484	182
2037	67	2	0	5	3	1	3	12	1	26	6	494	182
2038	54	2	0	4	2	1	3	12	1	24	5	494	182
2039	41	1	0	3	2	1	3	12	(6)	22	4	498	182
2040	31	1	0	2	0	1	3	12	(6)	21	3	502	181
2041	23	1	0	2	0	0	3	12	(6)	20	3	505	181
2042	16	0	0	1	0	0	3	12	(6)	18	3	508	182
2043	8	0	0	1	0	(2)	3	12	(6)	17	2	510	180

IN SERVICE COST	\$(000)	227
IN SERVICE YEAR		2010
BOOKING (URS)		25
INSTR. TAX RATE		36.5%
PROPERTY TAX		2.9%
PROPERTY TAX		1.80%
PROPERTY INSURANCE		0.61%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	%
DEBT	40%	7.00	%
PS	6%	8.00	%
CE	50%	12.50	%

$$X-FACTOR = CF/PS/IN-SVC COST = 1.7073$$

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV. REC.
 PROGRAM/OWNER: Business Solar Water Heating

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(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/DEFER. FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEFERRED DEPRECIATION \$(000)	TOTAL EQUITY ADJUDG \$(000)	BOOK/DEFER. RATE MINUS LINES	(10)*(11) TAX RATE \$(000)	SAVINGS DROPPAGE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2017	3.75%	11	11	12	12	11	11	0	26	0	0	0	0	(0)
2018	7.22%	20	31	12	24	11	22	4	26	0	0	0	4	(0)
2019	6.68%	19	50	12	36	11	33	3	26	0	0	0	3	(0)
2020	6.18%	18	68	12	48	11	44	3	26	0	0	0	3	2
2021	5.71%	17	85	12	60	11	54	2	26	0	0	0	2	5
2022	5.29%	16	101	12	72	11	65	2	26	0	0	0	2	6
2023	4.89%	14	115	12	84	11	76	1	26	0	0	0	1	8
2024	4.52%	12	128	12	96	11	87	1	26	0	0	0	1	9
2025	4.18%	10	141	12	107	11	97	1	26	0	0	0	1	9
2026	3.86%	9	154	12	119	11	108	1	26	0	0	0	1	10
2027	3.56%	8	167	12	131	11	119	1	26	0	0	0	1	11
2028	3.28%	7	180	12	143	11	129	1	26	0	0	0	1	12
2029	3.02%	6	193	12	155	11	141	1	26	0	0	0	1	13
2030	2.78%	5	206	12	167	11	152	1	26	0	0	0	1	14
2031	2.55%	4	219	12	179	11	163	1	26	0	0	0	1	15
2032	2.34%	3	232	12	191	11	175	1	26	0	0	0	1	16
2033	2.14%	2	245	12	203	11	184	1	26	0	0	0	1	17
2034	1.95%	1	258	12	215	11	195	1	26	0	0	0	1	18
2035	1.77%	0	271	12	227	11	206	1	26	0	0	0	1	19
2036	1.60%	0	284	12	239	11	217	1	26	0	0	0	1	20
2037	1.44%	0	296	12	251	11	227	(0)	26	0	0	0	(0)	20
2038	1.29%	0	309	12	263	11	238	(0)	26	0	0	0	(0)	20
2039	1.15%	0	321	12	275	11	249	(0)	26	0	0	0	(0)	20
2040	1.02%	0	334	12	287	11	260	(0)	26	0	0	0	(0)	20
2041	0.90%	0	346	12	299	11	271	(0)	26	0	0	0	(0)	20

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE/ COST OF REMOVAL	130
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	26
TOTAL EQUITY ADJUDG CAPITALIZED (SEE PAGE 5)	26
BOOK/DEFER. RATE - POSSIBLE LIES	4.00%

DERIVED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM: QMTHD SELECTED: NY, NY
 PROGRAM CODE: Business Sales Water Heating

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(1)	(2)	(3)	(4)	(5) END OF YEAR NET EARTH SERVICE	(6)* ACCUMULATED DEPRECIATION \$(000)	(7)* ACCUMULATED DEPRECIATION \$(000)	(8) BEGINNING YEAR RATE BASE \$(000)	(9) ENDING OF YEAR RATE BASE \$(000)	(10) MID-YEAR RATE BASE \$(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DERIVED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEPRECIATION \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2017	5.75%	11	9	287	12	(9)	306	294	300
2018	5.75%	21	4	275	34	(6)	294	278	286
2019	6.88%	19	3	263	53	(3)	276	263	271
2020	6.88%	18	3	251	68	2	263	248	256
2021	5.75%	17	2	239	84	5	248	234	241
2022	5.75%	15	2	227	99	6	234	221	227
2023	4.89%	14	1	215	114	8	221	207	214
2024	4.89%	13	1	203	129	9	207	194	201
2025	4.89%	13	1	191	144	9	194	182	188
2026	4.89%	13	1	179	159	13	182	169	175
2027	4.89%	13	1	167	174	11	169	156	163
2028	4.89%	13	1	155	189	22	156	143	150
2029	4.89%	13	1	143	195	13	143	131	137
2030	4.89%	13	1	131	169	13	131	118	124
2031	4.89%	13	1	119	179	14	118	105	112
2032	4.89%	13	1	107	191	15	105	92	99
2033	4.89%	13	1	95	203	16	92	78	85
2034	4.89%	13	1	84	215	17	78	67	73
2035	4.89%	13	1	72	227	18	67	54	61
2036	4.89%	13	1	60	239	18	54	41	48
2037	2.27%	6	(3)	48	251	17	41	31	36
2038	0.00%	0	(5)	36	263	13	31	23	27
2039	0.00%	0	(5)	24	275	9	23	16	19
2040	0.00%	0	(5)	12	287	4	16	8	12
2041	0.00%	0	(5)	(3)	299	0	8	0	4

* Column not specified in worksheet

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(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT DEPLETION RATE	(4) CUMULATIVE DEPLETION FACTOR	(5) YEARLY EXPENDITURE (\$K)	(6) ANNUAL SPENDING (\$K)	(7) CUMULATIVE AVERAGE SPENDING (\$K)
2009	-10	3.00%	1.00	0.00%	0.00	0.00
2010	-9	3.00%	1.00	0.00%	0.00	0.00
2011	-8	3.00%	1.00	0.00%	0.00	0.00
2012	-7	3.00%	1.00	0.00%	0.00	0.00
2013	-6	3.00%	1.125	0.125%	1.125	1.125
2014	-5	3.00%	1.125	0.125%	1.125	1.125
2015	-4	3.00%	1.125	0.125%	1.125	1.125
2016	-3	3.00%	1.125	0.125%	1.125	1.125
2017	-2	3.00%	1.125	0.125%	1.125	1.125
2018	-1	3.00%	1.125	0.125%	1.125	1.125

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING (\$K)	(4) DEBT AFUDC (\$K)	(5) CUMULATIVE DEBT AFUDC (\$K)	(6) YEARLY TOTAL AFUDC (\$K)	(7) CUMULATIVE TOTAL AFUDC (\$K)	(8) CUMULATIVE INTEREST (\$K)	(9) CUMULATIVE CEI (\$K)	(10) DEBT DONES (\$K)	(11) CUMULATIVE DEBT DONES (\$K)	(12) INCREASING BOOK VALUE (\$K)	(13) CUMULATIVE INCREASING BOOK VALUE (\$K)
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2014	-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015	-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2016	-3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017	-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2018	-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IN SERVICE YEAR	2013
PLANT COSTS	223,389,815
AFUDC RATE	3.00%

	BOOKBASE	BOOKBASE FOR DEBT FOK	DOCRASIS
CONSTRUCTION CASE	223	223	223
EQUITY AFUDC	15	15	36
DEBT AFUDC			
CEI	229	271	259
TOTAL			

* Column not specified in worksheet

INPUT DATA - PART 2
 PROGRAM CONTROLLED SCHEDULE: KEY REQ
 PROGRAM NAME: District Solar Water Heating

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 PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/GWH)	AVOIDED MARGINAL FUEL COST (\$/GWH)	INCREASED MARGINAL FUEL COST (\$/GWH)	REPLACEMENT FUEL COST (\$/GWH)	PROGRAM W EFFECTIVENESS FACTOR	PROGRAM W EFFECTIVENESS FACTOR
2009	0	0	6.79	8.17	6.29	8.90	1.00	1.00
2010	11	11	6.41	8.33	6.80	8.80	1.00	1.00
2011	54	54	6.35	8.15	6.78	8.99	1.00	1.00
2012	104	104	6.43	8.09	6.74	8.98	1.00	1.00
2013	169	169	7.86	8.17	7.28	8.80	1.00	1.00
2014	244	244	7.53	8.46	7.73	8.90	1.00	1.00
2015	244	244	8.11	8.29	8.37	8.90	1.00	1.00
2016	244	244	9.00	11.84	9.41	8.90	1.00	1.00
2017	244	244	9.75	12.12	10.17	8.90	1.00	1.00
2018	244	244	10.32	12.96	10.97	8.90	1.00	1.00
2019	244	244	11.50	14.57	12.88	10.41	1.00	1.00
2020	244	244	12.03	15.31	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	16.90	13.73	10.82	1.00	1.00
2023	244	244	13.39	16.54	14.34	10.88	1.00	1.00
2024	244	244	13.75	16.98	14.61	10.84	1.00	1.00
2025	244	244	14.40	17.48	15.36	10.96	1.00	1.00
2026	244	244	14.76	17.52	15.33	11.05	1.00	1.00
2027	244	244	15.13	17.74	15.73	11.17	1.00	1.00
2028	244	244	15.60	18.00	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	16.51	18.50	17.03	11.59	1.00	1.00
2031	244	244	17.00	19.27	17.59	11.80	1.00	1.00
2032	244	244	17.50	19.14	17.93	11.98	1.00	1.00
2033	244	244	18.07	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	19.37	20.92	19.82	12.29	1.00	1.00
2036	244	244	20.40	21.89	20.82	12.55	1.00	1.00
2037	244	244	21.11	22.47	21.31	12.79	1.00	1.00
2038	244	244	22.02	23.40	22.23	13.04	1.00	1.00
2039	244	244	22.28	24.65	23.95	13.32	1.00	1.00
2040	244	244	23.09	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	25.29	26.54	25.63	14.10	1.00	1.00
2043	244	244	26.74	28.13	26.93	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 T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NOTES: District Solar Winter Heating

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

[illegible]

RESIDENTIAL PHOTOVOLTAICS

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29-Jun-10

INPUT DATA - PART 1 CONTINUED
PROGRAM/OBJECTID: SUSTAIN/NEW_PRR
PROGRAM NAME: Sustainable Technologies (TV)

I. PROGRAMMING AND SAVINGS & LINE LOSSES

(1) CUSTOMER KV REDUCTION AT METER	1.45 KV
(2) GENERATOR KV REDUCTION PER CUSTOMER	1.94 KV
(3) KV LINE LOSS PERCENTAGE	8.86 %
(4) GENERATOR KV REDUCTION PER CUSTOMER	5.77 AS KVA
(5) KVA LINE LOSS PERCENTAGE	6.96 %
(6) GROUP LINE LOSS PERCENTAGE	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.50 KVA

II. ECONOMICITY & FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	20 YEARS
(3) LAD ECONOMIC LIFE	25 YEARS
(4) K FACTOR FOR GENERATION	1.7638
(5) K FACTOR FOR T & D	1.6204

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
(7) CUSTOMER O & M COST ESCALATION RATE	--- %
(8) INCREASED SUPPLY COSTS	--- \$/CUST
(9) SUPPLY COST ESCALATION RATE	--- %
(10) UTILITY DISCOUNT RATE	3.29 %
(11) UTILITY AVERAGE 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	2010
(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	181.52 \$/KW
(6) BASE YEAR DISTRIBUTION COST	28.64 \$/KW
(7) GEN. TRANS. ADJUST. COST ESCALATION RATE	2.88 %
(8) GENERATOR FIXED O & M COST	57.45 \$/KW/YR
(9) GENERATOR FIXED O & M COST ESCALATION RATE	2.88 %
(10) TRANSMISSION FIXED O & M COST	2.82 \$/KW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/KW
(12) T&D FIXED O & M COST ESCALATION RATE	2.50 %
(13) AVOIDED GENERATOR VARIABLE O & M COSTS	0.105 \$/KW/YR
(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 \$/KW/YR ** (in-service year)
(17) AVOIDED GENERATOR FUEL COST ESCALATION RATE	4.70 %

V. NON-FUEL ENERGY AND DEMAND CHANGES

(1) NONFUEL COST IN CONSUMER BILL	--- \$/CUST/YR
(2) NONFUEL COST ESCALATION RATE	--- %
(3) DEMAND CHARGE IN CONSUMER BILL	--- \$/KW/YR
(4) DEMAND CHARGE ESCALATION RATE	--- %

* INPUT DATA - PART 1 CONTINUED
PROGRAM: A/C SERVICE ELECTED-NEW RES
PROGRAM NAME: Residential Electrician (FV)

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 CONSUMPTION REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2000	0	0	0	0	0	0	0	0	0	0
2010	472	918	0	1,402	25	0	4,498	21	0	4,539
2011	371	2,787	0	3,338	273	0	21,941	263	0	24,284
2012	379	2,787	0	3,336	481	0	14,339	393	0	14,952
2013	372	2,787	0	3,319	632	0	14,339	544	0	15,236
2014	374	2,787	0	3,331	786	0	15,234	1,045	0	16,337
2015	0	0	0	0	1,189	0	0	1,519	0	1,519
2016	0	0	0	0	1,147	0	0	1,548	0	1,548
2017	0	0	0	0	1,139	0	0	1,387	0	1,387
2018	0	0	0	0	1,145	0	0	1,426	0	1,426
2019	0	0	0	0	1,139	0	0	1,467	0	1,467
2020	0	0	0	0	1,125	0	0	1,769	0	1,769
2021	0	0	0	0	1,193	0	0	1,731	0	1,731
2022	0	0	0	0	1,123	0	0	1,795	0	1,795
2023	0	0	0	0	1,368	0	0	1,840	0	1,840
2024	0	0	0	0	1,399	0	0	1,886	0	1,886
2025	0	0	0	0	1,333	0	0	1,933	0	1,933
2026	0	0	0	0	1,377	0	0	1,981	0	1,981
2027	0	0	0	0	1,440	0	0	2,031	0	2,031
2028	0	0	0	0	1,433	0	0	2,082	0	2,082
2029	0	0	0	0	1,545	0	0	2,134	0	2,134
2030	0	0	0	0	1,598	0	7,888	2,071	0	10,159
2031	0	0	0	0	2,154	0	24,446	2,580	0	26,946
2032	0	0	0	0	2,266	0	25,329	2,593	0	27,922
2033	0	0	0	0	2,423	0	25,934	2,627	0	28,561
2034	0	0	0	0	2,482	0	26,712	2,673	0	29,405
2035	0	0	0	0	2,598	0	0	2,674	0	2,674
2036	0	0	0	0	2,446	0	0	2,536	0	2,536
2037	0	0	0	0	2,561	0	0	2,690	0	2,690
2038	0	0	0	0	2,377	0	0	2,685	0	2,685
2039	0	0	0	0	2,996	0	0	2,731	0	2,731
2040	0	0	0	0	3,022	0	0	2,800	0	2,800
2041	0	0	0	0	3,161	0	0	2,870	0	2,870
2042	0	0	0	0	3,308	0	0	2,941	0	2,941
2043	0	0	0	0	3,405	0	0	3,015	0	3,015
2044	0	0	0	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0
2051	0	0	0	0	0	0	0	0	0	0
2052	0	0	0	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0	0
2065	0	0	0	0	0	0	0	0	0	0
2066	0	0	0	0	0	0	0	0	0	0
2067	0	0	0	0	0	0	0	0	0	0
2068	0	0	0	0	0	0	0	0	0	0
2069	0	0	0	0	0	0	0	0	0	0
2070	0	0	0	0	0	0	0	0	0	0
2071	0	0	0	0	0	0	0	0	0	0
2072	0	0	0	0	0	0	0	0	0	0
2073	0	0	0	0	0	0	0	0	0	0
2074	0	0	0	0	0	0	0	0	0	0
2075	0	0	0	0	0	0	0	0	0	0
2076	0	0	0	0	0	0	0	0	0	0
2077	0	0	0	0	0	0	0	0	0	0
2078	0	0	0	0	0	0	0	0	0	0
2079	0	0	0	0	0	0	0	0	0	0
2080	0	0	0	0	0	0	0	0	0	0
2081	0	0	0	0	0	0	0	0	0	0
2082	0	0	0	0	0	0	0	0	0	0
2083	0	0	0	0	0	0	0	0	0	0
2084	0	0	0	0	0	0	0	0	0	0
2085	0	0	0	0	0	0	0	0	0	0
2086	0	0	0	0	0	0	0	0	0	0
2087	0	0	0	0	0	0	0	0	0	0
2088	0	0	0	0	0	0	0	0	0	0
2089	0	0	0	0	0	0	0	0	0	0
2090	0	0	0	0	0	0	0	0	0	0
2091	0	0	0	0	0	0	0	0	0	0
2092	0	0	0	0	0	0	0	0	0	0
2093	0	0	0	0	0	0	0	0	0	0
2094	0	0	0	0	0	0	0	0	0	0
2095	0	0	0	0	0	0	0	0	0	0
2096	0	0	0	0	0	0	0	0	0	0
2097	0	0	0	0	0	0	0	0	0	0
2098	0	0	0	0	0	0	0	0	0	0
2099	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0
TOTAL	2,183	11,899	0	14,087	58,326	0	122,982	67,514	0	340,496
NPV	1,734	9,698	0	11,796	11,680	0	62,633	15,172	0	77,833

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR ITC AND EMTAS

CALCULATION OF GEM/FACR
PROGRAMMED SELECTED KEY REQ
PROGRAM CODE: Estimated Photovoltaic (PV)

YEAR	(2) REG-YEAR RATEBASE \$(000)	(3) DEBT \$(000)	(4) EXPENDED STOCK \$(000)	(5) COMMON EQUITY \$(000)	(6) INCOME TAXES \$(000)	(7) PROPERTY TAX \$(000)	(8) PROPERTY INSURANCE \$(000)	(9) DEPRIC. \$(000)	(10) DEFERRED TAXES \$(000)	(11) TOTAL EFFECT CHANGES \$(000)	(12) PRESENT WORTH EFFECT CHANGES \$(000)	(13) CUMULATIVE PRESENT WORTH CHANGES \$(000)	(14) NET-ACBENT COST-BASE FOR PROPERTY INSURANCE \$(000)
2019	3,129	57	0	228	144	33	19	122	0	61	61	61	3,042
2020	2,998	53	0	209	39	30	19	122	40	62	123	1,122	3,119
2021	2,836	88	0	198	32	48	19	122	34	67	157	1,294	3,197
2022	2,681	33	0	187	57	46	26	122	28	53	185	1,395	3,296
2023	2,531	29	0	177	95	44	26	122	21	39	206	1,493	3,388
2024	2,387	74	0	167	94	42	31	122	18	37	221	1,595	3,482
2025	2,247	70	0	157	92	39	22	122	13	35	230	1,692	3,577
2026	2,113	66	0	147	91	37	22	122	9	44	232	1,785	3,677
2027	1,982	62	0	138	88	35	23	122	8	43	239	1,874	3,777
2028	1,852	58	0	129	88	33	23	122	8	43	239	1,974	3,880
2029	1,722	53	0	120	74	31	24	122	8	42	235	2,074	3,985
2030	1,592	49	0	111	69	28	24	122	8	42	231	2,174	4,092
2031	1,462	45	0	102	63	26	25	122	8	41	223	2,274	4,194
2032	1,331	41	0	93	57	24	26	122	8	41	217	2,374	4,299
2033	1,201	37	0	84	51	22	26	122	8	40	212	2,474	4,406
2034	1,071	33	0	75	46	20	27	122	8	40	207	2,574	4,517
2035	941	29	0	66	40	18	27	122	8	40	203	2,674	4,629
2036	811	25	0	57	34	15	28	122	8	40	200	2,774	4,745
2037	681	21	0	48	29	13	29	122	8	40	200	2,874	4,864
2038	551	17	0	38	23	11	30	122	8	40	200	2,974	4,985
2039	421	13	0	29	18	9	30	122	(37)	229	42	3,000	5,110
2040	307	10	0	22	14	7	31	122	(35)	222	34	3,115	5,238
2041	207	7	0	17	10	4	32	122	(33)	206	31	3,146	5,368
2042	158	5	0	11	7	2	33	122	(33)	187	26	3,172	5,500
2043	79	2	0	6	3	(5)	34	122	(33)	174	23	3,195	5,632

IN SERVICE COST (\$000)	3,042
DE SERVICE YEAR	2019
PROPERTY TAXES	25
DEFERRED TAXES	31.51
DISCOUNT RATE	2.5%
PROPERTY TAX	1.89%
PROPERTY INSURANCE	0.62%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	44%	7.50
EQUITY	56%	8.50
GT	50%	12.50

X/FACR - CF/FC/IS-SVC COST =

1.7018

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/PROJECT SELECTED: RES/ RESQ
 PROGRAM/PROJECT: Residential Properties (FV)

PGCFORM CE 1.1A
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(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 DEFERRED TAX \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK/DEPR. RATE MINUS ZERO	(12)/(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	2.75%	111	111	122	232	110	110	0	284	0	0	0	0	(77)
2020	7.25%	214	325	122	245	110	221	40	284	0	0	0	40	(37)
2021	6.88%	198	523	122	365	110	331	34	284	0	0	0	34	(3)
2022	6.38%	183	706	122	487	110	441	28	284	0	0	0	28	24
2023	5.75%	169	874	122	606	110	550	23	284	0	0	0	23	47
2024	5.09%	156	1,030	122	729	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	4.40%	132	1,441	122	1,095	110	993	8	284	0	0	0	8	95
2028	4.40%	130	1,573	122	1,217	110	1,103	8	284	0	0	0	8	104
2029	4.40%	128	1,705	122	1,339	110	1,214	8	284	0	0	0	8	112
2030	4.40%	126	1,837	122	1,460	110	1,324	8	284	0	0	0	8	120
2031	4.40%	124	1,969	122	1,582	110	1,434	8	284	0	0	0	8	128
2032	4.40%	122	2,101	122	1,704	110	1,545	8	284	0	0	0	8	136
2033	4.40%	120	2,233	122	1,825	110	1,655	8	284	0	0	0	8	144
2034	4.40%	118	2,365	122	1,947	110	1,765	8	284	0	0	0	8	152
2035	4.40%	116	2,497	122	2,069	110	1,876	8	284	0	0	0	8	160
2036	4.40%	114	2,629	122	2,191	110	1,986	8	284	0	0	0	8	168
2037	4.40%	112	2,761	122	2,312	110	2,096	8	284	0	0	0	8	176
2038	4.40%	110	2,893	122	2,434	110	2,207	8	284	0	0	0	8	184
2039	2.25%	66	2,959	122	2,500	110	2,317	8	284	0	0	0	8	192
2040	0.00%	0	2,959	122	2,617	110	2,427	(2)	284	0	0	0	0	190
2041	0.00%	0	2,959	122	2,739	110	2,537	(8)	284	0	0	0	0	182
2042	0.00%	0	2,959	122	2,859	110	2,648	(14)	284	0	0	0	0	168
2043	0.00%	0	2,959	122	2,982	110	2,758	(20)	284	0	0	0	0	148

RECYCLE/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 - INTERPOLATED	4.00%

DERIVED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM: DERIVED TAX AND MID-YEAR RATE BASE
 PROGRAM: DERIVED TAX AND MID-YEAR RATE BASE

FORM 990
 PAGE 2 OF 2

(1)	(2)	(3)	(4)	(5) END OF YEAR NET ELECTION SERVICE \$ (000)	(6) ACCUMULATED DEPRECIATION \$ (000)	(7) ACCUMULATED DEFERRED \$ (000)	(8) END OF YEAR RATE BASE \$ (000)	(9) END OF YEAR RATE BASE \$ (000)	(10) MID-YEAR RATE BASE \$ (000)
YEAR	TAX DEPRECIATION \$ (000)	TAX DEPRECIATION \$ (000)	DERIVED TAX \$ (000)						
2019	3,756	111	0	2,581	122	(77)	2,580	2,598	2,639
2020	7,226	234	40	2,709	263	(27)	2,998	2,836	2,927
2021	6,686	198	34	2,677	365	(6)	2,896	2,881	2,739
2022	6,186	183	28	2,596	487	24	2,881	2,531	2,696
2023	5,715	169	23	2,434	608	47	2,531	2,387	2,459
2024	5,255	156	19	2,332	739	63	2,387	2,247	2,317
2025	4,805	145	23	2,191	882	78	2,247	2,133	2,180
2026	4,356	134	3	2,049	974	87	2,133	1,982	2,047
2027	4,464	122	3	1,947	1,065	95	1,982	1,832	1,917
2028	4,464	102	3	1,823	1,217	104	1,832	1,722	1,787
2029	4,464	132	3	1,784	1,339	112	1,722	1,592	1,637
2030	4,464	132	3	1,583	1,460	121	1,592	1,442	1,527
2031	4,464	132	3	1,460	1,582	129	1,442	1,331	1,397
2032	4,464	132	3	1,339	1,704	137	1,331	1,281	1,268
2033	4,464	132	3	1,227	1,825	146	1,281	1,071	1,136
2034	4,464	132	3	1,085	1,947	154	1,071	941	1,006
2035	4,464	132	3	974	2,069	162	941	811	876
2036	4,464	132	3	832	2,151	171	811	681	746
2037	4,464	132	3	739	2,232	179	681	551	616
2038	4,464	132	3	628	2,354	187	551	421	486
2039	2,239	66	(77)	487	2,434	196	421	337	369
2040	0.00%	0	(60)	365	2,677	204	337	237	277
2041	0.00%	0	(63)	263	2,709	212	237	158	198
2042	0.00%	0	(65)	228	2,596	220	158	79	119
2043	0.00%	0	(63)	(0)	2,434	228	79	0	48

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM/UNITED SELECTED: RES/REQ
 PROGRAM/NAME: Residential/Photovoltaics (PV)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM/AV EFFECTIVENESS FACTOR	PROGRAM/AV EFFECTIVENESS FACTOR
2000	0	0	6.79	3.17	6.79	0.00	0.59	0.59
2001	123	123	6.41	2.02	6.99	0.00	0.59	0.59
2002	453	453	6.35	7.75	6.85	0.00	0.58	0.58
2003	793	793	6.43	7.77	6.85	0.00	0.57	0.57
2004	1,133	1,133	7.06	7.94	7.38	0.00	0.57	0.57
2005	1,473	1,473	7.58	8.38	7.89	0.00	0.56	0.56
2006	1,473	1,473	8.11	9.85	8.45	0.00	0.56	0.56
2007	1,473	1,473	8.68	10.40	9.54	0.00	0.55	0.55
2008	1,473	1,473	9.25	11.46	10.51	0.00	0.54	0.54
2009	1,473	1,473	10.23	12.51	11.12	0.00	0.54	0.54
2010	1,473	1,473	11.50	14.01	12.53	10.41	0.53	0.53
2011	1,473	1,473	12.08	14.63	12.52	10.59	0.52	0.52
2012	1,473	1,473	12.57	15.34	12.87	10.74	0.52	0.52
2013	1,473	1,473	13.06	15.79	13.07	10.81	0.51	0.51
2014	1,473	1,473	13.59	16.87	14.16	10.90	0.51	0.51
2015	1,473	1,473	13.95	16.47	14.74	10.94	0.51	0.51
2016	1,473	1,473	14.40	16.94	15.19	10.96	0.51	0.51
2017	1,473	1,473	14.78	17.46	15.45	11.05	0.50	0.50
2018	1,473	1,473	15.13	17.58	15.84	11.17	0.50	0.50
2019	1,473	1,473	15.60	17.77	16.06	11.36	0.50	0.50
2020	1,473	1,473	16.02	17.90	16.62	11.41	0.50	0.50
2021	1,473	1,473	16.52	18.19	17.15	11.59	0.50	0.50
2022	1,473	1,473	17.08	18.66	17.77	11.80	0.50	0.50
2023	1,473	1,473	17.59	18.74	18.27	11.88	0.50	0.50
2024	1,473	1,473	18.27	19.43	18.74	12.10	0.50	0.50
2025	1,473	1,473	18.75	19.53	19.02	12.14	0.50	0.50
2026	1,473	1,473	19.57	20.59	19.94	12.29	0.50	0.50
2027	1,473	1,473	20.44	21.53	20.73	12.55	0.50	0.50
2028	1,473	1,473	21.11	22.14	21.43	12.70	0.50	0.50
2029	1,473	1,473	21.62	22.06	22.56	13.04	0.50	0.50
2030	1,473	1,473	22.78	22.71	23.11	13.32	0.50	0.50
2040	1,473	1,473	23.39	24.49	23.89	13.44	0.50	0.50
2041	1,473	1,473	24.54	25.33	24.82	13.75	0.50	0.50
2042	1,473	1,473	25.39	26.39	25.75	14.10	0.50	0.50
2043	1,473	1,473	26.74	27.34	27.07	14.40	0.50	0.50
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.

	0	0	0	0	0	0
NRBL	9359	11,972	720	57,458	61,691	27,466
NRV*	2,906	1,883	257	3,794	9,381	3,110

AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD: SIMULATED NEW REQ
PROGRAM NAME: Residential Photovoltaics (PV)

PSC FORM CE-2.2
PAGE 1 OF 1

[illegible]

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

[illegible]

PARTICIPANT COSTS AND BENEFITS
PROGRAM/METHOD SELECTED: REV_REQ
PROGRAM NAME: Restimul Photovoltaics (PV)

PSC FORM 0824
PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PACHING WARE	TICK CREDITS	UTILITY MATERIALS	OTHER REVENUES	TOTAL REVENUES	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET REVENUES	CUMULATIVE DISCOUNTED NET REVENUES
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	44	2,308	510	0	3,862	4,498	51	0	4,550	(1,287)	(1,287)
2011	228	2,043	1,747	0	10,819	13,941	263	0	14,204	(4,186)	(4,723)
2012	228	1,144	2,747	0	10,419	14,539	393	0	14,932	(4,518)	(8,241)
2013	858	1,947	1,747	0	10,851	14,799	390	0	15,190	(4,338)	(11,604)
2014	1,022	1,232	2,747	0	11,331	15,094	1,303	0	16,397	(3,296)	(15,095)
2015	1,459	0	0	0	1,459	0	1,510	0	1,510	(31)	(15,126)
2016	1,509	0	0	0	1,509	0	1,548	0	1,548	(29)	(15,157)
2017	1,564	0	0	0	1,564	0	1,587	0	1,587	(23)	(15,180)
2018	1,596	0	0	0	1,596	0	1,626	0	1,626	(23)	(15,204)
2019	1,651	0	0	0	1,651	0	1,667	0	1,667	(16)	(15,220)
2020	1,546	0	0	0	1,546	0	1,709	0	1,709	(163)	(15,383)
2021	1,569	0	0	0	1,569	0	1,751	0	1,751	(182)	(15,565)
2022	1,694	0	0	0	1,694	0	1,795	0	1,795	(191)	(15,756)
2023	1,642	0	0	0	1,642	0	1,840	0	1,840	(198)	(15,954)
2024	1,794	0	0	0	1,794	0	1,885	0	1,885	(182)	(16,137)
2025	1,754	0	0	0	1,754	0	1,933	0	1,933	(127)	(16,264)
2026	1,812	0	0	0	1,812	0	1,981	0	1,981	(165)	(16,429)
2027	1,895	0	0	0	1,895	0	2,031	0	2,031	(136)	(16,565)
2028	1,939	0	0	0	1,939	0	2,082	0	2,082	(123)	(16,706)
2029	2,033	0	0	0	2,033	0	2,134	0	2,134	(100)	(16,794)
2030	2,539	1,141	0	0	5,680	7,988	2,371	0	10,359	(4,473)	(16,499)
2031	2,834	5,511	0	0	12,445	20,446	2,500	0	26,946	(14,591)	(18,702)
2032	2,982	9,776	0	0	12,757	21,179	2,563	0	27,742	(14,983)	(20,814)
2033	3,027	9,945	0	0	13,172	21,804	2,627	0	28,431	(15,390)	(22,611)
2034	3,245	10,118	0	0	13,364	22,722	2,693	0	28,405	(16,023)	(24,727)
2035	3,624	0	0	0	3,624	0	2,694	549	3,283	0	(24,677)
2036	3,819	0	0	0	3,819	0	2,536	0	2,536	683	(24,589)
2037	3,169	0	0	0	3,169	0	2,690	0	2,690	769	(24,528)
2038	3,688	0	0	0	3,688	0	2,685	0	2,685	1,015	(24,463)
2039	3,834	0	0	0	3,834	0	2,731	0	2,731	1,092	(24,347)
2040	3,976	0	0	0	3,976	0	2,800	0	2,800	1,174	(24,253)
2041	4,159	0	0	0	4,159	0	2,870	0	2,870	1,289	(24,179)
2042	4,353	0	0	0	4,353	0	2,941	0	2,941	1,412	(24,094)
2043	4,568	0	0	0	4,568	0	3,015	0	3,015	1,545	(24,008)
0	0	0</									

In Service of Gen Unit:
Discrepancy Date :
Bureau Cost Code (Col(6) / Col(7))

2019	
2.29	x
0.69	

BUSINESS PHOTOVOLTAICS

INPUT DATA - PART 1 CONTINUED
PROGRAM COSTS: SECONDARY REQ
PROGRAM NAME: Bureau Photovoltaic (PV)

PSYCHOMACEI
PAGE 1 OF 1

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	6.66 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.15 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	1.294.99 KVA
(5) KW LINE LOSS PERCENTAGE	6.99 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KW INCREASE AT METER	0.00 KVA

II. ECONOMIC LIFE & FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) TAD ECONOMIC LIFE	35 YEARS
(4) FACTOR FOR GENERATION	1.7778
(5) FACTOR FOR T & D	1.6329

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 COST ESCALATION RATE	--- %
(10) UTILITY DISCOUNT RATE	3.88 %
(11) UTILITY AFD CRATE	3.48 %
(12) UTILITY NON-RECURRING REBATE INCENTIVE	--- \$COST
(13) UTILITY RECURRING REBATE INCENTIVE	--- \$COST
(14) UTILITY REBATE NON-RECURRING ESCALATION RATE	--- %

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

IV. AVOIDED GENERATOR AND TAD COSTS

(1) BASE YEAR	2009
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2019
(3) IN-SERVICE YEAR FOR AVOIDED TAD	2023.0019
(4) BASE YEAR AVOIDED GENERATING COST	225.39 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.22 \$/KW
(6) BASE YEAR DISTRIBUTION COST	28.04 \$/KW
(7) GEN. TRANS. & 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) TAD FIXED O & M ESCALATION RATE	2.50 %
(13) AVOIDED GEN/FUEL VARIANCE O & M COSTS	8.106 \$/KW/YR
(14) GENERATOR VARIANCE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	0% (in-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.35 \$/KW/YR (in-service year)
(17) AVOIDED GEN/FUEL FUEL COST ESCALATION RATE	4.78 %

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	--- \$/KW/YR
(2) NON-FUEL COST ESCALATION RATE	--- %
(3) DELAYED CHARGE IN CUSTOMER BILL	--- \$/KW/YR
(4) DELAYED CHARGE ESCALATION RATE	--- %

CALCULATION OF GENE-FACTOR
PROGRAMMED SELECTED KEY FIG.
PROBABILITY OF Business Performance (P)

PG FORM C-11A
 PAGE 1 OF 2

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	BASE-PRICE \$ (000)	DEBT \$ (000)	DEFERRED STOCK \$ (000)	COMBINATION STOCK \$ (000)	INCOME TAXES \$ (000)	PROPERTY TAX \$ (000)	PROPERTY INSURANCE \$ (000)	INTEREST \$ (000)	DEPRECIATION TAXES \$ (000)	TOTAL FIXED CHARGES \$ (000)	PRESENT WORK FIXED CHARGES \$ (000)	CUMULATIVE FIXED CHARGES \$ (000)	REPLACEMENT COST BASE FOR PROPERTY INSURANCE \$ (000)
2019	2,661	43	0	186	122	43	16	104	8	233	335	335	2,335
2020	2,537	39	0	178	84	43	16	104	84	329	455	1,039	2,699
2021	2,419	35	0	169	83	41	17	104	29	328	437	1,487	2,725
2022	2,285	31	0	160	82	39	17	104	24	328	395	1,882	2,794
2023	2,159	27	0	151	81	37	17	104	19	327	359	2,231	2,864
2024	2,036	23	0	142	80	35	18	104	15	326	329	2,559	2,936
2025	1,917	19	0	134	79	34	18	104	11	325	303	2,862	3,008
2026	1,800	16	0	126	77	32	19	104	8	324	283	3,146	3,084
2027	1,686	13	0	118	75	30	19	104	7	323	264	3,411	3,161
2028	1,579	10	0	110	73	28	20	104	7	322	244	3,655	3,240
2029	1,468	8	0	102	71	26	20	104	7	321	224	3,889	3,321
2030	1,357	6	0	95	69	24	21	104	7	320	204	4,113	3,404
2031	1,246	5	0	87	67	22	21	104	7	319	184	4,328	3,490
2032	1,136	4	0	79	65	20	22	104	7	318	164	4,533	3,577
2033	1,025	3	0	72	63	18	22	104	7	317	144	4,738	3,666
2034	914	2	0	64	61	17	23	104	7	316	124	4,943	3,758
2035	803	1	0	56	59	15	23	104	7	315	104	5,148	3,852
2036	692	0	0	48	57	13	24	104	7	314	84	5,353	3,948
2037	581	0	0	41	54	11	25	104	7	313	64	5,558	4,047
2038	470	0	0	33	50	9	26	104	7	312	44	5,763	4,148
2039	359	0	0	25	46	7	26	104	(15)	311	24	5,968	4,252
2040	248	0	0	17	42	5	27	104	(30)	310	4	6,173	4,358
2041	137	0	0	9	38	4	27	104	(45)	309	(11)	6,378	4,467
2042	26	0	0	1	34	2	28	104	(60)	308	(26)	6,583	4,579
2043	15	0	0	0	30	1	29	104	(75)	307	(41)	6,788	4,693

IN SERVICE COST (000)	2,595
IN SERVICE YEAR	2019
BOOKING (000)	75
DEPR. RATE	28.33%
DISCOUNT RATE	2.5%
PROPERTY TAX	1.08%
PROPERTY INSURANCE	0.62%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	40%	7.18%
E/E	60%	8.00%
CF	50%	11.50%

REACTOR - CF/DEBT/IN-SVC COST = 1.7078

DEFERRED TAX AND MID-YEAR RAINBASE CALCULATION
PROGRAM/METHOD SELECTED/REQ
PROGRAM NAME: Defense Pharmaceuticals (P)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEFERRED SCHEDULE	TAX DEFERRED S(000)	ACCUMULATED TAX DEFERRED S(000)	BOOK DEFERRED S(000)	ACCUMULATED BOOK DEFERRED S(000)	BOOK DEFERRED TAX S(000)	ACCUMULATED BOOK DEFERRED TAX S(000)	DEFERRED TAX DUE TO DEFERRED S(000)	TOTAL EQUITY ADJDC S(000)	BOOK/DEFERRED RATE MONTHLY MORE	(10)*(11) TAX RATE S(000)	SALVAGE TAX RATE S(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) S(000)	ACCUMULATED DEFERRED TAX S(000)
2019	1.75%	35	35	104	104	34	34	4	262	0	0	0	0	(36)
2020	7.50%	152	277	104	208	34	152	24	262	0	0	0	24	(32)
2021	6.50%	156	445	104	312	34	286	29	262	0	0	0	27	(5)
2022	6.10%	156	601	104	415	34	320	26	262	0	0	0	24	21
2023	5.71%	144	745	104	519	34	471	19	261	0	0	0	19	40
2024	5.29%	133	879	104	623	34	505	15	262	0	0	0	15	55
2025	4.89%	123	1,002	104	727	34	639	11	262	0	0	0	11	67
2026	4.52%	114	1,116	104	830	34	753	8	262	0	0	0	8	74
2027	4.16%	113	1,229	104	934	34	867	7	262	0	0	0	7	81
2028	4.40%	113	1,341	104	1,038	34	941	7	262	0	0	0	7	89
2029	4.40%	113	1,454	104	1,142	34	1,055	7	262	0	0	0	7	96
2030	4.40%	113	1,567	104	1,245	34	1,169	7	262	0	0	0	7	103
2031	4.40%	113	1,679	104	1,349	34	1,273	7	262	0	0	0	7	110
2032	4.40%	113	1,792	104	1,453	34	1,377	7	262	0	0	0	7	117
2033	4.40%	113	1,904	104	1,557	34	1,481	7	262	0	0	0	7	124
2034	4.40%	113	2,017	104	1,660	34	1,585	7	262	0	0	0	7	131
2035	4.40%	113	2,129	104	1,764	34	1,689	7	262	0	0	0	7	138
2036	4.40%	113	2,242	104	1,868	34	1,793	7	262	0	0	0	7	145
2037	4.40%	113	2,354	104	1,972	34	1,897	7	262	0	0	0	7	153
2038	4.40%	113	2,467	104	2,076	34	1,999	7	262	0	0	0	7	160
2039	2.23%	56	2,523	104	2,132	34	2,055	(15)	262	0	0	0	(15)	145
2040	0.00%	0	2,523	104	2,233	34	2,079	(26)	262	0	0	0	(26)	119
2041	0.00%	0	2,523	104	2,337	34	2,183	(26)	262	0	0	0	(26)	73
2042	0.00%	0	2,523	104	2,441	34	2,287	(26)	262	0	0	0	(26)	46
2043	0.00%	0	2,523	104	2,545	34	2,391	(26)	262	0	0	0	(26)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(65)
TOTAL EQUITY ADJDC CARRIED (SEE PAGE 5)	262
BOOK/DEFERRED RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAMMED BY: RY/REQ
PROGRAM NAME: Indirect Electorates (FY)

TSOFORM0211A
PAGE 2 OF 2

(1)	(2)	(3)	(4)	(5) END OF YEAR NET ELECTOR SERVICE \$ (000)	(6)* ACCUMULATED DEPRECIATION \$ (000)	(7)* ACCUMULATED NET TAXES \$ (000)	(8) BEGINNING YEAR RATE BASE \$ (000)	(9) ENDING-OF YEAR RATE BASE \$ (000)	(10) MID-YEAR RATE BASE \$ (000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$ (000)	DEFERRED TAX \$ (000)						
2019	3.75%	95	9	2,491	104	(35)	2,457	2,437	2,448
2020	7.25%	102	34	2,387	208	(20)	2,457	2,419	2,438
2021	6.85%	108	29	2,280	311	(2)	2,439	2,386	2,333
2022	6.18%	136	24	2,139	415	21	2,386	2,129	2,255
2023	5.75%	144	19	2,006	510	48	2,129	2,004	2,057
2024	5.25%	133	15	1,902	603	53	2,006	1,917	1,974
2025	4.85%	120	11	1,805	727	67	1,917	1,882	1,899
2026	4.53%	114	8	1,765	830	74	1,882	1,839	1,796
2027	4.40%	113	7	1,681	904	81	1,839	1,829	1,835
2028	4.40%	113	7	1,557	1,008	89	1,829	1,648	1,534
2029	4.40%	113	7	1,450	1,142	96	1,648	1,527	1,433
2030	4.40%	113	7	1,349	1,245	103	1,527	1,346	1,332
2031	4.40%	113	7	1,245	1,349	110	1,346	1,136	1,131
2032	4.40%	113	7	1,140	1,453	117	1,136	1,025	1,080
2033	4.40%	113	7	1,038	1,557	124	1,025	914	949
2034	4.40%	113	7	934	1,660	131	914	803	828
2035	4.40%	113	7	830	1,764	138	803	692	767
2036	4.40%	113	7	727	1,868	144	692	581	656
2037	4.40%	113	7	623	1,972	151	581	470	525
2038	4.40%	113	7	519	2,076	158	470	359	415
2039	2.25%	56	(15)	415	2,180	165	359	250	305
2040	0.00%	0	(30)	311	2,283	169	250	202	236
2041	0.00%	0	(36)	208	2,387	17	202	175	189
2042	0.00%	0	(36)	104	2,491	34	175	67	101
2043	0.00%	0	(36)	(9)	2,595	1	67	0	34

* Column not specified in worksheet

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT EVALUATION RATE	(4) CUMULATIVE EVALUATION FACTOR	(5) YEARLY EXPENDITURE (\$)	(6) ANNUAL SPENDING (\$K\$)	(7) CUMULATIVE AVERAGE SPENDING (\$K\$)
2009	-10	1.00%	1.000	0.00%	0.00	0.00
2010	-9	1.00%	1.000	0.00%	0.00	0.00
2011	-8	1.00%	1.000	0.00%	0.00	0.00
2012	-7	1.00%	1.000	0.00%	0.00	0.00
2013	-6	1.00%	1.125	0.12%	1.24	1.62
2014	-5	1.00%	1.125	1.00%	15.29	3.24
2015	-4	1.00%	1.125	4.57%	39.61	11.65
2016	-3	1.00%	1.224	37.28%	331.57	222.77
2017	-2	1.00%	1.287	45.78%	424.27	384.34
2018	-1	1.00%	1.365	10.44%	96.79	532.35

100.00% 301.27												
(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING W/OUT AFUDC (\$K\$)	(4) DEBT AFUDC (\$K\$)	(5) CUMULATIVE DEBT AFUDC (\$K\$)	(6) TOTAL AFUDC (\$K\$)	(7) CUMULATIVE TOTAL AFUDC (\$K\$)	(8) CONSTRUCTION EXPEND (\$K\$)	(9) CUMULATIVE CFI (\$K\$)	(10) ANNUAL TAXES (\$K\$)	(11) CUMULATIVE TAXES (\$K\$)	(12) INCREMENTAL YEAR-END BOOK VALUE (\$K\$)	(13) CUMULATIVE YEAR-END BOOK VALUE (\$K\$)
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	1.62	0.02	0.02	0.02	0.02	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	3.29	0.29	0.30	4.75	4.75	0.65	0.79	(0.16)	(0.15)	16.78	22.67
2015	-4	37.37	1.18	1.49	3.92	4.36	2.85	3.25	(0.57)	(0.72)	62.83	69.96
2016	-3	256.04	7.67	8.56	15.29	25.36	15.90	19.25	(1.41)	(4.15)	331.16	422.86
2017	-2	422.80	19.46	26.31	53.16	76.45	43.67	62.72	(0.26)	(13.39)	473.37	881.63
2018	-1	534.53	29.46	37.47	84.39	156.24	94.78	127.50	(0.63)	(27.02)	179.18	1,064.61

IN SERVICE YEAR 2019
PLANT COSTS 755,389,925
AFUDC RATE 8.40%

	BOOK BASIS	BOOK BASIS FOR DEBT TAX	T-CRISIS
CONSTRUCTION CASE	2,222	2,222	2,222
DEBT AFUDC	242		
DEBT AFUDC	148	148	
CFI			311
TOTAL	2,393	2,393	2,393

* Column not specified in worksheet

INPUT DATA--PART 2
PROGRAMMED SELECTED-HSY/RSQ
PROGRAMMER: Robert P. Lovelace (P.V.)

TSCTFORM 12
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/MWH)	ADJUSTED MARGINAL FUEL COST (C/MWH)	INCREASED MARGINAL FUEL COST (C/MWH)	REPLACEMENT FUEL COST (C/MWH)	PROGRAMMER EFFICIENCY FACTOR	PROGRAMMER EFFICIENCY FACTOR
2009	9	8	6.59	9.57	6.57	2.50	0.80	0.80
2010	343	343	6.41	16.51	6.41	0.00	0.80	0.80
2011	582	582	6.35	18.38	6.35	0.00	0.80	0.80
2012	1,002	1,002	6.43	9.61	6.58	0.00	1.00	1.00
2013	1,567	1,567	7.06	8.30	7.25	0.00	0.99	0.99
2014	2,128	2,128	7.53	2.57	7.70	0.00	0.99	0.99
2015	2,128	2,128	8.11	9.53	8.30	0.00	0.98	0.98
2016	2,128	2,128	9.09	11.45	9.30	0.00	0.97	0.97
2017	2,128	2,128	9.75	12.29	10.08	0.00	0.97	0.97
2018	2,128	2,128	10.52	13.42	10.28	0.00	0.96	0.96
2019	2,128	2,128	11.58	15.12	11.57	10.41	0.96	0.96
2020	2,128	2,128	12.08	15.70	12.60	10.50	0.95	0.95
2021	2,128	2,128	12.67	16.56	13.32	10.54	0.94	0.94
2022	2,128	2,128	13.06	17.34	13.39	10.81	0.94	0.94
2023	2,128	2,128	13.39	17.16	13.92	10.88	0.93	0.93
2024	2,128	2,128	13.65	17.82	14.67	10.94	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	18.38	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	11.36	0.90	0.90
2029	2,128	2,128	16.02	19.85	16.44	11.41	0.90	0.90
2030	2,128	2,128	16.52	19.44	16.90	11.59	0.89	0.89
2031	2,128	2,128	17.08	20.34	17.45	11.80	0.88	0.88
2032	2,128	2,128	17.50	19.50	17.82	11.88	0.88	0.88
2033	2,128	2,128	18.27	20.52	18.49	12.10	0.87	0.87
2034	2,128	2,128	18.70	20.17	18.35	12.14	0.87	0.87
2035	2,128	2,128	19.57	21.50	19.73	12.20	0.86	0.86
2036	2,128	2,128	20.40	22.53	20.55	12.55	0.86	0.86
2037	2,128	2,128	21.11	23.83	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	13.32	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	26.54	28.95	26.83	14.40	0.82	0.82
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

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

AVOIDED TAD AND PROGRAMMER SAVINGS
PROGRAM METHOD SELECTED: KEY_REQ
PROGRAM NAME: Business PhotoVolts (PV)

PSC FORM 0522
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[illegible]

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

AVOIDED GENERATING EMISSION IMPACT
PROGRAM (LIMITED) SELECTED KEY REQ
PROGRAM (NAME): Redwood Photo Voluntary (PV)

YEAR	(1) AVOIDED EMISSIONS REQUIREMENT T(000)	(2) REPLACEMENT EMISSIONS T(000)	(3) PROGRAM EMISSIONS T(000)	(4) OFF-PEAK EMISSION PAIDBACK COST T(000)	(5) NET EMISSION T(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	0	0	0
2012	0	0	1	0	1
2013	0	0	25	0	25
2014	0	0	54	0	54
2015	0	0	60	0	60
2016	0	0	72	0	72
2017	0	0	79	0	79
2018	0	0	85	0	85
2019	35	221	92	0	64
2020	141	183	99	0	58
2021	156	202	105	0	59
2022	182	215	117	0	64
2023	201	229	124	0	66
2024	211	258	137	0	76
2025	267	343	150	0	74
2026	296	378	157	0	75
2027	334	427	179	0	77
2028	367	467	183	0	83
2029	419	532	202	0	89
2030	465	590	217	0	72
2031	505	611	234	0	79
2032	526	704	251	0	124
2033	648	830	271	0	79
2034	718	907	291	0	102
2035	789	983	313	0	108
2036	851	1,075	337	0	115
2037	922	1,163	361	0	119
2038	1,008	1,263	388	0	125
2039	1,088	1,343	418	0	130
2040	1,167	1,475	444	0	135
2041	1,257	1,539	474	0	142
2042	1,257	1,580	506	0	134
2043	1,257	1,588	541	0	209
2044	0	0	0	0	0
2045	0	0	0	0	0
2046	0	0	0	0	0
2047	0	0	0	0	0
2048	0	0	0	0	0
2049	0	0	0	0	0
2050	0	0	0	0	0
TOTAL	15,190	18,292	4,982	0	2,909
ADP	1,834	2,104	1,294	0	596

PARTICIPANT COSTS AND BENEFITS
PROGRAM/METHOD SELECTED: KEY_KBQ
PROGRAM/NAME: Business Professionals (TV)

PSCFORM 68-24
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[illegible]

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

2019	
2.39	%
0.01	

BUSINESS PHOTOVOLTAICS FOR SCHOOLS

INPUT DATA - PART 1 CONTINUED
PROGRAM: CASHED SEDUCED XSV JSC
PROGRAM NAME: District Photovoltaics for Schools

I. PROGRAMMED SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	6.96 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.15 KW
(3) KW LINE LOSS PERCENTAGE	6.66 %
(4) GENERATOR KW REDUCTION PER CUSTOMER	1.39455 KW
(5) KW LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KW INCREASE AT METER	0.20 KW

II. ECONOMIC LIFE & X FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	25 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) TIED ECONOMY LINE	25 YEARS
(4) X FACTOR FOR GENERATION	1.70738
(5) X FACTOR FOR T & D	1.00004

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 SURVEY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATE	*** %
(10) UTILITY DISCOUNT RATE	8.80 %
(11) UTILITY APOC RATE	5.60 %
(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	2010
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2020/2019
(4) BASE YEAR AVOIDED GENERATING COST	725.39 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	185.82 \$/KW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/KW
(7) GEN. T&D ADJUST COST ESCALATION RATE	3.00 %
(8) GENERATOR TIED O & M COST	57.66 \$/KW/YR
(9) GENERATOR TIED O & M ESCALATION RATE	2.50 %
(10) TRANSMISSION TIED O & M COST	2.32 \$/KW
(11) DISTRIBUTION TIED O & M COST	1.01 \$/KW
(12) T&D TIED O & M ESCALATION RATE	2.50 %
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.10% CENTS/KW
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	0% ** (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	4.70 %

V. NON-FUEL INTERCH. AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	*** CENTS/KW-HR
(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 IN PARENTHESIS FIRST YEAR ONLY (VALUE VARIES OVER TIME)

*** PROGRAM COST CALCULATION VALUES ARE SHOWN ON PAGE 2

*INPUT DATA--PART I CONTINUED
 PROGRAMS/DEEDS SELECTED: KIM, KIR
 PROGRAM NAME: Business Partnerships for Schools

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 INCENTIVE LOSSES \$(000)	(6) DEMAND CHARGE INCENTIVE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT OSM COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	112	0	0	112	1	0	0	0	0	0
2011	479	0	0	479	7	0	0	0	0	0
2012	928	0	0	928	18	0	0	0	0	0
2013	1,381	0	0	1,381	31	0	0	0	0	0
2014	1,495	0	0	1,495	44	0	0	0	0	0
2015	1,534	0	0	1,534	51	0	0	0	0	0
2016	1,217	0	0	1,217	59	0	0	0	0	0
2017	908	0	0	908	56	0	0	0	0	0
2018	436	0	0	436	37	0	0	0	0	0
2019	136	0	0	136	60	0	0	0	0	0
2020	0	0	0	0	60	0	0	0	0	0
2021	0	0	0	0	82	0	0	0	0	0
2022	0	0	0	0	64	0	0	0	0	0
2023	0	0	0	0	67	0	0	0	0	0
2024	0	0	0	0	70	0	0	0	0	0
2025	0	0	0	0	74	0	0	0	0	0
2026	0	0	0	0	78	0	0	0	0	0
2027	0	0	0	0	83	0	0	0	0	0
2028	0	0	0	0	87	0	0	0	0	0
2029	0	0	0	0	91	0	0	0	0	0
2030	0	0	0	0	96	0	0	0	0	0
2031	0	0	0	0	101	0	0	0	0	0
2032	0	0	0	0	109	0	0	0	0	0
2033	0	0	0	0	119	0	0	0	0	0
2034	0	0	0	0	121	0	0	0	0	0
2035	0	0	0	0	127	0	0	0	0	0
2036	0	0	0	0	137	0	0	0	0	0
2037	0	0	0	0	144	0	0	0	0	0
2038	0	0	0	0	151	0	0	0	0	0
2039	0	0	0	0	158	0	0	0	0	0
2040	0	0	0	0	166	0	0	0	0	0
2041	0	0	0	0	175	0	0	0	0	0
2042	0	0	0	0	186	0	0	0	0	0
2043	0	0	0	0	194	0	0	0	0	0
2044	0	0	0	0	0	0	0	0	0	0
2045	0	0	0	0	0	0	0	0	0	0
2046	0	0	0	0	0	0	0	0	0	0
2047	0	0	0	0	0	0	0	0	0	0
2048	0	0	0	0	0	0	0	0	0	0
2049	0	0	0	0	0	0	0	0	0	0
2050	0	0	0	0	0	0	0	0	0	0
2051	0	0	0	0	0	0	0	0	0	0
2052	0	0	0	0	0	0	0	0	0	0
2053	0	0	0	0	0	0	0	0	0	0
2054	0	0	0	0	0	0	0	0	0	0
2055	0	0	0	0	0	0	0	0	0	0
2056	0	0	0	0	0	0	0	0	0	0
2057	0	0	0	0	0	0	0	0	0	0
2058	0	0	0	0	0	0	0	0	0	0
2059	0	0	0	0	0	0	0	0	0	0
2060	0	0	0	0	0	0	0	0	0	0
2061	0	0	0	0	0	0	0	0	0	0
2062	0	0	0	0	0	0	0	0	0	0
2063	0	0	0	0	0	0	0	0	0	0
2064	0	0	0	0	0	0	0	0	0	0
2065	0	0	0	0	0	0	0	0	0	0
2066	0	0	0	0	0	0	0	0	0	0
2067	0	0	0	0	0	0	0	0	0	0
2068	0	0	0	0	0	0	0	0	0	0
2069	0	0	0	0	0	0	0	0	0	0
2070	0	0	0	0	0	0	0	0	0	0
2071	0	0	0	0	0	0	0	0	0	0
2072	0	0	0	0	0	0	0	0	0	0
2073	0	0	0	0	0	0	0	0	0	0
2074	0	0	0	0	0	0	0	0	0	0
2075	0	0	0	0	0	0	0	0	0	0
2076	0	0	0	0	0	0	0	0	0	0
2077	0	0	0	0	0	0	0	0	0	0
2078	0	0	0	0	0	0	0	0	0	0
2079	0	0	0	0	0	0	0	0	0	0
2080	0	0	0	0	0	0	0	0	0	0
2081	0	0	0	0	0	0	0	0	0	0
2082	0	0	0	0	0	0	0	0	0	0
2083	0	0	0	0	0	0	0	0	0	0
2084	0	0	0	0	0	0	0	0	0	0
2085	0	0	0	0	0	0	0	0	0	0
2086	0	0	0	0	0	0	0	0	0	0
2087	0	0	0	0	0	0	0	0	0	0
2088	0	0	0	0	0	0	0	0	0	0
2089	0	0	0	0	0	0	0	0	0	0
2090	0	0	0	0	0	0	0	0	0	0
2091	0	0	0	0	0	0	0	0	0	0
2092	0	0	0	0	0	0	0	0	0	0
2093	0	0	0	0	0	0	0	0	0	0
2094	0	0	0	0	0	0	0	0	0	0
2095	0	0	0	0	0	0	0	0	0	0
2096	0	0	0	0	0	0	0	0	0	0
2097	0	0	0	0	0	0	0	0	0	0
2098	0	0	0	0	0	0	0	0	0	0
2099	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0
TOTAL	2,396	0	0	2,396	1,100	0	0	0	0	0
NPV	5,490	0	0	5,490	296	0	0	0	0	0

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

-- NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR ITC AND KIM TENTS

CALCULATION OF GENEFACOR
PROGRAM/CHARGE SHEET FOR MSQ
PROGRAM NAME: Insured Properties For Schools

(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)	INSUR- ANCE \$(000)	INSURED DOGS \$(000)	TOTAL EXPED CHARGES \$(000)	EXCESS WORK- ED CHARGES \$(000)	CUMULATIVE FWDG CHARGES \$(000)	REPLACEMENT CONTRAST FOR PROPERTY INSURANCE \$(000)
2019	227	7	0	17	11	4	1	9	0	48	44	25	227
2020	228	7	0	16	7	4	1	9	3	46	39	122	263
2021	215	7	0	15	7	4	1	9	2	44	34	167	298
2022	223	6	0	14	7	3	2	9	2	42	30	197	328
2023	192	6	0	13	7	3	2	9	1	41	27	223	361
2024	181	6	0	13	7	3	2	9	1	39	23	247	394
2025	171	5	0	12	7	3	2	9	1	37	21	268	424
2026	160	5	0	11	6	3	2	9	1	36	18	286	458
2027	150	5	0	10	6	2	2	9	1	34	16	302	494
2028	141	4	0	10	6	2	2	9	1	33	14	316	531
2029	131	4	0	9	6	2	2	9	1	31	12	328	568
2030	121	4	0	8	5	2	2	9	1	29	11	339	601
2031	111	3	0	8	5	2	2	9	1	28	9	348	633
2032	101	3	0	7	4	2	2	9	1	27	8	356	664
2033	91	3	0	6	4	2	2	9	1	25	7	363	694
2034	81	3	0	6	3	1	2	9	1	24	6	369	721
2035	71	2	0	5	3	1	2	9	1	22	5	374	746
2036	62	2	0	4	3	1	2	9	1	20	4	379	769
2037	52	2	0	4	2	1	2	9	1	19	4	382	790
2038	42	1	0	3	2	1	2	9	(3)	17	3	384	808
2039	32	1	0	2	3	0	2	9	(3)	16	2	381	824
2040	24	1	0	2	3	0	2	9	(3)	15	2	381	847
2041	15	1	0	1	4	0	2	9	(3)	14	2	384	868
2042	12	0	0	1	4	0	2	0	(3)	13	2	384	888
2043	6	0	0	0	4	(0)	3	0	(3)	11	2	384	908

IN SERVICE COST	221
IN SERVICE YEAR	2019
BOOK LINE (YES)	25
DEBT RATE	38.5%
DISCOUNT RATE	3.5%
PROPERTY TAX	1.50%
PROPERTY INSURANCE	1.50%

CAPITAL STRUCTURE

SOURCE	PERCENT	COST	%
DEBT	40%	7.00	%
RE	50%	8.00	%
CE	50%	12.50	%

KFACTOR - CF/STC/DE-SVC COST -

1.7000

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAMMED SELECTION: 15V, 15Q
PROGRAM NAME: District PhotoVista 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 14.0%	(15)-(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (7)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.03%	8	8	9	9	8	8	0	22	0	0	0	0	(9)
2020	7.22%	16	25	9	18	8	17	0	22	0	0	0	0	(9)
2021	6.82%	15	40	9	27	8	25	0	22	0	0	0	0	(9)
2022	6.12%	14	54	9	37	8	33	0	22	0	0	0	0	0
2023	5.71%	13	66	9	46	8	42	0	22	0	0	0	0	0
2024	5.29%	12	78	9	55	8	50	0	22	0	0	0	0	0
2025	4.87%	11	89	9	65	8	58	0	22	0	0	0	0	0
2026	4.45%	10	99	9	74	8	67	0	22	0	0	0	0	0
2027	4.40%	10	109	9	83	8	75	0	22	0	0	0	0	0
2028	4.40%	10	119	9	92	8	84	0	22	0	0	0	0	0
2029	4.40%	10	129	9	102	8	92	0	22	0	0	0	0	0
2030	4.40%	10	139	9	111	8	100	0	22	0	0	0	0	0
2031	4.40%	10	149	9	120	8	108	0	22	0	0	0	0	0
2032	4.40%	10	159	9	129	8	117	0	22	0	0	0	0	0
2033	4.40%	10	169	9	139	8	126	0	22	0	0	0	0	0
2034	4.40%	10	179	9	148	8	134	0	22	0	0	0	0	0
2035	4.10%	10	194	9	157	8	142	0	22	0	0	0	0	0
2036	4.40%	10	204	9	166	8	151	0	22	0	0	0	0	0
2037	4.40%	10	214	9	176	8	159	0	22	0	0	0	0	0
2038	4.40%	10	224	9	185	8	167	0	22	0	0	0	0	0
2039	2.23%	5	229	9	194	8	176	(3)	22	0	0	0	(3)	15
2040	0.00%	0	229	9	203	8	184	(9)	22	0	0	0	(9)	10
2041	0.00%	0	229	9	212	8	193	(9)	22	0	0	0	(9)	5
2042	0.00%	0	229	9	222	8	201	(9)	22	0	0	0	(9)	0
2043	0.00%	0	229	9	231	8	209	(9)	22	0	0	0	(9)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE/ COST OF REMOVAL	2022
DEFERRED TAX DEFERRING CONSTRUCTION (SEE PAGE 3)	(9)
TOTAL EQUITY AFUDC CAPTIALIZED (SEE PAGE 5)	22
BOOK DEPR. RATE - 14.0% LINE	4.92%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM/CLIENT: SELECTED BUS/SEC
 PROGRAM NAME: Business Photocopies for Schools

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(1)	(2)	(3)	(4)	(5) END OF YEAR NET EASING SERVICE \$ (000)	(6)* ACCUMULATED DEFERRED TAX \$ (000)	(7)* ACCUMULATED DEFERRED TAX \$ (000)	(8) DEFERRED TAX RATE \$ (000)	(9) ENDING OF YEAR RATE BASE \$ (000)	(10) MID-YEAR RATE BASE \$ (000)
YEAR	TAX DEFERRED SCHEDULE	TAX DEFERRED \$ (000)	DEFERRED TAX \$ (000)						
2019	1.75%	8	0	222	9	(9)	237	226	222
2020	7.22%	16	3	222	18	(9)	228	215	221
2021	6.88%	15	1	209	28	(9)	215	203	209
2022	6.18%	14	1	194	37	2	203	192	198
2023	5.71%	13	2	185	46	4	192	181	187
2024	5.25%	12	1	176	55	5	181	171	176
2025	4.89%	11	1	166	65	6	171	160	163
2026	4.52%	10	1	157	74	7	160	150	153
2027	4.18%	10	1	148	83	7	150	141	145
2028	4.40%	10	1	139	92	8	141	131	136
2029	4.40%	10	1	129	102	9	131	121	126
2030	4.40%	10	1	120	111	9	121	111	116
2031	4.40%	10	1	111	120	10	111	101	106
2032	4.40%	10	1	102	129	10	101	91	96
2033	4.40%	10	1	92	139	11	91	81	86
2034	4.40%	10	1	83	148	12	81	71	76
2035	4.40%	10	1	74	157	12	71	62	67
2036	4.40%	10	1	65	167	12	62	52	57
2037	4.40%	10	1	55	176	14	52	42	47
2038	4.40%	10	1	46	185	14	42	32	37
2039	2.23%	5	(3)	37	194	13	32	24	21
2040	0.00%	0	(3)	28	203	10	24	18	21
2041	0.00%	0	(3)	19	212	6	18	12	15
2042	0.00%	0	(3)	9	222	3	12	6	9
2043	0.00%	0	(3)	(3)	231	0	6	1	3

* Column not reported in worksheet

(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) COMPLATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (\$K)	(6) ANNUAL SENDING (\$K)	(7) COMPLATIVE AVERAGE SENDING (\$K)
2009	-10	3.00%	1.00	0.00%	0.00	0.00
2010	-9	3.00%	1.03	0.00%	0.00	0.00
2011	-8	3.00%	1.06	0.00%	0.00	0.00
2012	-7	3.00%	1.09	0.00%	0.00	0.00
2013	-6	3.00%	1.12	0.15%	1.54	0.01
2014	-5	3.00%	1.15	1.30%	15.59	0.04
2015	-4	3.00%	1.19	4.57%	39.61	0.13
2016	-3	3.00%	1.23	37.20%	331.27	222.77
2017	-2	3.00%	1.26	45.74%	420.27	232.94
2018	-1	3.00%	1.30	50.40%	58.29	232.38

100.00% 502.77												
(1) YEAR	(2) NO. YEARS BEFORE IN-SERVICE	(3) COMPLATIVE SENDING WAGE (\$K)	(4) DEBT AFUDC (\$K)	(5) COMPLATIVE DEBT AFUDC (\$K)	(6) YEARLY TOTAL AFUDC (\$K)	(7) COMPLATIVE TOTAL AFUDC (\$K)	(8) CONSTRUCTION FEE INTEREST (\$K)	(9) COMPLATIVE CFI (\$K)	(10) INTEREST TAXES (\$K)	(11) COMPLATIVE INTEREST TAXES (\$K)	(12) INCREMENTAL YEAR-END BOOK VALUE (\$K)	(13) COMPLATIVE YEAR-END BOOK VALUE (\$K)
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	1.00	1.00	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	0.65	0.65	0.04	0.04	(0.01)	(0.01)	1.29	1.29
2014	-5	0.29	0.29	0.29	0.79	0.84	0.65	0.79	(0.14)	(0.15)	16.78	18.07
2015	-4	37.87	1.34	1.49	3.22	4.66	2.65	3.35	(0.37)	(0.72)	42.13	60.94
2016	-3	226.94	7.97	8.56	19.49	23.56	15.90	19.25	(0.41)	(0.15)	251.16	422.06
2017	-2	622.29	19.46	28.81	53.38	76.45	42.47	63.22	(0.26)	(2.39)	473.57	925.63
2018	-1	234.33	29.46	37.47	30.39	106.84	64.78	127.50	(1.63)	(27.42)	179.18	1,094.61

IN SERVICE YEAR	2019
PLANT COSTS	721,394,653
AFUDC RATE	3.48%

	DOCKBASE	DOCKBASE FOR DEF TAX	DOCKBASE
CONSTRUCTION GASH	197	197	197
EQUITY AFUDC	22	22	22
DEBT AFUDC	22	22	22
CFI			25
TOTAL	241	241	241

* Columns not specified in workbook

INPUT DATA - PART 2
PROGRAMMED SELECTED KEY REQ
PROGRAM NAME: Budget: Photovoltaics for Schools

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	ADJUSTED MONTHLY FUEL COST (\$/KWH)	INCREASED MONTHLY FUEL COST (\$/KWH)	REPLACEMENT FUEL COST (\$/KWH)	PROGRAM/AV EFFECTIVENESS FACTOR	PROGRAM/AV EFFECTIVENESS FACTOR
2009	0	0	4.79	5.17	6.79	6.80	0.99	0.99
2010	8	8	6.41	8.31	6.74	6.80	1.00	1.00
2011	25	25	6.35	8.24	6.64	6.80	0.99	0.99
2012	105	105	6.68	8.38	6.69	6.80	0.99	0.99
2013	121	121	7.26	8.38	7.25	6.80	0.98	0.98
2014	129	129	7.53	8.62	7.69	6.80	0.97	0.97
2015	129	129	8.11	8.25	8.32	6.80	0.97	0.97
2016	129	129	9.94	11.45	9.33	6.80	0.96	0.96
2017	129	129	9.75	12.29	10.88	6.80	0.96	0.96
2018	129	129	10.22	13.62	10.88	6.80	0.95	0.95
2019	129	129	11.59	15.12	11.97	10.41	0.94	0.94
2020	129	129	12.06	15.88	12.57	10.59	0.93	0.93
2021	129	129	12.57	16.53	13.88	10.54	0.92	0.92
2022	129	129	13.04	17.14	14.29	10.41	0.92	0.92
2023	129	129	13.59	17.16	15.32	10.69	0.91	0.91
2024	129	129	13.95	17.52	14.47	10.94	0.91	0.91
2025	129	129	14.40	18.22	14.92	10.95	0.91	0.91
2026	129	129	14.76	18.72	15.19	11.05	0.90	0.90
2027	129	129	15.13	19.54	15.60	11.17	0.90	0.90
2028	129	129	15.69	19.12	16.04	11.36	0.89	0.89
2029	129	129	16.02	19.84	16.61	11.41	0.88	0.88
2030	129	129	16.52	19.44	16.90	11.39	0.88	0.88
2031	129	129	17.08	20.84	17.45	11.89	0.87	0.87
2032	129	129	17.68	20.74	17.52	11.87	0.87	0.87
2033	129	129	18.27	20.53	18.49	12.18	0.86	0.86
2034	129	129	18.75	20.17	18.85	12.14	0.85	0.85
2035	129	129	19.57	21.59	19.53	12.55	0.84	0.84
2036	129	129	20.40	22.53	20.53	12.79	0.84	0.84
2037	129	129	21.11	23.18	21.22	12.79	0.83	0.83
2038	129	129	22.02	24.15	22.14	13.04	0.83	0.83
2039	129	129	22.78	24.24	22.87	13.22	0.83	0.83
2040	129	129	23.59	25.27	23.66	13.44	0.82	0.82
2041	129	129	24.34	26.14	24.69	13.75	0.82	0.82
2042	129	129	25.09	27.05	25.57	14.10	0.81	0.81
2043	129	129	26.74	28.35	26.83	14.49	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

* THIS COLUMN IS USED ONLY FOR LOAD SHEDDING PROGRAMS WHICH LIMIT CONSUMPTION TO ONE YEAR PERIODS.
THE VALUES REPRESENT THE OFF-PEAK SYSTEM FUEL COSTS.

PARTICIPANT COSTS AND BENEFITS
PROGRAM-RELATED SUBJECTS: NEW YORK
PROGRAM-RELATED SUBJECTS: PRESENTATION OF THE SCHOOLS

XSCFORM CS24
 PAGE 1 OF 1

[illegible]

In Service of Gen. U.S.G.
 District, State &
 Benefit/Cost Ratio (Col(9)/Col(10))

2019

2000

RESIDENTIAL AIR CONDITIONING

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.50 kW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.67 kW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	1,092.26 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	*** %

* 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	*** %

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

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

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRE. \$(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	36,699	2,693	0	6,051	3,991	1,461	516	3,382	7	18,101	18,101	84,554
2020	83,311	2,588	0	5,814	2,743	1,400	529	3,382	1,107	17,563	16,129	86,667
2021	78,822	2,449	0	5,501	2,718	1,339	542	3,382	905	16,865	14,225	88,834
2022	74,505	2,314	0	5,199	2,686	1,278	555	3,382	777	16,193	12,543	91,055
2023	70,345	2,185	0	4,909	2,652	1,218	569	3,382	629	15,545	11,058	93,331
2024	66,334	2,061	0	4,629	2,612	1,157	584	3,382	493	14,918	9,746	95,665
2025	62,458	1,940	0	4,359	2,568	1,096	598	3,382	367	14,311	8,586	98,056
2026	58,709	1,824	0	4,097	2,520	1,035	613	3,382	251	13,722	7,561	100,508
2027	55,075	1,711	0	3,844	2,380	974	628	3,382	232	13,151	6,655	103,020
2028	51,461	1,599	0	3,591	2,222	913	644	3,382	232	12,583	5,848	105,596
2029	47,846	1,486	0	3,339	2,063	852	660	3,382	232	12,015	5,128	108,236
2030	44,232	1,374	0	3,087	1,905	791	677	3,382	232	11,448	4,487	110,942
2031	40,618	1,262	0	2,835	1,746	731	694	3,382	232	10,881	3,917	113,715
2032	37,003	1,149	0	2,582	1,588	670	711	3,382	232	10,315	3,410	116,558
2033	33,389	1,037	0	2,330	1,429	609	729	3,382	232	9,749	2,960	119,472
2034	29,775	925	0	2,078	1,271	548	747	3,382	232	9,183	2,561	122,459
2035	26,160	813	0	1,826	1,112	487	766	3,382	232	8,618	2,207	125,520
2036	22,546	700	0	1,573	954	426	785	3,382	232	8,053	1,894	128,658
2037	18,932	588	0	1,321	796	365	804	3,382	232	7,489	1,618	131,875
2038	15,317	476	0	1,069	638	304	825	3,382	232	6,925	1,374	135,172
2039	11,703	364	0	817	480	244	845	3,382	(475)	6,362	1,159	138,551
2040	8,090	252	0	565	322	183	866	3,382	(1,183)	5,799	987	142,015
2041	4,476	140	0	313	160	122	888	3,382	(1,183)	5,245	852	145,565
2042	822	28	0	61	32	61	910	3,382	(1,183)	4,691	732	149,204
2043	210	7	0	15	8	0	933	3,382	(1,183)	4,138	626	152,934

IN SERVICE COST (\$000)	34,554
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	%
CS	56%	12.50	%

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,083	3,083	3,382	3,382	3,066	3,066	7	7,892	0	0	0	7	(2,139)
2020	7.22%	5,936	9,019	3,382	6,764	3,066	6,133	1,107	7,892	0	0	0	1,107	(1,032)
2021	6.68%	5,490	14,509	3,382	10,146	3,066	9,199	935	7,892	0	0	0	935	(97)
2022	6.18%	5,081	19,591	3,382	13,529	3,066	12,266	777	7,892	0	0	0	777	680
2023	5.71%	4,697	24,288	3,382	16,911	3,066	15,332	629	7,892	0	0	0	629	1,309
2024	5.29%	4,346	28,634	3,382	20,293	3,066	18,399	493	7,892	0	0	0	493	1,802
2025	4.89%	4,019	32,653	3,382	23,675	3,066	21,465	367	7,892	0	0	0	367	2,170
2026	4.52%	3,718	36,371	3,382	27,057	3,066	24,532	251	7,892	0	0	0	251	2,421
2027	4.46%	3,669	40,040	3,382	30,439	3,066	27,598	232	7,892	0	0	0	232	2,654
2028	4.46%	3,668	43,708	3,382	33,821	3,066	30,665	232	7,892	0	0	0	232	2,886
2029	4.46%	3,669	47,376	3,382	37,204	3,066	33,731	232	7,892	0	0	0	232	3,118
2030	4.46%	3,668	51,045	3,382	40,586	3,066	36,797	232	7,892	0	0	0	232	3,350
2031	4.46%	3,669	54,713	3,382	43,968	3,066	39,864	232	7,892	0	0	0	232	3,582
2032	4.46%	3,668	58,381	3,382	47,350	3,066	42,930	232	7,892	0	0	0	232	3,815
2033	4.46%	3,669	62,050	3,382	50,732	3,066	45,997	232	7,892	0	0	0	232	4,047
2034	4.46%	3,668	65,718	3,382	54,114	3,066	49,063	232	7,892	0	0	0	232	4,279
2035	4.46%	3,669	69,387	3,382	57,496	3,066	52,130	232	7,892	0	0	0	232	4,511
2036	4.46%	3,668	73,055	3,382	60,879	3,066	55,196	232	7,892	0	0	0	232	4,743
2037	4.46%	3,669	76,724	3,382	64,261	3,066	58,263	232	7,892	0	0	0	232	4,976
2038	4.46%	3,668	80,392	3,382	67,643	3,066	61,329	232	7,892	0	0	0	232	5,208
2039	2.23%	1,834	82,226	3,382	71,025	3,066	64,396	(475)	7,892	0	0	0	(475)	4,732
2040	0.00%	0	82,226	3,382	74,407	3,066	67,462	(1,183)	7,892	0	0	0	(1,183)	3,550
2041	0.00%	0	82,226	3,382	77,789	3,066	70,528	(1,183)	7,892	0	0	0	(1,183)	2,367
2042	0.00%	0	82,226	3,382	81,171	3,066	73,595	(1,183)	7,892	0	0	0	(1,183)	1,184
2043	0.00%	0	82,226	3,382	84,554	3,066	76,661	(1,183)	7,892	0	0	0	(1,183)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,146)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	7,892
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,083	7	81,171	3,342	(2,139)	86,699	83,511	85,005
2020	7.22%	5,936	1,107	77,789	6,764	(1,032)	83,311	78,822	81,066
2021	6.68%	5,490	935	74,407	10,146	(97)	78,822	74,505	76,663
2022	6.18%	5,081	777	71,025	13,529	680	74,505	70,345	72,425
2023	5.71%	4,697	629	67,643	16,911	1,309	70,345	66,334	68,340
2024	5.29%	4,346	493	64,261	20,293	1,802	66,334	62,458	64,396
2025	4.89%	4,019	367	60,879	23,675	2,170	62,458	58,709	60,584
2026	4.52%	3,718	251	57,496	27,057	2,421	58,709	55,075	56,892
2027	4.46%	3,669	232	54,114	30,439	2,654	55,075	51,461	53,268
2028	4.46%	3,668	232	50,732	33,821	2,886	51,461	47,846	49,654
2029	4.46%	3,669	232	47,350	37,204	3,118	47,846	44,232	46,039
2030	4.46%	3,668	232	43,968	40,586	3,350	44,232	40,618	42,425
2031	4.46%	3,669	232	40,586	43,968	3,582	40,618	37,003	38,811
2032	4.46%	3,668	232	37,204	47,350	3,815	37,003	33,389	35,196
2033	4.46%	3,669	232	33,821	50,732	4,047	33,389	29,775	31,582
2034	4.46%	3,668	232	30,439	54,114	4,279	29,775	26,160	27,967
2035	4.46%	3,669	232	27,057	57,496	4,511	26,160	22,546	24,353
2036	4.46%	3,668	232	23,675	60,879	4,743	22,546	18,932	20,739
2037	4.46%	3,669	232	20,293	64,261	4,976	18,932	15,317	17,124
2038	4.46%	3,668	232	16,911	67,643	5,208	15,317	11,703	13,510
2039	2.23%	1,834	(475)	13,529	71,025	4,732	11,703	8,796	10,250
2040	0.00%	0	(1,183)	10,146	74,407	3,550	8,796	6,597	7,696
2041	0.00%	0	(1,183)	6,764	77,789	2,367	6,597	4,398	5,497
2042	0.00%	0	(1,183)	3,382	81,171	1,184	4,398	2,198	3,298
2043	0.00%	0	(1,183)	(0)	84,554	1	2,198	-1	1,099

* 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	598.94
2018	-1	3.00%	1.305	10.44%	98.79	158.38

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

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

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASH	72,097	72,097	72,097		
EQUITY AFUDC	7,892				
DEBT AFUDC	4,564	4,564			
CPI			10,126		
TOTAL	84,554	76,661	82,224		

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/KWh)	AVOIDED MARGINAL FUEL COST (C/KWh)	INCREASED MARGINAL FUEL COST (C/KWh)	REPLACEMENT FUEL COST (C/KWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	16,492	16,492	6.41	9.01	6.70	0.00	1.00	1.00
2011	29,623	29,623	6.35	8.48	6.61	0.00	1.00	1.00
2012	41,768	41,768	6.43	8.45	6.66	0.00	1.00	1.00
2013	53,402	53,402	7.06	8.41	7.23	0.00	1.00	1.00
2014	64,973	64,973	7.53	8.67	7.68	0.00	1.00	1.00
2015	78,392	78,392	8.11	9.61	8.31	0.00	1.00	1.00
2016	91,811	91,811	9.00	11.55	9.31	0.00	1.00	1.00
2017	105,230	105,230	9.75	12.72	10.06	0.00	1.00	1.00
2018	118,650	118,650	10.52	13.53	10.86	0.00	1.00	1.00
2019	118,650	118,650	11.50	15.25	11.94	10.41	1.00	1.00
2020	118,650	118,650	12.08	15.88	12.57	10.50	1.00	1.00
2021	118,650	118,650	12.57	16.53	13.08	10.74	1.00	1.00
2022	118,650	118,650	13.06	17.14	13.59	10.81	1.00	1.00
2023	118,650	118,650	13.39	17.16	13.92	10.80	1.00	1.00
2024	118,650	118,650	13.95	17.82	14.47	10.84	1.00	1.00
2025	118,650	118,650	14.40	18.22	14.92	10.96	1.00	1.00
2026	118,650	118,650	14.79	18.52	15.19	11.05	1.00	1.00
2027	118,650	118,650	15.13	18.54	15.50	11.17	1.00	1.00
2028	118,650	118,650	15.60	18.91	16.05	11.36	1.00	1.00
2029	118,650	118,650	16.02	18.85	16.44	11.41	1.00	1.00
2030	118,650	118,650	16.52	19.26	16.92	11.59	1.00	1.00
2031	118,650	118,650	17.08	19.86	17.47	11.80	1.00	1.00
2032	118,650	118,650	17.50	19.62	17.84	11.88	1.00	1.00
2033	118,650	118,650	18.27	20.38	18.50	12.10	1.00	1.00
2034	118,650	118,650	18.73	20.08	18.86	12.14	1.00	1.00
2035	118,650	118,650	19.57	21.37	19.75	12.29	1.00	1.00
2036	118,650	118,650	20.40	22.39	20.54	12.55	1.00	1.00
2037	118,650	118,650	21.11	22.91	21.24	12.70	1.00	1.00
2038	118,650	118,650	22.02	23.86	22.16	13.04	1.00	1.00
2039	118,650	118,650	22.78	24.49	22.89	13.32	1.00	1.00
2040	118,650	118,650	23.59	25.04	23.68	13.44	1.00	1.00
2041	118,650	118,650	24.54	25.93	24.62	13.75	1.00	1.00
2042	118,650	118,650	25.50	26.84	25.59	14.10	1.00	1.00
2043	118,650	118,650	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.

(1)	(2) AVOIDED GEN UNIT CAPACITY COST	(3) AVOIDED GEN UNIT FIXED O&M	(4) AVOIDED GEN UNIT VARIABLE O&M	(5) AVOIDED GEN UNIT FUEL COST	(6) REPLACEMENT FUEL COST	(7) AVOIDED GEN UNIT BENEFITS
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	18,101	9,928	419	25,284	31,988	21,744
2020	17,563	10,177	604	37,261	45,383	20,212
2021	16,865	10,431	632	38,867	47,399	19,397
2022	16,193	10,692	671	41,137	49,415	19,279
2023	15,545	10,959	708	43,249	50,836	19,625
2024	14,918	11,233	751	45,686	52,744	19,844
2025	14,311	11,514	802	48,815	55,635	19,807
2026	13,722	11,802	859	52,165	58,606	19,942
2027	13,151	12,097	909	55,061	61,116	20,102
2028	12,583	12,399	936	56,523	62,483	20,308
2029	12,015	12,709	980	58,903	64,074	20,533
2030	11,448	13,027	1029	61,660	66,636	20,528
2031	10,881	13,353	1064	62,931	67,844	20,374
2032	10,315	13,686	1095	65,154	69,238	21,012
2033	9,749	14,029	1205	71,690	75,711	20,961
2034	9,183	14,379	1261	74,619	77,506	21,936
2035	8,618	14,739	1296	76,317	78,702	22,268
2036	8,053	15,107	1340	78,596	81,037	22,060
2037	7,489	15,485	1376	80,383	82,202	22,531
2038	6,925	15,872	1416	82,388	84,710	21,892
2039	6,362	16,269	1453	84,082	86,655	21,511
2040	5,902	16,676	1493	86,019	87,645	22,444
2041	5,545	17,093	1533	87,906	89,851	22,225
2042	5,188	17,520	1575	89,908	92,355	21,836
2043	4,831	17,958	1622	92,221	94,730	21,902
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	275,456	339,134	27,019	1,596,814	1,714,451	523,972
NPV	61,618	56,305	4,080	244,393	271,833	94,562

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
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	\$85	0
2011	413	33	446	34	9	43	2,303	0
2012	740	60	800	62	16	78	3,545	0
2013	1,038	111	1,149	86	23	110	4,594	0
2014	1,321	139	1,460	110	30	141	5,839	0
2015	1,602	171	1,774	133	38	171	7,889	0
2016	1,937	206	2,143	161	47	208	11,485	0
2017	2,272	242	2,514	189	56	246	14,694	0
2018	2,608	280	2,887	217	66	284	17,712	0
2019	2,944	286	3,230	245	77	322	21,301	0
2020	2,841	294	3,135	237	79	315	22,133	0
2021	2,740	301	3,041	228	81	309	23,043	0
2022	2,641	309	2,950	220	83	303	23,882	0
2023	2,545	316	2,861	212	85	297	23,773	0
2024	2,451	324	2,775	204	87	291	24,672	0
2025	2,358	332	2,690	196	89	285	25,182	0
2026	2,265	341	2,606	189	91	280	25,221	0
2027	2,173	349	2,523	181	93	274	25,424	0
2028	2,081	358	2,439	173	96	269	25,838	0
2029	1,990	367	2,356	166	98	264	25,577	0
2030	1,898	376	2,274	158	101	259	26,079	0
2031	1,807	385	2,192	151	103	254	26,882	0
2032	1,720	395	2,115	143	106	249	26,292	0
2033	1,638	405	2,043	136	108	245	27,275	0
2034	1,561	415	1,976	130	111	241	26,575	0
2035	1,487	425	1,912	124	114	238	28,422	0
2036	1,418	436	1,854	118	117	235	29,836	0
2037	1,354	447	1,801	113	120	232	30,428	0
2038	1,296	458	1,754	108	123	230	31,679	0
2039	1,242	469	1,712	103	126	229	32,431	0
2040	1,193	481	1,674	99	129	228	33,046	0
2041	1,146	493	1,639	95	132	227	34,176	0
2042	1,098	506	1,604	91	135	227	35,334	0
2043	1,050	518	1,569	87	139	226	37,914	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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.	58,870	11,027	69,897	4,903	2,905	7,808	761,380	0
NPV	17,138	2,337	19,475	1,427	599	2,027	156,869	0

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

123

(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	814	20,877	0	21,691	0	0	885	7	892	(26,794)	(19,101)
2011	0	682	16,855	0	17,537	0	489	2,303	9	2,802	(14,735)	(31,529)
2012	0	643	15,990	0	16,633	0	878	3,545	13	4,436	(12,197)	(40,977)
2013	0	644	15,951	0	16,596	0	1,259	4,594	378	6,231	(10,364)	(48,350)
2014	0	658	16,106	0	16,763	0	1,600	5,839	520	7,960	(8,804)	(54,101)
2015	0	775	19,167	0	19,942	0	1,945	7,889	699	10,533	(9,409)	(59,747)
2016	0	795	19,646	0	20,441	0	2,351	11,485	947	14,783	(5,658)	(62,864)
2017	0	815	20,137	0	20,952	0	2,760	14,694	1,209	18,662	(2,289)	(64,023)
2018	0	835	20,641	0	21,476	0	3,171	17,712	1,491	22,373	898	(63,606)
2019	0	0	0	0	0	21,744	3,552	21,301	804	47,401	47,401	(43,374)
2020	0	0	0	0	0	20,212	3,480	22,133	516	46,311	46,311	(25,221)
2021	0	0	0	0	0	19,397	3,350	23,043	518	46,308	46,308	(8,550)
2022	0	0	0	0	0	19,279	3,252	23,882	511	46,924	46,924	6,963
2023	0	0	0	0	0	19,625	3,158	23,773	485	47,041	47,041	21,246
2024	0	0	0	0	0	19,844	3,066	24,672	475	48,056	48,056	34,647
2025	0	1,179	30,236	0	31,414	19,807	2,975	25,182	443	48,407	16,992	38,998
2026	0	988	24,410	0	25,398	19,942	2,886	25,221	409	48,458	23,060	44,422
2027	0	931	23,158	0	24,089	20,102	2,797	25,424	346	48,669	24,579	49,731
2028	0	933	23,102	0	24,035	20,098	2,708	25,858	372	48,946	24,911	54,672
2029	0	952	23,326	0	24,278	20,533	2,620	25,577	370	49,101	24,822	59,194
2030	0	1,123	27,759	0	28,882	20,528	2,532	26,079	305	49,444	20,561	62,634
2031	0	1,151	28,453	0	29,604	20,374	2,446	26,882	337	50,040	20,435	63,774
2032	0	1,180	29,165	0	30,345	21,012	2,364	26,292	332	50,000	19,655	68,548
2033	0	1,209	29,894	0	31,103	20,961	2,288	27,275	(18)	50,305	19,402	71,062
2034	0	0	0	0	0	21,936	2,217	26,575	(139)	50,590	50,590	77,083
2035	0	0	0	0	0	22,268	2,150	28,422	(175)	52,665	52,665	82,840
2036	0	0	0	0	0	22,060	2,089	29,836	(239)	53,746	53,746	88,235
2037	0	0	0	0	0	22,531	2,033	30,428	(276)	54,716	54,716	93,279
2038	0	0	0	0	0	21,892	1,984	31,679	(325)	55,229	55,229	97,955
2039	0	0	0	0	0	21,511	1,941	32,431	(426)	55,457	55,457	102

1.63

[illegible]

In Service of Gen Unit:

Discount Rate :

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

2019

8.89 %

1.84

(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	814	12,458	916	0	14,187	835	0	0	7	892	(13,295)	(12,210)
2011	0	682	9,894	2,645	0	13,222	2,303	489	0	9	2,802	(10,420)	(20,999)
2012	0	643	9,081	4,313	0	14,038	3,545	878	0	13	4,436	(9,602)	(28,436)
2013	0	644	8,941	6,054	0	15,639	4,594	1,259	0	378	6,231	(9,408)	(35,129)
2014	0	658	8,827	8,028	0	17,512	5,839	1,600	0	520	7,960	(9,553)	(41,370)
2015	0	775	10,081	10,211	0	21,068	7,889	1,945	0	699	10,533	(10,533)	(47,691)
2016	0	795	10,081	12,536	0	23,412	11,485	2,351	0	947	14,783	(8,629)	(52,445)
2017	0	815	10,081	15,044	0	25,940	14,694	2,760	0	1,209	18,662	(7,277)	(56,128)
2018	0	835	10,081	17,570	0	28,486	17,712	3,171	0	1,491	22,373	(6,112)	(58,969)
2019	0	0	0	19,308	0	19,308	43,045	3,552	0	804	47,401	28,093	(46,978)
2020	0	0	0	19,368	0	19,368	42,345	3,450	0	516	46,311	26,943	(36,417)
2021	0	0	0	19,790	0	19,790	42,440	3,350	0	518	46,308	26,518	(26,871)
2022	0	0	0	20,364	0	20,364	43,160	3,252	0	511	46,924	26,560	(18,089)
2023	0	0	0	20,981	0	20,981	43,398	3,158	0	485	47,041	26,060	(10,177)
2024	0	0	0	21,913	0	21,913	44,515	3,066	0	475	48,056	26,144	(2,887)
2025	0	1,179	12,458	22,699	0	36,336	44,988	2,975	0	443	48,407	12,071	204
2026	0	988	9,894	23,611	0	34,493	45,163	2,886	0	409	48,458	13,564	3,489
2027	0	981	9,081	24,846	0	34,858	45,526	2,797	0	346	48,669	13,810	6,472
2028	0	933	8,941	25,856	0	35,730	45,866	2,708	0	372	48,946	13,217	9,093
2029	0	952	8,827	27,013	0	36,792	46,110	2,620	0	370	49,101	12,308	11,336
2030	0	1,123	10,081	28,334	0	39,538	46,607	2,532	0	305	49,444	9,905	12,993
2031	0	1,151	10,081	29,625	0	40,857	47,256	2,446	0	337	50,040	9,183	14,404
2032	0	1,180	10,081	31,375	0	42,636	47,904	2,364	0	332	50,000	7,364	15,443
2033	0	1,209	10,081	34,181	0	45,471	48,236	2,288	0	(18)	50,505	5,034	16,095
2034	0	0	0	34,822	0	34,822	48,512	2,217	0	(139)	50,590	15,768	17,972
2035	0	0	0	36,191	0	36,191	50,690	2,150	0	(175)	52,665	16,474	19,773
2036	0	0	0	38,781	0	38,781	51,896	2,089	0	(239)	53,746	14,965	21,275
2037	0	0	0	40,857	0	40,857	52,959	2,033	0				

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

8.39 %

1.09

RESIDENTIAL DUCT SYSTEM TESTING & REPAIR

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.18 kW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.24 kW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	353.29 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

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

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Residential Duct System Testing and Repair

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
BEG-YEAR 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	47,601	1,479	0	3,322	2,191	802	263	1,857	4	9,938	9,938	46,423
2020	45,740	1,421	0	3,192	1,506	769	290	1,857	608	9,642	8,855	47,583
2021	43,276	1,344	0	3,020	1,492	735	298	1,857	513	9,260	7,810	48,773
2022	40,906	1,271	0	2,855	1,475	702	305	1,857	427	8,891	6,887	49,992
2023	38,622	1,200	0	2,695	1,456	668	313	1,857	345	8,535	6,071	51,242
2024	36,420	1,131	0	2,542	1,434	635	320	1,857	271	8,190	5,351	52,523
2025	34,292	1,065	0	2,393	1,410	602	328	1,857	202	7,857	4,714	53,836
2026	32,233	1,001	0	2,249	1,383	568	337	1,857	138	7,534	4,151	55,182
2027	30,238	939	0	2,110	1,307	535	345	1,857	128	7,220	3,654	56,562
2028	28,254	878	0	1,972	1,220	501	354	1,857	127	6,908	3,211	57,976
2029	26,269	816	0	1,833	1,133	468	362	1,857	128	6,597	2,816	59,425
2030	24,285	754	0	1,695	1,046	435	372	1,857	127	6,285	2,464	60,911
2031	22,301	693	0	1,556	959	401	381	1,857	128	5,974	2,151	62,434
2032	20,316	631	0	1,418	872	368	390	1,857	127	5,663	1,872	63,995
2033	18,332	569	0	1,279	785	334	400	1,857	128	5,352	1,625	65,594
2034	16,347	508	0	1,141	698	301	410	1,857	127	5,042	1,406	67,234
2035	14,363	446	0	1,002	611	267	420	1,857	128	4,732	1,212	68,915
2036	12,378	385	0	864	524	234	431	1,857	127	4,422	1,040	70,638
2037	10,394	323	0	725	437	201	442	1,857	128	4,112	888	72,404
2038	8,410	261	0	587	350	167	453	1,857	127	3,802	754	74,214
2039	6,425	200	0	448	263	134	464	1,857	(261)	3,493	636	76,069
2040	4,439	150	0	307	176	100	476	1,857	(649)	3,140	542	77,971
2041	2,452	113	0	168	87	67	488	1,857	(649)	2,784	468	79,920
2042	414	75	0	2	38	33	500	1,857	(649)	2,435	402	81,918
2043	1,207	37	0	84	811	(0)	512	1,857	(649)	2,653	344	83,966

IN SERVICE COST	\$(000)	46,423
IN SERVICE YEAR		2019
BOOK LIFE (YRS)		25
EFFEC. TAX RATE		38.575
DISCOUNT RATE		8.9%
PROPERTY TAX		1.80%
PROPERTY INSURANCE		0.61%

CAPITAL STRUCTURE

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

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

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

(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%	1,693	1,693	1,857	1,857	1,684	1,684	4	4,333	0	0	0	4	(1,174)
2020	7.22%	3,259	4,952	1,857	3,714	1,684	3,367	608	4,333	0	0	0	608	(567)
2021	6.68%	3,014	7,966	1,857	5,571	1,684	5,051	513	4,333	0	0	0	513	(53)
2022	6.18%	2,790	10,756	1,857	7,428	1,684	6,734	427	4,333	0	0	0	427	373
2023	5.71%	2,579	13,335	1,857	9,285	1,684	8,418	345	4,333	0	0	0	345	719
2024	5.29%	2,386	15,721	1,857	11,142	1,684	10,102	271	4,333	0	0	0	271	990
2025	4.89%	2,207	17,927	1,857	12,998	1,684	11,785	202	4,333	0	0	0	202	1,191
2026	4.52%	2,041	19,969	1,857	14,855	1,684	13,469	138	4,333	0	0	0	138	1,329
2027	4.46%	2,014	21,983	1,857	16,712	1,684	15,152	128	4,333	0	0	0	128	1,457
2028	4.46%	2,014	23,997	1,857	18,569	1,684	16,836	127	4,333	0	0	0	127	1,584
2029	4.46%	2,014	26,011	1,857	20,426	1,684	18,520	128	4,333	0	0	0	128	1,712
2030	4.46%	2,014	28,025	1,857	22,283	1,684	20,203	127	4,333	0	0	0	127	1,839
2031	4.46%	2,014	30,040	1,857	24,140	1,684	21,887	128	4,333	0	0	0	128	1,967
2032	4.46%	2,014	32,053	1,857	25,997	1,684	23,570	127	4,333	0	0	0	127	2,094
2033	4.46%	2,014	34,068	1,857	27,854	1,684	25,254	128	4,333	0	0	0	128	2,222
2034	4.46%	2,014	36,082	1,857	29,711	1,684	26,937	127	4,333	0	0	0	127	2,349
2035	4.46%	2,014	38,096	1,857	31,568	1,684	28,621	128	4,333	0	0	0	128	2,477
2036	4.46%	2,014	40,110	1,857	33,425	1,684	30,305	127	4,333	0	0	0	127	2,604
2037	4.46%	2,014	42,124	1,857	35,281	1,684	31,988	128	4,333	0	0	0	128	2,732
2038	4.46%	2,014	44,138	1,857	37,138	1,684	33,672	127	4,333	0	0	0	127	2,859
2039	2.23%	1,007	45,145	1,857	38,995	1,684	35,355	(261)	4,333	0	0	0	(261)	2,598
2040	0.00%	0	45,145	1,857	40,852	1,684	37,039	(649)	4,333	0	0	0	(649)	1,949
2041	0.00%	0	45,145	1,857	42,709	1,684	38,723	(649)	4,333	0	0	0	(649)	1,299
2042	0.00%	0	45,145	1,857	44,566	1,684	40,406	(649)	4,333	0	0	0	(649)	650
2043	0.00%	0	45,145	1,857	46,423	1,684	42,090	(649)	4,333	0	0	0	(649)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,178)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	4,333
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	1,693	4	44,566	1,857	(1,174)	47,691	45,740	46,671
2020	7.22%	3,259	608	42,709	3,714	(567)	45,740	43,276	44,508
2021	6.68%	3,014	513	40,852	5,571	(53)	43,276	40,906	42,091
2022	6.18%	2,790	427	38,995	7,428	373	40,906	38,622	39,764
2023	5.71%	2,579	345	37,138	9,285	719	38,622	36,420	37,521
2024	5.29%	2,386	271	35,281	11,142	990	36,420	34,292	35,356
2025	4.89%	2,207	202	33,425	12,998	1,191	34,292	32,233	33,262
2026	4.52%	2,041	138	31,568	14,855	1,329	32,233	30,238	31,236
2027	4.46%	2,014	128	29,711	16,712	1,457	30,238	28,254	29,246
2028	4.46%	2,014	127	27,854	18,569	1,584	28,254	26,269	27,262
2029	4.46%	2,014	128	25,997	20,426	1,712	26,269	24,285	25,277
2030	4.46%	2,014	127	24,140	22,283	1,839	24,285	22,301	23,293
2031	4.46%	2,014	128	22,283	24,140	1,967	22,301	20,316	21,308
2032	4.46%	2,014	127	20,426	25,997	2,094	20,316	18,332	19,324
2033	4.46%	2,014	128	18,569	27,854	2,222	18,332	16,347	17,340
2034	4.46%	2,014	127	16,712	29,711	2,349	16,347	14,363	15,355
2035	4.46%	2,014	128	14,855	31,568	2,477	14,363	12,378	13,371
2036	4.46%	2,014	127	12,998	33,425	2,604	12,378	10,394	11,386
2037	4.46%	2,014	128	11,142	35,281	2,732	10,394	8,410	9,402
2038	4.46%	2,014	127	9,285	37,138	2,859	8,410	6,425	7,418
2039	2.23%	1,007	(261)	7,428	38,995	2,988	6,425	4,829	5,627
2040	0.00%	0	(649)	5,571	40,852	1,949	4,829	3,622	4,226
2041	0.00%	0	(649)	3,714	42,709	1,299	3,622	2,414	3,018
2042	0.00%	0	(649)	1,857	44,566	650	2,414	1,207	1,811
2043	0.00%	0	(649)	(0)	46,423	1	1,207	-1	603

* 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	158.38

		160.00%		907.77									
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)	
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	
YEAR													
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29	
2014	-5	9.25	0.29	0.30	0.79	0.84	0.65	0.70	(0.14)	(0.15)	16.78	18.07	
2015	-4	37.87	1.18	1.49	3.22	4.06	2.65	3.35	(0.57)	(0.72)	42.83	60.90	
2016	-3	226.84	7.07	8.56	19.29	23.36	15.90	19.25	(3.41)	(4.13)	351.16	412.06	
2017	-2	622.20	19.46	28.01	53.10	76.45	43.47	62.72	(9.26)	(13.39)	473.37	885.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

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

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	39,584	39,584	39,584
EQUITY AFUDC	4,333		
DEBT AFUDC	2,506	2,506	
CPI			5,560
TOTAL	46,423	42,090	45,144

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C&Wh)	AVOIDED MARGINAL FUEL COST (C&Wh)	INCREASED MARGINAL FUEL COST (C&Wh)	REPLACEMENT FUEL COST (C&Wh)	PROGRAM kW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	22,138	22,138	6.41	9.01	6.70	0.00	1.00	1.00
2011	41,082	41,082	6.35	8.48	6.61	0.00	1.00	1.00
2012	58,637	58,637	6.43	8.45	6.66	0.00	1.00	1.00
2013	75,137	75,137	7.06	8.41	7.23	0.00	1.00	1.00
2014	90,499	90,499	7.53	8.67	7.68	0.00	1.00	1.00
2015	113,658	113,658	8.11	9.61	8.31	0.00	1.00	1.00
2016	136,818	136,818	9.00	11.55	9.31	0.00	1.00	1.00
2017	159,977	159,977	9.75	12.72	10.06	0.00	1.00	1.00
2018	183,137	183,137	10.52	13.53	10.86	0.00	1.00	1.00
2019	183,137	183,137	11.50	15.25	11.94	10.41	1.00	1.00
2020	183,137	183,137	12.03	15.88	12.57	10.50	1.00	1.00
2021	183,137	183,137	12.57	16.53	13.08	10.74	1.00	1.00
2022	183,137	183,137	13.06	17.14	13.59	10.81	1.00	1.00
2023	183,137	183,137	13.39	17.16	13.92	10.80	1.00	1.00
2024	183,137	183,137	13.95	17.82	14.47	10.84	1.00	1.00
2025	183,137	183,137	14.40	18.22	14.92	10.96	1.00	1.00
2026	183,137	183,137	14.70	18.32	15.19	11.05	1.00	1.00
2027	183,137	183,137	15.13	18.54	15.60	11.17	1.00	1.00
2028	183,137	183,137	15.60	18.91	16.05	11.36	1.00	1.00
2029	183,137	183,137	16.02	18.85	16.44	11.41	1.00	1.00
2030	183,137	183,137	16.52	19.26	16.92	11.59	1.00	1.00
2031	183,137	183,137	17.08	19.86	17.47	11.80	1.00	1.00
2032	183,137	183,137	17.50	19.62	17.84	11.88	1.00	1.00
2033	183,137	183,137	18.27	20.38	18.50	12.10	1.00	1.00
2034	183,137	183,137	18.73	20.08	18.86	12.14	1.00	1.00
2035	183,137	183,137	19.57	21.37	19.75	12.29	1.00	1.00
2036	183,137	183,137	20.40	22.39	20.54	12.55	1.00	1.00
2037	183,137	183,137	21.11	22.91	21.24	12.70	1.00	1.00
2038	183,137	183,137	22.02	23.86	22.16	13.04	1.00	1.00
2039	183,137	183,137	22.78	24.49	22.89	13.32	1.00	1.00
2040	183,137	183,137	23.59	25.04	23.68	13.44	1.00	1.00
2041	183,137	183,137	24.54	25.93	24.62	13.75	1.00	1.00
2042	183,137	183,137	25.50	26.84	25.59	14.10	1.00	1.00
2043	183,137	183,137	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.

AVOIDED GENERATING BENEFITS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: Residential Door System Testing and Repair

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	9,938	5,451	230	13,882	17,563	11,938
2020	9,642	5,587	332	20,452	24,917	11,097
2021	9,260	5,727	347	21,339	26,024	10,650
2022	8,891	5,870	369	22,586	27,130	10,585
2023	8,535	6,017	389	23,745	27,911	10,775
2024	8,190	6,167	412	25,083	28,958	10,895
2025	7,857	6,322	440	26,801	30,546	10,875
2026	7,534	6,480	472	28,640	32,177	10,949
2027	7,220	6,642	499	30,230	33,555	11,037
2028	6,908	6,808	514	31,033	34,278	10,985
2029	6,597	6,978	538	32,340	35,179	11,273
2030	6,285	7,152	565	33,854	36,585	11,271
2031	5,974	7,331	579	34,551	37,249	11,186
2032	5,663	7,514	601	35,772	38,014	11,516
2033	5,352	7,702	662	39,360	41,568	11,508
2034	5,042	7,895	692	40,969	42,554	12,044
2035	4,732	8,092	711	41,901	43,210	12,226
2036	4,422	8,294	735	43,152	44,492	12,112
2037	4,112	8,502	756	44,133	45,132	12,370
2038	3,802	8,714	777	45,234	46,509	12,019
2039	3,493	8,932	798	46,164	47,577	11,811
2040	3,240	9,156	820	47,227	48,120	12,323
2041	3,044	9,384	842	48,264	49,332	12,202
2042	2,848	9,619	865	49,363	50,706	11,989
2043	2,653	9,860	891	50,632	52,010	12,025
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	151,235	116,197	14,834	876,707	941,294	287,679
NPV	33,831	30,913	2,240	134,180	149,246	51,918

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)*
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	384	0
2011	197	16	213	16	4	21	1,021	0
2012	365	30	395	30	8	38	1,601	0
2013	519	56	575	43	12	55	2,089	0
2014	662	69	731	55	15	70	2,643	0
2015	794	88	882	66	19	85	3,634	0
2016	1,006	109	1,115	84	24	108	5,467	0
2017	1,218	131	1,349	101	30	131	7,159	0
2018	1,430	153	1,583	119	36	155	8,780	0
2019	1,642	157	1,800	137	42	179	10,634	0
2020	1,585	161	1,747	132	43	175	11,050	0
2021	1,529	165	1,694	127	44	172	11,504	0
2022	1,474	169	1,643	123	45	168	11,923	0
2023	1,421	174	1,594	118	46	165	11,869	0
2024	1,368	178	1,546	114	48	162	12,317	0
2025	1,317	182	1,499	110	49	158	12,572	0
2026	1,266	187	1,452	105	50	155	12,591	0
2027	1,215	192	1,406	101	51	152	12,693	0
2028	1,164	196	1,360	97	53	149	12,910	0
2029	1,113	201	1,314	93	54	147	12,769	0
2030	1,062	206	1,268	88	55	144	13,020	0
2031	1,012	212	1,223	84	57	141	13,421	0
2032	964	217	1,180	80	58	138	13,126	0
2033	918	222	1,140	76	59	136	13,617	0
2034	874	228	1,102	73	61	134	13,268	0
2035	832	234	1,066	69	62	132	14,190	0
2036	793	239	1,032	66	64	130	14,896	0
2037	757	245	1,002	63	66	129	15,191	0
2038	723	251	975	60	67	128	15,815	0
2039	694	258	951	58	69	127	16,191	0
2040	666	264	931	56	71	126	16,498	0
2041	640	271	911	53	72	126	17,062	0
2042	614	278	891	51	74	125	17,641	0
2043	587	285	872	49	75	125	18,928	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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.	32,420	6,024	38,444	2,700	1,386	4,286	378,471	0
NPV	9,273	1,263	10,536	772	323	1,095	77,252	0

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

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
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	1,744	5,423	0	7,167	0	0	384	3	387	(6,780)	(6,227)
2011	0	1,530	4,757	0	6,287	0	234	1,021	4	1,259	(5,028)	(10,467)
2012	0	1,453	4,518	0	5,971	0	433	1,601	6	2,041	(3,930)	(13,512)
2013	0	1,400	4,353	0	5,753	0	630	2,089	172	2,890	(2,603)	(15,548)
2014	0	1,336	4,154	0	5,490	0	801	2,643	235	3,679	(1,810)	(16,731)
2015	0	2,064	6,419	0	8,483	0	967	3,634	322	4,923	(3,561)	(18,867)
2016	0	2,116	6,580	0	8,695	0	1,223	5,467	451	7,140	(1,555)	(19,724)
2017	0	2,169	6,744	0	8,913	0	1,480	7,159	589	9,228	315	(19,565)
2018	0	2,223	6,913	0	9,136	0	1,738	8,780	739	11,257	2,122	(18,579)
2019	0	0	0	0	0	11,938	1,978	10,634	365	24,906	24,906	(7,948)
2020	0	0	0	0	0	11,097	1,922	11,050	190	24,259	24,259	1,561
2021	0	0	0	0	0	10,650	1,866	11,504	184	24,203	24,203	10,274
2022	0	0	0	0	0	10,585	1,811	11,923	169	24,488	24,488	18,370
2023	0	0	0	0	0	10,775	1,759	11,869	147	24,549	24,549	25,823
2024	0	0	0	0	0	10,895	1,708	12,317	129	25,048	25,048	32,808
2025	0	0	0	0	0	10,875	1,657	12,572	98	25,201	25,201	39,262
2026	0	0	0	0	0	10,949	1,608	12,591	71	25,219	25,219	45,192
2027	0	0	0	0	0	11,037	1,559	12,693	23	25,311	25,311	50,660
2028	0	0	0	0	0	10,985	1,510	12,910	23	25,427	25,427	55,704
2029	0	0	0	0	0	11,273	1,461	12,769	1	25,505	25,505	60,350
2030	0	0	0	0	0	11,271	1,412	13,020	(51)	25,652	25,652	64,642
2031	0	0	0	0	0	11,186	1,364	13,421	(51)	25,920	25,920	68,625
2032	0	0	0	0	0	11,536	1,319	13,126	(74)	25,907	25,907	72,281
2033	0	0	0	0	0	11,508	1,276	13,617	(287)	26,114	26,114	75,665
2034	0	0	0	0	0	12,044	1,235	13,268	(376)	26,171	26,171	78,780
2035	0	3,233	10,054	0	13,288	12,226	1,198	14,190	(421)	27,192	13,904	80,300
2036	0	2,836	8,819	0	11,655	12,112	1,162	14,896	(483)	27,687	16,031	81,909
2037	0	2,694	8,376	0	11,070	12,370	1,131	15,191	(532)	28,160	17,090	83,484
2038	0	2,595	8,070	0	10,666	12,019	1,102	15,815	(589)	28,348	17,683	84,982
2039	0	2,477	7,701	0	10,177	11,811	1,078	16,191	(676)	28,404	18,226	86,399
2040	0	3,827	11,901	0	15,728	12,323	1,057	16,498	(749)	29,129	13,401	87,356
2041	0	3,923	12,198	0	16,121	12,202	1,037	17,062	(813)	29,488	13,367	88,232
2042	0	4,021	12,503	0	16,524	11,989	1,017	17,641	(430)	30,216	13,692	89,057
2043	0	4,121	12,816	0	16,937	12,025	997	18,928	(15)	31,935	14,998	89,887
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

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

8.89 %

272

%

[illegible]

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

2019	
8.89	%

3.28

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.22	

RESIDENTIAL BUILDING ENVELOPE

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.25 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	0.34 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	618.25 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	145.52 \$/kW
(6) BASE YEAR DISTRIBUTION COST	20.64 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	97.66 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	2.50 %**
(10) TRANSMISSION FIXED O & M COST	2.82 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.01 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	2.50 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.106 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.50 %**
(15) GENERATOR CAPACITY FACTOR	0% ** (in-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	*.23 CENTS PER kWh** (in-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

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

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

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)
YEAR													
2019	23,218	721	0	1,620	1,069	391	138	906	2	4,847	4,847	4,847	22,643
2020	22,311	693	0	1,557	734	375	142	906	296	4,703	4,319	9,167	23,209
2021	21,108	656	0	1,473	728	359	145	906	250	4,517	3,809	12,976	23,790
2022	19,952	620	0	1,392	719	342	149	906	208	4,337	3,359	16,335	24,384
2023	18,838	585	0	1,315	710	326	152	906	168	4,163	2,961	19,297	24,994
2024	17,764	552	0	1,240	700	310	156	906	132	3,995	2,610	21,907	25,619
2025	16,726	520	0	1,167	688	293	160	906	98	3,832	2,289	24,206	26,259
2026	15,722	488	0	1,097	675	277	164	906	67	3,675	2,025	26,231	26,916
2027	14,749	458	0	1,029	637	261	168	906	62	3,522	1,782	28,013	27,589
2028	13,781	428	0	962	595	245	172	906	62	3,370	1,566	29,579	28,279
2029	12,813	398	0	894	552	228	177	906	62	3,218	1,373	30,953	28,985
2030	11,845	368	0	827	510	212	181	906	62	3,066	1,202	32,154	29,710
2031	10,877	338	0	759	468	196	186	906	62	2,914	1,049	33,203	30,453
2032	9,909	308	0	692	425	179	190	906	62	2,762	913	34,117	31,214
2033	8,942	278	0	624	383	163	195	906	62	2,611	793	34,909	31,995
2034	7,974	248	0	556	340	147	200	906	62	2,459	686	35,595	32,794
2035	7,006	218	0	489	298	130	205	906	62	2,308	591	36,186	33,614
2036	6,038	188	0	421	256	114	210	906	62	2,157	507	36,693	34,455
2037	5,070	157	0	354	213	98	215	906	62	2,006	433	37,126	35,316
2038	4,102	127	0	286	171	82	221	906	62	1,855	368	37,494	36,199
2039	3,134	97	0	219	131	65	226	906	(127)	1,704	310	37,805	37,104
2040	2,356	73	0	164	473	49	232	906	(317)	1,581	264	38,069	38,031
2041	1,767	55	0	123	447	33	238	906	(317)	1,485	228	38,297	38,982
2042	1,178	37	0	82	421	16	244	906	(317)	1,389	196	38,493	39,957
2043	589	18	0	41	396	0	250	906	(317)	1,294	168	38,661	40,956

IN SERVICE COST (\$000)	22,643
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 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%	826	826	906	906	821	821	2	2,114	0	0	0	2	(573)
2020	7.22%	1,590	2,415	906	1,811	821	1,642	296	2,114	0	0	0	296	(276)
2021	6.68%	1,470	3,886	906	2,717	821	2,464	250	2,114	0	0	0	250	(26)
2022	6.18%	1,361	5,246	906	3,623	821	3,285	208	2,114	0	0	0	208	182
2023	5.71%	1,258	6,504	906	4,529	821	4,106	168	2,114	0	0	0	168	351
2024	5.29%	1,164	7,668	906	5,434	821	4,927	132	2,114	0	0	0	132	483
2025	4.89%	1,076	8,744	906	6,340	821	5,748	98	2,114	0	0	0	98	581
2026	4.52%	996	9,740	906	7,246	821	6,570	67	2,114	0	0	0	67	648
2027	4.46%	983	10,723	906	8,152	821	7,391	62	2,114	0	0	0	62	711
2028	4.46%	982	11,705	906	9,057	821	8,212	62	2,114	0	0	0	62	775
2029	4.46%	983	12,687	906	9,963	821	9,033	62	2,114	0	0	0	62	835
2030	4.46%	982	13,670	906	10,869	821	9,854	62	2,114	0	0	0	62	897
2031	4.46%	983	14,652	906	11,775	821	10,676	62	2,114	0	0	0	62	959
2032	4.46%	982	15,634	906	12,680	821	11,497	62	2,114	0	0	0	62	1,022
2033	4.46%	983	16,617	906	13,586	821	12,318	62	2,114	0	0	0	62	1,084
2034	4.46%	982	17,599	906	14,492	821	13,139	62	2,114	0	0	0	62	1,146
2035	4.46%	983	18,582	906	15,398	821	13,960	62	2,114	0	0	0	62	1,208
2036	4.46%	982	19,564	906	16,303	821	14,782	62	2,114	0	0	0	62	1,270
2037	4.46%	983	20,547	906	17,209	821	15,603	62	2,114	0	0	0	62	1,332
2038	4.46%	982	21,529	906	18,115	821	16,424	62	2,114	0	0	0	62	1,395
2039	2.23%	491	22,020	906	19,020	821	17,245	(127)	2,114	0	0	0	(127)	1,267
2040	0.00%	0	22,020	906	19,926	821	18,066	(317)	2,114	0	0	0	(317)	951
2041	0.00%	0	22,020	906	20,832	821	18,887	(317)	2,114	0	0	0	(317)	634
2042	0.00%	0	22,020	906	21,738	821	19,709	(317)	2,114	0	0	0	(317)	317
2043	0.00%	0	22,020	906	22,643	821	20,530	(317)	2,114	0	0	0	(317)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(575)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	2,114
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET 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%	826	2	21,738	906	(573)	23,218	22,311	22,764
2020	7.22%	1,590	296	20,832	1,811	(276)	22,311	21,108	21,709
2021	6.68%	1,470	250	19,926	2,717	(26)	21,108	19,952	20,530
2022	6.18%	1,361	208	19,020	3,623	182	19,952	18,838	19,395
2023	5.71%	1,258	168	18,115	4,529	351	18,838	17,764	18,301
2024	5.29%	1,164	132	17,209	5,434	483	17,764	16,726	17,245
2025	4.89%	1,076	98	16,303	6,340	581	16,726	15,722	16,224
2026	4.52%	996	67	15,398	7,246	648	15,722	14,749	15,236
2027	4.46%	983	62	14,492	8,152	711	14,749	13,781	14,265
2028	4.46%	982	62	13,586	9,057	773	13,781	12,813	13,297
2029	4.46%	983	62	12,680	9,963	835	12,813	11,845	12,329
2030	4.46%	982	62	11,775	10,869	897	11,845	10,877	11,361
2031	4.46%	983	62	10,869	11,775	959	10,877	9,909	10,393
2032	4.46%	982	62	9,963	12,680	1,022	9,909	8,942	9,426
2033	4.46%	983	62	9,057	13,586	1,084	8,942	7,974	8,458
2034	4.46%	982	62	8,152	14,492	1,146	7,974	7,006	7,490
2035	4.46%	983	62	7,246	15,398	1,208	7,006	6,038	6,522
2036	4.46%	982	62	6,340	16,303	1,270	6,038	5,070	5,554
2037	4.46%	983	62	5,434	17,209	1,332	5,070	4,102	4,586
2038	4.46%	982	62	4,529	18,115	1,395	4,102	3,134	3,618
2039	2.23%	491	(127)	3,623	19,020	1,267	3,134	2,356	2,745
2040	0.00%	0	(17)	2,717	19,926	951	2,356	1,767	2,061
2041	0.00%	0	(17)	1,811	20,832	634	1,767	1,178	1,472
2042	0.00%	0	(17)	906	21,738	317	1,178	589	883
2043	0.00%	0	(17)	0	22,643	0	589	0	294

* 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	858.33

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

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	57.47	156.84	127.50	(27.02)	1,064.61
	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS		
CONSTRUCTION CASH	19,308	19,308	19,308		
EQUITY AFUDC	2,114				
DEBT AFUDC	1,222	1,222			
CPI			2,712		
TOTAL	22,643	20,530	22,019		

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C&Wh)	AVOIDED MARGINAL FUEL COST (C&Wh)	INCREASED MARGINAL FUEL COST (C&Wh)	REPLACEMENT FUEL COST (C&Wh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	6,458	6,458	6.41	8.63	6.73	0.00	1.00	1.00
2011	12,376	12,376	6.35	8.20	6.68	0.00	1.00	1.00
2012	19,076	19,076	6.43	8.15	6.73	0.00	1.00	1.00
2013	25,303	25,303	7.06	8.21	7.27	0.00	1.00	1.00
2014	32,223	32,223	7.53	8.49	7.72	0.00	1.00	1.00
2015	40,022	40,022	8.11	9.34	8.36	0.00	1.00	1.00
2016	47,822	47,822	9.00	11.13	9.39	0.00	1.00	1.00
2017	55,621	55,621	9.75	12.22	10.15	0.00	1.00	1.00
2018	63,421	63,421	10.52	13.07	10.94	0.00	1.00	1.00
2019	63,421	63,421	11.50	14.68	12.05	10.41	1.00	1.00
2020	63,421	63,421	12.08	15.35	12.69	10.50	1.00	1.00
2021	63,421	63,421	12.57	15.89	13.21	10.74	1.00	1.00
2022	63,421	63,421	13.06	16.45	13.70	10.81	1.00	1.00
2023	63,421	63,421	13.39	16.48	14.02	10.80	1.00	1.00
2024	63,421	63,421	13.95	17.12	14.58	10.84	1.00	1.00
2025	63,421	63,421	14.40	17.54	15.03	10.96	1.00	1.00
2026	63,421	63,421	14.70	17.67	15.30	11.05	1.00	1.00
2027	63,421	63,421	15.13	17.88	15.70	11.17	1.00	1.00
2028	63,421	63,421	15.60	18.23	16.15	11.36	1.00	1.00
2029	63,421	63,421	16.02	18.29	16.53	11.41	1.00	1.00
2030	63,421	63,421	16.52	18.70	17.01	11.59	1.00	1.00
2031	63,421	63,421	17.08	19.32	17.56	11.80	1.00	1.00
2032	63,421	63,421	17.50	19.20	17.91	11.88	1.00	1.00
2033	63,421	63,421	18.27	19.94	18.56	12.10	1.00	1.00
2034	63,421	63,421	18.73	19.81	18.90	12.14	1.00	1.00
2035	63,421	63,421	19.57	20.99	19.80	12.29	1.00	1.00
2036	63,421	63,421	20.40	21.98	20.61	12.55	1.00	1.00
2037	63,421	63,421	21.11	22.55	21.30	12.70	1.00	1.00
2038	63,421	63,421	22.02	23.48	22.21	13.04	1.00	1.00
2039	63,421	63,421	22.78	24.12	22.94	13.32	1.00	1.00
2040	63,421	63,421	23.59	24.73	23.73	13.44	1.00	1.00
2041	63,421	63,421	24.54	25.65	24.67	13.75	1.00	1.00
2042	63,421	63,421	25.50	26.60	25.63	14.10	1.00	1.00
2043	63,421	63,421	26.74	28.27	26.91	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

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

	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
YEAR						
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	4,847	2,659	112	6,771	8,566	5,823
2020	4,703	2,725	162	9,976	12,153	5,413
2021	4,517	2,793	169	10,409	12,693	5,194
2022	4,337	2,863	180	11,016	13,233	5,163
2023	4,163	2,935	190	11,582	13,614	5,255
2024	3,995	3,008	201	12,235	14,125	5,314
2025	3,832	3,083	215	13,073	14,899	5,304
2026	3,675	3,161	230	13,970	15,695	5,340
2027	3,522	3,240	243	14,745	16,367	5,382
2028	3,370	3,321	251	15,137	16,719	5,358
2029	3,218	3,404	262	15,774	17,159	5,499
2030	3,066	3,489	275	16,513	17,845	5,497
2031	2,914	3,576	282	16,853	18,169	5,456
2032	2,762	3,665	293	17,444	18,542	5,627
2033	2,611	3,757	323	19,199	20,275	5,615
2034	2,459	3,851	338	19,983	20,756	5,875
2035	2,308	3,947	347	20,438	21,076	5,963
2036	2,157	4,046	359	21,048	21,702	5,908
2037	2,006	4,147	369	21,526	22,014	6,034
2038	1,855	4,251	379	22,064	22,685	5,863
2039	1,704	4,357	389	22,517	23,206	5,761
2040	1,581	4,466	400	23,036	23,471	6,011
2041	1,485	4,577	411	23,541	24,062	5,952
2042	1,389	4,692	422	24,077	24,733	5,848
2043	1,294	4,809	434	24,697	25,369	5,865
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	73,767	90,820	7,236	427,626	459,129	140,319
NPV	16,501	15,078	1,093	65,448	72,797	25,324

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)*
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	186	0
2011	81	6	88	7	2	8	511	0
2012	155	13	168	13	3	16	845	0
2013	239	26	266	20	5	25	1,177	0
2014	317	34	351	26	7	34	1,565	0
2015	404	44	447	34	9	43	2,172	0
2016	503	54	557	42	12	54	3,206	0
2017	603	64	667	50	15	65	4,159	0
2018	703	75	778	59	18	76	5,105	0
2019	803	77	879	67	21	87	6,151	0
2020	775	79	853	65	21	86	6,425	0
2021	747	81	828	62	22	84	6,640	0
2022	720	83	803	60	22	82	6,871	0
2023	694	85	779	58	23	80	6,843	0
2024	669	87	756	56	23	79	7,105	0
2025	644	89	733	54	24	77	7,265	0
2026	619	91	710	52	24	76	7,296	0
2027	594	93	687	49	25	74	7,351	0
2028	569	96	665	47	26	73	7,473	0
2029	544	98	642	45	26	72	7,451	0
2030	519	101	620	43	27	70	7,604	0
2031	495	102	596	41	28	69	7,851	0
2032	471	106	577	39	28	68	7,740	0
2033	444	108	557	37	29	66	8,022	0
2034	427	111	538	36	30	65	7,901	0
2035	406	114	520	34	30	64	8,405	0
2036	387	117	504	32	31	63	8,813	0
2037	370	120	489	31	32	63	9,021	0
2038	354	123	476	29	33	62	9,386	0
2039	339	126	465	28	34	62	9,622	0
2040	326	129	455	27	34	62	9,838	0
2041	313	132	445	26	35	61	10,195	0
2042	300	135	435	25	36	61	10,565	0
2043	287	139	426	24	37	61	11,274	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	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.	15,825	2,937	18,762	1,318	773	2,091	222,036	0
NPV	4,508	615	5,123	375	157	532	44,892	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	1	0	1
2011	0	0	2	0	2
2012	0	0	3	0	3
2013	0	0	99	0	99
2014	0	0	143	0	143
2015	0	0	199	0	199
2016	0	0	274	0	274
2017	0	0	355	0	355
2018	0	0	449	0	449
2019	810	1,059	514	0	269
2020	1,233	1,597	560	0	196
2021	1,358	1,761	605	0	202
2022	1,586	2,051	674	0	209
2023	1,750	2,262	717	0	205
2024	2,015	2,599	797	0	214
2025	2,326	2,990	882	0	217
2026	2,579	3,297	926	0	209
2027	2,918	3,724	1,009	0	203
2028	3,199	4,076	1,097	0	220
2029	3,660	4,645	1,221	0	235
2030	4,058	5,147	1,319	0	230
2031	4,410	5,596	1,432	0	232
2032	4,856	6,143	1,551	0	264
2033	5,658	7,154	1,683	0	188
2034	6,263	7,911	1,819	0	171
2035	6,803	8,597	1,972	0	177
2036	7,427	9,383	2,135	0	178
2037	8,049	10,167	2,307	0	190
2038	8,725	11,019	2,490	0	197
2039	9,423	11,916	2,685	0	192
2040	10,183	12,875	2,891	0	199
2041	10,972	13,871	3,108	0	210
2042	10,972	13,871	3,341	0	442
2043	10,972	13,871	3,592	0	694
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	132,207	167,575	42,855	0	7,486
NPV	16,907	20,367	6,216	0	1,856

(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	123	3,263	0	3,387	0	0	186	1	187	(3,199)	(2,938)
2011	0	204	3,647	0	3,870	0	96	511	2	609	(3,262)	(5,689)
2012	0	212	4,234	0	4,436	0	184	945	3	1,033	(3,403)	(8,325)
2013	0	214	4,478	0	4,692	0	291	1,177	99	1,567	(3,125)	(10,548)
2014	0	255	5,288	0	5,543	0	385	1,565	143	2,092	(3,651)	(12,803)
2015	0	220	4,367	0	4,587	0	491	2,172	199	2,862	(1,725)	(13,838)
2016	0	226	4,476	0	4,702	0	611	3,206	274	4,091	(611)	(14,174)
2017	0	231	4,588	0	4,819	0	732	4,159	355	5,245	426	(13,959)
2018	0	237	4,702	0	4,940	0	854	5,105	449	6,407	1,467	(13,277)
2019	0	0	0	0	0	5,823	967	6,151	269	13,210	13,210	(7,638)
2020	0	13	1,661	0	1,674	5,413	939	6,425	196	12,972	11,299	(3,209)
2021	0	15	1,890	0	1,905	5,194	912	6,640	202	12,949	11,043	766
2022	0	18	2,284	0	2,302	5,163	885	6,871	209	13,128	10,827	4,345
2023	0	22	2,724	0	2,745	5,255	860	6,843	205	13,163	10,417	7,508
2024	0	26	3,296	0	3,322	5,314	835	7,105	214	13,468	10,146	10,338
2025	0	15	1,846	0	1,861	5,304	810	7,265	217	13,597	11,736	13,343
2026	0	15	1,892	0	1,907	5,340	786	7,296	209	13,631	11,724	16,166
2027	0	15	1,940	0	1,955	5,383	762	7,351	203	13,699	11,744	18,637
2028	0	16	1,988	0	2,004	5,358	738	7,473	220	13,789	11,785	20,975
2029	0	0	0	0	0	5,499	714	7,451	235	13,899	13,899	23,507
2030	0	176	5,193	0	5,370	5,497	690	7,604	230	14,021	8,651	24,954
2031	0	148	4,891	0	5,038	5,456	667	7,851	252	14,226	9,188	26,366
2032	0	178	5,902	0	6,080	5,627	644	7,740	264	14,276	8,196	27,523
2033	0	172	6,261	0	6,433	5,613	623	8,022	188	14,446	8,013	28,561
2034	0	195	7,329	0	7,523	5,875	603	7,901	171	14,550	7,026	29,397
2035	0	224	6,335	0	6,559	5,963	585	8,405	177	15,130	8,571	30,334
2036	0	230	6,493	0	6,723	5,908	568	8,813	178	15,466	8,742	31,121
2037	0	236	6,656	0	6,892	6,034	552	9,021	190	15,796	8,905	32,033
2038	0	242	6,822	0	7,064	5,863	539	9,386	197	15,984	8,920	32,788
2039	0	0	0	0	0	5,761	527	9,622	192	16,102	15,102	34,040
2040	0	54	2,919	0	2,974	6,011	516	9,838	199	16,564	13,590	35,010
2041	0	263	4,528	0	4,791	5,952	506	10,195	210	16,863	12,072	35,802
2042	0	247	5,046	0	5,293	5,848	497	10,565	442	17,351	12,058	36,528
2043	0	265	5,841	0	6,106	5,865	487	11,274	694	18,320	12,214	37,204
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0					

Discount Rate:

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

1.59 %

192

2019	
8.89	%
2.13	

(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	123	1,862	174	0	2,159	186	0	0	1	187	(1,972)	(1,811)
2011	0	204	1,950	579	0	2,733	511	96	0	2	609	(2,124)	(3,603)
2012	0	212	2,194	1,094	0	3,500	845	184	0	3	1,033	(2,467)	(5,514)
2013	0	214	2,204	1,677	0	4,096	1,177	291	0	99	1,567	(2,529)	(7,313)
2014	0	255	2,517	2,381	0	5,153	1,565	385	0	143	2,092	(3,061)	(9,312)
2015	0	220	2,230	3,119	0	5,569	2,172	491	0	199	2,862	(2,707)	(10,937)
2016	0	226	2,230	3,814	0	6,270	3,206	611	0	274	4,091	(2,180)	(12,138)
2017	0	232	2,230	4,565	0	7,027	4,199	732	0	355	5,245	(1,781)	(13,039)
2018	0	237	2,230	5,320	0	7,788	5,105	854	0	449	6,407	(1,381)	(13,641)
2019	0	0	0	5,842	0	5,842	11,974	967	0	269	13,210	7,368	(10,536)
2020	0	13	517	5,860	0	6,390	11,834	939	0	196	12,973	6,583	(7,956)
2021	0	15	574	5,987	0	6,577	11,835	912	0	202	12,949	6,372	(5,662)
2022	0	18	677	6,161	0	6,856	12,034	885	0	209	13,128	6,272	(3,588)
2023	0	22	788	6,348	0	7,157	12,098	860	0	205	13,163	6,006	(1,765)
2024	0	26	930	6,630	0	7,586	12,420	835	0	214	13,468	5,882	(125)
2025	0	15	508	6,868	0	7,390	12,570	810	0	217	13,597	6,206	1,465
2026	0	15	508	7,144	0	7,667	12,636	786	0	209	13,631	5,964	2,868
2027	0	15	508	7,517	0	8,041	12,734	762	0	203	13,699	5,658	4,090
2028	0	16	508	7,823	0	8,347	12,831	738	0	220	13,789	5,443	5,169
2029	0	0	0	8,173	0	8,173	12,949	714	0	235	13,899	5,726	6,213
2030	0	176	1,820	8,573	0	10,569	13,101	690	0	230	14,021	3,452	6,790
2031	0	148	1,598	8,962	0	10,708	13,308	667	0	252	14,226	3,518	7,331
2032	0	178	1,880	9,493	0	11,550	13,367	644	0	264	14,276	2,726	7,715
2033	0	172	1,880	10,342	0	12,393	13,636	623	0	188	14,446	2,053	7,981
2034	0	195	2,123	10,536	0	12,853	13,776	603	0	171	14,550	1,696	8,183
2035	0	224	10,950	10,950	0	13,168	14,368	585	0	177	15,130	1,962	8,398
2036	0	230	1,994	11,733	0	13,957	14,720	568	0	178	15,466	1,509	8,549
2037	0	236	1,994	12,561	0	14,591	15,055	552	0	190	15,796	1,206	8,660
2038	0	242	1,994	12,899	0	15,135	15,249	539	0	197	15,984	849	8,732
2039	0	0	0	13,490	0	13,490	15,383	527	0	192	16,102	2,612	8,935
2040	0	54	560	14,119	0	14,733	15,848	516	0	199	16,564	1,831	9,066
2041	0	263	927	14,865	0	16,055	16,147	506	0	210	16,863	808	9,119
2042	0	247	991	15,662	0	16,900	16,412	497	0	442	17,351	452	9,146
2043	0	265	1,112	16,512	0	17,889	17,139	487	0	684	18,320	431	9,170
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	

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

2.89	%
1.13	

RESIDENTIAL NEW CONSTRUCTION

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.82 kW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.10 kW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	1,534.49 kWh
(5) KWH LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KWH INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

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

III. UTILITY & CUSTOMER COSTS

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

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

* 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 New Construction - Buildsmart

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR		PREFERRED	COMMON	INCOME	PROPERTY	PROPERTY		DEFERRED	TOTAL	PRESENT	CUMULATIVE	REPLACEMENT
	RATE BASE	DEBT	STOCK	EQUITY	TAXES	TAX	INSURANCE	DEPREC.	TAXES	FIXED	WORTH	PW FIXED	COST BASIS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	FOR
													PROPERTY INSURANCE
													\$(000)
2019	20,895	649	0	1,458	962	352	124	\$15	2	4,362	4,362	4,362	20,378
2020	20,078	624	0	1,401	661	337	127	\$15	267	4,233	3,887	8,249	20,887
2021	18,996	590	0	1,326	655	323	131	\$15	225	4,065	3,428	11,678	21,409
2022	17,956	558	0	1,253	647	308	134	\$15	187	3,903	3,023	14,701	21,944
2023	16,953	527	0	1,183	639	293	137	\$15	152	3,746	2,665	17,366	22,493
2024	15,987	497	0	1,116	630	279	141	\$15	119	3,595	2,349	19,714	23,055
2025	15,053	468	0	1,050	619	264	144	\$15	89	3,449	2,069	21,784	23,632
2026	14,149	440	0	987	607	249	148	\$15	61	3,307	1,822	23,606	24,223
2027	13,273	412	0	926	574	235	151	\$15	56	3,169	1,604	25,210	24,828
2028	12,402	385	0	866	535	220	155	\$15	56	3,033	1,409	26,619	25,449
2029	11,531	358	0	805	497	205	159	\$15	56	2,896	1,236	27,855	26,085
2030	10,660	331	0	744	459	191	163	\$15	56	2,759	1,081	28,937	26,737
2031	9,789	304	0	683	421	176	167	\$15	56	2,622	944	29,881	27,406
2032	8,918	277	0	622	383	161	171	\$15	56	2,486	822	30,703	28,091
2033	8,047	250	0	562	344	147	175	\$15	56	2,349	713	31,416	28,793
2034	7,176	223	0	501	306	132	180	\$15	56	2,213	617	32,033	29,513
2035	6,305	196	0	440	268	117	185	\$15	56	2,077	532	32,565	30,251
2036	5,434	169	0	379	230	103	189	\$15	56	1,941	456	33,022	31,007
2037	4,563	142	0	318	192	88	194	\$15	56	1,805	390	33,411	31,782
2038	3,691	115	0	258	154	73	199	\$15	56	1,669	331	33,742	32,577
2039	2,820	88	0	197	286	59	204	\$15	(115)	1,533	279	34,022	33,391
2040	2,120	66	0	148	426	44	209	\$15	(285)	1,422	238	34,260	34,226
2041	1,590	49	0	111	403	29	214	\$15	(285)	1,336	205	34,465	35,081
2042	1,060	33	0	74	379	15	219	\$15	(285)	1,250	176	34,642	35,959
2043	530	16	0	37	356	0	225	\$15	(285)	1,164	151	34,792	36,858

IN SERVICE COST (\$000)	20,378
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 =

1.70733

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

(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%	743	743	815	815	739	739	2	1,902	0	0	0	2	(516)
2020	7.22%	1,431	2,174	815	1,630	739	1,478	267	1,902	0	0	0	267	(249)
2021	6.68%	1,323	3,497	815	2,445	739	2,217	225	1,902	0	0	0	225	(23)
2022	6.18%	1,225	4,721	815	3,260	739	2,956	187	1,902	0	0	0	187	164
2023	5.71%	1,132	5,853	815	4,076	739	3,695	152	1,902	0	0	0	152	315
2024	5.29%	1,047	6,901	815	4,891	739	4,434	119	1,902	0	0	0	119	434
2025	4.89%	969	7,869	815	5,706	739	5,173	89	1,902	0	0	0	89	523
2026	4.52%	896	8,765	815	6,521	739	5,912	61	1,902	0	0	0	61	584
2027	4.46%	884	9,650	815	7,336	739	6,651	56	1,902	0	0	0	56	640
2028	4.46%	884	10,534	815	8,151	739	7,390	56	1,902	0	0	0	56	695
2029	4.46%	884	11,418	815	8,966	739	8,129	56	1,902	0	0	0	56	751
2030	4.46%	884	12,302	815	9,781	739	8,868	56	1,902	0	0	0	56	807
2031	4.46%	884	13,186	815	10,596	739	9,607	56	1,902	0	0	0	56	863
2032	4.46%	884	14,070	815	11,411	739	10,346	56	1,902	0	0	0	56	919
2033	4.46%	884	14,954	815	12,227	739	11,085	56	1,902	0	0	0	56	975
2034	4.46%	884	15,838	815	13,042	739	11,824	56	1,902	0	0	0	56	1,031
2035	4.46%	884	16,722	815	13,857	739	12,563	56	1,902	0	0	0	56	1,087
2036	4.46%	884	17,606	815	14,672	739	13,302	56	1,902	0	0	0	56	1,143
2037	4.46%	884	18,491	815	15,487	739	14,041	56	1,902	0	0	0	56	1,199
2038	4.46%	884	19,375	815	16,302	739	14,780	56	1,902	0	0	0	56	1,255
2039	2.23%	442	19,817	815	17,117	739	15,519	(115)	1,902	0	0	0	(115)	1,141
2040	0.00%	0	19,817	815	17,932	739	16,258	(285)	1,902	0	0	0	(285)	855
2041	0.00%	0	19,817	815	18,747	739	16,998	(285)	1,902	0	0	0	(285)	570
2042	0.00%	0	19,817	815	19,562	739	17,737	(285)	1,902	0	0	0	(285)	285
2043	0.00%	0	19,817	815	20,378	739	18,476	(285)	1,902	0	0	0	(285)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(517)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	1,902
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(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%	743	2	19,562	815	(516)	20,895	20,078	20,486
2020	7.22%	1,431	267	18,747	1,630	(249)	20,078	18,996	19,537
2021	6.68%	1,323	225	17,932	2,445	(23)	18,996	17,956	18,476
2022	6.18%	1,225	187	17,117	3,260	164	17,956	16,953	17,455
2023	5.71%	1,132	152	16,302	4,076	315	16,953	15,987	16,470
2024	5.29%	1,047	119	15,487	4,891	434	15,987	15,053	15,520
2025	4.89%	969	89	14,672	5,706	523	15,053	14,149	14,601
2026	4.52%	896	61	13,857	6,521	584	14,149	13,273	13,711
2027	4.46%	884	56	13,042	7,336	640	13,273	12,402	12,838
2028	4.46%	884	56	12,227	8,151	695	12,402	11,531	11,967
2029	4.46%	884	56	11,411	8,966	751	11,531	10,660	11,096
2030	4.46%	884	56	10,596	9,781	807	10,660	9,789	10,224
2031	4.46%	884	56	9,781	10,596	863	9,789	8,918	9,353
2032	4.46%	884	56	8,966	11,411	919	8,918	8,047	8,482
2033	4.46%	884	56	8,151	12,227	975	8,047	7,176	7,611
2034	4.46%	884	56	7,336	13,042	1,031	7,176	6,305	6,740
2035	4.46%	884	56	6,521	13,857	1,087	6,305	5,434	5,869
2036	4.46%	884	56	5,706	14,672	1,143	5,434	4,563	4,998
2037	4.46%	884	56	4,891	15,487	1,199	4,563	3,691	4,127
2038	4.46%	884	56	4,076	16,302	1,255	3,691	2,820	3,256
2039	2.23%	442	(115)	3,260	17,117	1,141	2,820	2,120	2,470
2040	0.00%	0	(285)	2,445	17,932	855	2,120	1,590	1,855
2041	0.00%	0	(285)	1,630	18,747	570	1,590	1,060	1,325
2042	0.00%	0	(285)	815	19,562	285	1,060	530	795
2043	0.00%	0	(285)	0	20,378	0	530	0	265

* 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	598.14
2018	-1	3.00%	1.305	10.44%	98.79	858.38

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

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

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	17,376	17,376	17,376
EQUITY AFUDC	1,902		
DEBT AFUDC	1,100	1,100	
CPI			2,441
TOTAL	20,378	18,476	19,816

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C\$/kWh)	AVOIDED MARGINAL FUEL COST (C\$/kWh)	INCREASED MARGINAL FUEL COST (C\$/kWh)	REPLACEMENT FUEL COST (C\$/kWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	1,612	1,612	6.41	9.41	6.63	0.00	1.00	1.00
2011	3,242	3,242	6.35	8.82	6.54	0.00	1.00	1.00
2012	5,431	5,431	6.43	8.81	6.60	0.00	1.00	1.00
2013	7,582	7,582	7.06	8.66	7.18	0.00	1.00	1.00
2014	9,635	9,635	7.53	8.94	7.65	0.00	1.00	1.00
2015	11,581	11,581	8.11	9.98	8.28	0.00	1.00	1.00
2016	13,528	13,528	9.00	12.06	9.25	0.00	1.00	1.00
2017	15,474	15,474	9.75	13.17	9.98	0.00	1.00	1.00
2018	17,421	17,421	10.52	13.94	10.77	0.00	1.00	1.00
2019	17,421	17,421	11.50	15.78	11.83	10.41	1.00	1.00
2020	17,421	17,421	12.08	16.43	12.45	10.50	1.00	1.00
2021	17,421	17,421	12.57	17.12	12.96	10.74	1.00	1.00
2022	17,421	17,421	13.06	17.90	13.47	10.81	1.00	1.00
2023	17,421	17,421	13.39	17.89	13.80	10.80	1.00	1.00
2024	17,421	17,421	13.95	18.59	14.37	10.84	1.00	1.00
2025	17,421	17,421	14.40	19.04	14.82	10.96	1.00	1.00
2026	17,421	17,421	14.70	19.13	15.10	11.05	1.00	1.00
2027	17,421	17,421	15.13	19.41	15.51	11.17	1.00	1.00
2028	17,421	17,421	15.60	19.86	15.97	11.36	1.00	1.00
2029	17,421	17,421	16.02	19.66	16.37	11.41	1.00	1.00
2030	17,421	17,421	16.52	20.03	16.85	11.59	1.00	1.00
2031	17,421	17,421	17.08	20.68	17.40	11.80	1.00	1.00
2032	17,421	17,421	17.50	20.32	17.78	11.88	1.00	1.00
2033	17,421	17,421	18.27	21.08	18.45	12.10	1.00	1.00
2034	17,421	17,421	18.73	20.55	18.83	12.14	1.00	1.00
2035	17,421	17,421	19.57	21.99	19.70	12.29	1.00	1.00
2036	17,421	17,421	20.40	23.09	20.49	12.55	1.00	1.00
2037	17,421	17,421	21.11	23.55	21.20	12.70	1.00	1.00
2038	17,421	17,421	22.02	24.51	22.13	13.04	1.00	1.00
2039	17,421	17,421	22.78	25.06	22.86	13.32	1.00	1.00
2040	17,421	17,421	23.59	25.57	23.65	13.44	1.00	1.00
2041	17,421	17,421	24.54	26.44	24.58	13.75	1.00	1.00
2042	17,421	17,421	25.50	27.34	25.55	14.10	1.00	1.00
2043	17,421	17,421	26.74	29.33	26.82	14.40	1.00	1.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0.00	0.00	0.00	0.00	0.00	0.00

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

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	4,362	2,393	101	6,093	7,709	5,240
2020	4,233	2,453	146	8,978	10,937	4,871
2021	4,065	2,514	152	9,367	11,423	4,675
2022	3,903	2,577	162	9,914	11,909	4,646
2023	3,746	2,641	171	10,423	12,252	4,730
2024	3,595	2,707	181	11,010	12,711	4,782
2025	3,449	2,775	193	11,764	13,408	4,773
2026	3,307	2,844	207	12,572	14,124	4,806
2027	3,169	2,915	219	13,270	14,729	4,845
2028	3,033	2,988	225	13,622	15,046	4,822
2029	2,896	3,063	236	14,196	15,442	4,949
2030	2,759	3,140	248	14,860	16,059	4,947
2031	2,622	3,218	254	15,166	16,351	4,910
2032	2,486	3,298	264	15,702	16,687	5,064
2033	2,349	3,381	290	17,277	18,247	5,052
2034	2,213	3,465	304	17,983	18,679	5,287
2035	2,077	3,552	312	18,393	18,967	5,367
2036	1,941	3,641	323	18,942	19,530	5,316
2037	1,805	3,732	332	19,372	19,811	5,430
2038	1,669	3,825	341	19,856	20,415	5,276
2039	1,533	3,921	350	20,264	20,884	5,184
2040	1,422	4,019	360	20,731	21,123	5,409
2041	1,336	4,119	370	21,186	21,634	5,356
2042	1,250	4,222	380	21,668	22,258	5,262
2043	1,164	4,328	391	22,225	22,830	5,278
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	66,385	81,732	6,512	384,336	412,186	126,278
NPV	14,850	13,570	983	88,899	65,512	22,790

165

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

1.89	%
2.71	

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

2019	
8.89	%
7.96	

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

8.39	%
1.23	

RESIDENTIAL LOAD MANAGEMENT

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

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

II. ECONOMIC LIFE & K FACTORS

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

III. UTILITY & CUSTOMER COSTS

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

IV. AVOIDED GENERATOR AND T&D COSTS

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

V. NON-FUEL ENERGY AND DEMAND CHARGES

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

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** VALUE SHOWN IS FOR FIRST YEAR ONLY (VALUE VARIES OVER TIME)

*** PROGRAM COST CALCULATION VALUES ARE SHOWN ON PAGE 2

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

* 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

PSC FORM CE 1.1A
PAGE 1 OF 2

(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	141,950	4,410	0	9,906	6,535	2,392	844	5,537	11	29,636	29,636	138,437
2020	136,402	4,237	0	9,519	4,490	2,293	866	5,537	1,812	28,755	26,408	141,898
2021	129,052	4,009	0	9,006	4,450	2,193	887	5,537	1,531	27,613	23,290	145,446
2022	121,984	3,789	0	8,513	4,398	2,093	909	5,537	1,273	26,513	20,537	149,082
2023	115,174	3,578	0	8,038	4,342	1,993	932	5,537	1,030	25,451	18,105	152,809
2024	108,607	3,374	0	7,579	4,277	1,894	955	5,537	808	24,424	15,957	156,629
2025	102,261	3,177	0	7,137	4,205	1,794	979	5,537	602	23,431	14,058	160,545
2026	96,122	2,986	0	6,708	4,126	1,694	1,004	5,537	412	22,467	12,380	164,558
2027	90,173	2,801	0	6,293	3,896	1,595	1,029	5,537	380	21,532	10,896	168,672
2028	84,255	2,617	0	5,880	3,637	1,495	1,055	5,537	380	20,602	9,575	172,839
2029	78,338	2,433	0	5,467	3,377	1,395	1,081	5,537	380	19,672	8,397	177,211
2030	72,420	2,250	0	5,054	3,119	1,296	1,108	5,537	380	18,743	7,347	181,642
2031	66,502	2,066	0	4,641	2,859	1,196	1,136	5,537	380	17,815	6,413	186,183
2032	60,584	1,882	0	4,228	2,600	1,096	1,164	5,537	380	16,888	5,583	190,837
2033	54,667	1,698	0	3,815	2,340	997	1,193	5,537	380	15,961	4,846	195,608
2034	48,749	1,514	0	3,402	2,081	897	1,223	5,537	380	15,035	4,193	200,498
2035	42,832	1,331	0	2,989	1,821	797	1,254	5,537	380	14,110	3,613	205,511
2036	36,914	1,147	0	2,576	1,562	698	1,285	5,537	380	13,185	3,101	210,649
2037	30,996	963	0	2,163	1,303	599	1,317	5,537	380	12,262	2,644	215,915
2038	25,078	779	0	1,750	1,044	498	1,350	5,537	380	11,339	2,249	221,313
2039	19,161	595	0	1,337	1,942	399	1,384	5,537	(778)	10,417	1,898	226,846
2040	14,402	447	0	1,005	2,892	299	1,418	5,537	(1,937)	9,663	1,617	232,517
2041	10,801	336	0	754	2,735	199	1,454	5,537	(1,937)	9,078	1,395	238,330
2042	7,200	224	0	502	2,577	100	1,490	5,537	(1,937)	8,494	1,199	244,288
2043	3,599	112	0	251	2,419	0	1,527	5,537	(1,937)	7,910	1,025	250,395

IN SERVICE COST (\$000)	138,437
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%	5,048	5,048	5,537	5,537	5,021	5,021	11	12,922	0	0	0	11	(3,502)
2020	7.22%	9,718	14,767	5,537	11,075	5,021	10,941	1,812	12,922	0	0	0	1,812	(1,690)
2021	6.68%	8,989	23,756	5,537	16,612	5,021	15,962	1,531	12,922	0	0	0	1,531	(159)
2022	6.18%	8,320	32,075	5,537	22,150	5,021	20,982	1,273	12,922	0	0	0	1,273	1,113
2023	5.71%	7,691	39,766	5,537	27,687	5,021	25,103	1,030	12,922	0	0	0	1,030	2,143
2024	5.29%	7,115	46,881	5,537	33,225	5,021	30,124	808	12,922	0	0	0	808	2,951
2025	4.89%	6,580	53,461	5,537	38,762	5,021	35,144	602	12,922	0	0	0	602	3,553
2026	4.52%	6,088	59,549	5,537	44,300	5,021	40,165	412	12,922	0	0	0	412	3,964
2027	4.46%	6,007	65,556	5,537	49,837	5,021	45,186	380	12,922	0	0	0	380	4,345
2028	4.46%	6,006	71,561	5,537	55,375	5,021	50,206	380	12,922	0	0	0	380	4,725
2029	4.46%	6,007	77,568	5,537	60,912	5,021	55,227	380	12,922	0	0	0	380	5,105
2030	4.46%	6,006	83,574	5,537	66,450	5,021	60,247	380	12,922	0	0	0	380	5,485
2031	4.46%	6,007	89,581	5,537	71,987	5,021	65,268	380	12,922	0	0	0	380	5,865
2032	4.46%	6,006	95,586	5,537	77,525	5,021	70,289	380	12,922	0	0	0	380	6,245
2033	4.46%	6,007	101,593	5,537	83,062	5,021	75,309	380	12,922	0	0	0	380	6,626
2034	4.46%	6,006	107,598	5,537	88,600	5,021	80,330	380	12,922	0	0	0	380	7,006
2035	4.46%	6,007	113,605	5,537	94,137	5,021	85,351	380	12,922	0	0	0	380	7,386
2036	4.46%	6,006	119,611	5,537	99,675	5,021	90,371	380	12,922	0	0	0	380	7,766
2037	4.46%	6,007	125,618	5,537	105,212	5,021	95,392	380	12,922	0	0	0	380	8,147
2038	4.46%	6,006	131,623	5,537	110,750	5,021	100,412	380	12,922	0	0	0	380	8,527
2039	2.23%	3,003	134,627	5,537	116,287	5,021	105,433	(778)	12,922	0	0	0	(778)	7,748
2040	0.00%	0	134,627	5,537	121,825	5,021	110,454	(1,937)	12,922	0	0	0	(1,937)	5,812
2041	0.00%	0	134,627	5,537	127,362	5,021	115,474	(1,937)	12,922	0	0	0	(1,937)	3,875
2042	0.00%	0	134,627	5,537	132,900	5,021	120,495	(1,937)	12,922	0	0	0	(1,937)	1,938
2043	0.00%	0	134,627	5,537	138,437	5,021	125,516	(1,937)	12,922	0	0	0	(1,937)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(3,513)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	12,922
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%	5,048	11	132,900	5,537	(3,502)	141,950	136,402	139,176
2020	7.22%	9,718	1,812	127,362	11,075	(1,690)	136,402	129,052	132,727
2021	6.61%	8,989	1,531	121,825	16,612	(159)	129,052	121,984	125,518
2022	6.18%	8,320	1,273	116,287	22,150	1,113	121,984	115,174	118,579
2023	5.71%	7,691	1,030	110,750	27,687	2,143	115,174	108,607	111,890
2024	5.25%	7,115	808	105,212	33,225	2,951	108,607	102,261	105,434
2025	4.89%	6,580	602	99,875	38,762	3,533	102,261	96,122	99,192
2026	4.52%	6,088	412	94,137	44,300	3,964	96,122	90,173	93,148
2027	4.46%	6,007	380	88,600	49,837	4,345	90,173	84,255	87,214
2028	4.46%	6,006	380	83,062	55,375	4,725	84,255	78,338	81,296
2029	4.46%	6,007	380	77,525	60,912	5,105	78,338	72,420	75,379
2030	4.46%	6,006	380	71,987	66,450	5,485	72,420	66,502	69,461
2031	4.46%	6,007	380	66,450	71,987	5,865	66,502	60,584	63,543
2032	4.46%	6,006	380	60,912	77,525	6,245	60,584	54,667	57,626
2033	4.46%	6,007	380	55,375	83,062	6,626	54,667	48,749	51,708
2034	4.46%	6,006	380	49,837	88,600	7,006	48,749	42,832	45,790
2035	4.46%	6,007	380	44,300	94,137	7,386	42,832	36,914	39,873
2036	4.46%	6,006	380	38,762	99,675	7,766	36,914	30,996	33,955
2037	4.46%	6,007	380	33,225	105,212	8,147	30,996	25,078	28,037
2038	4.46%	6,006	380	27,687	110,750	8,527	25,078	19,161	22,120
2039	2.23%	3,003	(778)	22,150	116,287	7,748	19,161	14,402	16,781
2040	0.00%	0	(1,937)	16,612	121,825	5,812	14,402	10,801	12,601
2041	0.00%	0	(1,937)	11,075	127,362	3,875	10,801	7,200	9,000
2042	0.00%	0	(1,937)	5,537	132,900	1,938	7,200	3,599	5,400
2043	0.00%	0	(1,937)	0	138,437	2	3,599	-2	1,799

* 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	3.00%	1.061	0.00%	0.00	0.00
2012	-7	3.00%	1.093	0.00%	0.00	0.00
2013	-6	3.00%	1.126	0.15%	1.24	0.62
2014	-5	3.00%	1.159	1.50%	15.99	9.24
2015	-4	3.00%	1.194	4.57%	39.61	37.03
2016	-3	3.00%	1.230	37.20%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

100.00% 907.77												
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)* 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	725,389,055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	118,043	118,043	118,043
EQUITY AFUDC	12,922		
DEBT AFUDC	7,473	7,473	
CPI			16,580
TOTAL	138,437	125,516	134,623

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C&Wh)	AVOIDED MARGINAL FUEL COST (C&Wh)	INCREASED MARGINAL FUEL COST (C&Wh)	REPLACEMENT FUEL COST (C&Wh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	9,615	9,615	6.41	16.51	6.41	0.00	1.00	1.00
2011	19,230	19,230	6.35	10.38	6.35	0.00	1.00	1.00
2012	28,845	28,845	6.43	13.34	6.43	0.00	1.00	1.00
2013	38,460	38,460	7.06	9.99	7.06	0.00	1.00	1.00
2014	48,075	48,075	7.53	10.61	7.53	0.00	1.00	1.00
2015	57,690	57,690	8.11	13.20	8.11	0.00	1.00	1.00
2016	67,305	67,305	9.00	13.90	9.00	0.00	1.00	1.00
2017	76,920	76,920	9.75	15.09	9.75	0.00	1.00	1.00
2018	86,535	86,535	10.52	15.46	10.52	0.00	1.00	1.00
2019	86,535	86,535	11.50	21.44	11.50	10.41	1.00	1.00
2020	86,535	86,535	12.08	20.17	12.08	10.50	1.00	1.00
2021	86,535	86,535	12.57	21.76	12.57	10.74	1.00	1.00
2022	86,535	86,535	13.06	23.66	13.06	10.81	1.00	1.00
2023	86,535	86,535	13.39	20.91	13.39	10.80	1.00	1.00
2024	86,535	86,535	13.95	22.19	13.95	10.84	1.00	1.00
2025	86,535	86,535	14.40	22.20	14.40	10.96	1.00	1.00
2026	86,535	86,535	14.70	22.41	14.70	11.05	1.00	1.00
2027	86,535	86,535	15.13	23.05	15.13	11.17	1.00	1.00
2028	86,535	86,535	15.60	23.70	15.60	11.36	1.00	1.00
2029	86,535	86,535	16.02	22.95	16.02	11.41	1.00	1.00
2030	86,535	86,535	16.52	23.78	16.52	11.59	1.00	1.00
2031	86,535	86,535	17.06	24.53	17.06	11.80	1.00	1.00
2032	86,535	86,535	17.50	24.55	17.50	11.88	1.00	1.00
2033	86,535	86,535	18.27	25.51	18.27	12.10	1.00	1.00
2034	86,535	86,535	18.73	25.89	18.73	12.14	1.00	1.00
2035	86,535	86,535	19.57	27.04	19.57	12.29	1.00	1.00
2036	86,535	86,535	20.40	28.26	20.40	12.55	1.00	1.00
2037	86,535	86,535	21.11	29.22	21.11	12.70	1.00	1.00
2038	86,535	86,535	22.02	30.23	22.02	13.04	1.00	1.00
2039	86,535	86,535	22.78	31.29	22.78	13.32	1.00	1.00
2040	86,535	86,535	23.59	32.02	23.59	13.44	1.00	1.00
2041	86,535	86,535	24.54	33.28	24.54	13.75	1.00	1.00
2042	86,535	86,535	25.50	34.66	25.50	14.10	1.00	1.00
2043	86,535	86,535	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 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	29,636	16,256	686	41,397	52,373	35,601
2020	28,755	16,662	989	60,991	74,203	33,093
2021	27,613	17,079	1035	63,636	77,604	31,758
2022	26,513	17,505	1099	67,352	80,906	31,565
2023	25,451	17,943	1160	70,810	83,233	32,131
2024	24,424	18,392	1229	74,801	86,356	32,490
2025	23,431	18,852	1313	79,923	91,089	32,429
2026	22,467	19,323	1407	85,408	95,954	32,550
2027	21,532	19,806	1488	90,150	100,063	32,912
2028	20,602	20,301	1532	92,543	102,219	32,758
2029	19,672	20,809	1604	96,440	104,906	33,618
2030	18,743	21,329	1684	100,955	109,101	33,610
2031	17,815	21,862	1725	103,035	111,080	33,358
2032	16,888	22,409	1793	105,675	113,262	34,403
2033	15,961	22,969	1973	117,376	123,960	34,319
2034	15,035	23,543	2064	122,172	126,898	35,916
2035	14,110	24,132	2121	124,952	128,857	36,458
2036	13,185	24,735	2193	128,683	132,679	36,118
2037	12,262	25,353	2254	131,608	134,588	36,389
2038	11,339	25,987	2318	134,892	138,693	35,843
2039	10,417	26,637	2379	137,665	141,878	35,220
2040	9,663	27,303	2444	140,836	143,499	36,747
2041	9,078	27,985	2510	143,926	147,111	36,389
2042	8,494	28,685	2579	147,204	151,210	35,751
2043	7,910	29,402	2656	150,990	155,099	35,860
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	450,996	555,255	44,237	2,614,419	2,807,022	857,885
NPV	100,886	92,186	6,680	400,137	445,065	154,824

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
YEAR	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	541	43	584	27	11	38	88	29
2012	1,082	88	1,169	54	23	78	195	49
2013	1,620	180	1,800	81	36	117	192	76
2014	2,156	230	2,387	108	49	157	262	104
2015	2,691	283	2,975	135	63	198	410	137
2016	3,226	339	3,565	161	78	239	505	180
2017	3,761	397	4,158	188	93	281	633	224
2018	4,297	458	4,754	215	109	324	728	274
2019	4,834	469	5,303	242	126	367	1,113	318
2020	4,666	481	5,147	233	129	362	1,029	334
2021	4,500	493	4,993	225	132	357	1,116	347
2022	4,338	505	4,843	217	135	352	1,222	361
2023	4,181	518	4,698	209	139	347	1,054	370
2024	4,026	531	4,557	201	142	343	1,122	385
2025	3,873	544	4,417	194	146	339	1,117	398
2026	3,722	556	4,280	186	149	335	1,125	406
2027	3,571	572	4,143	178	153	331	1,157	418
2028	3,420	586	4,006	171	157	328	1,189	431
2029	3,270	600	3,870	163	161	324	1,138	443
2030	3,119	615	3,734	156	165	321	1,180	456
2031	2,970	631	3,601	148	169	317	1,217	472
2032	2,826	647	3,473	141	173	314	1,212	483
2033	2,690	663	3,353	134	177	312	1,258	505
2034	2,562	679	3,241	128	182	310	1,275	517
2035	2,441	696	3,137	122	186	308	1,331	541
2036	2,328	714	3,042	116	191	307	1,392	563
2037	2,224	732	2,955	111	196	307	1,439	583
2038	2,128	750	2,878	106	201	307	1,486	608
2039	2,041	769	2,809	102	206	308	1,538	629
2040	1,960	788	2,748	98	211	309	1,570	652
2041	1,882	808	2,690	94	216	310	1,632	678
2042	1,804	828	2,632	90	221	312	1,700	704
2043	1,726	848	2,574	86	227	313	1,792	738
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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.	96,477	18,039	114,516	4,821	4,750	9,571	35,468	13,422
NPV	27,942	3,813	31,754	1,396	976	2,372	2,277	2,588

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

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

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

2019	
1.89	%
Infinite	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	INCREASED SUPPLY COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED GEN UNIT & FUEL BENEFITS \$(000)	AVOIDED T&D BENEFITS \$(000)	REVENUE GAINS \$(000)	OTHER BENEFITS \$(000)	TOTAL BENEFITS \$(000)	NET BENEFITS \$(000)	CUMULATIVE DISCOUNTED NET BENEFITS \$(000)
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	1,296	(1,552)	(2,829)
2013	0	2,443	1,514	81	0	4,038	116	1,917	0	12	2,045	(1,993)	(4,247)
2014	0	3,063	1,947	110	0	5,120	158	2,544	0	16	2,718	(2,402)	(5,816)
2015	0	3,486	2,380	141	0	6,007	273	3,172	0	25	3,470	(2,537)	(7,338)
2016	0	3,702	2,412	172	0	6,687	326	3,804	0	32	4,161	(2,525)	(8,730)
2017	0	3,927	2,245	206	0	7,378	408	4,439	0	43	4,890	(2,487)	(9,889)
2018	0	4,160	3,678	240	0	8,078	453	5,078	0	49	5,580	(2,498)	(11,150)
2019	0	3,760	3,894	263	0	7,917	36,396	5,670	0	(1,461)	40,604	32,687	2,802
2020	0	3,197	3,894	264	0	7,355	33,788	5,508	0	(2,158)	37,139	29,784	14,477
2021	0	2,656	3,894	270	0	6,819	32,527	5,349	0	(2,391)	35,485	28,666	24,797
2022	0	2,139	3,894	277	0	6,310	32,426	5,195	0	(2,765)	34,857	28,547	34,234
2023	0	1,648	3,894	286	0	5,828	32,815	5,046	0	(3,055)	34,807	28,979	43,033
2024	0	1,412	3,894	299	0	5,605	33,227	4,900	0	(3,482)	34,645	29,040	51,131
2025	0	1,448	3,894	309	0	5,651	33,148	4,756	0	(3,974)	33,931	28,280	58,373
2026	0	1,484	3,894	322	0	5,700	33,369	4,615	0	(4,299)	33,685	27,985	64,955
2027	0	1,521	3,894	339	0	5,794	33,651	4,474	0	(4,836)	33,289	27,536	70,902
2028	0	1,559	3,894	352	0	5,805	33,516	4,334	0	(5,264)	32,586	26,780	76,215
2029	0	1,598	3,894	368	0	5,860	34,314	4,194	0	(5,911)	32,597	26,737	81,085
2030	0	1,638	3,894	386	0	5,918	34,334	4,055	0	(6,540)	31,849	25,931	85,424
2031	0	1,679	3,894	404	0	5,977	34,104	3,918	0	(7,084)	30,938	24,961	89,259
2032	0	1,721	3,894	427	0	6,042	35,131	3,787	0	(7,732)	31,186	25,144	92,807
2033	0	1,764	3,894	466	0	6,124	35,073	3,665	0	(8,994)	29,743	23,620	95,368
2034	0	1,808	3,894	474	0	6,177	36,673	3,551	0	(9,934)	30,290	24,114	98,738
2035	0	1,853	3,894	493	0	6,240	37,248	3,446	0	(10,806)	29,888	23,648	101,323
2036	0	1,900	3,894	528	0	6,322	36,946	3,349	0	(11,787)	28,508	22,186	103,550
2037	0	1,947	3,894	557	0	6,398	37,745	3,262	0	(12,758)	28,249	21,851	105,563
2038	0	1,996	3,894	581	0	6,471	36,721	3,185	0	(13,827)	26,078	19,608	107,225
2039	0	2,046	3,894	608	0	6,547	36,129	3,117	0	(15,030)	24,216	17,669	108,599
2040	0	2,095	3,894	636	0	7,025	37,666	3,057	0	(16,265)	24,457	17,433	109,844
2041	0	2,557	3,894	669	0	7,121	37,343	3,000	0	(17,514)	22,829	15,708	110,874
2042	0	2,621	3,894	705	0	7,220	36,747	2,943	0	(17,499)	22,192	14,972	111,775
2043	0	2,686	3,894	744	0	7,324	36,913	2,888	0	(17,481)	22,319	14,955	112,605
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0</		

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

8.19 %

3.05

BUSINESS HEATING, VENTILATING AND AIR CONDITIONING

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.97 kW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.30 kW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	3,568.06 kWh ****
(5) KWH LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KWH INCREASE AT METER	395.11 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 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

[illegible]

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	104,016	3,231	0	7,259	4,789	1,753	619	4,058	8	21,716	21,716	21,716	101,442
2020	99,951	3,105	0	6,975	3,290	1,680	634	4,058	1,328	21,070	19,351	41,067	103,978
2021	94,565	2,938	0	6,599	3,261	1,607	650	4,058	1,122	20,234	17,066	58,133	106,577
2022	89,386	2,777	0	6,238	3,223	1,534	666	4,058	933	19,428	15,049	73,181	109,242
2023	84,396	2,622	0	5,890	3,182	1,461	683	4,058	755	18,650	13,267	86,448	111,973
2024	79,583	2,472	0	5,554	3,134	1,388	700	4,058	592	17,897	11,693	98,141	114,772
2025	74,933	2,328	0	5,229	3,081	1,315	718	4,058	441	17,169	10,301	108,442	117,642
2026	70,435	2,188	0	4,915	3,023	1,242	736	4,058	302	16,463	9,072	117,514	120,583
2027	66,076	2,053	0	4,611	2,855	1,169	754	4,058	279	15,778	7,984	125,498	123,597
2028	61,739	1,918	0	4,309	2,665	1,096	773	4,058	278	15,096	7,016	132,514	126,687
2029	57,403	1,783	0	4,006	2,475	1,023	792	4,058	279	14,415	6,153	138,667	129,854
2030	53,067	1,648	0	3,703	2,285	949	812	4,058	278	13,735	5,384	144,051	133,101
2031	48,731	1,514	0	3,401	2,095	876	832	4,058	279	13,054	4,700	148,750	136,428
2032	44,394	1,379	0	3,098	1,905	803	853	4,058	278	12,375	4,091	152,841	139,839
2033	40,058	1,244	0	2,796	1,715	730	874	4,058	279	11,696	3,551	156,393	143,335
2034	35,722	1,110	0	2,493	1,525	657	896	4,058	278	11,017	3,072	159,465	146,918
2035	31,386	975	0	2,190	1,335	584	919	4,058	279	10,339	2,648	162,112	150,591
2036	27,049	840	0	1,888	1,145	511	942	4,058	278	9,662	2,272	164,385	154,356
2037	22,713	706	0	1,585	955	438	965	4,058	279	8,985	1,941	166,325	158,215
2038	18,377	571	0	1,282	765	365	989	4,058	278	8,309	1,648	167,974	162,170
2039	14,040	436	0	980	1,423	292	1,014	4,058	(570)	7,633	1,391	169,364	166,224
2040	10,553	328	0	736	2,120	219	1,039	4,058	(1,419)	7,081	1,185	170,549	170,380
2041	7,914	246	0	552	2,004	146	1,065	4,058	(1,419)	6,652	1,022	171,571	174,640
2042	5,276	164	0	368	1,888	73	1,092	4,058	(1,419)	6,224	878	172,449	179,005
2043	2,637	82	0	184	1,773	0	1,119	4,058	(1,419)	5,796	751	173,200	183,481

IN SERVICE COST (\$000)	101,442
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFECT. 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	%
PS	0%	0.00	%
CS	56%	12.50	%

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	3,699	3,699	4,058	4,058	3,679	3,679	8	9,469	0	0	0	8	(2,566)
2020	7.22%	7,121	10,821	4,058	8,115	3,679	7,358	1,328	9,469	0	0	0	1,328	(1,239)
2021	6.68%	6,587	17,407	4,058	12,173	3,679	11,037	1,122	9,469	0	0	0	1,122	(117)
2022	6.18%	6,096	23,504	4,058	16,231	3,679	14,716	933	9,469	0	0	0	933	816
2023	5.71%	5,636	29,139	4,058	20,288	3,679	18,395	755	9,469	0	0	0	755	1,570
2024	5.29%	5,213	34,353	4,058	24,346	3,679	22,074	592	9,469	0	0	0	592	2,162
2025	4.89%	4,822	39,175	4,058	28,404	3,679	25,753	441	9,469	0	0	0	441	2,603
2026	4.52%	4,461	43,635	4,058	32,461	3,679	29,431	302	9,469	0	0	0	302	2,905
2027	4.46%	4,402	48,037	4,058	36,519	3,679	33,110	279	9,469	0	0	0	279	3,184
2028	4.46%	4,401	52,438	4,058	40,577	3,679	36,789	278	9,469	0	0	0	278	3,462
2029	4.46%	4,402	56,839	4,058	44,634	3,679	40,468	279	9,469	0	0	0	279	3,741
2030	4.46%	4,401	61,240	4,058	48,692	3,679	44,147	278	9,469	0	0	0	278	4,019
2031	4.46%	4,402	65,641	4,058	52,750	3,679	47,826	279	9,469	0	0	0	279	4,298
2032	4.46%	4,401	70,042	4,058	56,807	3,679	51,505	278	9,469	0	0	0	278	4,576
2033	4.46%	4,402	74,444	4,058	60,865	3,679	55,184	279	9,469	0	0	0	279	4,855
2034	4.46%	4,401	78,844	4,058	64,923	3,679	58,863	278	9,469	0	0	0	278	5,134
2035	4.46%	4,402	83,246	4,058	68,981	3,679	62,542	279	9,469	0	0	0	279	5,412
2036	4.46%	4,401	87,647	4,058	73,038	3,679	66,221	278	9,469	0	0	0	278	5,691
2037	4.46%	4,402	92,048	4,058	77,096	3,679	69,900	279	9,469	0	0	0	279	5,970
2038	4.46%	4,401	96,449	4,058	81,154	3,679	73,579	278	9,469	0	0	0	278	6,248
2039	2.23%	2,201	98,650	4,058	85,211	3,679	77,258	(570)	9,469	0	0	0	(570)	5,678
2040	0.00%	0	98,650	4,058	89,269	3,679	80,937	(1,419)	9,469	0	0	0	(1,419)	4,259
2041	0.00%	0	98,650	4,058	93,327	3,679	84,615	(1,419)	9,469	0	0	0	(1,419)	2,839
2042	0.00%	0	98,650	4,058	97,384	3,679	88,294	(1,419)	9,469	0	0	0	(1,419)	1,420
2043	0.00%	0	98,650	4,058	101,442	3,679	91,973	(1,419)	9,469	0	0	0	(1,419)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(2,574)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	9,469
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)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	3,699	8	97,384	4,058	(2,366)	104,016	99,951	101,983
2020	7.22%	7,121	1,328	93,327	8,115	(1,239)	99,951	94,565	97,258
2021	6.68%	6,587	1,122	89,269	12,173	(117)	94,565	89,386	91,975
2022	6.18%	6,096	933	85,211	16,231	816	89,386	84,396	86,891
2023	5.71%	5,636	755	81,154	20,288	1,570	84,396	79,583	81,989
2024	5.29%	5,213	592	77,096	24,346	2,162	79,583	74,933	77,258
2025	4.89%	4,822	441	73,038	28,404	2,603	74,933	70,435	72,684
2026	4.52%	4,461	302	68,981	32,461	2,905	70,435	66,076	68,255
2027	4.46%	4,402	279	64,923	36,519	3,184	66,076	61,739	63,907
2028	4.46%	4,401	278	60,865	40,577	3,462	61,739	57,403	59,571
2029	4.46%	4,402	279	56,807	44,634	3,741	57,403	53,067	55,235
2030	4.46%	4,401	278	52,750	48,692	4,019	53,067	48,731	50,899
2031	4.46%	4,402	279	48,692	52,750	4,298	48,731	44,394	46,562
2032	4.46%	4,401	278	44,634	56,807	4,576	44,394	40,058	42,226
2033	4.46%	4,402	279	40,577	60,865	4,855	40,058	35,722	37,890
2034	4.46%	4,401	278	36,519	64,923	5,134	35,722	31,386	33,554
2035	4.46%	4,402	279	32,461	68,981	5,412	31,386	27,049	29,217
2036	4.46%	4,401	278	28,404	73,038	5,691	27,049	22,713	24,881
2037	4.46%	4,402	279	24,346	77,096	5,970	22,713	18,377	20,545
2038	4.46%	4,401	278	20,288	81,154	6,248	18,377	14,040	16,208
2039	2.23%	2,201	(570)	16,231	85,211	5,678	14,040	10,553	12,297
2040	0.00%	0	(1,419)	12,173	89,269	4,259	10,553	7,914	9,234
2041	0.00%	0	(1,419)	8,115	93,327	2,839	7,914	5,276	6,595
2042	0.00%	0	(1,419)	4,058	97,384	1,420	5,276	2,637	3,957
2043	0.00%	0	(1,419)	0	101,442	1	2,637	-1	1,318

* 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	398.84
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)* 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	86,498	86,498	86,498
EQUITY AFUDC	9,469		
DEBT AFUDC	5,476	5,476	
CPI			12,149
TOTAL	101,442	91,973	98,647

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/kWh)	AVOIDED MARGINAL FUEL COST (\$/kWh)	INCREASED MARGINAL FUEL COST (\$/kWh)	REPLACEMENT FUEL COST (\$/kWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	7,831	7,831	6.41	7.90	7.03	0.00	1.00	1.00
2011	14,634	14,634	6.35	7.64	6.91	0.00	1.00	1.00
2012	21,964	21,964	6.43	7.61	6.95	0.00	1.00	1.00
2013	28,742	28,742	7.06	7.85	7.41	0.00	1.00	1.00
2014	36,385	36,385	7.53	8.20	7.83	0.00	1.00	1.00
2015	46,258	46,258	8.11	8.94	8.50	0.00	1.00	1.00
2016	55,582	55,582	9.00	10.42	9.62	0.00	1.00	1.00
2017	65,083	65,083	9.75	11.37	10.43	0.00	1.00	1.00
2018	73,386	73,386	10.52	12.20	11.25	0.00	1.00	1.00
2019	73,386	73,386	11.50	13.64	12.43	10.41	1.00	1.00
2020	73,386	73,386	12.08	14.25	13.07	10.50	1.00	1.00
2021	73,386	73,386	12.57	14.87	13.59	10.74	1.00	1.00
2022	73,386	73,386	13.06	15.28	14.05	10.81	1.00	1.00
2023	73,386	73,386	13.39	15.41	14.33	10.80	1.00	1.00
2024	73,386	73,386	13.95	15.98	14.91	10.84	1.00	1.00
2025	73,386	73,386	14.40	16.42	15.37	10.96	1.00	1.00
2026	73,386	73,386	14.76	16.62	15.63	11.05	1.00	1.00
2027	73,386	73,386	15.13	16.90	16.00	11.17	1.00	1.00
2028	73,386	73,386	15.60	17.29	16.44	11.36	1.00	1.00
2029	73,386	73,386	16.02	17.50	16.78	11.41	1.00	1.00
2030	73,386	73,386	16.52	17.96	17.26	11.59	1.00	1.00
2031	73,386	73,386	17.08	18.54	17.83	11.80	1.00	1.00
2032	73,386	73,386	17.50	18.66	18.13	11.88	1.00	1.00
2033	73,386	73,386	18.27	19.35	18.79	12.10	1.00	1.00
2034	73,386	73,386	18.73	19.45	19.08	12.14	1.00	1.00
2035	73,386	73,386	19.57	20.49	20.02	12.29	1.00	1.00
2036	73,386	73,386	20.40	21.40	20.84	12.55	1.00	1.00
2037	73,386	73,386	21.11	22.02	21.51	12.70	1.00	1.00
2038	73,386	73,386	22.02	22.94	22.44	13.04	1.00	1.00
2039	73,386	73,386	22.78	23.64	23.16	13.32	1.00	1.00
2040	73,386	73,386	23.59	24.33	23.93	13.44	1.00	1.00
2041	73,386	73,386	24.54	25.26	24.87	13.75	1.00	1.00
2042	73,386	73,386	25.50	26.21	25.83	14.10	1.00	1.00
2043	73,386	73,386	26.74	27.71	27.16	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.

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	21,716	11,912	502	30,334	38,377	26,087
2020	21,970	12,209	725	44,692	54,447	24,249
2021	20,234	12,515	751	46,630	56,866	23,271
2022	19,428	12,827	805	49,353	59,285	23,129
2023	18,650	13,148	850	51,887	60,990	23,544
2024	17,897	13,477	900	54,811	63,279	23,807
2025	17,169	13,814	962	58,585	66,747	23,763
2026	16,463	14,159	1031	62,584	70,312	23,925
2027	15,778	14,513	1090	66,059	73,323	24,117
2028	15,096	14,876	1123	67,812	74,903	24,004
2029	14,415	15,248	1176	70,668	76,872	24,634
2030	13,735	15,629	1234	73,976	79,945	24,628
2031	13,054	16,020	1264	75,500	81,395	24,443
2032	12,375	16,420	1314	78,168	83,067	25,209
2033	11,696	16,831	1446	86,009	90,833	25,148
2034	11,017	17,251	1513	89,523	92,987	26,318
2035	10,339	17,683	1554	91,561	94,422	26,715
2036	9,662	18,125	1607	94,295	97,223	26,466
2037	8,985	18,578	1651	96,438	98,621	27,031
2038	8,309	19,042	1699	98,844	101,629	26,265
2039	7,633	19,518	1743	100,876	103,963	25,808
2040	7,081	20,006	1791	103,200	105,151	26,927
2041	6,652	20,507	1840	105,464	107,798	26,664
2042	6,224	21,019	1890	107,866	110,801	26,197
2043	5,796	21,545	1946	110,640	113,651	26,277
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	330,474	406,871	32,415	1,915,754	2,056,886	628,628
NPV	73,925	67,351	4,895	293,206	326,128	113,449

AVOIDED GENERATING EMISSION IMPACT
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Heating, Ventilating and Air-Conditioning

	(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	5	1	4
2011	0	0	11	3	8
2012	0	0	15	6	9
2013	0	0	653	87	567
2014	0	0	929	123	806
2015	0	0	1,306	173	1,133
2016	0	0	1,813	234	1,579
2017	0	0	2,347	303	2,045
2018	0	0	2,946	378	2,568
2019	3,627	4,743	3,392	436	1,841
2020	5,523	7,153	3,670	472	1,568
2021	6,084	7,888	3,964	510	1,651
2022	7,105	9,190	4,450	573	1,792
2023	7,841	10,135	4,741	616	1,831
2024	9,028	11,641	5,262	685	1,964
2025	10,420	13,397	5,826	757	2,092
2026	11,555	14,768	6,137	795	2,129
2027	13,072	16,682	6,695	862	2,223
2028	14,333	18,262	7,291	932	2,430
2029	16,396	20,811	8,125	1,034	2,676
2030	18,179	23,060	8,776	1,112	2,784
2031	19,757	25,045	9,533	1,201	3,044
2032	21,756	27,521	10,335	1,296	3,274
2033	25,349	32,048	11,205	1,399	3,107
2034	28,059	35,443	12,130	1,510	3,236
2035	30,476	38,515	13,155	1,631	3,485
2036	33,271	42,037	14,241	1,761	3,715
2037	36,060	45,547	15,385	1,899	3,999
2038	39,089	49,366	16,611	2,046	4,288
2039	42,216	53,383	17,912	2,204	4,542
2040	45,620	57,680	19,305	2,371	4,875
2041	49,155	62,140	20,758	2,545	5,227
2042	49,155	62,140	22,309	2,732	6,592
2043	49,155	62,140	23,990	2,934	8,071
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	592,282	750,734	285,223	35,619	91,153
NPV	71,711	91,245	41,219	5,226	16,458

(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	566	13,802	0	14,367	0	0	1,039	4	1,043	(13,324)	(12,337)
2011	0	539	11,761	0	12,300	0	451	2,866	8	3,324	(9,976)	(19,807)
2012	0	571	13,091	0	13,661	0	842	4,630	9	5,482	(8,180)	(26,143)
2013	0	523	12,888	0	13,411	0	1,293	6,488	567	8,248	(5,063)	(29,745)
2014	0	499	14,837	0	15,336	0	1,686	8,655	806	11,147	(4,189)	(32,482)
2015	0	651	17,946	0	18,598	0	2,143	12,008	1,133	15,285	(3,313)	(34,469)
2016	0	565	20,233	0	20,798	0	2,739	17,518	1,579	21,836	1,038	(33,898)
2017	0	577	24,303	0	24,880	0	3,302	22,791	2,045	28,047	3,168	(32,295)
2018	0	520	22,725	0	23,245	0	3,875	27,909	2,568	34,352	11,107	(27,133)
2019	0	0	0	0	0	26,087	4,330	33,270	1,841	65,528	65,528	836
2020	0	0	0	0	0	24,249	4,306	34,716	1,568	64,739	64,739	26,213
2021	0	0	0	0	0	23,271	4,083	36,248	1,651	65,254	65,254	49,703
2022	0	0	0	0	0	23,129	3,965	37,131	1,792	66,017	66,017	71,529
2023	0	0	0	0	0	23,544	3,850	37,252	1,831	66,477	66,477	91,714
2024	0	0	0	0	0	23,807	3,738	38,591	1,964	68,100	68,100	110,703
2025	0	184	7,976	0	8,160	23,763	3,629	39,597	2,092	69,080	69,021	126,304
2026	0	175	7,680	0	7,854	23,925	3,520	39,969	2,129	69,543	61,689	140,813
2027	0	201	8,845	0	9,046	24,117	3,413	40,497	2,223	70,249	61,204	154,033
2028	0	212	9,335	0	9,748	24,004	3,305	41,331	2,430	71,071	61,323	166,197
2029	0	196	8,882	0	9,078	24,634	3,199	41,616	2,676	72,124	63,046	177,683
2030	0	839	19,154	0	19,993	24,628	3,092	42,641	2,784	73,145	53,152	186,575
2031	0	875	19,954	0	20,829	24,443	2,987	44,015	3,044	74,490	53,661	194,820
2032	0	1,027	27,135	0	28,163	25,209	2,887	44,016	3,274	75,335	47,223	201,484
2033	0	925	25,576	0	26,501	25,148	2,792	45,548	3,107	76,594	50,093	207,976
2034	0	595	14,264	0	14,860	26,318	2,702	45,472	3,236	77,728	62,869	215,458
2035	0	931	23,114	0	24,045	26,715	2,619	48,051	3,485	80,870	56,825	221,670
2036	0	711	22,553	0	23,264	26,466	2,542	50,211	3,715	82,933	59,669	237,659
2037	0	583	22,070	0	22,653	27,031	2,473	51,563	3,999	85,066	62,413	233,413
2038	0	502	19,918	0	20,490	26,265	2,412	53,700	4,288	86,644	66,173	239,016
2039	0	0	0	0	0	25,808	2,359	55,273	4,542	87,983	87,983	245,857
2040	0	267	11,551	0	11,818	26,927	2,313	56,765	4,875	90,879	79,062	251,503
2041	0	253	11,122	0	11,375	26,664	2,269	58,900	5,227	93,060	81,685	256,860
2042	0	291	12,810	0	13,101	26,197	2,225	61,072	6,592	96,086	82,986	261,858
2043	0	308	13,810	0	14,117	26,277	2,182	64,747	8,071	101,276	87,158	266,679
	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	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

Discount Rate:	8.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	2.95	

(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	1,116	0	8,310	0	9,426	13,802	0	0	13,802	(4,376)	(4,018)
2011	3,224	0	7,009	0	10,233	11,761	0	0	11,761	(1,528)	(5,307)
2012	5,505	0	7,474	0	12,979	13,091	0	0	13,091	(112)	(5,394)
2013	8,175	0	7,192	0	15,367	12,888	0	0	12,888	2,479	(3,630)
2014	11,684	0	7,336	0	19,020	14,837	0	0	14,837	4,182	(898)
2015	16,516	0	8,138	0	24,654	17,946	0	0	17,946	6,708	3,127
2016	22,124	0	9,325	0	31,449	20,233	0	0	20,233	11,216	9,307
2017	28,521	0	11,643	0	39,966	24,303	0	0	24,303	15,663	17,233
2018	34,141	0	10,803	0	44,943	22,725	0	0	22,725	22,218	27,559
2019	37,859	0	0	0	37,859	0	0	0	0	37,859	43,718
2020	37,879	0	0	0	37,879	0	0	0	0	37,879	58,566
2021	38,744	0	0	0	38,744	0	0	0	0	38,744	72,514
2022	40,092	0	0	0	40,092	0	0	0	0	40,092	85,769
2023	41,465	0	0	0	41,465	0	0	0	0	41,465	98,359
2024	43,535	0	0	0	43,535	0	0	0	0	43,535	110,498
2025	45,285	0	3,433	0	48,718	7,976	0	0	7,976	40,742	120,932
2026	47,274	0	3,225	0	50,499	7,680	0	0	7,680	42,820	131,003
2027	50,037	0	3,584	0	53,621	8,845	0	0	8,845	44,776	140,574
2028	52,277	0	3,780	0	56,057	9,535	0	0	9,535	46,521	149,902
2029	54,876	0	3,466	0	58,342	8,882	0	0	8,882	49,461	158,913
2030	57,832	0	7,172	0	65,005	19,154	0	0	19,154	45,850	166,584
2031	60,738	0	7,694	0	68,432	19,954	0	0	19,954	48,478	174,033
2032	64,613	0	10,232	0	74,845	27,135	0	0	27,135	47,710	180,765
2033	70,807	0	9,472	0	80,279	25,576	0	0	25,576	54,703	187,854
2034	72,177	0	3,870	0	76,047	14,264	0	0	14,264	61,783	195,208
2035	75,411	0	5,844	0	81,255	23,114	0	0	23,114	58,140	201,563
2036	81,224	0	5,415	0	86,640	22,553	0	0	22,553	64,087	207,996
2037	85,803	0	5,304	0	91,107	22,070	0	0	22,070	69,037	214,360
2038	89,830	0	4,743	0	94,573	19,988	0	0	19,988	74,585	220,675
2039	94,248	0	0	0	94,248	0	0	0	0	94,248	228,004
2040	98,955	0	3,433	0	102,388	11,551	0	0	11,551	90,837	234,490
2041	104,540	0	3,225	0	107,766	11,122	0	0	11,122	96,643	240,828
2042	110,503	0	3,584	0	114,087	12,810	0	0	12,810	101,277	246,928
2043	116,869	0	3,780	0	120,649	13,810	0	0	13,810	106,839	252,838
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0								

In Service of Gen Unit:

Discount Rate :

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

2019

3.89 %

291

(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	566	8,310	987	0	9,863	1,039	0	0	4	1,043	(8,820)	(8,100)
2011	0	539	7,009	2,857	0	10,405	2,866	451	0	8	3,324	(7,081)	(14,073)
2012	0	571	7,474	4,884	0	12,929	4,630	842	0	9	5,482	(7,448)	(19,842)
2013	0	523	7,192	7,238	0	14,953	6,488	1,293	0	567	8,348	(6,606)	(24,541)
2014	0	499	7,336	10,314	0	18,149	8,655	1,686	0	806	11,147	(7,002)	(28,115)
2015	0	651	8,138	14,535	0	23,324	12,008	2,143	0	1,133	15,285	(8,039)	(33,939)
2016	0	565	9,325	19,389	0	29,280	17,518	2,739	0	1,579	21,836	(7,444)	(38,040)
2017	0	577	11,645	24,774	0	36,996	22,701	3,302	0	2,045	28,047	(8,948)	(42,569)
2018	0	520	10,803	29,794	0	41,116	27,909	3,875	0	2,568	34,352	(6,764)	(45,713)
2019	0	0	0	32,939	0	32,939	59,357	4,330	0	1,841	65,528	32,589	(31,803)
2020	0	0	0	32,922	0	32,922	58,965	4,206	0	1,568	64,739	31,817	(19,331)
2021	0	0	0	33,616	0	33,616	59,520	4,083	0	1,651	65,254	31,638	(7,942)
2022	0	0	0	34,719	0	34,719	60,260	3,965	0	1,792	66,017	31,298	2,406
2023	0	0	0	35,868	0	35,868	60,796	3,850	0	1,831	66,477	30,609	11,700
2024	0	0	0	37,600	0	37,600	62,398	3,738	0	1,964	68,100	30,501	20,205
2025	0	184	3,433	39,012	0	42,629	63,360	3,629	0	2,092	69,080	26,451	26,978
2026	0	175	3,225	40,668	0	44,068	63,894	3,520	0	2,129	69,543	25,476	32,970
2027	0	201	3,584	42,974	0	46,758	64,614	3,413	0	2,223	70,249	23,491	38,044
2028	0	212	3,780	44,848	0	48,841	65,335	3,305	0	2,430	71,071	22,230	42,454
2029	0	196	3,466	47,016	0	50,678	66,250	3,199	0	2,676	72,124	21,446	46,361
2030	0	839	7,172	49,483	0	57,494	67,269	3,092	0	2,784	73,145	15,651	48,979
2031	0	875	7,694	51,904	0	60,473	68,458	2,987	0	3,044	74,490	14,017	51,133
2032	0	1,027	10,232	55,150	0	66,409	69,225	2,887	0	3,274	75,385	8,976	52,399
2033	0	925	9,472	60,343	0	70,740	70,695	2,792	0	3,107	76,594	5,854	53,158
2034	0	595	5,870	61,504	0	65,970	71,790	2,702	0	3,236	77,728	11,739	54,558
2035	0	931	5,844	64,157	0	70,932	74,766	2,619	0	3,485	80,870	9,938	55,644
2036	0	711	5,415	69,004	0	75,131	76,676	2,542	0	3,715	82,933	7,802	56,427
2037	0	583	5,304	72,844	0	78,731	78,594	2,473	0	3,999	85,066	6,335	57,011
2038	0	502	4,743	76,192	0	81,437	79,964	2,412	0	4,288	86,664	5,227	57,654
2039	0	0	0	79,866	0	79,866	81,081	2,359	0	4,542	87,983	8,116	58,085
2040	0	267	3,433	83,779	0	87,478	83,692	2,313	0	4,875	90,879	3,401	58,328
2041	0	253	3,225	88,423	0	91,901	85,564	2,269	0	5,227	93,060	1,159	58,404
2042	0	291	3,584	93,380	0	97,255	87,269	2,225	0	6,592	96,086	(1,169)	58,333
2043	0	308	3,780	98,673	0	102,761	91,023	2,182	0	8,071	101,276	(1,485)	58,251
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	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	14,076	168,488	1,541,657	0	1,724,231	1,874,631	93,422	0	91,153	2,059,205	334,974	
NPV	0	4,509	62,439	278,350	0	345,298	361,755	25,335	0	16,438	403,549	58,251	

Discount Rate

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

8.89 %

1.17

BUSINESS LIGHTING

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.94 kW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.26 kW
(3) KW LINE LOSS PERCENTAGE	1.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	3,556.43 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	1.69254

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	3.19 %
(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	*** %

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: Business Lighting

[illegible]

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME: Business Lighting

	(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	34,175	1,186	0	2,664	1,758	643	227	1,489	3	7,970	7,970	7,970	37,231
2020	36,683	1,140	0	2,560	1,208	617	233	1,489	487	7,733	7,102	15,072	38,161
2021	34,707	1,078	0	2,422	1,197	590	239	1,489	412	7,426	6,263	21,336	39,115
2022	32,806	1,019	0	2,289	1,183	563	245	1,489	342	7,130	5,523	26,859	40,093
2023	30,974	962	0	2,162	1,168	536	251	1,489	277	6,845	4,869	31,728	41,096
2024	29,268	907	0	2,038	1,150	509	257	1,489	217	6,569	4,291	36,019	42,123
2025	27,592	854	0	1,919	1,131	483	263	1,489	162	6,301	3,781	39,800	43,176
2026	25,851	803	0	1,804	1,110	456	270	1,489	111	6,042	3,329	43,129	44,256
2027	24,251	753	0	1,692	1,048	429	277	1,489	102	5,791	2,930	46,060	45,362
2028	22,659	704	0	1,581	978	402	284	1,489	102	5,541	2,575	48,635	46,496
2029	21,068	654	0	1,470	908	375	291	1,489	102	5,291	2,258	50,893	47,658
2030	19,476	605	0	1,359	839	348	298	1,489	102	5,041	1,976	52,869	48,850
2031	17,885	556	0	1,248	769	322	305	1,489	102	4,791	1,725	54,593	50,071
2032	16,293	506	0	1,137	699	295	313	1,489	102	4,542	1,502	56,095	51,323
2033	14,702	457	0	1,026	629	268	321	1,489	102	4,293	1,303	57,398	52,606
2034	13,110	407	0	915	560	241	329	1,489	102	4,043	1,128	58,526	53,921
2035	11,519	358	0	804	490	214	337	1,489	102	3,795	972	59,498	55,269
2036	9,927	308	0	693	420	188	346	1,489	102	3,546	834	60,332	56,651
2037	8,336	259	0	582	350	161	354	1,489	102	3,298	712	61,044	58,067
2038	6,744	210	0	471	281	134	363	1,489	102	3,049	605	61,649	59,519
2039	5,153	160	0	360	222	107	372	1,489	(209)	2,801	510	62,159	61,007
2040	3,873	120	0	270	178	80	381	1,489	(521)	2,599	435	62,594	62,532
2041	2,905	90	0	203	135	54	391	1,489	(521)	2,441	375	62,969	64,095
2042	1,936	60	0	135	693	27	401	1,489	(521)	2,284	322	63,291	65,698
2043	968	30	0	68	651	0	411	1,489	(521)	2,127	276	63,567	67,340

IN SERVICE COST (\$000)	37,231
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.30%
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 Lighting

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	1,358	1,358	1,489	1,489	1,350	1,350	3	3,475	0	0	0	3	(942)
2020	7.22%	2,614	3,971	1,489	2,978	1,350	2,700	487	3,475	0	0	0	487	(455)
2021	6.68%	2,417	6,389	1,489	4,468	1,350	4,051	412	3,475	0	0	0	412	(43)
2022	6.18%	2,237	8,626	1,489	5,957	1,350	5,401	342	3,475	0	0	0	342	299
2023	5.71%	2,068	10,695	1,489	7,446	1,350	6,751	277	3,475	0	0	0	277	576
2024	5.29%	1,913	12,608	1,489	8,935	1,350	8,101	217	3,475	0	0	0	217	794
2025	4.89%	1,770	14,378	1,489	10,425	1,350	9,452	162	3,475	0	0	0	162	955
2026	4.52%	1,637	16,015	1,489	11,914	1,350	10,802	111	3,475	0	0	0	111	1,066
2027	4.46%	1,615	17,630	1,489	13,403	1,350	12,152	102	3,475	0	0	0	102	1,168
2028	4.46%	1,615	19,245	1,489	14,892	1,350	13,502	102	3,475	0	0	0	102	1,271
2029	4.46%	1,615	20,861	1,489	16,381	1,350	14,852	102	3,475	0	0	0	102	1,373
2030	4.46%	1,615	22,476	1,489	17,871	1,350	16,203	102	3,475	0	0	0	102	1,475
2031	4.46%	1,615	24,091	1,489	19,360	1,350	17,553	102	3,475	0	0	0	102	1,577
2032	4.46%	1,615	25,706	1,489	20,849	1,350	18,903	102	3,475	0	0	0	102	1,680
2033	4.46%	1,615	27,322	1,489	22,338	1,350	20,253	102	3,475	0	0	0	102	1,782
2034	4.46%	1,615	28,937	1,489	23,828	1,350	21,604	102	3,475	0	0	0	102	1,884
2035	4.46%	1,615	30,552	1,489	25,317	1,350	22,954	102	3,475	0	0	0	102	1,986
2036	4.46%	1,615	32,168	1,489	26,806	1,350	24,304	102	3,475	0	0	0	102	2,089
2037	4.46%	1,615	33,783	1,489	28,295	1,350	25,654	102	3,475	0	0	0	102	2,191
2038	4.46%	1,615	35,398	1,489	29,785	1,350	27,004	102	3,475	0	0	0	102	2,293
2039	2.23%	808	36,206	1,489	31,274	1,350	28,355	(209)	3,475	0	0	0	(209)	2,084
2040	0.00%	0	36,206	1,489	32,763	1,350	29,705	(521)	3,475	0	0	0	(521)	1,563
2041	0.00%	0	36,206	1,489	34,252	1,350	31,055	(521)	3,475	0	0	0	(521)	1,042
2042	0.00%	0	36,206	1,489	35,741	1,350	32,405	(521)	3,475	0	0	0	(521)	521
2043	0.00%	0	36,206	1,489	37,231	1,350	33,756	(521)	3,475	0	0	0	(521)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(945)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	3,475
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	1,338	3	33,741	1,489	(942)	38,173	36,683	37,429
2020	7.22%	2,614	487	34,252	2,978	(455)	36,683	34,707	35,695
2021	6.68%	2,417	412	32,763	4,468	(43)	34,707	32,806	33,756
2022	6.18%	2,237	342	31,274	5,957	299	32,806	30,974	31,890
2023	5.71%	2,068	277	29,785	7,446	576	30,974	29,208	30,091
2024	5.29%	1,913	217	28,295	8,935	794	29,208	27,502	28,355
2025	4.89%	1,770	162	26,806	10,423	955	27,502	25,851	26,676
2026	4.52%	1,637	111	25,317	11,914	1,066	25,851	24,251	25,051
2027	4.46%	1,615	102	23,828	13,403	1,168	24,251	22,659	23,455
2028	4.46%	1,615	102	22,338	14,892	1,271	22,659	21,068	21,863
2029	4.46%	1,615	102	20,849	16,381	1,373	21,068	19,476	20,272
2030	4.46%	1,615	102	19,360	17,871	1,475	19,476	17,885	18,681
2031	4.46%	1,615	102	17,871	19,360	1,577	17,885	16,293	17,089
2032	4.46%	1,615	102	16,381	20,849	1,680	16,293	14,702	15,498
2033	4.46%	1,615	102	14,892	22,338	1,782	14,702	13,110	13,906
2034	4.46%	1,615	102	13,403	23,828	1,884	13,110	11,519	12,315
2035	4.46%	1,615	102	11,914	25,317	1,986	11,519	9,927	10,723
2036	4.46%	1,615	102	10,423	26,806	2,089	9,927	8,336	9,132
2037	4.46%	1,615	102	8,935	28,295	2,191	8,336	6,744	7,540
2038	4.46%	1,615	102	7,446	29,785	2,293	6,744	5,153	5,949
2039	2.23%	808	(209)	5,957	31,274	2,084	5,153	3,873	4,513
2040	0.00%	0	(521)	4,468	32,763	1,563	3,873	2,905	3,389
2041	0.00%	0	(521)	2,978	34,252	1,042	2,905	1,936	2,421
2042	0.00%	0	(521)	1,489	35,741	521	1,936	968	1,452
2043	0.00%	0	(521)	0	37,231	0	968	0	484

* 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	0.34	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	835.43	
2018	-1	934.83	29.46	57.47	80.39	156.84	64.78	127.50	(13.63)	(27.02)	179.18	1,064.61	

57.47

156.84

127.50

(27.02)

1,064.61

IN SERVICE YEAR	2019
PLANT COSTS	725.3898055
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	31,746	31,746	31,746
EQUITY AFUDC	3,475		
DEBT AFUDC	2,010	2,010	
CPI			4,459
TOTAL	37,231	33,756	36,205

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/KWh)	AVOIDED MARGINAL FUEL COST (C/KWh)	INCREASED MARGINAL FUEL COST (C/KWh)	REPLACEMENT FUEL COST (C/KWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KW EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	2,602	2,602	6.41	7.90	7.03	0.00	1.00	1.00
2011	5,301	5,301	6.35	7.64	6.91	0.00	1.00	1.00
2012	8,085	8,085	6.43	7.61	6.95	0.00	1.00	1.00
2013	10,950	10,950	7.06	7.85	7.41	0.00	1.00	1.00
2014	13,873	13,873	7.53	8.20	7.83	0.00	1.00	1.00
2015	15,975	15,975	8.11	8.94	8.50	0.00	1.00	1.00
2016	18,868	18,868	9.00	10.42	9.62	0.00	1.00	1.00
2017	22,120	22,120	9.75	11.37	10.43	0.00	1.00	1.00
2018	27,713	27,713	10.52	12.20	11.25	0.00	1.00	1.00
2019	27,713	27,713	11.50	13.64	12.43	10.41	1.00	1.00
2020	27,713	27,713	12.08	14.25	13.07	10.50	1.00	1.00
2021	27,713	27,713	12.57	14.87	13.59	10.74	1.00	1.00
2022	27,713	27,713	13.06	15.28	14.05	10.81	1.00	1.00
2023	27,713	27,713	13.39	15.41	14.33	10.80	1.00	1.00
2024	27,713	27,713	13.95	15.98	14.91	10.84	1.00	1.00
2025	27,713	27,713	14.40	16.42	15.37	10.96	1.00	1.00
2026	27,713	27,713	14.70	16.62	15.63	11.05	1.00	1.00
2027	27,713	27,713	15.13	16.90	16.00	11.17	1.00	1.00
2028	27,713	27,713	15.60	17.29	16.44	11.36	1.00	1.00
2029	27,713	27,713	16.02	17.50	16.78	11.41	1.00	1.00
2030	27,713	27,713	16.52	17.96	17.26	11.59	1.00	1.00
2031	27,713	27,713	17.08	18.54	17.83	11.80	1.00	1.00
2032	27,713	27,713	17.50	18.66	18.13	11.88	1.00	1.00
2033	27,713	27,713	18.27	19.35	18.79	12.10	1.00	1.00
2034	27,713	27,713	18.73	19.45	19.08	12.14	1.00	1.00
2035	27,713	27,713	19.57	20.49	20.02	12.29	1.00	1.00
2036	27,713	27,713	20.40	21.40	20.84	12.55	1.00	1.00
2037	27,713	27,713	21.11	22.02	21.51	12.70	1.00	1.00
2038	27,713	27,713	22.02	22.94	22.44	13.04	1.00	1.00
2039	27,713	27,713	22.78	23.64	23.16	13.32	1.00	1.00
2040	27,713	27,713	23.59	24.33	23.93	13.44	1.00	1.00
2041	27,713	27,713	24.54	25.26	24.87	13.75	1.00	1.00
2042	27,713	27,713	25.50	26.21	25.83	14.10	1.00	1.00
2043	27,713	27,713	26.74	27.71	27.16	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

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

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

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	7,970	4,372	184	11,133	14,085	9,574
2020	7,733	4,481	266	16,403	19,983	8,900
2021	7,425	4,593	278	17,114	20,871	8,541
2022	7,130	4,708	296	18,113	21,758	8,489
2023	6,845	4,826	312	19,043	22,384	8,641
2024	6,569	4,946	330	20,117	23,224	8,738
2025	6,301	5,070	353	21,494	24,497	8,721
2026	6,042	5,197	378	22,969	25,805	8,781
2027	5,791	5,326	400	24,244	26,911	8,851
2028	5,541	5,460	412	24,888	27,490	8,810
2029	5,291	5,596	431	25,936	28,213	9,041
2030	5,041	5,736	453	27,150	29,341	9,039
2031	4,791	5,879	464	27,710	29,873	8,971
2032	4,542	6,026	482	28,689	30,487	9,252
2033	4,293	6,177	531	31,567	33,337	9,230
2034	4,043	6,332	555	32,856	34,127	9,699
2035	3,795	6,490	571	33,604	34,654	9,805
2036	3,546	6,652	590	34,607	35,682	9,713
2037	3,298	6,818	606	35,394	36,195	9,921
2038	3,049	6,989	624	36,277	37,299	9,639
2039	2,801	7,164	640	37,023	38,156	9,472
2040	2,599	7,343	657	37,876	38,592	9,883
2041	2,441	7,526	675	38,707	39,563	9,786
2042	2,284	7,714	694	39,588	40,666	9,615
2043	2,127	7,907	714	40,607	41,712	9,644
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	121,289	149,328	11,897	703,109	754,907	230,715
NPV	27,132	24,792	1,796	107,611	119,694	41,637

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
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	380	0
2011	123	10	133	10	3	13	1,111	0
2012	251	20	271	21	5	26	1,870	0
2013	382	43	425	32	8	40	2,712	0
2014	517	56	573	43	12	55	3,683	0
2015	655	66	721	55	15	70	4,835	0
2016	747	80	827	62	18	80	6,637	0
2017	885	96	981	74	22	96	8,531	0
2018	1,043	123	1,166	87	26	113	11,120	0
2019	1,342	126	1,468	112	34	146	13,871	0
2020	1,296	129	1,426	108	35	143	14,483	0
2021	1,250	133	1,383	104	35	140	15,117	0
2022	1,205	136	1,341	100	36	137	15,507	0
2023	1,162	139	1,301	97	37	134	15,591	0
2024	1,119	143	1,262	93	38	131	16,161	0
2025	1,077	146	1,223	90	39	129	16,592	0
2026	1,036	150	1,186	86	40	126	16,768	0
2027	994	154	1,148	83	41	124	17,016	0
2028	953	158	1,111	79	42	122	17,385	0
2029	912	161	1,074	76	43	119	17,542	0
2030	871	166	1,037	73	44	117	17,986	0
2031	830	170	1,000	69	45	115	18,569	0
2032	791	174	965	66	47	112	18,620	0
2033	753	178	931	63	48	110	19,286	0
2034	717	183	900	60	49	109	19,311	0
2035	683	187	871	57	50	107	20,381	0
2036	651	192	843	54	51	106	21,290	0
2037	621	197	818	52	53	104	21,883	0
2038	593	202	795	49	54	103	22,794	0
2039	568	207	774	47	55	103	23,475	0
2040	545	212	757	45	57	102	24,132	0
2041	524	217	741	44	58	102	25,046	0
2042	503	223	725	42	60	101	25,977	0
2043	481	228	710	40	61	101	27,504	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
NOM.	26,082	4,802	30,884	2,172	1,263	3,435	523,168	0
NPV	7,318	996	8,313	609	254	863	102,910	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: Business Lighting

	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT	REPLACEMENT EMISSION COST	PROGRAM EMISSION BENEFIT	OFF-PEAK EMISSION PAYBACK COST	NET EMISSION BENEFIT
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0
2010	0	0	2	0	2
2011	0	0	4	0	4
2012	0	0	6	0	6
2013	0	0	244	0	244
2014	0	0	353	0	353
2015	0	0	470	0	470
2016	0	0	618	0	618
2017	0	0	795	0	795
2018	0	0	1,057	0	1,057
2019	1,331	1,741	1,277	0	867
2020	2,027	2,625	1,382	0	783
2021	2,233	2,895	1,492	0	830
2022	2,608	3,373	1,675	0	910
2023	2,878	3,720	1,784	0	942
2024	3,113	4,273	1,981	0	1,021
2025	3,824	4,917	2,193	0	1,100
2026	4,241	5,420	2,310	0	1,131
2027	4,798	6,123	2,520	0	1,195
2028	5,261	6,702	2,744	0	1,302
2029	6,017	7,638	3,058	0	1,438
2030	6,672	8,463	3,303	0	1,512
2031	7,251	9,192	3,588	0	1,648
2032	7,985	10,101	3,890	0	1,774
2033	9,303	11,762	4,217	0	1,759
2034	10,298	13,008	4,566	0	1,856
2035	11,185	14,135	4,951	0	2,001
2036	12,211	15,428	5,360	0	2,143
2037	13,235	16,716	5,791	0	2,309
2038	14,346	18,118	6,252	0	2,481
2039	15,494	19,592	6,742	0	2,644
2040	16,743	21,169	7,266	0	2,840
2041	18,041	22,806	7,813	0	3,047
2042	18,041	22,806	8,397	0	3,631
2043	18,041	22,806	9,030	0	4,264
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	217,376	275,530	107,132	0	48,978
NPV	26,319	33,488	15,398	0	8,228

(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	71	3,597	0	3,667	0	0	380	2	381	(3,018)	(3,018)
2011	0	75	4,222	0	4,297	0	146	1,111	4	1,260	(3,037)	(5,579)
2012	0	79	4,241	0	4,320	0	297	1,470	6	2,173	(2,147)	(7,243)
2013	0	84	4,188	0	4,272	0	463	2,712	244	3,422	(850)	(7,847)
2014	0	87	3,877	0	3,964	0	628	3,683	353	4,664	689	(7,390)
2015	0	64	2,406	0	2,470	0	790	4,835	470	6,096	3,625	(5,215)
2016	0	116	4,400	0	4,517	0	907	6,637	618	8,163	3,646	(3,206)
2017	0	131	4,937	0	5,068	0	1,076	8,531	795	10,402	5,334	(507)
2018	0	211	7,878	0	8,090	0	1,280	11,120	1,057	13,457	5,367	1,988
2019	0	28	1,121	0	1,148	9,574	1,614	13,871	867	25,926	24,778	12,563
2020	0	28	1,149	0	1,177	8,900	1,568	14,483	783	25,734	24,557	22,190
2021	0	5	194	0	198	8,541	1,522	15,117	830	26,010	25,811	31,481
2022	0	30	1,207	0	1,237	8,489	1,478	15,507	910	26,383	25,147	39,795
2023	0	64	2,485	0	2,549	8,641	1,435	16,610	942	26,610	24,061	47,101
2024	0	52	2,039	0	2,092	8,738	1,393	16,161	1,021	27,313	25,221	54,134
2025	0	58	2,230	0	2,288	8,721	1,352	16,592	1,100	27,766	25,478	60,658
2026	0	63	2,443	0	2,507	8,781	1,312	16,768	1,131	27,991	25,485	66,652
2027	0	42	1,536	0	1,578	8,851	1,272	17,016	1,195	28,335	26,757	72,431
2028	0	77	2,928	0	3,005	8,810	1,232	17,385	1,302	28,730	25,725	77,534
2029	0	92	3,472	0	3,564	9,041	1,193	17,542	1,438	29,214	25,650	82,207
2030	0	141	6,746	0	6,887	9,039	1,153	17,986	1,512	29,691	22,804	86,022
2031	0	200	9,608	0	9,807	8,971	1,115	18,569	1,648	30,302	30,495	89,171
2032	0	99	5,843	0	5,943	9,252	1,077	18,620	1,774	30,723	24,780	92,668
2033	0	68	4,219	0	4,287	9,230	1,042	19,286	1,759	31,317	27,030	96,171
2034	0	100	4,793	0	4,894	9,659	1,009	19,311	1,856	31,834	26,941	99,378
2035	0	90	3,516	0	3,605	9,805	978	20,381	2,001	33,164	29,559	102,609
2036	0	169	6,510	0	6,679	9,713	949	21,290	2,143	34,095	27,417	105,361
2037	0	166	6,376	0	6,542	9,921	922	21,883	2,309	35,036	28,493	107,988
2038	0	260	9,906	0	10,167	9,639	898	22,794	2,481	35,812	25,645	110,159
2039	0	50	1,834	0	1,883	9,472	877	23,475	2,644	36,468	34,585	112,848
2040	0	96	3,691	0	3,787	9,883	859	24,132	2,840	37,714	33,928	115,271
2041	0	106	4,036	0	4,142	9,786	843	25,046	3,047	38,722	34,581	117,539
2042	0	127	4,786	0	4,913	9,615	827	25,977	3,631	40,050	35,137	119,655
2043	0	140	5,247	0	5,387	9,644	811	27,504	4,264	42,223	36,835	121,692
	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0</				

4.02

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN BILLS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	534	0	1,465	0	1,999	3,597	0	0	3,597	(1,467)	(1,467)
2011	1,667	0	1,828	0	3,496	4,222	0	0	4,222	(727)	(2,080)
2012	2,959	0	1,708	0	4,667	4,241	0	0	4,241	426	(1,750)
2013	4,446	0	1,547	0	5,993	4,188	0	0	4,188	1,805	(466)
2014	6,177	0	1,304	0	7,481	3,877	0	0	3,877	3,605	1,889
2015	7,823	0	548	0	8,372	2,406	0	0	2,406	5,966	5,468
2016	9,473	0	1,021	0	10,495	4,400	0	0	4,400	6,095	8,827
2017	11,581	0	1,113	0	12,694	4,937	0	0	4,937	7,757	12,752
2018	14,422	0	1,671	0	16,093	7,878	0	0	7,878	8,215	16,570
2019	16,618	0	284	0	16,901	1,121	0	0	1,121	15,781	23,305
2020	16,624	0	284	0	16,908	1,149	0	0	1,149	15,759	29,483
2021	16,992	0	48	0	17,040	194	0	0	194	16,846	35,547
2022	17,564	0	284	0	17,848	1,207	0	0	1,207	16,641	41,049
2023	18,153	0	516	0	18,669	2,485	0	0	2,485	16,184	45,963
2024	19,042	0	412	0	19,454	2,039	0	0	2,039	17,414	50,819
2025	19,784	0	435	0	20,218	2,230	0	0	2,230	17,988	55,425
2026	20,637	0	460	0	21,096	2,443	0	0	2,443	18,653	59,812
2027	21,821	0	250	0	22,072	1,536	0	0	1,536	20,535	64,248
2028	22,783	0	514	0	23,297	2,928	0	0	2,928	20,369	68,288
2029	23,897	0	575	0	24,471	3,472	0	0	3,472	21,000	72,114
2030	25,164	0	1,558	0	26,722	6,746	0	0	6,746	19,976	75,456
2031	26,408	0	2,172	0	28,579	9,608	0	0	9,608	18,972	78,371
2032	28,073	0	1,557	0	29,630	5,843	0	0	5,843	23,786	81,728
2033	30,735	0	1,135	0	31,870	4,219	0	0	4,219	27,651	85,311
2034	31,327	0	1,102	0	32,429	4,793	0	0	4,793	27,636	88,600
2035	32,699	0	554	0	33,253	3,516	0	0	3,516	29,737	91,851
2036	35,190	0	963	0	36,152	6,510	0	0	6,510	29,643	94,826
2037	37,158	0	916	0	38,073	6,376	0	0	6,376	31,697	97,749
2038	38,880	0	1,350	0	40,230	9,906	0	0	9,906	30,324	100,316
2039	40,770	0	224	0	40,993	1,834	0	0	1,834	39,160	103,361
2040	42,782	0	486	0	43,269	3,691	0	0	3,691	39,578	106,187
2041	45,171	0	514	0	45,685	4,036	0	0	4,036	41,649	108,919
2042	47,721	0	575	0	48,296	4,786	0	0	4,786	43,510	111,539
2043	50,444	0	609	0	51,052	5,247	0	0	5,247	45,805	114,073
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0							

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

2019	
8.89	%
3.90	

(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	71	1,465	465	0	2,001	380	0	2	381	(1,619)	(1,487)	(1,487)
2011	0	75	1,828	1,452	0	3,355	1,111	146	4	1,260	(2,095)	(3,254)	(3,254)
2012	0	79	1,708	2,580	0	4,367	1,870	297	6	2,173	(2,194)	(4,954)	(4,954)
2013	0	84	1,547	3,873	0	5,504	2,712	465	244	3,422	(2,082)	(6,435)	(6,435)
2014	0	87	1,304	5,380	0	6,771	3,683	628	353	4,664	(2,108)	(7,812)	(7,812)
2015	0	64	548	6,813	0	7,426	4,835	790	470	6,096	(1,330)	(8,610)	(8,610)
2016	0	116	1,021	8,243	0	9,381	6,637	907	618	8,163	(1,218)	(9,282)	(9,282)
2017	0	131	1,113	10,090	0	11,333	8,531	1,076	795	10,402	(931)	(9,753)	(9,753)
2018	0	211	1,671	12,562	0	14,444	11,120	1,280	1,057	13,457	(988)	(10,212)	(10,212)
2019	0	28	284	14,443	0	14,754	23,445	1,614	867	25,926	11,172	(5,443)	(5,443)
2020	0	28	284	14,434	0	14,746	23,383	1,568	783	25,734	10,988	(1,136)	(1,136)
2021	0	5	48	14,729	0	14,781	23,658	1,522	830	26,010	11,229	2,906	2,906
2022	0	30	284	15,197	0	15,510	23,996	1,478	910	26,383	10,873	6,501	6,501
2023	0	64	516	15,690	0	16,270	24,233	1,435	942	26,610	10,340	9,641	9,641
2024	0	52	412	16,433	0	16,898	24,898	1,398	1,021	27,313	10,415	12,545	12,545
2025	0	58	435	17,032	0	17,524	25,313	1,352	1,100	27,766	10,242	15,168	15,168
2026	0	63	460	17,742	0	18,265	25,549	1,312	1,131	27,991	9,726	17,455	17,455
2027	0	42	250	18,731	0	19,023	25,868	1,272	1,195	28,335	9,312	19,467	19,467
2028	0	77	514	19,535	0	20,126	26,195	1,232	1,302	28,790	8,604	21,173	21,173
2029	0	92	575	20,464	0	21,131	26,584	1,193	1,438	29,214	8,083	22,646	22,646
2030	0	141	1,558	21,522	0	23,221	27,025	1,153	1,512	29,691	6,470	23,728	23,728
2031	0	200	2,172	22,558	0	24,930	27,540	1,115	1,644	30,362	5,373	24,534	24,534
2032	0	99	1,557	23,953	0	25,609	27,872	1,077	1,774	30,723	5,114	25,276	25,276
2033	0	68	1,135	26,184	0	27,387	28,516	1,042	1,759	31,317	3,929	25,785	25,785
2034	0	100	1,102	26,687	0	27,888	28,970	1,009	1,856	31,834	3,946	26,254	26,254
2035	0	90	554	27,812	0	28,456	30,185	978	2,001	33,164	4,709	26,769	26,769
2036	0	169	963	29,889	0	31,020	31,003	949	2,143	34,095	3,075	27,078	27,078

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.20	

BUSINESS REFRIGERATION

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	1.06 kW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.42 kW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	9,029.27 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	97.64 \$/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	1.23 CENTS PER kWh** (in-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %**

V. NON-FUEL ENERGY AND DEMAND CHARGES

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

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

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

	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	19	62	0	81	36	6	240	0	0	240
2011	44	138	0	182	155	28	550	0	0	550
2012	50	157	0	207	341	63	635	0	0	635
2013	56	172	0	228	577	103	712	0	0	712
2014	58	159	0	217	861	152	735	0	0	735
2015	35	45	0	80	1,120	195	393	0	0	393
2016	37	47	0	84	1,390	223	416	0	0	416
2017	38	47	0	86	1,589	261	432	0	0	432
2018	39	47	0	86	1,831	290	439	0	0	439
2019	0	0	0	0	2,032	299	0	0	0	0
2020	12	48	0	60	2,048	292	165	0	0	165
2021	27	105	0	132	2,120	287	375	0	0	375
2022	44	135	0	179	2,222	284	586	0	0	586
2023	66	165	0	230	2,316	286	836	0	0	836
2024	69	152	0	221	2,457	289	870	0	0	870
2025	39	40	0	79	2,598	281	443	0	0	443
2026	43	43	0	86	2,737	282	489	0	0	489
2027	47	45	0	92	2,928	284	529	0	0	529
2028	50	47	0	96	3,080	288	560	0	0	560
2029	51	47	0	99	3,261	289	581	0	0	581
2030	67	95	0	162	3,465	292	802	0	0	802
2031	34	105	0	140	3,667	294	480	0	0	480
2032	40	120	0	160	3,930	300	559	0	0	559
2033	45	132	0	177	4,347	310	627	0	0	627
2034	61	130	0	191	4,434	315	809	0	0	809
2035	41	33	0	74	4,677	309	465	0	0	465
2036	47	36	0	83	5,080	313	531	0	0	531
2037	53	40	0	93	5,388	321	596	0	0	596
2038	58	43	0	101	5,672	322	657	0	0	657
2039	63	45	0	108	5,983	323	711	0	0	711
2040	86	95	0	180	6,315	324	1,023	0	0	1,023
2041	113	153	0	266	6,708	326	1,396	0	0	1,396
2042	121	167	0	289	7,128	328	1,510	0	0	1,510
2043	57	132	0	189	7,576	329	803	0	0	803
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	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	1,711	3,028	0	4,739	110,028	8,888	20,956	0	0	20,956
NPV	451	995	0	1,446	19,166	2,117	5,534	0	0	

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GEN K-FACTOR
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME: Business Refrigeration

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	3,379	105	0	236	156	57	132	0	705	705	705	3,295
2020	3,247	101	0	227	107	55	132	43	684	629	1,334	3,377
2021	3,072	95	0	214	106	52	132	36	657	554	1,888	3,462
2022	2,903	90	0	203	105	50	132	30	631	489	2,377	3,548
2023	2,741	85	0	191	103	47	132	25	606	431	2,808	3,637
2024	2,585	80	0	180	102	45	132	19	581	380	3,188	3,728
2025	2,434	76	0	170	100	43	132	14	558	335	3,522	3,821
2026	2,288	71	0	160	98	40	132	10	535	295	3,817	3,917
2027	2,146	67	0	150	93	38	132	9	512	259	4,076	4,015
2028	2,005	62	0	140	87	36	132	9	490	228	4,304	4,115
2029	1,865	58	0	130	80	33	132	9	468	200	4,504	4,218
2030	1,724	54	0	120	74	31	132	9	446	175	4,679	4,323
2031	1,583	49	0	110	68	28	132	9	424	153	4,832	4,431
2032	1,442	45	0	101	62	26	132	9	402	133	4,965	4,542
2033	1,301	40	0	91	56	24	132	9	380	115	5,080	4,656
2034	1,160	36	0	81	50	21	132	9	358	100	5,180	4,772
2035	1,019	32	0	71	43	19	132	9	336	86	5,266	4,891
2036	879	27	0	61	37	17	132	9	314	74	5,339	5,014
2037	738	23	0	51	31	14	132	9	292	63	5,402	5,139
2038	597	19	0	42	25	12	132	9	270	54	5,456	5,268
2039	456	14	0	32	46	9	132	(19)	248	45	5,501	5,399
2040	343	11	0	24	69	7	132	(46)	230	38	5,540	5,534
2041	257	8	0	18	65	5	132	(46)	216	33	5,573	5,673
2042	171	5	0	17	61	2	132	(46)	202	29	5,601	5,814
2043	86	3	0	6	58	(0)	132	(46)	188	24	5,626	5,960

IN SERVICE COST (\$000)	3,295
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)+(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	120	120	132	132	119	119	0	308	0	0	0	0	(83)
2020	7.22%	231	351	132	264	119	239	43	308	0	0	0	43	(40)
2021	6.68%	214	565	132	395	119	358	36	308	0	0	0	36	(4)
2022	6.18%	198	763	132	527	119	478	30	308	0	0	0	30	26
2023	5.71%	183	946	132	659	119	597	25	308	0	0	0	25	51
2024	5.29%	169	1,116	132	791	119	717	19	308	0	0	0	19	70
2025	4.89%	157	1,272	132	923	119	836	14	308	0	0	0	14	85
2026	4.52%	145	1,417	132	1,054	119	956	10	308	0	0	0	10	94
2027	4.46%	143	1,560	132	1,186	119	1,075	9	308	0	0	0	9	103
2028	4.46%	143	1,703	132	1,318	119	1,195	9	308	0	0	0	9	112
2029	4.46%	143	1,846	132	1,450	119	1,314	9	308	0	0	0	9	122
2030	4.46%	143	1,989	132	1,582	119	1,434	9	308	0	0	0	9	131
2031	4.46%	143	2,132	132	1,713	119	1,553	9	308	0	0	0	9	140
2032	4.46%	143	2,275	132	1,845	119	1,673	9	308	0	0	0	9	149
2033	4.46%	143	2,418	132	1,977	119	1,792	9	308	0	0	0	9	158
2034	4.46%	143	2,561	132	2,109	119	1,912	9	308	0	0	0	9	167
2035	4.46%	143	2,704	132	2,241	119	2,031	9	308	0	0	0	9	176
2036	4.46%	143	2,847	132	2,372	119	2,151	9	308	0	0	0	9	185
2037	4.46%	143	2,990	132	2,504	119	2,270	9	308	0	0	0	9	194
2038	4.46%	143	3,133	132	2,636	119	2,390	9	308	0	0	0	9	203
2039	2.23%	71	3,204	132	2,768	119	2,509	(19)	308	0	0	0	(19)	184
2040	0.00%	0	3,204	132	2,900	119	2,629	(46)	308	0	0	0	(46)	138
2041	0.00%	0	3,204	132	3,031	119	2,748	(46)	308	0	0	0	(46)	92
2042	0.00%	0	3,204	132	3,163	119	2,868	(46)	308	0	0	0	(46)	46
2043	0.00%	0	3,204	132	3,295	119	2,987	(46)	308	0	0	0	(46)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(84)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	308
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASE \$(000)	ENDING OF YEAR RATE BASE \$(000)	MID-YEAR RATE BASE \$(000)
2019	3.75%	120	0	3,163	132	(83)	3,379	3,247	3,313
2020	7.22%	231	43	3,031	264	(40)	3,247	3,072	3,159
2021	6.68%	214	36	2,900	395	(4)	3,072	2,903	2,987
2022	6.18%	198	30	2,768	527	26	2,903	2,741	2,822
2023	5.71%	183	25	2,636	659	51	2,741	2,585	2,663
2024	5.29%	169	19	2,504	791	70	2,585	2,434	2,509
2025	4.89%	157	14	2,372	923	85	2,434	2,288	2,361
2026	4.52%	145	10	2,241	1,054	94	2,288	2,146	2,217
2027	4.46%	143	9	2,109	1,186	103	2,146	2,005	2,076
2028	4.46%	143	9	1,977	1,318	112	2,005	1,865	1,935
2029	4.46%	143	9	1,845	1,450	122	1,865	1,724	1,794
2030	4.46%	143	9	1,713	1,582	131	1,724	1,583	1,653
2031	4.46%	143	9	1,582	1,713	140	1,583	1,442	1,512
2032	4.46%	143	9	1,450	1,845	149	1,442	1,301	1,372
2033	4.46%	143	9	1,318	1,977	158	1,301	1,160	1,231
2034	4.46%	143	9	1,186	2,109	167	1,160	1,019	1,090
2035	4.46%	143	9	1,054	2,241	176	1,019	879	949
2036	4.46%	143	9	923	2,372	185	879	738	808
2037	4.46%	143	9	791	2,504	194	738	597	667
2038	4.46%	143	9	659	2,636	203	597	456	526
2039	2.23%	71	(19)	527	2,768	184	456	343	399
2040	0.00%	0	(46)	395	2,900	138	343	257	300
2041	0.00%	0	(46)	264	3,031	92	257	171	214
2042	0.00%	0	(46)	132	3,163	46	171	86	129
2043	0.00%	0	(46)	(0)	3,295	0	86	0	43

* 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	725,399,805
AFUDC RATE	8.48%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	2,810	2,810	2,810
EQUITY AFUDC	308		
DEBT AFUDC	178	178	
CPI			395
TOTAL	3,295	2,987	3,204

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C&Wh)	AVOIDED MARGINAL FUEL COST (C&Wh)	INCREASED MARGINAL FUEL COST (C&Wh)	REPLACEMENT FUEL COST (C&Wh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KW EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	122	122	6.41	6.44	12.40	0.00	1.00	1.00
2011	394	394	6.35	6.38	10.43	0.00	1.00	1.00
2012	701	701	6.43	6.46	11.03	0.00	1.00	1.00
2013	1,037	1,037	7.04	7.04	9.87	0.00	1.00	1.00
2014	1,376	1,376	7.53	7.54	10.48	0.00	1.00	1.00
2015	1,573	1,573	8.11	8.14	11.93	0.00	1.00	1.00
2016	1,777	1,777	9.00	9.03	12.94	0.00	1.00	1.00
2017	1,983	1,983	9.75	9.79	13.98	0.00	1.00	1.00
2018	2,187	2,187	10.52	10.56	14.72	0.00	1.00	1.00
2019	2,187	2,187	11.50	11.55	17.76	10.41	1.00	1.00
2020	2,187	2,187	12.08	12.13	17.89	10.50	1.00	1.00
2021	2,187	2,187	12.57	12.62	18.97	10.74	1.00	1.00
2022	2,187	2,187	13.06	13.12	20.04	10.81	1.00	1.00
2023	2,187	2,187	13.39	13.45	19.47	10.80	1.00	1.00
2024	2,187	2,187	13.95	14.02	20.42	10.84	1.00	1.00
2025	2,187	2,187	14.40	14.46	21.02	10.96	1.00	1.00
2026	2,187	2,187	14.70	14.77	21.26	11.05	1.00	1.00
2027	2,187	2,187	15.13	15.20	21.85	11.17	1.00	1.00
2028	2,187	2,187	15.60	15.67	22.43	11.36	1.00	1.00
2029	2,187	2,187	16.02	16.09	22.59	11.41	1.00	1.00
2030	2,187	2,187	16.52	16.58	23.30	11.59	1.00	1.00
2031	2,187	2,187	17.08	17.13	24.09	11.80	1.00	1.00
2032	2,187	2,187	17.50	17.57	24.23	11.88	1.00	1.00
2033	2,187	2,187	18.27	18.32	25.03	12.10	1.00	1.00
2034	2,187	2,187	18.73	18.76	25.34	12.14	1.00	1.00
2035	2,187	2,187	19.57	19.60	26.57	12.29	1.00	1.00
2036	2,187	2,187	20.40	20.41	27.70	12.55	1.00	1.00
2037	2,187	2,187	21.11	21.12	28.59	12.70	1.00	1.00
2038	2,187	2,187	22.02	22.04	29.54	13.04	1.00	1.00
2039	2,187	2,187	22.78	22.80	30.57	13.32	1.00	1.00
2040	2,187	2,187	23.59	23.61	31.18	13.44	1.00	1.00
2041	2,187	2,187	24.54	24.55	32.35	13.75	1.00	1.00
2042	2,187	2,187	25.50	25.51	33.47	14.10	1.00	1.00
2043	2,187	2,187	26.74	26.75	35.55	14.40	1.00	1.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0	0.00	0.00	0.00	0.00	0.00	0.00

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

AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Business Refrigeration

YEAR	(2) AVOIDED GEN UNIT CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT FIXED O&M \$(000)	(4) AVOIDED GEN UNIT VARIABLE O&M \$(000)	(5) AVOIDED GEN UNIT FUEL COST \$(000)	(6) REPLACEMENT FUEL COST \$(000)	(7) AVOIDED GEN UNIT BENEFITS \$(000)
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	0	0	0	0	0	0
2018	0	0	0	0	0	0
2019	705	317	16	985	1,247	847
2020	684	397	24	1,452	1,769	788
2021	657	406	25	1,515	1,847	756
2022	631	417	26	1,603	1,926	751
2023	606	427	28	1,685	1,981	765
2024	581	438	29	1,780	2,055	773
2025	558	449	31	1,902	2,168	772
2026	535	460	33	2,033	2,284	777
2027	512	471	35	2,146	2,382	783
2028	490	483	36	2,203	2,433	780
2029	468	495	38	2,295	2,497	800
2030	446	508	40	2,403	2,597	800
2031	424	520	41	2,452	2,644	794
2032	402	533	43	2,539	2,698	819
2033	380	547	47	2,794	2,950	817
2034	358	560	49	2,908	3,020	855
2035	336	574	50	2,974	3,067	868
2036	314	589	52	3,063	3,158	860
2037	292	603	54	3,132	3,203	878
2038	270	619	55	3,211	3,301	853
2039	248	634	57	3,277	3,377	838
2040	230	650	58	3,352	3,415	875
2041	216	666	60	3,426	3,501	866
2042	202	683	61	3,504	3,599	851
2043	188	700	63	3,594	3,692	854
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	10,734	13,216	1,033	62,227	66,811	20,419
NPV	2,401	2,194	159	9,524	10,593	3,685

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9a)"
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	35	0
2011	6	1	7	1	0	1	149	0
2012	21	2	23	2	0	2	320	0
2013	38	5	42	3	1	4	556	0
2014	56	6	62	5	1	6	822	0
2015	74	7	82	6	2	8	1,084	0
2016	84	8	92	7	2	9	1,367	0
2017	94	10	103	8	2	10	1,663	0
2018	104	11	115	9	3	11	1,989	0
2019	114	11	125	9	3	12	2,282	0
2020	110	11	122	9	3	12	2,398	0
2021	106	12	118	9	3	12	2,495	0
2022	102	12	114	9	3	12	2,592	0
2023	99	12	111	8	3	12	2,659	0
2024	95	13	108	8	3	11	2,770	0
2025	91	13	104	8	3	11	2,859	0
2026	88	13	101	7	4	11	2,919	0
2027	84	14	98	7	4	11	3,004	0
2028	81	14	95	7	4	10	3,096	0
2029	77	14	91	6	4	10	3,181	0
2030	74	15	88	6	4	10	3,277	0
2031	70	15	85	6	4	10	3,386	0
2032	66	15	82	6	4	10	3,471	0
2033	63	16	79	5	4	9	3,619	0
2034	60	16	76	5	4	9	3,706	0
2035	57	17	74	5	4	9	3,872	0
2036	55	17	72	5	5	9	4,031	0
2037	52	17	70	4	5	9	4,172	0
2038	50	18	68	4	5	9	4,353	0
2039	48	18	66	4	5	9	4,502	0
2040	46	19	65	4	5	9	4,662	0
2041	44	19	64	4	5	9	4,847	0
2042	43	20	62	4	5	9	5,038	0
2043	41	20	61	3	5	9	5,284	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	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.	2,295	431	2,725	191	113	304	96,460	0
NPV	668	91	759	56	23	79	18,664	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: Business Refrigeration

YEAR	(2) AVOIDED GEN UNIT EMISSION BENEFIT \$(000)	(3) REPLACEMENT EMISSION COST \$(000)	(4) PROGRAM EMISSION BENEFIT \$(000)	(5) OFF-PEAK EMISSION PAYBACK COST \$(000)	(6) NET EMISSION BENEFIT \$(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	0	0	0
2012	0	0	1	0	1
2013	0	0	56	0	56
2014	0	0	87	0	87
2015	0	0	117	0	117
2016	0	0	148	0	148
2017	0	0	182	0	182
2018	0	0	220	0	220
2019	118	154	251	0	215
2020	179	232	271	0	218
2021	194	256	293	0	235
2022	231	299	330	0	262
2023	255	329	352	0	278
2024	293	378	392	0	307
2025	334	435	433	0	336
2026	375	480	458	0	353
2027	425	542	501	0	383
2028	466	593	546	0	418
2029	533	676	610	0	466
2030	590	749	659	0	501
2031	642	813	716	0	545
2032	707	894	777	0	590
2033	823	1,041	843	0	625
2034	911	1,151	913	0	673
2035	990	1,251	990	0	729
2036	1,081	1,365	1,071	0	786
2037	1,171	1,479	1,158	0	850
2038	1,270	1,603	1,250	0	917
2039	1,371	1,734	1,351	0	988
2040	1,482	1,874	1,456	0	1,064
2041	1,597	2,018	1,565	0	1,144
2042	1,597	2,018	1,682	0	1,261
2043	1,597	2,018	1,809	0	1,387
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
NOM	19,238	24,385	21,488	0	16,341
NPV	2,329	2,964	3,123	0	2,489

(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	19	240	0	259	0	0	35	0	36	(223)	(205)
2011	0	44	550	0	594	0	8	149	0	157	(437)	(574)
2012	0	50	635	0	685	0	25	320	1	345	(339)	(937)
2013	0	56	712	0	769	0	46	556	56	658	(111)	(916)
2014	0	58	735	0	793	0	68	822	87	977	184	(796)
2015	0	35	393	0	428	0	89	1,084	117	1,291	863	(278)
2016	0	37	416	0	453	0	101	1,367	144	1,616	1,163	363
2017	0	38	432	0	470	0	114	1,663	182	1,959	1,488	1,116
2018	0	39	439	0	478	0	126	1,989	220	2,335	1,857	1,979
2019	0	0	0	0	0	847	138	2,282	215	3,482	3,482	3,482
2020	0	12	165	0	177	788	134	2,394	218	3,538	3,362	4,783
2021	0	27	375	0	402	756	130	2,495	235	3,616	3,214	5,940
2022	0	44	586	0	630	751	126	2,592	262	3,732	3,102	6,965
2023	0	66	836	0	901	765	123	2,659	278	3,824	2,923	7,853
2024	0	69	870	0	939	773	119	2,770	307	3,969	3,030	8,698
2025	0	39	443	0	483	772	115	2,859	336	4,082	3,599	9,620
2026	0	43	489	0	532	777	112	2,919	353	4,161	3,629	10,473
2027	0	47	529	0	575	783	108	3,004	383	4,279	3,704	11,273
2028	0	50	560	0	610	780	105	3,096	418	4,399	3,790	12,025
2029	0	51	581	0	633	800	102	3,181	466	4,548	3,916	12,738
2030	0	67	802	0	869	800	98	3,277	501	4,676	3,807	13,375
2031	0	34	480	0	514	794	95	3,386	545	4,819	4,305	14,037
2032	0	40	559	0	598	819	92	3,471	590	4,971	4,373	14,654
2033	0	45	627	0	672	817	88	3,619	625	5,150	4,478	15,234
2034	0	61	809	0	870	855	86	3,706	673	5,319	4,449	15,763
2035	0	41	465	0	506	868	83	3,872	729	5,552	5,045	16,315
2036	0	47	531	0	578	860	81	4,031	786	5,758	5,179	16,835
2037	0	53	596	0	649	878	79	4,172	850	5,978	5,329	17,326
2038	0	58	657	0	716	853	77	4,353	917	6,200	5,484	17,791
2039	0	63	711	0	774	838	75	4,502	988	6,404	5,630	18,228
2040	0	86	1,023	0	1,109	875	74	4,662	1,064	6,675	5,566	18,626
2041	0	113	1,396	0	1,509	866	72	4,847	1,144	6,929	5,420	18,981
2042	0	121	1,510	0	1,631	851	71	5,038	1,261	7,221	5,590	19,318
2043	0	57	803	0	860	854	70	5,284	1,317	7,594	6,734	19,690
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
NOM	0	1,711	20,956	0	22,666	20,419	3,030	96,460	16,341	136,250	113,513	
NPV	0	451	5,334	0	5,985	3,685	838	18,664	2,489	25,676	19,690	

Discount Rate:

1.59 %

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

4.29

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	SAVINGS IN PARTICIPANTS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER O&M COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2009	0	0	0	0	0	0	0	0	0	0	0
2010	49	0	62	0	112	240	0	0	240	(128)	(118)
2011	214	0	138	0	353	550	0	0	550	(194)	(284)
2012	474	0	157	0	631	635	0	0	635	(4)	(287)
2013	798	0	172	0	970	712	0	0	712	258	(104)
2014	1,189	0	159	0	1,348	735	0	0	735	613	297
2015	1,545	0	45	0	1,590	393	0	0	393	1,197	1,015
2016	1,850	0	47	0	1,896	416	0	0	416	1,480	1,831
2017	2,175	0	47	0	2,222	432	0	0	432	1,790	2,736
2018	2,496	0	47	0	2,543	439	0	0	439	2,103	3,714
2019	2,747	0	0	0	2,747	0	0	0	0	2,747	4,887
2020	2,759	0	48	0	2,807	165	0	0	165	2,642	5,922
2021	2,841	0	105	0	2,947	375	0	0	375	2,572	6,848
2022	2,962	0	135	0	3,096	586	0	0	586	2,511	7,678
2023	3,076	0	165	0	3,241	836	0	0	836	2,405	8,408
2024	3,249	0	152	0	3,401	870	0	0	870	2,531	9,114
2025	3,411	0	40	0	3,451	443	0	0	443	3,008	9,884
2026	3,580	0	43	0	3,623	489	0	0	489	3,134	10,621
2027	3,812	0	45	0	3,857	529	0	0	529	3,329	11,340
2028	3,999	0	47	0	4,045	560	0	0	560	3,485	12,032
2029	4,218	0	47	0	4,265	581	0	0	581	3,684	12,703
2030	4,466	0	95	0	4,561	802	0	0	802	3,759	13,332
2031	4,712	0	105	0	4,817	880	0	0	880	4,337	13,998
2032	5,034	0	120	0	5,154	559	0	0	559	4,596	14,647
2033	5,547	0	132	0	5,679	627	0	0	627	5,052	15,302
2034	5,657	0	130	0	5,787	809	0	0	809	4,978	15,894
2035	5,944	0	33	0	5,976	465	0	0	465	5,511	16,496
2036	6,434	0	36	0	6,470	531	0	0	531	5,939	17,093
2037	6,813	0	40	0	6,853	596	0	0	596	6,256	17,669
2038	7,156	0	43	0	7,199	657	0	0	657	6,541	18,223
2039	7,532	0	45	0	7,577	711	0	0	711	6,866	18,757
2040	7,933	0	95	0	8,027	1,023	0	0	1,023	7,004	19,257
2041	8,408	0	153	0	8,561	1,396	0	0	1,396	7,164	19,727
2042	8,915	0	167	0	9,083	1,510	0	0	1,510	7,573	20,183
2043	9,457	0	132	0	9,589	803	0	0	803	8,787	20,669
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0					

In Service of Gen Unit:

Discount Rate :

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

2019

8.89

%

4.73

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

8.89	%
1.13	

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	0.88 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.17 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	2,110.00 KWh
(5) KWh LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KWh INCREASE AT METER	0.00 KWh

II. ECONOMIC LIFE & K FACTORS

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

III. UTILITY & CUSTOMER COSTS

(1) UTILITY NON RECURRING COST PER CUSTOMER	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	2.89 %
(11) UTILITY AFUDC RATE	2.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

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

V. NON-FUEL ENERGY AND DEMAND CHARGES

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

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

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

[illegible]

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV_RBO
PROGRAM NAME: Business Building Envelope Program

	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	BEG-YEAR RATE BASE	DEBT	PREFERRED STOCK	COMMON EQUITY	INCOME TAXES	PROPERTY TAX	PROPERTY INSURANCE	DEPRECC.	DEFERRED TAXES	TOTAL FIXED CHARGES	PRESENT WORTH FIXED CHARGES	CUMULATIVE PW FIXED CHARGES	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE
YEAR	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	71,674	2,226	0	5,002	3,300	1,208	426	2,796	5	14,964	14,964	14,964	69,900
2020	68,872	2,139	0	4,806	2,267	1,158	437	2,796	915	14,519	13,334	28,298	71,648
2021	65,161	2,024	0	4,547	2,247	1,107	448	2,796	773	13,943	11,760	40,057	73,439
2022	61,593	1,913	0	4,298	2,221	1,057	459	2,796	643	13,387	10,370	50,427	75,275
2023	58,154	1,807	0	4,058	2,192	1,007	471	2,796	520	12,851	9,142	59,568	77,157
2024	54,838	1,703	0	3,827	2,159	956	482	2,796	408	12,332	8,057	67,625	79,085
2025	51,634	1,604	0	3,603	2,123	906	494	2,796	304	11,831	7,098	74,724	81,063
2026	48,534	1,508	0	3,387	2,083	856	507	2,796	208	11,344	6,251	80,975	83,089
2027	45,530	1,414	0	3,177	1,967	805	520	2,796	192	10,872	5,502	86,476	85,166
2028	42,542	1,322	0	2,969	1,837	755	533	2,796	192	10,402	4,834	91,311	87,296
2029	39,554	1,229	0	2,760	1,705	705	546	2,796	192	9,933	4,240	95,550	89,478
2030	36,566	1,136	0	2,552	1,575	654	559	2,796	192	9,464	3,710	99,260	91,715
2031	33,578	1,043	0	2,343	1,443	604	573	2,796	192	8,995	3,238	102,498	94,008
2032	30,590	950	0	2,135	1,313	554	588	2,796	192	8,527	2,819	105,318	96,358
2033	27,603	857	0	1,926	1,182	503	602	2,796	192	8,059	2,447	107,765	98,767
2034	24,614	765	0	1,718	1,051	453	618	2,796	192	7,592	2,117	109,881	101,236
2035	21,627	672	0	1,509	920	403	633	2,796	192	7,124	1,824	111,706	103,767
2036	18,639	579	0	1,301	789	352	649	2,796	192	6,658	1,566	113,272	106,361
2037	15,651	486	0	1,092	658	302	665	2,796	192	6,191	1,337	114,609	109,020
2038	12,663	393	0	884	527	252	682	2,796	192	5,725	1,136	115,745	111,746
2039	9,675	301	0	675	391	201	699	2,796	(393)	5,260	958	116,703	114,539
2040	7,272	226	0	507	1,460	151	716	2,796	(978)	4,879	816	117,519	117,403
2041	5,454	169	0	381	1,381	101	734	2,796	(978)	4,584	704	118,223	120,338
2042	3,835	113	0	254	1,301	50	752	2,796	(978)	4,289	605	118,829	123,346
2043	1,817	56	0	127	1,221	0	771	2,796	(978)	3,994	518	119,346	126,430

IN SERVICE COST (\$000)	69,900
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.57%
DISCOUNT RATE	8.9%
PROPERTY TAX	1.80%
PROPERTY INSURANCE	0.61%

CAPITAL STRUCTURE

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)*(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	2,549	2,549	2,796	2,796	2,535	2,535	5	6,524	0	0	0	5	(1,768)
2020	7.22%	4,907	7,456	2,796	5,592	2,535	5,070	915	6,524	0	0	0	915	(853)
2021	6.68%	4,539	11,995	2,796	8,388	2,535	7,605	773	6,524	0	0	0	773	(81)
2022	6.18%	4,201	16,195	2,796	11,184	2,535	10,140	643	6,524	0	0	0	643	562
2023	5.71%	3,883	20,079	2,796	13,980	2,535	12,675	520	6,524	0	0	0	520	1,082
2024	5.29%	3,592	23,671	2,796	16,776	2,535	15,210	408	6,524	0	0	0	408	1,490
2025	4.89%	3,323	26,994	2,796	19,572	2,535	17,745	304	6,524	0	0	0	304	1,794
2026	4.52%	3,074	30,068	2,796	22,368	2,535	20,280	208	6,524	0	0	0	208	2,002
2027	4.46%	3,033	33,101	2,796	25,164	2,535	22,815	192	6,524	0	0	0	192	2,194
2028	4.46%	3,032	36,133	2,796	27,960	2,535	25,350	192	6,524	0	0	0	192	2,386
2029	4.46%	3,033	39,166	2,796	30,756	2,535	27,885	192	6,524	0	0	0	192	2,578
2030	4.46%	3,032	42,198	2,796	33,552	2,535	30,420	192	6,524	0	0	0	192	2,770
2031	4.46%	3,033	45,231	2,796	36,348	2,535	32,955	192	6,524	0	0	0	192	2,962
2032	4.46%	3,032	48,264	2,796	39,144	2,535	35,490	192	6,524	0	0	0	192	3,153
2033	4.46%	3,033	51,297	2,796	41,940	2,535	38,025	192	6,524	0	0	0	192	3,346
2034	4.46%	3,032	54,329	2,796	44,736	2,535	40,560	192	6,524	0	0	0	192	3,537
2035	4.46%	3,033	57,362	2,796	47,532	2,535	43,095	192	6,524	0	0	0	192	3,729
2036	4.46%	3,032	60,394	2,796	50,328	2,535	45,630	192	6,524	0	0	0	192	3,921
2037	4.46%	3,033	63,427	2,796	53,124	2,535	48,165	192	6,524	0	0	0	192	4,113
2038	4.46%	3,032	66,459	2,796	55,920	2,535	50,700	192	6,524	0	0	0	192	4,305
2039	2.23%	1,516	67,976	2,796	58,716	2,535	53,235	(393)	6,524	0	0	0	(393)	3,912
2040	0.00%	0	67,976	2,796	61,512	2,535	55,770	(978)	6,524	0	0	0	(978)	2,934
2041	0.00%	0	67,976	2,796	64,308	2,535	58,306	(978)	6,524	0	0	0	(978)	1,957
2042	0.00%	0	67,976	2,796	67,104	2,535	60,841	(978)	6,524	0	0	0	(978)	979
2043	0.00%	0	67,976	2,796	69,900	2,535	63,376	(978)	6,524	0	0	0	(978)	1

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,774)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	6,524
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	2,549	5	67,104	2,796	(1,768)	71,674	68,872	70,273
2020	7.22%	4,907	915	64,308	5,592	(853)	68,872	65,161	67,017
2021	6.68%	4,539	773	61,512	8,388	(81)	65,161	61,593	63,377
2022	6.18%	4,201	643	58,716	11,184	562	61,593	58,154	59,873
2023	5.71%	3,883	520	55,920	13,980	1,082	58,154	54,838	56,496
2024	5.29%	3,592	408	53,124	16,776	1,490	54,838	51,634	53,236
2025	4.89%	3,323	304	50,328	19,572	1,794	51,634	48,534	50,084
2026	4.52%	3,074	208	47,532	22,368	2,002	48,534	45,530	47,032
2027	4.46%	3,033	192	44,736	25,164	2,194	45,530	42,542	44,036
2028	4.46%	3,032	192	41,940	27,960	2,386	42,542	39,554	41,048
2029	4.46%	3,033	192	39,144	30,756	2,578	39,554	36,566	38,060
2030	4.46%	3,032	192	36,348	33,552	2,770	36,566	33,578	35,072
2031	4.46%	3,033	192	33,552	36,348	2,962	33,578	30,590	32,084
2032	4.46%	3,032	192	30,756	39,144	3,153	30,590	27,603	29,096
2033	4.46%	3,033	192	27,960	41,940	3,346	27,603	24,614	26,109
2034	4.46%	3,032	192	25,164	44,736	3,537	24,614	21,627	23,121
2035	4.46%	3,033	192	22,368	47,532	3,729	21,627	18,639	20,133
2036	4.46%	3,032	192	19,572	50,328	3,921	18,639	15,651	17,145
2037	4.46%	3,033	192	16,776	53,124	4,113	15,651	12,663	14,157
2038	4.46%	3,032	192	13,980	55,920	4,305	12,663	9,675	11,169
2039	2.23%	1,516	(393)	11,184	58,716	3,912	9,675	7,272	8,473
2040	0.00%	0	(978)	8,388	61,512	2,934	7,272	5,454	6,363
2041	0.00%	0	(978)	5,592	64,308	1,957	5,454	3,635	4,545
2042	0.00%	0	(978)	2,796	67,104	979	3,635	1,817	2,726
2043	0.00%	0	(978)	0	69,900	1	1,817	-1	908

* 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%	331.57	212.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

		100.00%		907.77								
		(8)	(8a)*	(8b)*	(9)	(9a)*	(9b)*	(9c)*	(9d)*	(9e)*	(10)	(11)
YEAR	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)
2009	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2010	-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2011	-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2013	-6	0.62	0.02	0.02	0.05	0.05	0.04	0.04	(0.01)	(0.01)	1.29	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		BOOK BASIS		BOOK BASIS FOR DEF TAX		TAX BASIS	
2019		CONSTRUCTION CASH	59,602	59,602	59,602		
PLANT COSTS	725,389,055	EQUITY AFUDC	6,524				
AFUDC RATE	8.48%	DEBT AFUDC	3,773	3,773			
		CPI			8,372		
		TOTAL	69,900	63,376	67,974		

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (C/kWh)	AVOIDED MARGINAL FUEL COST (C/kWh)	INCREASED MARGINAL FUEL COST (C/kWh)	REPLACEMENT FUEL COST (C/kWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	5,533	5,533	6.41	9.01	6.70	0.00	1.00	1.00
2011	11,521	11,521	6.35	8.48	6.61	0.00	1.00	1.00
2012	17,133	17,133	6.43	8.45	6.66	0.00	1.00	1.00
2013	23,081	23,081	7.06	8.41	7.23	0.00	1.00	1.00
2014	28,803	28,803	7.53	8.67	7.68	0.00	1.00	1.00
2015	34,225	34,225	8.11	9.61	8.31	0.00	1.00	1.00
2016	40,121	40,121	9.00	11.55	9.31	0.00	1.00	1.00
2017	46,996	46,996	9.75	12.72	10.06	0.00	1.00	1.00
2018	55,965	55,965	10.52	13.53	10.86	0.00	1.00	1.00
2019	55,965	55,965	11.50	15.25	11.94	10.41	1.00	1.00
2020	55,965	55,965	12.08	15.88	12.57	10.50	1.00	1.00
2021	55,965	55,965	12.57	16.53	13.08	10.74	1.00	1.00
2022	55,965	55,965	13.06	17.14	13.59	10.81	1.00	1.00
2023	55,965	55,965	13.39	17.16	13.92	10.80	1.00	1.00
2024	55,965	55,965	13.95	17.82	14.47	10.84	1.00	1.00
2025	55,965	55,965	14.40	18.22	14.92	10.96	1.00	1.00
2026	55,965	55,965	14.70	18.32	15.19	11.05	1.00	1.00
2027	55,965	55,965	15.13	18.54	15.60	11.17	1.00	1.00
2028	55,965	55,965	15.60	18.91	16.05	11.36	1.00	1.00
2029	55,965	55,965	16.02	18.85	16.44	11.41	1.00	1.00
2030	55,965	55,965	16.52	19.26	16.92	11.59	1.00	1.00
2031	55,965	55,965	17.08	19.86	17.47	11.80	1.00	1.00
2032	55,965	55,965	17.50	19.62	17.84	11.88	1.00	1.00
2033	55,965	55,965	18.27	20.38	18.50	12.10	1.00	1.00
2034	55,965	55,965	18.73	20.08	18.86	12.14	1.00	1.00
2035	55,965	55,965	19.57	21.37	19.75	12.29	1.00	1.00
2036	55,965	55,965	20.40	22.39	20.54	12.55	1.00	1.00
2037	55,965	55,965	21.11	22.91	21.24	12.70	1.00	1.00
2038	55,965	55,965	22.02	23.86	22.16	13.04	1.00	1.00
2039	55,965	55,965	22.78	24.49	22.89	13.32	1.00	1.00
2040	55,965	55,965	23.59	25.04	23.68	13.44	1.00	1.00
2041	55,965	55,965	24.54	25.93	24.62	13.75	1.00	1.00
2042	55,965	55,965	25.50	26.84	25.59	14.10	1.00	1.00
2043	55,965	55,965	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.

AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED: KEY_REQ
PROGRAM NAME: Business Building Envelope 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	14,964	8,208	346	20,902	26,444	17,976
2020	14,519	8,413	499	30,796	37,517	16,709
2021	13,943	8,623	523	32,131	39,184	16,035
2022	13,387	8,839	555	34,008	40,851	15,938
2023	12,851	9,060	586	35,754	42,626	16,224
2024	12,332	9,286	620	37,769	43,603	16,405
2025	11,831	9,519	663	40,355	45,993	16,374
2026	11,344	9,757	710	43,124	48,449	16,486
2027	10,872	10,000	751	45,519	50,524	16,618
2028	10,402	10,250	774	46,727	51,613	16,540
2029	9,933	10,507	810	48,694	52,970	16,975
2030	9,464	10,769	850	50,974	55,088	16,970
2031	8,995	11,039	871	52,025	56,087	16,843
2032	8,527	11,315	905	53,863	57,239	17,371
2033	8,059	11,597	996	59,266	62,590	17,328
2034	7,592	11,887	1042	61,687	64,074	18,135
2035	7,124	12,185	1071	63,091	65,063	18,408
2036	6,658	12,489	1107	64,975	66,993	18,237
2037	6,191	12,801	1138	66,452	67,956	18,626
2038	5,725	13,121	1171	68,110	70,029	18,098
2039	5,260	13,449	1201	69,510	71,637	17,783
2040	4,879	13,786	1234	71,111	72,456	18,554
2041	4,584	14,130	1268	72,672	74,280	18,373
2042	4,289	14,484	1302	74,326	76,349	18,051
2043	3,994	14,846	1341	76,238	78,313	18,106
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	227,718	280,360	22,336	1,320,078	1,417,327	433,165
NPV	50,939	46,547	3,373	202,038	224,723	78,174

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
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	557	0
2011	243	19	262	20	5	25	1,603	0
2012	507	41	548	42	11	53	2,681	0
2013	751	84	836	63	17	79	3,686	0
2014	1,011	108	1,119	84	23	107	4,875	0
2015	1,260	131	1,391	105	30	134	6,590	0
2016	1,493	158	1,650	124	36	160	9,469	0
2017	1,750	189	1,940	146	43	189	12,247	0
2018	2,062	231	2,293	172	52	224	15,372	0
2019	2,490	237	2,727	207	63	271	18,918	0
2020	2,404	243	2,647	200	65	265	19,669	0
2021	2,318	249	2,567	193	67	260	20,477	0
2022	2,235	255	2,490	186	68	254	21,226	0
2023	2,154	261	2,416	179	70	249	21,169	0
2024	2,075	268	2,343	173	72	245	21,974	0
2025	1,997	275	2,272	166	73	240	22,444	0
2026	1,920	282	2,201	160	75	235	22,507	0
2027	1,843	289	2,131	153	77	231	22,719	0
2028	1,766	296	2,062	147	79	226	23,128	0
2029	1,689	303	1,992	141	81	222	22,936	0
2030	1,612	311	1,923	134	83	217	23,404	0
2031	1,536	319	1,855	128	85	213	24,130	0
2032	1,463	326	1,789	122	87	209	23,679	0
2033	1,393	335	1,728	116	90	206	24,576	0
2034	1,327	343	1,670	110	92	202	24,038	0
2035	1,264	352	1,615	105	94	199	25,563	0
2036	1,205	360	1,565	100	96	197	26,925	0
2037	1,149	369	1,519	96	99	195	27,490	0
2038	1,098	379	1,477	91	101	193	28,624	0
2039	1,052	388	1,440	88	104	191	29,327	0
2040	1,011	398	1,409	84	106	191	29,921	0
2041	971	408	1,379	81	109	190	30,958	0
2042	931	418	1,349	78	112	189	32,021	0
2043	892	428	1,320	74	115	189	34,286	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	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.	48,874	9,051	57,925	4,071	2,381	6,452	679,299	0
NPV	13,877	1,890	15,768	1,156	483	1,639	137,453	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: Business Building Envelope Program

	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT	REPLACEMENT EMISSION COST	PROGRAM EMISSION BENEFIT	OFF-PEAK EMISSION PAYBACK COST	NET EMISSION BENEFIT
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0
2010	0	0	5	0	5
2011	0	0	6	0	6
2012	0	0	10	0	10
2013	0	0	309	0	309
2014	0	0	440	0	440
2015	0	0	593	0	593
2016	0	0	799	0	799
2017	0	0	1,032	0	1,032
2018	0	0	1,325	0	1,325
2019	2,499	3,268	1,580	0	811
2020	3,805	4,929	1,709	0	585
2021	4,193	5,435	1,841	0	599
2022	4,896	6,333	2,049	0	613
2023	5,403	6,984	2,184	0	603
2024	6,221	8,022	2,418	0	617
2025	7,180	9,232	2,665	0	613
2026	7,962	10,176	2,813	0	599
2027	9,007	11,495	3,057	0	569
2028	9,877	12,584	3,322	0	615
2029	11,298	14,340	3,691	0	648
2030	12,526	15,890	3,984	0	621
2031	13,614	17,257	4,323	0	680
2032	14,991	18,964	4,681	0	708
2033	17,467	22,083	5,071	0	455
2034	19,335	24,423	5,482	0	394
2035	21,000	26,539	5,946	0	407
2036	22,926	28,966	6,440	0	400
2037	24,848	31,385	6,954	0	416
2038	26,935	34,016	7,508	0	427
2039	29,089	36,784	8,093	0	399
2040	31,435	39,745	8,706	0	396
2041	33,871	42,819	9,361	0	413
2042	33,871	42,819	10,061	0	1,113
2043	33,871	42,819	10,819	0	1,871
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	408,121	517,304	129,277	0	20,094
NPV	49,413	62,874	18,760	0	5,300

Discount Rate:	3.89	%
Benefit/Cost Ratio (Col(11) / Col(6)) :	1.66	

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

2019
8.89 %

175

Discount Rate	8.89	%
Benefit/Cost Ratio (Col(12) / Col(7)) :	1.07	

BUSINESS WATER HEATING

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	0.94 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.26 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KWH REDUCTION PER CUSTOMER	7,414.04 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	*** \$/CUSTYR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUSTYR
(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: Business Water Heating

	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	26	239	0	264	36	8	490	0	0	490
2011	21	186	0	207	109	24	373	0	0	373
2012	23	204	0	228	190	42	419	0	0	419
2013	38	326	0	364	300	65	725	0	0	725
2014	30	245	0	274	435	93	527	0	0	527
2015	19	151	0	170	553	117	333	0	0	333
2016	19	147	0	165	657	131	332	0	0	332
2017	21	165	0	186	766	152	383	0	0	383
2018	34	257	0	291	906	173	610	0	0	610
2019	0	0	0	0	1,030	182	0	0	0	0
2020	0	0	0	0	1,037	178	0	0	0	0
2021	0	0	0	0	1,074	175	0	0	0	0
2022	0	0	0	0	1,126	173	0	0	0	0
2023	0	0	0	0	1,173	175	0	0	0	0
2024	0	0	0	0	1,244	176	0	0	0	0
2025	27	169	0	196	1,316	171	479	0	0	479
2026	41	255	0	296	1,386	172	777	0	0	777
2027	34	204	0	238	1,483	174	607	0	0	607
2028	38	224	0	262	1,460	175	681	0	0	681
2029	60	347	0	406	1,651	177	1,140	0	0	1,140
2030	27	151	0	178	1,754	178	482	0	0	482
2031	27	147	0	174	1,856	179	481	0	0	481
2032	31	165	0	196	1,989	183	554	0	0	554
2033	50	257	0	306	2,206	189	884	0	0	884
2034	0	0	0	0	2,244	192	0	0	0	0
2035	0	0	0	0	2,367	188	0	0	0	0
2036	0	0	0	0	2,571	191	0	0	0	0
2037	0	0	0	0	2,727	196	0	0	0	0
2038	0	0	0	0	2,871	196	0	0	0	0
2039	0	0	0	0	3,028	197	0	0	0	0
2040	39	169	0	208	3,196	198	693	0	0	693
2041	44	186	0	230	3,395	199	781	0	0	781
2042	65	274	0	339	3,607	200	1,231	0	0	1,231
2043	55	224	0	279	3,834	201	987	0	0	987
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
NOM	767	4,692	0	5,459	55,669	5,422	13,969	0	0	13,969
NPV	228	1,713	0	1,941	9,712	1,296	4,165	0	0	4,165

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

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

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

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
BEG-YEAR RATE BASE \$(000)	DEBT \$(000)	PREFERRED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPREC. \$(000)	DEFERRED TAXES \$(000)	TOTAL FIXED CHARGES \$(000)	PRESENT WORTH FIXED CHARGES \$(000)	CUMULATIVE PW FIXED CHARGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	1,853	58	0	129	85	31	11	72	0	387	387	1,807
2020	1,781	55	0	124	59	30	11	72	24	375	345	1,852
2021	1,685	52	0	118	58	29	12	72	20	360	304	1,899
2022	1,592	49	0	111	57	27	12	72	17	346	268	1,946
2023	1,503	47	0	105	57	26	12	72	13	332	236	1,995
2024	1,418	44	0	99	56	25	12	72	11	319	208	2,045
2025	1,335	41	0	93	55	23	13	72	8	306	184	2,096
2026	1,255	39	0	88	54	22	13	72	5	293	162	2,148
2027	1,177	37	0	82	51	21	13	72	5	281	142	2,202
2028	1,100	34	0	77	47	20	14	72	5	269	125	2,257
2029	1,023	32	0	71	44	18	14	72	5	257	110	2,313
2030	945	29	0	66	41	17	14	72	5	245	96	2,371
2031	868	27	0	61	37	16	15	72	5	233	84	2,430
2032	791	25	0	55	34	14	15	72	5	220	73	2,491
2033	714	22	0	50	31	13	16	72	5	208	63	2,553
2034	636	20	0	44	27	12	16	72	5	196	55	2,617
2035	559	17	0	39	24	10	16	72	5	184	47	2,683
2036	482	15	0	34	20	9	17	72	5	172	40	2,750
2037	405	13	0	28	17	8	17	72	5	160	35	2,819
2038	327	10	0	23	14	7	18	72	5	148	29	2,889
2039	250	8	0	17	25	5	18	72	(10)	136	25	2,961
2040	188	6	0	13	38	4	19	72	(25)	126	21	3,035
2041	141	4	0	10	36	3	19	72	(25)	119	18	3,111
2042	94	3	0	7	34	1	19	72	(25)	111	16	3,189
2043	47	1	0	3	32	0	20	72	(25)	103	13	3,269

IN SERVICE COST	\$(000)	1,807
IN SERVICE YEAR		2019
BOOK LIFE (YRS)		25
EFFEC. TAX RATE		38.57%
DISCOUNT RATE		8.9%
PROPERTY TAX		1.80%
PROPERTY INSURANCE		0.61%

CAPITAL STRUCTURE

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

K-FACTOR = CPWFC / IN-SVC COST =

1.70738

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	ACCUMULATED TAX DEPRECIATION \$(000)	BOOK DEPRECIATION \$(000)	ACCUMULATED BOOK DEPRECIATION \$(000)	BOOK DEPRECIATION FOR DEFERRED TAX \$(000)	ACCUMULATED BOOK DEPR FOR DEFERRED TAX \$(000)	DEFERRED TAX DUE TO DEPRECIATION \$(000)	TOTAL EQUITY AFUDC \$(000)	BOOK DEPR RATE MINUS 1/LIFE	(10)*(11) TAX RATE \$(000)	SALVAGE TAX RATE \$(000)	ANNUAL DEFERRED TAX (9)-(12)*(13) \$(000)	ACCUMULATED DEFERRED TAX \$(000)
2019	3.75%	66	66	72	72	66	66	0	169	0	0	0	0	(46)
2020	7.22%	127	193	72	145	66	131	24	169	0	0	0	24	(22)
2021	6.68%	117	310	72	217	66	197	20	169	0	0	0	20	(2)
2022	6.18%	109	419	72	289	66	262	17	169	0	0	0	17	15
2023	5.71%	100	519	72	361	66	328	13	169	0	0	0	13	28
2024	5.29%	93	612	72	434	66	393	11	169	0	0	0	11	39
2025	4.89%	86	698	72	506	66	459	8	169	0	0	0	8	46
2026	4.52%	79	777	72	578	66	524	5	169	0	0	0	5	52
2027	4.46%	78	856	72	651	66	590	5	169	0	0	0	5	57
2028	4.46%	78	934	72	723	66	655	5	169	0	0	0	5	62
2029	4.46%	78	1,013	72	795	66	721	5	169	0	0	0	5	67
2030	4.46%	78	1,091	72	867	66	786	5	169	0	0	0	5	72
2031	4.46%	78	1,169	72	940	66	852	5	169	0	0	0	5	77
2032	4.46%	78	1,248	72	1,012	66	918	5	169	0	0	0	5	82
2033	4.46%	78	1,326	72	1,084	66	983	5	169	0	0	0	5	86
2034	4.46%	78	1,405	72	1,157	66	1,049	5	169	0	0	0	5	91
2035	4.46%	78	1,483	72	1,229	66	1,114	5	169	0	0	0	5	96
2036	4.46%	78	1,561	72	1,301	66	1,180	5	169	0	0	0	5	101
2037	4.46%	78	1,640	72	1,373	66	1,245	5	169	0	0	0	5	106
2038	4.46%	78	1,718	72	1,446	66	1,311	5	169	0	0	0	5	111
2039	2.23%	39	1,757	72	1,518	66	1,376	(10)	169	0	0	0	(10)	101
2040	0.00%	0	1,757	72	1,590	66	1,442	(25)	169	0	0	0	(25)	76
2041	0.00%	0	1,757	72	1,663	66	1,507	(25)	169	0	0	0	(25)	51
2042	0.00%	0	1,757	72	1,735	66	1,573	(25)	169	0	0	0	(25)	25
2043	0.00%	0	1,757	72	1,807	66	1,638	(25)	169	0	0	0	(25)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(46)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	169
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE	(5a)* ACCUMULATED DEPRECIATION	(5b)* ACCUMULATED DEF TAXES	(6) BEGINNING YEAR RATE BASE	(7) ENDING OF YEAR RATE BASE	(8) MID-YEAR RATE BASE
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)	\$(000)
2019	3.75%	66	0	1,735	72	(46)	1,853	1,781	1,817
2020	7.22%	127	24	1,663	145	(22)	1,781	1,685	1,733
2021	6.68%	117	20	1,590	217	(2)	1,585	1,592	1,639
2022	6.18%	109	17	1,518	289	15	1,592	1,503	1,548
2023	5.71%	100	13	1,446	361	28	1,503	1,418	1,461
2024	5.29%	93	11	1,373	434	39	1,418	1,335	1,376
2025	4.89%	86	8	1,301	506	46	1,335	1,255	1,295
2026	4.52%	79	5	1,229	578	52	1,255	1,177	1,216
2027	4.46%	78	5	1,157	651	57	1,177	1,100	1,138
2028	4.46%	78	5	1,084	723	62	1,100	1,023	1,061
2029	4.46%	78	5	1,012	795	67	1,023	945	984
2030	4.46%	78	5	940	867	72	945	868	907
2031	4.46%	78	5	867	940	77	868	791	829
2032	4.46%	78	5	795	1,012	82	791	714	752
2033	4.46%	78	5	723	1,084	86	714	636	675
2034	4.46%	78	5	651	1,157	91	636	559	598
2035	4.46%	78	5	578	1,229	96	559	482	520
2036	4.46%	78	5	506	1,301	101	482	405	443
2037	4.46%	78	5	434	1,373	106	405	327	366
2038	4.46%	78	5	361	1,446	111	327	250	289
2039	2.23%	39	(10)	289	1,518	101	250	188	219
2040	0.00%	0	(25)	217	1,590	76	188	141	164
2041	0.00%	0	(25)	145	1,663	51	141	94	117
2042	0.00%	0	(25)	72	1,735	25	94	47	70
2043	0.00%	0	(25)	0	1,807	0	47	0	23

* 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	37.10%	331.87	222.77
2017	-2	3.00%	1.267	45.74%	420.27	598.84
2018	-1	3.00%	1.305	10.44%	98.79	858.38

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

IN SERVICE YEAR	2019
PLANT COSTS	725,389,655
AFUDC RATE	8.48%

57.47

156.84

127.50

(27.02)

1,064.61

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	1,541	1,541	1,541
EQUITY AFUDC	169		
DEBT AFUDC	98	98	
CPI			216
TOTAL	1,807	1,638	1,757

* Column not specified in workbook

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/kWh)	AVOIDED MARGINAL FUEL COST (\$/kWh)	INCREASED MARGINAL FUEL COST (\$/kWh)	REPLACEMENT FUEL COST (\$/kWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM kWh EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	165	165	6.41	6.66	9.20	0.00	1.00	1.00
2011	297	297	6.35	6.58	8.64	0.00	1.00	1.00
2012	441	441	6.43	6.63	8.62	0.00	1.00	1.00
2013	667	667	7.06	7.20	8.53	0.00	1.00	1.00
2014	839	839	7.53	7.67	8.80	0.00	1.00	1.00
2015	946	946	8.11	8.29	9.77	0.00	1.00	1.00
2016	1,049	1,049	9.00	9.28	11.78	0.00	1.00	1.00
2017	1,166	1,166	9.75	10.02	12.96	0.00	1.00	1.00
2018	1,347	1,347	10.52	10.81	13.73	0.00	1.00	1.00
2019	1,347	1,347	11.50	11.89	15.53	10.41	1.00	1.00
2020	1,347	1,347	12.08	12.51	16.18	10.50	1.00	1.00
2021	1,347	1,347	12.57	13.02	16.83	10.74	1.00	1.00
2022	1,347	1,347	13.06	13.54	17.52	10.81	1.00	1.00
2023	1,347	1,347	13.39	13.86	17.56	10.80	1.00	1.00
2024	1,347	1,347	13.95	14.42	18.19	10.84	1.00	1.00
2025	1,347	1,347	14.40	14.87	18.66	10.96	1.00	1.00
2026	1,347	1,347	14.70	15.15	18.69	11.05	1.00	1.00
2027	1,347	1,347	15.13	15.56	18.94	11.17	1.00	1.00
2028	1,347	1,347	15.60	16.02	19.36	11.36	1.00	1.00
2029	1,347	1,347	16.02	16.40	19.22	11.41	1.00	1.00
2030	1,347	1,347	16.52	16.88	19.60	11.59	1.00	1.00
2031	1,347	1,347	17.08	17.44	20.24	11.80	1.00	1.00
2032	1,347	1,347	17.50	17.81	19.92	11.88	1.00	1.00
2033	1,347	1,347	18.27	18.47	20.69	12.10	1.00	1.00
2034	1,347	1,347	18.73	18.84	20.28	12.14	1.00	1.00
2035	1,347	1,347	19.57	19.72	21.64	12.29	1.00	1.00
2036	1,347	1,347	20.40	20.51	22.69	12.55	1.00	1.00
2037	1,347	1,347	21.11	21.22	23.18	12.70	1.00	1.00
2038	1,347	1,347	22.02	22.14	24.15	13.04	1.00	1.00
2039	1,347	1,347	22.78	22.87	24.74	13.32	1.00	1.00
2040	1,347	1,347	23.59	23.66	25.27	13.44	1.00	1.00
2041	1,347	1,347	24.54	24.60	26.14	13.75	1.00	1.00
2042	1,347	1,347	25.50	25.57	27.05	14.10	1.00	1.00
2043	1,347	1,347	26.74	26.83	28.95	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 Water Heating

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	387	212	9	540	684	465
2020	375	218	13	796	970	432
2021	360	223	14	831	1,013	415
2022	346	229	14	879	1,056	412
2023	332	234	15	924	1,087	419
2024	319	240	16	976	1,127	424
2025	306	246	17	1,043	1,189	423
2026	293	252	18	1,115	1,253	426
2027	281	259	19	1,177	1,305	420
2028	269	265	20	1,208	1,334	428
2029	257	272	21	1,259	1,369	439
2030	245	278	22	1,318	1,424	439
2031	233	285	23	1,345	1,450	435
2032	220	293	23	1,393	1,480	449
2033	208	300	26	1,532	1,618	448
2034	196	307	27	1,595	1,657	469
2035	184	315	28	1,631	1,682	476
2036	172	323	29	1,680	1,732	471
2037	160	331	29	1,718	1,757	482
2038	148	339	30	1,761	1,810	468
2039	136	348	31	1,797	1,852	460
2040	126	356	32	1,838	1,873	480
2041	119	365	33	1,879	1,920	475
2042	111	374	34	1,922	1,974	467
2043	103	384	35	1,971	2,025	468
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	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	5,487	7,248	577	34,128	36,643	11,199
NPV	1,317	1,203	87	5,223	5,810	2,021

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)*
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	41	0
2011	1	1	2	1	0	1	113	0
2012	14	1	15	1	0	1	183	0
2013	21	3	23	2	0	2	297	0
2014	32	3	35	3	1	3	430	0
2015	40	4	44	3	1	4	551	0
2016	44	4	49	4	1	5	691	0
2017	49	5	54	4	1	5	827	0
2018	54	6	60	4	1	6	1,013	0
2019	63	6	69	5	2	7	1,195	0
2020	60	6	67	5	2	7	1,258	0
2021	58	6	65	5	2	7	1,310	0
2022	56	7	63	5	2	6	1,361	0
2023	54	7	61	5	2	6	1,394	0
2024	52	7	59	4	2	6	1,450	0
2025	50	7	57	4	2	6	1,495	0
2026	48	7	55	4	2	6	1,522	0
2027	46	7	54	4	2	6	1,562	0
2028	44	8	52	4	2	6	1,608	0
2029	42	8	50	4	2	6	1,646	0
2030	40	8	48	3	2	6	1,694	0
2031	38	8	47	3	2	5	1,749	0
2032	36	8	45	3	2	5	1,785	0
2033	35	9	43	3	2	5	1,849	0
2034	33	9	42	3	2	5	1,883	0
2035	32	9	41	3	2	5	1,972	0
2036	30	9	39	3	2	5	2,051	0
2037	29	10	38	2	3	5	2,121	0
2038	28	10	37	2	3	5	2,214	0
2039	26	10	36	2	3	5	2,286	0
2040	25	10	36	2	3	5	2,364	0
2041	24	11	35	2	3	5	2,458	0
2042	23	11	34	2	3	5	2,555	0
2043	22	11	33	2	3	5	2,681	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	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.	1,257	236	1,493	105	62	167	49,610	0
NPV	368	50	418	31	13	43	9,699	0

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

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
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	26	490	0	516	0	0	41	0	41	(475)	(436)
2011	0	21	373	0	393	0	9	113	0	123	(270)	(664)
2012	0	23	419	0	443	0	17	183	0	200	(243)	(852)
2013	0	38	725	0	762	0	26	297	29	352	(410)	(1,144)
2014	0	30	527	0	556	0	38	430	44	513	(44)	(1,173)
2015	0	19	333	0	352	0	48	551	58	657	306	(989)
2016	0	19	332	0	350	0	53	691	72	817	466	(732)
2017	0	21	383	0	404	0	59	827	88	974	570	(444)
2018	0	34	610	0	644	0	65	1,013	109	1,187	543	(192)
2019	0	0	0	0	0	465	76	1,195	107	1,843	1,843	595
2020	0	0	0	0	0	432	73	1,258	108	1,872	1,872	1,329
2021	0	0	0	0	0	415	71	1,310	117	1,912	1,912	2,017
2022	0	0	0	0	0	412	69	1,361	130	1,973	1,973	2,669
2023	0	0	0	0	0	419	67	1,394	137	2,018	2,018	3,282
2024	0	0	0	0	0	424	65	1,450	153	2,092	2,092	3,865
2025	0	27	479	0	506	423	63	1,495	166	2,148	1,642	4,286
2026	0	41	777	0	817	426	61	1,522	175	2,184	1,366	4,607
2027	0	34	607	0	641	430	59	1,562	189	2,241	1,600	4,953
2028	0	38	681	0	720	428	58	1,608	207	2,300	1,586	5,266
2029	0	60	1,140	0	1,200	439	56	1,646	230	2,370	1,171	5,479
2030	0	27	482	0	509	439	54	1,694	247	2,433	1,924	5,801
2031	0	27	481	0	508	435	52	1,749	268	2,504	1,997	6,108
2032	0	31	554	0	585	449	50	1,785	291	2,575	1,996	6,389
2033	0	50	884	0	933	448	49	1,849	307	2,653	1,720	6,612
2034	0	0	0	0	0	469	47	1,883	330	2,730	2,730	6,937
2035	0	0	0	0	0	476	46	1,972	358	2,852	2,852	7,248
2036	0	0	0	0	0	471	44	2,051	386	2,953	2,953	7,545
2037	0	0	0	0	0	482	43	2,121	417	3,063	3,063	7,827
2038	0	0	0	0	0	468	42	2,214	449	3,173	3,173	8,096
2039	0	0	0	0	0	460	41	2,286	484	3,271	3,271	8,350
2040	0	39	693	0	732	480	41	2,364	521	3,406	2,674	8,541
2041	0	44	781	0	825	475	40	2,458	560	3,533	2,708	8,719
2042	0	65	1,231	0	1,296	467	39	2,535	620	3,680	2,384	8,862
2043	0	55	987	0	1,042	468	38	2,681	684	3,871	2,829	9

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

8.89 %

3.05

%

[illegible]

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

2019
8.89 %

3.53

8.39	%
1.04	

BUSINESS ON CALL

INPUT DATA - PART 1 CONTINUED
PROGRAMS USED: SCHEDULED, NEW, REQ
PROGRAM NAME: Bessies On Call

I. PROGRAM DEMAND SAVINGS & TIME LOSSES

(1) CUSTOMER LOAD REDUCTION FACTOR	0.85 MW
(2) GENERATOR LOAD REDUCTION PER CUSTOMER	1.14 MW
(3) LOAD LOSS PERCENTAGE	8.66 %
(4) GENERATOR LOAD REDUCTION PER CUSTOMER	2.65 MW
(5) LOAD LOSS PERCENTAGE	6.94 %
(6) GROUP LOAD LOSS PERCENTAGE	1.02
(7) CUSTOMER LOAD INCREASE ATTENUATION	1.46 MW

II. ECONOMIC LIFE & FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	35 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	25 YEARS
(4) K FACTOR FOR GENERATION	1.7826
(5) K FACTOR FOR T & D	1.0254

III. UTILITY & CUSTOMER COSTS

(1) UTILITY WORKSOURCING 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) INCREASE SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COST ESCALATION RATE	*** %
(10) UTILITY DISCOUNT RATE	2.89 %
(11) UTILITY AVERAGE RATE	8.48 %
(12) UTILITY WORKSOURCING REBATE INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE INCENTIVE	*** \$/CUST
(14) UTILITY REBATE DISCOUNT ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

(1) BASE YEAR	2000
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2003
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2002-2019
(4) BASE YEAR AVOIDED GENERATION COST	721.29 \$/KW
(5) BASE YEAR AVOIDED TRANSMISSION COST	145.28 \$/KW
(6) BASE YEAR DISCOUNT COST	72.24 \$/KW
(7) GEN. TRAM AVE. 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	2.22 \$/KW
(11) TRANSMISSION FIXED O & M ESCALATION RATE	1.01 \$/KW
(12) T&D FIXED O & M ESCALATION RATE	2.50 %
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.186 \$/KW/YR
(14) GENERATOR VARIABLE O & M COST ESCALATION RATE	2.50 %
(15) GENERATOR CAPACITY FACTOR	64 % (64-cw/day-yr)
(16) AVOIDED GENERATING UNIT FUEL COST	3.23 \$/KW/YR (64-cw/day-yr)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	4.70 %

V. NON-FUEL ENERGY AND DEMAND CHARGES

(1) NON-FUEL COST IN CUSTOMER BILL	*** \$/CUST/YR
(2) NON-FUEL COST ESCALATION RATE	*** %
(3) DEMAND CHARGE IN CUSTOMER BILL	*** \$/CUST/YR
(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/COST SHIPPED AWAY FROM PEAKERS. VALUE SHOWN IN ITEM (7) IS ANNUAL KW/COST THAT IS PAID BACK DURING OFF-PEAK.

*INPUT DATA - PART 1 CONTINUED
 PROGRAMMED INSTEAD REV. 102
 PROGRAMMER: [blank] On Call

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$(000)	(2) UTILITY INCENTIVES \$(000)	(3) OTHER UTILITY COSTS \$(000)	(4) TOTAL UTILITY PROGRAM COSTS \$(000)	(5) ENERGY CHARGE REVENUE LOSSES \$(000)	(6) DEMAND CHARGE REVENUE LOSSES \$(000)	(7) PARTICIPANT EQUIPMENT COSTS \$(000)	(8) PARTICIPANT O&M COSTS \$(000)	(9) OTHER PARTICIPANT COSTS \$(000)	(10) TOTAL PARTICIPANT COSTS \$(000)
2009	0	0	0	0	0	0	0	0	0	0
2010	24	64	0	140	0	0	0	0	0	0
2011	242	192	0	441	1	0	0	0	0	0
2012	412	320	0	732	1	0	0	0	0	0
2013	572	448	0	1020	2	0	0	0	0	0
2014	720	596	0	1316	2	0	0	0	0	0
2015	837	704	0	1541	3	0	0	0	0	0
2016	894	872	0	1766	3	0	0	0	0	0
2017	952	940	0	1892	4	0	0	0	0	0
2018	1014	1008	0	2022	4	0	0	0	0	0
2019	1072	1052	0	2125	4	0	0	0	0	0
2020	1130	1110	0	2240	5	0	0	0	0	0
2021	1189	1169	0	2358	5	0	0	0	0	0
2022	1251	1231	0	2482	5	0	0	0	0	0
2023	1312	1292	0	2604	5	0	0	0	0	0
2024	1372	1352	0	2724	5	0	0	0	0	0
2025	1432	1412	0	2844	5	0	0	0	0	0
2026	1492	1472	0	2964	5	0	0	0	0	0
2027	1552	1532	0	3084	6	0	0	0	0	0
2028	1612	1592	0	3204	6	0	0	0	0	0
2029	1672	1652	0	3324	6	0	0	0	0	0
2030	1732	1712	0	3444	7	0	0	0	0	0
2031	1792	1772	0	3564	7	0	0	0	0	0
2032	1852	1832	0	3684	7	0	0	0	0	0
2033	1912	1892	0	3804	8	0	0	0	0	0
2034	1972	1952	0	3924	8	0	0	0	0	0
2035	2032	2012	0	4044	8	0	0	0	0	0
2036	2092	2072	0	4164	9	0	0	0	0	0
2037	2152	2132	0	4284	9	0	0	0	0	0
2038	2212	2192	0	4404	10	0	0	0	0	0
2039	2272	2252	0	4524	10	0	0	0	0	0
2040	2332	2312	0	4644	11	0	0	0	0	0
2041	2392	2372	0	4764	11	0	0	0	0	0
2042	2452	2432	0	4884	12	0	0	0	0	0
2043	2512	2492	0	5004	12	0	0	0	0	0
2044	2572	2552	0	5124	13	0	0	0	0	0
2045	2632	2612	0	5244	13	0	0	0	0	0
2046	2692	2672	0	5364	14	0	0	0	0	0
2047	2752	2732	0	5484	14	0	0	0	0	0
2048	2812	2792	0	5604	15	0	0	0	0	0
2049	2872	2852	0	5724	15	0	0	0	0	0
2050	2932	2912	0	5844	16	0	0	0	0	0
2051	2992	2972	0	5964	16	0	0	0	0	0
2052	3052	3032	0	6084	17	0	0	0	0	0
2053	3112	3092	0	6204	17	0	0	0	0	0
2054	3172	3152	0	6324	18	0	0	0	0	0
2055	3232	3212	0	6444	18	0	0	0	0	0
2056	3292	3272	0	6564	19	0	0	0	0	0
2057	3352	3332	0	6684	19	0	0	0	0	0
2058	3412	3392	0	6804	20	0	0	0	0	0
2059	3472	3452	0	6924	20	0	0	0	0	0
2060	3532	3512	0	7044	21	0	0	0	0	0
2061	3592	3572	0	7164	21	0	0	0	0	0
2062	3652	3632	0	7284	22	0	0	0	0	0
2063	3712	3692	0	7404	22	0	0	0	0	0
2064	3772	3752	0	7524	23	0	0	0	0	0
2065	3832	3812	0	7644	23	0	0	0	0	0
2066	3892	3872	0	7764	24	0	0	0	0	0
2067	3952	3932	0	7884	24	0	0	0	0	0
2068	4012	3992	0	8004	25	0	0	0	0	0
2069	4072	4052	0	8124	25	0	0	0	0	0
2070	4132	4112	0	8244	26	0	0	0	0	0
2071	4192	4172	0	8364	26	0	0	0	0	0
2072	4252	4232	0	8484	27	0	0	0	0	0
2073	4312	4292	0	8604	27	0	0	0	0	0
2074	4372	4352	0	8724	28	0	0	0	0	0
2075	4432	4412	0	8844	28	0	0	0	0	0
2076	4492	4472	0	8964	29	0	0	0	0	0
2077	4552	4532	0	9084	29	0	0	0	0	0
2078	4612	4592	0	9204	30	0	0	0	0	0
2079	4672	4652	0	9324	30	0	0	0	0	0
2080	4732	4712	0	9444	31	0	0	0	0	0
2081	4792	4772	0	9564	31	0	0	0	0	0
2082	4852	4832	0	9684	32	0	0	0	0	0
2083	4912	4892	0	9804	32	0	0	0	0	0
2084	4972	4952	0	9924	33	0	0	0	0	0
2085	5032	5012	0	10044	33	0	0	0	0	0
2086	5092	5072	0	10164	34	0	0	0	0	0
2087	5152	5132	0	10284	34	0	0	0	0	0
2088	5212	5192	0	10404	35	0	0	0	0	0
2089	5272	5252	0	10524	35	0	0	0	0	0
2090	5332	5312	0	10644	36	0	0	0	0	0
2091	5392	5372	0	10764	36	0	0	0	0	0
2092	5452	5432	0	10884	37	0	0	0	0	0
2093	5512	5492	0	11004	37	0	0	0	0	0
2094	5572	5552	0	11124	38	0	0	0	0	0
2095	5632	5612	0	11244	38	0	0	0	0	0
2096	5692	5672	0	11364	39	0	0	0	0	0
2097	5752	5732	0	11484	39	0	0	0	0	0
2098	5812	5792	0	11604	40	0	0	0	0	0
2099	5872	5852	0	11724	40	0	0	0	0	0
2100	5932	5912	0	11844	41	0	0	0	0	0
2101	5992	5972	0	11964	41	0	0	0	0	0
2102	6052	6032	0	12084	42	0	0	0	0	0
2103	6112	6092	0	12204	42	0	0	0	0	0
2104	6172	6152	0	12324	43	0	0	0	0	0
2105	6232	6212	0	12444	43	0	0	0	0	0
2106	6292	6272	0	12564	44	0	0	0	0	0
2107	6352	6332	0	12684	44	0	0	0	0	0
2108	6412	6392	0	12804	45	0	0	0	0	0
2109	6472	6452	0	12924	45	0	0	0	0	0
2110	6532	6512	0	13044	46	0	0	0	0	0
2111	6592	6572	0	13164	46	0	0	0	0	0
2112	6652	6632	0	13284	47	0	0	0	0	0
2113	6712	6692	0	13404	47	0	0	0	0	0
2114	6772	6752	0	13524	48	0	0	0	0	0
2115	6832	6812	0	13644	48	0	0	0	0	0
2116	6892	6872	0	13764	49	0	0	0	0	0
2117	6952	6932	0	13884	49	0	0	0	0	0
2118	7012	6992	0	14004	50	0	0	0	0	0
2119	7072	7052	0	14124	50	0	0	0	0	0
2120	7132	7112	0	14244	51	0	0	0	0	0
2121	7192	7172	0	14364	51	0	0	0	0	0
2122	7252	7232	0	14484	52	0	0	0	0	0
2123	7312	7292	0	14604	52	0	0	0	0	0
2124	7372	7352	0	14724	53	0	0	0	0	0
2125	7432	7412	0	14844	53	0	0	0	0	0
2126	7492	7472	0	14964	54	0	0	0	0	0
2127	7552	7532	0	15084	54	0	0	0	0	0
2128	7612	7592	0	15204	55	0	0	0	0	0
2129	7672	7652	0	15324	55	0	0	0	0	0
2130	7732	7712	0	15444	56	0	0	0	0	0
2131	7792	7772	0	15564	56	0	0	0	0	0
2132	7852	7832	0	15684	57	0	0	0	0	0
2133	7912	7892	0	15804	57	0	0	0	0	0
2134	7972	7952	0	15924	58	0	0	0	0	0
2135	8032	8012	0	16044	58	0	0	0	0	0
2136	8092	8072	0	16164	59	0	0	0	0	0
2137	8152	8132	0	16284	59	0	0	0	0	0
2138	8212	8192	0	16404	60	0	0	0	0	0
2139	8272	8252	0	16524	60	0	0	0	0	0
2140	8332	8312	0	16644	61	0	0	0	0	0
2141	8392	8372	0	16764	61	0	0	0	0	0
2142	8452	8432	0	16884	62	0	0	0	0	0
2143	8512	8492	0	17004	62	0	0	0	0	0
2144	8572	8552	0	17124	63	0	0	0	0	0
2145	8632	8612	0	17244	63	0	0	0	0	0
2146	8692	8672	0	17364	64	0	0	0	0	0
2147	8752	8732	0	17484	64	0	0	0	0	0
2148	8812	8792	0	17604	65	0	0	0	0	0
2149	8872	8852	0	17724	65	0	0	0	0	0
2150	8932	8912	0	17844	66	0	0	0	0	0
2151	8992	8972								

CALCULATION OF GROWTH FACTOR
PROGRAM AND/OR SELECTED KEY REQ
PROGRAM NAME: Tractor Op Cal

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	PRE-YEAR RATEBASE \$(000)	DEBT \$(000)	EXPENSED STOCK \$(000)	COMMON EQUITY \$(000)	INCOME TAXES \$(000)	PROPERTY TAX \$(000)	PROPERTY INSURANCE \$(000)	DEPRECI- ATION \$(000)	DEPRECI- ATION \$(000)	TOTAL EXPENSE CHANGES \$(000)	PRESENT WORTH EXPENSE CHANGES \$(000)	CUMULATIVE PRESENT WORTH CHANGES \$(000)	REPLACEMENT COST BASIS FOR PROPERTY INSURANCE \$(000)
2019	48,790	1,267	0	2,347	1,574	487	261	1,591	3	4,526	8,526	8,526	32,781
2020	50,296	1,268	0	2,735	1,739	639	349	1,591	321	2,569	7,568	16,094	44,775
2021	57,894	1,332	0	2,588	1,729	639	235	1,591	448	2,568	4,493	22,587	41,284
2022	55,653	1,039	0	2,446	1,694	601	261	1,591	366	1,619	5,911	28,498	42,838
2023	55,696	1,028	0	2,510	1,648	573	248	1,591	324	2,325	5,288	33,911	43,916
2024	51,289	960	0	2,378	1,529	584	275	1,591	228	2,018	4,985	38,496	45,908
2025	49,385	911	0	2,051	1,608	516	281	1,591	223	6,733	4,048	42,526	46,125
2026	47,621	858	0	1,938	1,584	487	283	1,591	118	6,456	3,537	46,063	47,287
2027	45,912	805	0	1,808	1,529	458	284	1,591	109	6,087	3,131	49,214	48,469
2028	44,411	752	0	1,699	1,445	430	285	1,591	109	5,628	2,425	54,278	50,323
2029	42,911	699	0	1,571	1,371	401	311	1,591	109	5,396	2,111	54,490	52,196
2030	40,810	646	0	1,432	1,296	372	318	1,591	109	5,119	1,843	52,333	53,508
2031	39,110	594	0	1,294	1,221	344	326	1,591	109	4,853	1,694	59,537	54,838
2032	37,409	541	0	1,215	1,147	315	335	1,591	109	4,587	1,588	61,530	56,289
2033	35,709	488	0	1,096	1,072	286	343	1,591	109	4,300	1,465	62,534	57,614
2034	34,008	435	0	978	1,004	257	351	1,591	109	4,025	1,328	63,575	59,037
2035	32,308	382	0	859	925	228	360	1,591	109	3,748	1,181	64,464	60,531
2036	30,607	329	0	740	846	200	369	1,591	109	3,473	1,025	65,225	62,044
2037	28,907	277	0	622	767	172	378	1,591	109	3,198	868	65,871	63,565
2038	27,206	224	0	503	688	143	388	1,591	109	2,923	711	66,416	65,185
2039	25,506	171	0	384	609	115	398	1,591	(324)	2,648	555	66,881	66,815
2040	23,805	118	0	265	530	86	408	1,591	(337)	2,373	401	67,282	68,445
2041	22,104	65	0	147	451	57	418	1,591	(357)	2,098	244	67,636	70,075
2042	20,403	12	0	28	372	28	428	1,591	(367)	1,823	91	67,921	71,705
2043	1,874	0	0	72	293	(9)	439	1,591		1,548	235		

IN SERVICE COST (\$000)	32,781
IN SERVICE YEAR	2019
BOOK LIFE (YRS)	21
DEPR. RATE	36.57%
DISCOUNT RATE	3.94%
PROPERTY TAX	1.89%
PROPERTY INSURANCE	0.41%

CAPITAL STRUCTURE		
SOURCE	PERCENT	COST
DEBT	40%	7.80
EQUITY	60%	8.80
COST		12.24

GROWTH FACTOR = CF/INVC / INVC COST = 1.07734

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM: DEFERRED TAXES: REV. REG
 PROGRAM: DEFERRED TAXES: REV. REG

FORM: C-11A
 PAGE: 072

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEFERRED SCHEDULE	TAX DEFERRED S(000)	ACCUMULATED TAX DEFERRED S(000)	BOOK DEFERRED S(000)	ACCUMULATED BOOK DEFERRED S(000)	BOOK DEFERRED TAX S(000)	ACCUMULATED BOOK DEFERRED TAX S(000)	DEFERRED TAX DUE TO DEFERRED S(000)	TOTAL DEFERRED TAX S(000)	BOOK DEFERRED TAX S(000)	(12)-(11) TAX S(000)	SALVAGE TAX S(000)	ANNUAL DEFERRED TAX S(000)	ACCUMULATED DEFERRED TAX S(000)
2019	1.33%	1,451	1,451	1,391	1,391	1,443	1,443	3	1,713	0	0	0	3	(1,000)
2020	1.33%	1,451	2,902	1,391	2,782	1,443	2,885	51	1,713	0	0	0	51	(949)
2021	1.33%	1,451	4,353	1,391	4,173	1,443	4,326	149	1,713	0	0	0	149	(800)
2022	1.33%	1,451	5,804	1,391	5,554	1,443	5,707	298	1,713	0	0	0	298	(502)
2023	1.33%	1,451	7,255	1,391	6,955	1,443	7,108	447	1,713	0	0	0	447	(50)
2024	1.33%	1,451	8,706	1,391	8,406	1,443	8,559	596	1,713	0	0	0	596	50
2025	1.33%	1,451	10,157	1,391	9,857	1,443	10,010	745	1,713	0	0	0	745	346
2026	1.33%	1,451	11,608	1,391	11,308	1,443	11,461	894	1,713	0	0	0	894	1,240
2027	1.33%	1,451	13,059	1,391	12,759	1,443	12,912	1,043	1,713	0	0	0	1,043	2,283
2028	1.33%	1,451	14,510	1,391	14,210	1,443	14,363	1,192	1,713	0	0	0	1,192	3,475
2029	1.33%	1,451	15,961	1,391	15,661	1,443	15,814	1,341	1,713	0	0	0	1,341	4,816
2030	1.33%	1,451	17,412	1,391	17,112	1,443	17,265	1,490	1,713	0	0	0	1,490	6,306
2031	1.33%	1,451	18,863	1,391	18,563	1,443	18,716	1,639	1,713	0	0	0	1,639	7,945
2032	1.33%	1,451	20,314	1,391	20,014	1,443	20,167	1,788	1,713	0	0	0	1,788	9,733
2033	1.33%	1,451	21,765	1,391	21,465	1,443	21,618	1,937	1,713	0	0	0	1,937	11,670
2034	1.33%	1,451	23,216	1,391	22,916	1,443	23,069	2,086	1,713	0	0	0	2,086	13,756
2035	1.33%	1,451	24,667	1,391	24,367	1,443	24,520	2,235	1,713	0	0	0	2,235	16,000
2036	1.33%	1,451	26,118	1,391	25,818	1,443	25,971	2,384	1,713	0	0	0	2,384	18,384
2037	1.33%	1,451	27,569	1,391	27,269	1,443	27,422	2,533	1,713	0	0	0	2,533	20,917
2038	1.33%	1,451	29,020	1,391	28,720	1,443	28,873	2,682	1,713	0	0	0	2,682	23,599
2039	1.33%	1,451	30,471	1,391	30,171	1,443	30,324	2,831	1,713	0	0	0	2,831	26,430
2040	1.33%	1,451	31,922	1,391	31,622	1,443	31,775	2,980	1,713	0	0	0	2,980	29,410
2041	1.33%	1,451	33,373	1,391	33,073	1,443	33,226	3,129	1,713	0	0	0	3,129	32,539
2042	1.33%	1,451	34,824	1,391	34,524	1,443	34,677	3,278	1,713	0	0	0	3,278	35,817
2043	1.33%	1,451	36,275	1,391	35,975	1,443	36,128	3,427	1,713	0	0	0	3,427	39,244

SALVAGE/REMOVAL COST	2.00
YEAR SALVAGE/ COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(1,000)
TOTAL DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	1,713
BOOK DEFERRED TAX - 1/3800000	1,000

INTEREST DOLLAR MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: INV / REQ
 PROGRAM NAME: Budget On Call

PCFORM(C)11A
 PAGE 2 OF 2

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANTIN SERVICE (\$000)	(6)* ACCUMULATED DEPRECIATION (\$000)	(7)* ACCUMULATED DEF DOLLS (\$000)	(8) DEPRECIATION YEAR RATE BASE (\$000)	(9) ENDING OF YEAR RATE BASE (\$000)	(10) MID-YEAR RATE BASE (\$000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION (\$000)	INTEREST TAX (\$000)						
2012	2.75%	1,451	5	34,389	1,371	(2,696)	44,239	39,296	39,550
2013	2.52%	2,228	321	36,594	1,182	(940)	38,194	37,084	38,140
2014	6.00%	2,523	449	33,067	4,774	(14)	37,084	35,033	36,063
2015	6.00%	2,391	346	35,416	6,365	328	35,833	33,678	34,674
2016	5.75%	2,210	236	31,224	7,934	616	33,894	31,289	32,132
2017	5.39%	2,044	203	30,133	1,547	948	31,289	29,285	30,297
2018	4.89%	1,891	173	28,242	11,139	1,021	29,285	27,623	28,453
2019	4.32%	1,749	118	22,051	21,729	1,139	27,621	25,912	26,796
2020	4.00%	1,726	109	23,469	14,321	1,948	25,912	24,211	25,641
2021	4.10%	1,728	109	23,898	15,922	1,328	24,211	22,511	23,561
2022	4.10%	1,726	109	22,227	17,593	1,467	22,511	20,810	21,699
2023	4.60%	1,726	109	20,626	14,625	1,326	20,810	19,110	20,299
2024	4.60%	1,726	109	19,893	22,977	1,795	19,110	17,409	18,529
2025	4.60%	1,726	109	15,922	21,308	1,594	17,409	14,808	14,829
2026	4.60%	1,726	109	14,521	21,448	2,013	14,808	12,708	13,128
2027	4.60%	1,726	109	12,729	27,851	2,182	12,708	10,607	11,428
2028	4.60%	1,726	109	11,129	28,642	2,222	10,607	8,907	9,227
2029	4.60%	1,726	109	9,597	34,028	2,341	8,907	7,206	8,027
2030	4.60%	1,726	109	7,954	31,824	2,459	7,206	5,506	6,326
2031	2.523%	363	(224)	6,262	20,416	2,227	5,506	4,122	4,322
2040	0.00%	0	(337)	4,774	11,627	1,670	4,122	3,154	3,421
2041	0.00%	0	(357)	3,182	24,374	1,123	3,154	2,049	2,586
2042	0.00%	0	(357)	1,591	23,129	437	2,049	1,084	1,522
2043	0.00%	0	(357)	(0)	22,782	0	1,084	0	517

* Columns not specified in worksheet

(1) YEAR	(2) YEARS BEFORE IN-SERVICE	(3) ELAVT ISCALATION RATE	(4) CUMULATIVE ISCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$000)	(7) CUMULATIVE AVERAGE SPENDING (\$000)
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	0.02
2014	-5	3.00%	1.159	2.00%	15.99	9.24
2015	-4	3.00%	1.194	4.50%	39.61	37.83
2016	-3	3.00%	1.228	37.50%	333.37	222.77
2017	-2	3.00%	1.267	45.00%	420.27	336.94
2018	-1	3.00%	1.305	38.40%	34.79	83.82

2000X 20777													
		(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
	NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WAGE/ADDC (\$K)	TEST AFUDC (\$K)	CUMULATIVE TEST AFUDC (\$K)	YEARLY TOTAL AFUDC (\$K)	CUMULATIVE TOTAL AFUDC (\$K)	CONSTRUCTION EXPENDITURE (\$K)	CUMULATIVE COST (\$K)	DEVELOPED TAXES (\$K)	CUMULATIVE DEVELOPED TAXES (\$K)	INCREASING YEAR-END BOOK VALUE (\$K)	CUMULATIVE YEAR-END BOOK VALUE (\$K)	
YEAR													
2000	-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2001	-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	
2021	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2031	-6	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.00	0.00	1.29	1.29	
2041	-5	2.23	0.29	0.38	0.39	0.85	0.85	0.79	0.14	0.15	1678	1677	
2051	-4	37.37	1.18	1.6	1.22	4.06	2.65	2.35	0.57	0.22	4283	60.90	
2061	-3	22634	7.77	2.56	19.29	23.36	15.90	12.25	1.61	0.13	30136	470.06	
2071	-2	622.38	19.46	22.01	53.30	76.65	43.47	41.32	0.36	0.38	453.37	285.43	
2076	-1	594.03	28.06	24.77	30.29	106.94	64.78	27.59	0.60	0.60	100.33	1,061.03	

IN SERVICE YEAR	2019
PLANT COSTS	725,207,803.5
AFUDCRATE	3.45%

	154.24	122.50	
CONSTRUCTION CASE			
BOREHOLE	33,929	33,929	33,929
DEBT AFUDC	2,147	2,147	
CEX			4,364
TOTAL	36,076	36,076	38,293

* Column not specified in worksheet.

INFO DATA - PART 2
PROGRAM/CHRGD SELECTED: NEW_MQ
PROGRAM/CHRG: Business On Call

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PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (COST/WH)	APPROX MARGINAL FUEL COST (COST/WH)	INCREASED MARGINAL FUEL COST (COST/WH)	REPLACEMENT FUEL COST (COST/WH)	PROGRAM/CHRG EFFECTIVENESS FACTOR	PROGRAM/CHRG EFFECTIVENESS FACTOR
2000	0	0	6.39	9.37	6.39	0.00	1.00	1.00
2010	1,637	1,637	6.41	16.51	6.41	0.00	1.00	1.00
2011	1,334	7,334	6.35	18.33	6.35	0.00	1.00	1.00
2012	18,970	18,970	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	25,398	25,398	9.00	13.93	9.00	0.00	1.00	1.00
2017	29,234	29,234	9.73	15.60	9.73	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	18.41	1.00	1.00
2020	32,911	32,911	12.08	20.17	12.08	18.50	1.00	1.00
2021	32,911	32,911	12.57	21.76	12.57	18.74	1.00	1.00
2022	32,911	32,911	13.06	23.46	13.06	19.81	1.00	1.00
2023	32,911	32,911	13.59	25.91	13.59	19.80	1.00	1.00
2024	32,911	32,911	13.95	22.19	13.95	19.94	1.00	1.00
2025	32,911	32,911	14.40	22.28	14.40	19.96	1.00	1.00
2026	32,911	32,911	14.70	22.41	14.70	19.95	1.00	1.00
2027	32,911	32,911	15.23	22.65	15.23	19.97	1.00	1.00
2028	32,911	32,911	15.60	23.70	15.60	21.36	1.00	1.00
2029	32,911	32,911	16.02	23.85	16.02	21.61	1.00	1.00
2030	32,911	32,911	16.52	23.72	16.52	21.59	1.00	1.00
2031	32,911	32,911	17.03	24.53	17.03	21.30	1.00	1.00
2032	32,911	32,911	17.52	24.57	17.52	21.35	1.00	1.00
2033	32,911	32,911	18.27	25.51	18.27	22.10	1.00	1.00
2034	32,911	32,911	18.78	26.88	18.78	22.14	1.00	1.00
2035	32,911	32,911	19.57	27.04	19.57	22.57	1.00	1.00
2036	32,911	32,911	20.40	28.26	20.40	22.55	1.00	1.00
2037	32,911	32,911	21.11	29.22	21.11	22.70	1.00	1.00
2038	32,911	32,911	22.02	30.23	22.02	23.04	1.00	1.00
2039	32,911	32,911	22.78	31.29	22.78	23.93	1.00	1.00
2040	32,911	32,911	23.59	32.02	23.59	23.44	1.00	1.00
2041	32,911	32,911	24.34	33.22	24.34	23.25	1.00	1.00
2042	32,911	32,911	25.50	34.66	25.50	24.10	1.00	1.00
2043	32,911	32,911	26.24	35.49	26.24	24.40	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 SHEDDING PROGRAMS WHICH SHIFT CONSUMPTION TO OFF-PEAK PERIODS.
THE VALUES REPRESENT THE OFF-PEAK SYSTEM FUEL COSTS.

AVOIDED GENERATING BENEFITS
PROGRAM AGENCIES SELECTED KEY REQ
PROGRAM NAME: Bunker On Call

PROGRAM CS-21
PAGE 1 OF 1

YEAR	(2) AVOIDED CAPACITY COST \$(000)	(3) AVOIDED GEN UNIT EERO 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)
2000	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	2,516	4,571	197	11,896	12,950	10,236
2020	2,263	4,788	204	17,526	21,351	8,559
2021	7,925	4,908	237	14,286	21,900	5,126
2022	7,639	5,030	316	39,354	23,249	5,370
2023	7,333	5,156	338	23,348	23,917	5,283
2024	7,023	5,285	369	21,494	24,815	5,336
2025	6,733	5,427	377	22,965	26,175	5,319
2026	6,456	5,582	404	24,542	27,573	5,282
2027	6,187	5,691	428	25,905	28,794	5,456
2028	5,920	5,804	440	26,535	29,573	5,425
2029	5,653	5,920	461	27,732	30,165	5,680
2030	5,386	6,109	484	29,018	31,331	5,838
2031	5,119	6,282	496	28,808	31,919	5,836
2032	4,853	6,459	515	26,454	31,575	5,886
2033	4,587	6,640	507	21,729	31,620	5,962
2034	4,320	6,765	509	25,107	36,465	10,321
2035	4,053	6,894	639	31,904	37,028	14,476
2036	3,787	7,128	630	36,979	38,126	14,379
2037	3,523	7,365	643	37,728	38,674	14,600
2038	3,258	7,607	666	38,782	39,854	14,300
2039	2,993	7,854	686	39,239	40,760	14,121
2040	2,777	8,046	702	40,470	41,583	14,559
2041	2,609	8,042	721	41,339	42,273	14,457
2042	2,441	8,045	741	42,500	43,451	14,273
2043	2,273	8,447	763	43,388	44,508	13,394
2044	0	0	0	0	0	0
2045	0	0	0	0	0	0
2046	0	0	0	0	0	0
2047	0	0	0	0	0	0
2048	0	0	0	0	0	0
2049	0	0	0	0	0	0
2050	0	0	0	0	0	0
2051	0	0	0	0	0	0
2052	0	0	0	0	0	0
2053	0	0	0	0	0	0
2054	0	0	0	0	0	0
2055	0	0	0	0	0	0
2056	0	0	0	0	0	0
2057	0	0	0	0	0	0
2058	0	0	0	0	0	0
2059	0	0	0	0	0	0
2060	0	0	0	0	0	0
2061	0	0	0	0	0	0
2062	0	0	0	0	0	0
2063	0	0	0	0	0	0
2064	0	0	0	0	0	0
2065	0	0	0	0	0	0
2066	0	0	0	0	0	0
2067	0	0	0	0	0	0
2068	0	0	0	0	0	0
2069	0	0	0	0	0	0
2070	0	0	0	0	0	0
2071	0	0	0	0	0	0
2072	0	0	0	0	0	0
2073	0	0	0	0	0	0
2074	0	0	0	0	0	0
2075	0	0	0	0	0	0
2076	0	0	0	0	0	0
2077	0	0	0	0	0	0
2078	0	0	0	0	0	0
2079	0	0	0	0	0	0
2080	0	0	0	0	0	0
2081	0	0	0	0	0	0
2082	0	0	0	0	0	0
2083	0	0	0	0	0	0
2084	0	0	0	0	0	0
2085	0	0	0	0	0	0
2086	0	0	0	0	0	0
2087	0	0	0	0	0	0
2088	0	0	0	0	0	0
2089	0	0	0	0	0	0
2090	0	0	0	0	0	0
2091	0	0	0	0	0	0
2092	0	0	0	0	0	0
2093	0	0	0	0	0	0
2094	0	0	0	0	0	0
2095	0	0	0	0	0	0
2096	0	0	0	0	0	0
2097	0	0	0	0	0	0
2098	0	0	0	0	0	0
2099	0	0	0	0	0	0
2100	0	0	0	0	0	0
2101	0	0	0	0	0	0
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
2113	0	0	0	0	0	0
2114	0	0	0	0	0	0
2115	0	0	0	0	0	0
2116	0	0	0	0	0	0
2117	0	0	0	0	0	0
2118	0	0	0	0	0	0
2119	0	0	0	0	0	0
2120	0	0	0	0	0	0
2121	0	0	0	0	0	0
2122	0	0	0	0	0	0
2123	0	0	0	0	0	0
2124	0	0	0	0	0	0
2125	0	0	0	0	0	0
2126	0	0	0	0	0	0
2127	0	0	0	0	0	0
2128	0	0	0	0	0	0
2129	0	0	0	0	0	0
2130	0	0	0	0	0	0
2131	0	0	0	0	0	0
2132	0	0	0	0	0	0
2133	0	0	0	0	0	0
2134	0	0	0	0	0	0
2135	0	0	0	0	0	0
2136	0	0	0	0	0	0
2137	0	0	0	0	0	0
2138	0	0	0	0	0	0
2139	0	0	0	0	0	0
2140	0	0	0	0	0	0
2141	0	0	0	0	0	0
2142	0	0	0	0	0	0
2143	0	0	0	0	0	0
2144	0	0	0	0	0	0
2145	0	0	0	0	0	0
2146	0	0	0	0	0	0
2147	0	0	0	0	0	0
2148	0	0	0	0	0	0
2149	0	0	0	0	0	0
2150	0	0	0	0	0	0
2151	0	0	0	0	0	0
2152	0	0	0	0	0	0
2153	0	0	0	0	0	0
2154	0	0	0	0	0	0
2155	0	0	0	0	0	0
2156	0	0	0	0	0	0
2157	0	0	0	0	0	0
2158	0	0	0	0	0	0
2159	0	0	0	0	0	0
2160	0	0	0	0	0	0
2161	0	0	0	0	0	0
2162	0	0	0	0	0	0
2163	0	0	0	0	0	0
2164	0	0	0	0	0	0
2165	0	0	0	0	0	0
2166	0	0	0	0	0	0
2167	0	0	0	0	0	0
2168	0	0	0	0	0	0
2169	0	0	0	0	0	0
2170	0	0	0	0	0	0
2171	0	0	0	0	0	0
2172	0	0	0	0	0	0
2173	0	0	0	0	0	0
2174	0	0	0	0	0	0
2175	0	0	0	0	0	0
2176	0	0	0	0	0	0
2177	0	0	0	0	0	0
2178	0	0	0	0	0	0
2179	0	0	0	0	0	0
2180	0	0	0	0	0	0
2181	0	0	0	0	0	0
2182	0	0	0	0	0	0
2183	0	0	0	0	0	0
2184	0	0	0	0	0	0
2185	0	0	0	0	0	0
2186	0	0	0	0	0	0
2187	0	0	0	0	0	0
2188	0	0	0	0	0	0
2189	0	0	0	0	0	0
2190	0	0	0	0	0	0
2191	0	0	0	0	0	0
2192	0	0	0	0	0	0
2193	0	0	0	0	0	0
2194	0	0	0	0	0	0
2195	0	0	0	0	0	0
2196	0	0	0	0	0	0
2197	0	0	0	0	0	0
2198	0	0	0	0	0	0
2199	0	0	0	0	0	0
2200	0	0	0	0	0	0
2201	0	0	0	0	0	0
2202	0	0	0	0	0	0
2203	0	0	0	0	0	0
2204	0	0	0	0	0	0
2205	0	0	0	0	0	0
2206	0	0	0	0	0	0
2207	0	0	0	0	0	0
2208	0	0	0	0	0	0
2209	0	0	0	0	0	0
2210	0	0	0	0	0	0
2211	0	0	0	0	0	0
2212	0	0	0	0	0	0
2213	0	0	0	0	0	0
2214	0	0	0	0	0	0
2215	0	0	0	0	0	0
2216	0	0	0	0	0	0
2217	0	0	0	0	0	0
2218	0	0	0	0	0	0
2219	0	0	0	0	0	0
2220	0	0	0	0	0	0
2221	0	0	0	0	0	0
2222	0	0	0	0	0	0
2223	0	0	0	0	0	0
2224	0	0	0	0	0	0
2225	0	0	0	0	0	0
2226	0	0	0	0	0	0
2227	0	0	0	0	0	0
2228	0	0	0	0	0	0
2229	0	0	0	0	0	0
2230	0	0	0	0	0	0
2231	0	0	0	0	0	0
2232	0	0	0	0	0	0
2233	0	0	0	0	0	0
2234	0	0	0	0	0	0
2235	0	0	0	0	0	0
2236	0	0	0	0	0	0
2237	0	0</				

AVOIDED TIED AND PROGRAM FUEL SAVINGS
PROGRAM/UNITED SELECTED: REV_ERQ
PROGRAM/NAME: Pikeson On Coal

PSCTFORM CE-12
PAGE 1 OF 1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
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	1	0
2011	125	12	138	8	3	11	2	1
2012	211	25	236	16	7	22	4	1
2013	446	32	478	23	10	34	4	1
2014	638	66	704	31	14	45	5	2
2015	773	81	854	39	18	57	8	3
2016	927	97	1,024	46	22	68	9	3
2017	1,081	114	1,195	54	27	81	12	4
2018	1,235	131	1,366	62	31	93	14	5
2019	1,389	148	1,537	69	36	105	18	6
2020	1,543	165	1,708	77	41	118	19	6
2021	1,697	182	1,879	85	46	131	21	6
2022	1,851	199	2,050	93	51	144	23	7
2023	1,905	216	2,121	101	56	157	25	7
2024	1,959	233	2,192	109	61	170	27	7
2025	1,984	250	2,234	117	66	183	29	8
2026	1,979	267	2,246	125	71	196	31	8
2027	1,926	284	2,210	133	76	209	33	8
2028	1,873	301	2,174	141	81	222	35	9
2029	1,820	318	2,138	149	86	235	37	9
2030	1,767	335	2,102	157	91	248	39	9
2031	1,714	352	2,066	165	96	261	41	10
2032	1,661	369	2,030	173	101	274	43	10
2033	1,608	386	1,994	181	106	287	45	11
2034	1,555	403	1,958	189	111	300	47	11
2035	1,502	420	1,922	197	116	313	49	11
2036	1,449	437	1,886	205	121	326	51	12
2037	1,396	454	1,850	213	126	339	53	12
2038	1,343	471	1,814	221	131	352	55	13
2039	1,290	488	1,778	229	136	365	57	13
2040	1,237	505	1,742	237	141	376	59	14
2041	1,184	522	1,706	245	146	391	61	14
2042	1,131	539	1,670	253	151	404	63	15
2043	1,078	556	1,634	261	156	417	65	15
2044	1,025	573	1,598	269	161	430	67	16
2045	972	590	1,562	277	166	443	69	16
2046	919	607	1,526	285	171	458	71	17
2047	866	624	1,490	293	176	471	73	17
2048	813	641	1,454	301	181	485	75	18
2049	760	658	1,418	309	186	499	77	18
2050	707	675	1,382	317	191	512	79	19
2051	654	692	1,346	325	196	528	81	19
2052	601	709	1,310	333	201	541	83	20
2053	548	726	1,274	341	206	557	85	20
2054	495	743	1,238	349	211	570	87	21
2055	442	760	1,204	357	216	586	89	21
2056	389	777	1,168	365	221	600	91	22
2057	336	794	1,132	373	226	616	93	22
2058	283	811	1,094	381	231	632	95	23
2059	230	828	1,058	389	236	648	97	23
2060	177	845	1,024	397	241	665	99	24
2061	124	862	988	405	246	682	101	24
2062	71	879	952	413	251	699	103	25
2063	18	896	914	421	256	717	105	25
2064	-35	913	878	429	261	734	107	26
2065	-88	930	842	437	266	751	109	26
2066	-141	947	806	445	271	768	111	27
2067	-194	964	770	453	276	785	113	27
2068	-247	981	734	461	281	802	115	28
2069	-300	998	698	469	286	819	117	28
2070	-353	1,015	662	477	291	836	119	29
2071	-406	1,032	626	485	296	853	121	29
2072	-459	1,049	590	493	301	870	123	30
2073	-512	1,066	554	501	306	887	125	30
2074	-565	1,083	518	509	311	904	127	31
2075	-618	1,100	482	517	316	921	129	31
2076	-671	1,117	446	525	321	938	131	32
2077	-724	1,134	410	533	326	955	133	32
2078	-777	1,151	374	541	331	972	135	33
2079	-830	1,168	338	549	336	989	137	33
2080	-883	1,185	302	557	341	1,006	139	34
2081	-936	1,202	266	565	346	1,023	141	34
2082	-989	1,219	230	573	351	1,040	143	35
2083	-1,042	1,236	194	581	356	1,057	145	35
2084	-1,095	1,253	158	589	361	1,074	147	36
2085	-1,148	1,270	122	597	366	1,091	149	36
2086	-1,201	1,287	86	605	371	1,108	151	37
2087	-1,254	1,304	50	613	376	1,125	153	37
2088	-1,307	1,321	14	621	381	1,142	155	38
2089	-1,360	1,338	-22	629	386	1,159	157	38
2090	-1,413	1,355	-58	637	391	1,176	159	39
2091	-1,466	1,372	-124	645	396	1,193	161	39
2092	-1,519	1,389	-190	653	401	1,210	163	40
2093	-1,572	1,406	-256	661	406	1,227	165	40
2094	-1,625	1,423	-322	669	411	1,244	167	41
2095	-1,678	1,440	-388	677	416	1,261	169	41
2096	-1,731	1,457	-454	685	421	1,278	171	42
2097	-1,784	1,474	-520	693	426	1,295	173	42
2098	-1,837	1,491	-586	701	431	1,312	175	43
2099	-1,890	1,508	-652	709	436	1,329	177	43
2100	-1,943	1,525	-718	717	441	1,346	179	44
TOTAL	27,220	3,184	32,404	1,385	1,345	2,730	642	251
NPV	8,029	1,096	9,125	491	280	672	133	42

* 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/UNIT SELECTED: RSW / REQ
PROGRAM/UNIT: Business On Call

YEAR	(1) AVOIDED GENERATING EMISSIONS PER UNIT \$(000)	(2) REPLACEMENT EMISSIONS PER UNIT \$(000)	(3) PROGRAM EMISSIONS PER UNIT \$(000)	(4) NET-PEAK EMISSIONS PER UNIT \$(000)	(5) NET EMISSIONS PER UNIT \$(000)
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	1	0	0
2005	0	0	1	0	0
2006	0	0	1	0	2
2007	0	0	1	1	1
2008	0	0	2	1	1
2009	1,422	1,429	2	1	(434)
2010	2,166	2,305	2	1	(836)
2011	2,355	3,093	2	1	(739)
2012	2,788	3,694	3	1	(818)
2013	3,095	3,975	3	1	(883)
2014	3,549	4,565	3	1	(1,023)
2015	4,085	5,155	3	1	(1,160)
2016	4,531	5,591	3	1	(1,235)
2017	5,195	6,992	3	1	(1,434)
2018	5,671	7,161	3	2	(1,537)
2019	6,697	8,161	4	2	(1,729)
2020	7,129	9,043	4	2	(1,912)
2021	7,948	9,821	5	2	(2,071)
2022	8,532	10,702	5	2	(2,235)
2023	9,941	12,568	5	2	(2,624)
2024	11,002	13,889	5	3	(2,892)
2025	11,851	15,394	6	3	(3,148)
2026	13,047	16,485	6	3	(3,434)
2027	14,141	17,861	7	3	(3,727)
2028	15,229	18,389	7	3	(3,160)
2029	16,535	20,594	8	4	(4,125)
2030	17,899	22,629	8	4	(4,725)
2031	19,276	24,943	9	5	(5,668)
2032	19,276	24,943	9	5	(5,668)
2033	19,276	24,943	10	5	(5,667)
2034	0	0	0	0	0
2035	0	0	0	0	0
2036	0	0	0	0	0
2037	0	0	0	0	0
2038	0	0	0	0	0
2039	0	0	0	0	0
2040	0	0	0	0	0
2041	0	0	0	0	0
2042	0	0	0	0	0
2043	0	0	0	0	0
2044	221,264	224,401	130	59	(62,866)
2045	28,321	31,783	20	2	(7,549)

TOTAL RESOURCE COST TEST
PROGRAMS/PROJECTS SELECTED BY REQ
PROGRAM NAME: Project On Call

PCF00000013
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPORT COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	PARTICIPANT PROGRAM COSTS \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVERAGE CENTRAL INVESTMENT \$(000)	AVERAGE TMD INVESTMENT \$(000)	PROGRAM TOTAL AVERAGE \$(000)	OTHER INVESTMENT \$(000)	TOTAL INVESTMENT \$(000)	NET INVESTMENT \$(000)	CUMULATIVE DISCOUNTED NET INVESTMENT \$(000)
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	1	0	1	(9)	(7)
2002	0	0	0	0	0	0	0	1	0	1	(8)	(15)
2003	0	0	0	0	0	0	0	3	0	3	(3)	(18)
2004	0	0	0	0	0	0	0	2	0	2	(19)	(37)
2005	0	0	0	0	0	0	0	3	0	3	5	(32)
2006	0	0	0	0	0	0	0	5	0	5	0	(27)
2007	0	0	0	0	0	0	0	6	1	7	20	(7)
2008	0	0	0	0	0	0	0	8	1	9	31	24
2009	0	0	0	0	0	0	0	8	1	9	42	66
2010	0	0	0	0	0	0	0	15	(10)	5	52	122
2011	0	0	0	0	0	0	0	13	(10)	3	55	135
2012	0	0	0	0	0	0	0	14	(10)	4	59	149
2013	0	0	0	0	0	0	0	16	(10)	6	65	165
2014	0	0	0	0	0	0	0	18	(10)	8	73	183
2015	0	0	0	0	0	0	0	14	(10)	4	77	197
2016	0	0	0	0	0	0	0	13	(10)	3	80	210
2017	0	0	0	0	0	0	0	13	(10)	3	83	223
2018	0	0	0	0	0	0	0	14	(10)	4	87	237
2019	0	0	0	0	0	0	0	14	(10)	4	91	251
2020	0	0	0	0	0	0	0	14	(10)	4	95	265
2021	0	0	0	0	0	0	0	14	(10)	4	99	279
2022	0	0	0	0	0	0	0	14	(10)	4	103	293
2023	0	0	0	0	0	0	0	14	(10)	4	107	307
2024	0	0	0	0	0	0	0	14	(10)	4	111	321
2025	0	0	0	0	0	0	0	14	(10)	4	115	335
2026	0	0	0	0	0	0	0	14	(10)	4	119	349
2027	0	0	0	0	0	0	0	14	(10)	4	123	363
2028	0	0	0	0	0	0	0	14	(10)	4	127	377
2029	0	0	0	0	0	0	0	14	(10)	4	131	391
2030	0	0	0	0	0	0	0	14	(10)	4	135	405
2031	0	0	0	0	0	0	0	14	(10)	4	139	419
2032	0	0	0	0	0	0	0	14	(10)	4	143	433
2033	0	0	0	0	0	0	0	14	(10)	4	147	447
2034	0	0	0	0	0	0	0	14	(10)	4	151	461
2035	0	0	0	0	0	0	0	14	(10)	4	155	475
2036	0	0	0	0	0	0	0	14	(10)	4	159	489
2037	0	0	0	0	0	0	0	14	(10)	4	163	503
2038	0	0	0	0	0	0	0	14	(10)	4	167	517
2039	0	0	0	0	0	0	0	14	(10)	4	171	531
2040	0	0	0	0	0	0	0	14	(10)	4	175	545
2041	0	0	0	0	0	0	0	14	(10)	4	179	559
2042	0	0	0	0	0	0	0	14	(10)	4	183	573
2043	0	0	0	0	0	0	0	14	(10)	4	187	587
2044	0	0	0	0	0	0	0	14	(10)	4	191	601
2045	0	0	0	0	0	0	0	14	(10)	4	195	615
2046	0	0	0	0	0	0	0	14	(10)	4	199	629
2047	0	0	0	0	0	0	0	14	(10)	4	203	643
2048	0	0	0	0	0	0	0	14	(10)	4	207	657
2049	0	0	0	0	0	0	0	14	(10)	4	211	671
2050	0	0	0	0	0	0	0	14	(10)	4	215	685
2051	0	0	0	0	0	0	0	14	(10)	4	219	699
2052	0	0	0	0	0	0	0	14	(10)	4	223	713
2053	0	0	0	0	0	0	0	14	(10)	4	227	727
2054	0	0	0	0	0	0	0	14	(10)	4	231	741
2055	0	0	0	0	0	0	0	14	(10)	4	235	755
2056	0	0	0	0	0	0	0	14	(10)	4	239	769
2057	0	0	0	0	0	0	0	14	(10)	4	243	783
2058	0	0	0	0	0	0	0	14	(10)	4	247	797
2059	0	0	0	0	0	0	0	14	(10)	4	251	811
2060	0	0	0	0	0	0	0	14	(10)	4	255	825
2061	0	0	0	0	0	0	0	14	(10)	4	259	839
2062	0	0	0	0	0	0	0	14	(10)	4	263	853
2063	0	0	0	0	0	0	0	14	(10)	4	267	867
2064	0	0	0	0	0	0	0	14	(10)	4	271	881
2065	0	0	0	0	0	0	0	14	(10)	4	275	895
2066	0	0	0	0	0	0	0	14	(10)	4	279	909
2067	0	0	0	0	0	0	0	14	(10)	4	283	923
2068	0	0	0	0	0	0	0	14	(10)	4	287	937
2069	0	0	0	0	0	0	0	14	(10)	4	291	951
2070	0	0	0	0	0	0	0	14	(10)	4	295	965
2071	0	0	0	0	0	0	0	14	(10)	4	299	979
2072	0	0	0	0	0	0	0	14	(10)	4	303	993
2073	0	0	0	0	0	0	0	14	(10)	4	307	1007
2074	0	0	0	0	0	0	0	14	(10)	4	311	1021
2075	0	0	0	0	0	0	0	14	(10)	4	315	1035
2076	0	0	0	0	0	0	0	14	(10)	4	319	1049
2077	0	0	0	0	0	0	0	14	(10)	4	323	1063
2078	0	0	0	0	0	0	0	14	(10)	4	327	1077
2079	0	0	0	0	0	0	0	14	(10)	4	331	1091
2080	0	0	0	0	0	0	0	14	(10)	4	335	1105
2081	0	0	0	0	0	0	0	14	(10)	4	339	1119
2082	0	0	0	0	0	0	0	14	(10)	4	343	1133
2083	0	0	0	0	0	0	0	14	(10)	4	347	1147
2084	0	0	0	0	0	0	0	14	(10)	4	351	1161
2085	0	0	0	0	0	0	0	14	(10)	4	355	1175
2086	0	0	0	0	0	0	0	14	(10)	4	359	1189
2087	0	0	0	0	0	0	0	14	(10)	4	363	1203
2088	0	0	0	0	0	0	0	14	(10)	4	367	1217
2089	0	0	0	0	0	0	0	14	(10)	4	371	1231
2090	0	0	0	0	0	0	0	14	(10)	4	375	1245
2091	0	0	0	0	0	0	0	14	(10)	4	379	1259
2092	0	0	0	0	0	0	0	14	(10)	4	383	1273
2093	0	0	0	0	0	0	0	14	(10)	4	387	1287
2094	0	0	0	0	0	0	0	14	(10)	4	391	1301
2095	0	0	0	0	0	0	0	14	(10)	4	395	1315
2096	0	0	0	0	0	0	0	14	(10)	4	399	1329
2097	0	0	0	0	0	0	0	14	(10)	4	403	1343
2098	0	0	0	0	0	0	0	14	(10)	4	407	1357
2099	0	0	0	0	0	0	0	14	(10)	4	411	1371
2100	0	0	0	0	0	0	0	14	(10)	4	415	1385
2101	0	0	0	0	0	0	0	14	(10)	4	419	1399
2102	0	0	0	0	0	0	0	14	(10)	4	423	1413
2103	0	0	0	0	0	0	0	14	(10)	4	427	1427
2104	0	0	0	0	0	0	0	14	(10)	4	431	1441
2105	0	0	0	0	0	0	0	14	(10)	4	435	1455
2106	0	0	0	0	0	0	0	14	(10)	4	439	1469
2107	0	0	0	0	0	0	0	14	(10)	4	443	1483
2108	0	0	0	0	0	0	0	14	(10)	4	447	1497
2109	0	0	0	0	0	0	0	14	(10)	4	451	1511
2110	0	0	0	0	0	0	0	14	(10)	4	455	1525
2111	0	0	0	0	0	0	0	14	(10)	4	459	1539
2112	0	0	0	0	0	0	0	14	(10)	4	463	1553
2113	0	0	0	0	0	0	0	14	(10)	4	467	1567
2114	0	0	0	0	0	0	0	14	(10)	4	471	1581
2115	0	0	0	0	0	0	0	14	(10)	4	475	1595
2116	0	0	0	0	0	0	0	14	(10)	4	479	1609
2117	0	0	0	0	0	0	0	14	(10)	4	483	1623
2118	0	0	0	0	0	0	0	14	(10)	4	487	1637
2119	0	0	0	0	0	0	0	14	(10)	4	491	1651
2120	0	0	0	0	0	0	0	14	(10)	4	495	1665
2121	0	0	0	0	0	0	0	14	(10)	4	499	1679
2122	0	0	0	0	0	0	0	14	(10)	4	503	1693
2123	0	0	0	0	0	0	0	14	(10)	4	507	1707
2124	0	0	0	0	0	0	0	14	(10)	4	511	1721
2125	0	0	0	0	0	0	0	14	(10)	4	515	1735
2126	0	0	0	0	0	0	0	14	(10)	4	519	1749
2127	0	0	0	0	0	0	0	14	(10)	4	523	1763
2128	0	0	0	0	0	0	0	14	(10)	4	527	1777
2												

PARTICIPANT COSTS AND BENEFITS
 PROGRAM/METHOD SELECTED: REV_REQ
 PROGRAM/NAME: Business On Call

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[illegible]

In Service of Gen Unit:
Discount Rate :
Burnout/Cost Ratio (Col(9) / Col(10))

	2019	%
Inflation	3.89	

RATED IMPACT TEST
PROGRAMMED SELECTED KEY REQ
PROGRAM CODE: Business On Call

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUBJECT COSTS \$(000)	UTILITY PROGRAM COSTS \$(000)	INCENTIVES \$(000)	REVENUE LOSSES \$(000)	OTHER COSTS \$(000)	TOTAL COSTS \$(000)	AVOIDED OR 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	0	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0	0	0	0	0	0
2035	0	0	0	0	0	0	0	0	0	0	0	0	0
2036	0	0	0	0	0	0	0	0	0	0	0	0	0
2037	0	0	0	0	0	0	0	0	0	0	0	0	0
2038	0	0	0	0	0	0	0	0	0	0	0	0	0
2039	0	0	0	0	0	0	0	0	0	0	0	0	0
2040	0	0	0	0	0	0	0	0	0	0	0	0	0
2041	0	0	0	0	0	0	0	0	0	0	0	0	0
2042	0	0	0	0	0	0	0	0	0	0	0	0	0
2043	0	0	0	0	0	0	0	0	0	0	0	0	0
2044	0	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	0
2046	0	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	0
2048	0	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	0
2050	0	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	0
2052	0	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	0
2054	0	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	0
2056	0	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	0
2058	0	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	0
2060	0	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	0
2062	0	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	0
2064	0	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	0
2066	0	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	0
2068	0	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	0
2070	0	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	0
2072	0	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	0
2074	0	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	0
2076	0	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	0
2078	0	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	0
2080	0	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	0
2082	0	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	0
2084	0	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	0
2086	0	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	0
2088	0	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	0
2090	0	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	0
2092	0	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	0
2094	0	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	0
2096	0	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	0
2098	0	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	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0
2101	0	0	0	0	0	0	0	0	0	0	0	0	0
2102	0	0	0	0	0	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0	0	0	0	0	0
2113	0	0	0	0	0	0	0	0	0	0	0	0	0
2114	0	0	0	0	0	0	0	0	0	0	0	0	0
2115	0	0	0	0	0	0	0	0	0	0	0	0	0
2116	0	0	0	0	0	0	0	0	0	0	0	0	0
2117	0	0	0	0	0	0	0	0	0	0	0	0	0
2118	0	0	0	0	0	0	0	0	0	0	0	0	0
2119	0	0	0	0	0	0	0	0	0	0	0	0	0
2120	0	0	0	0	0	0	0	0	0	0	0	0	0
2121	0	0	0	0	0	0	0	0	0	0	0	0	0
2122	0	0	0	0	0	0	0	0	0	0	0	0	0
2123	0	0	0	0	0	0	0	0	0	0	0	0	0
2124	0	0	0	0	0	0	0	0	0	0	0	0	0
2125	0	0	0	0	0	0	0	0	0	0	0	0	0
2126	0	0	0	0	0	0	0	0	0	0	0	0	0
2127	0	0	0	0	0	0	0	0	0	0	0	0	0
2128	0	0	0	0	0	0	0	0	0	0	0	0	0
2129	0	0	0	0	0	0	0	0	0	0	0	0	0
2130	0	0	0	0	0	0	0	0	0	0	0	0	0
2131	0	0	0	0	0	0	0	0	0	0	0	0	0
2132	0	0	0	0	0	0	0	0	0	0	0	0	0
2133	0	0	0	0	0	0	0	0	0	0	0	0	0
2134	0	0	0	0	0	0	0	0	0	0	0	0	0
2135	0	0	0	0	0	0	0	0	0	0	0	0	0
2136	0	0	0	0	0	0	0	0	0	0	0	0	0
2137	0	0	0	0	0								

COMMERCIAL / INDUSTRIAL DEMAND REDUCTION

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

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER KW REDUCTION AT METER	1.00 KW
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.34 KW
(3) KW LINE LOSS PERCENTAGE	8.66 %
(4) GENERATOR KVA REDUCTION PER CUSTOMER	8.59 KVA ****
(5) KVA LINE LOSS PERCENTAGE	6.90 %
(6) GROUP LINE LOSS MULTIPLIER	1.00
(7) CUSTOMER KVA INCREASE AT METER	0.40 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	*** \$/CUST
(2) UTILITY RECURRING COST PER CUSTOMER	*** \$/CUST
(3) UTILITY COST ESCALATION RATE	*** %**
(4) CUSTOMER EQUIPMENT COST	*** \$/CUST
(5) CUSTOMER EQUIPMENT ESCALATION RATE	*** %**
(6) CUSTOMER O & M COST	*** \$/CUST/YR
(7) CUSTOMER O & M COST ESCALATION RATE	*** %**
(8) INCREASED SUPPLY COSTS	*** \$/CUST/YR
(9) SUPPLY COSTS ESCALATION RATES	*** %**
(10) UTILITY DISCOUNT RATE	8.89 %
(11) UTILITY AFUDC RATE	8.48 %
(12) UTILITY NON RECURRING REBATE/INCENTIVE	*** \$/CUST
(13) UTILITY RECURRING REBATE/INCENTIVE	*** \$/CUST
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	*** %

IV. AVOIDED GENERATOR AND T&D COSTS

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

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

CALCULATION OF GEN K-FACTOR
PROGRAM METHOD SELECTED REV REQ
PROGRAM NAME: Commercial/Industrial Demand Reduction

(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
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	156,958	4,876	0	10,954	7,226	2,645	934	6,123	12	32,769	32,769	153,074
2020	150,823	4,685	0	10,526	4,965	2,535	957	6,123	2,004	31,795	29,200	156,901
2021	142,697	4,433	0	9,958	4,920	2,425	981	6,123	1,693	30,533	25,752	160,823
2022	134,881	4,190	0	9,413	4,863	2,314	1,006	6,123	1,407	29,316	22,708	164,844
2023	127,351	3,956	0	8,888	4,801	2,204	1,031	6,123	1,139	28,142	20,019	168,965
2024	120,089	3,730	0	8,381	4,729	2,094	1,056	6,123	893	27,007	17,644	173,189
2025	113,073	3,513	0	7,891	4,649	1,984	1,083	6,123	665	25,908	15,345	177,519
2026	106,285	3,302	0	7,417	4,562	1,874	1,110	6,123	455	24,843	13,689	181,957
2027	99,707	3,097	0	6,958	4,308	1,763	1,138	6,123	421	23,808	12,048	186,505
2028	93,163	2,894	0	6,502	4,022	1,653	1,166	6,123	420	22,780	10,587	191,168
2029	86,620	2,691	0	6,045	3,735	1,543	1,195	6,123	421	21,752	9,284	195,947
2030	80,076	2,488	0	5,588	3,448	1,433	1,225	6,123	420	20,725	8,124	200,846
2031	73,533	2,284	0	5,132	3,161	1,323	1,256	6,123	421	19,699	7,091	205,867
2032	66,990	2,081	0	4,675	2,875	1,212	1,287	6,123	420	18,673	6,174	211,014
2033	60,447	1,878	0	4,218	2,587	1,102	1,319	6,123	421	17,649	5,359	216,289
2034	53,903	1,674	0	3,762	2,301	992	1,352	6,123	420	16,625	4,636	221,696
2035	47,360	1,471	0	3,305	2,014	882	1,386	6,123	421	15,602	3,995	227,239
2036	40,816	1,268	0	2,848	1,728	771	1,421	6,123	420	14,579	3,429	232,920
2037	34,273	1,065	0	2,392	1,440	661	1,456	6,123	421	13,558	2,928	238,743
2038	27,730	861	0	1,935	1,154	551	1,493	6,123	420	12,538	2,487	244,711
2039	21,187	658	0	1,479	2,148	441	1,530	6,123	(860)	11,518	2,098	250,829
2040	15,924	495	0	1,111	3,198	331	1,568	6,123	(2,141)	10,685	1,788	257,100
2041	11,943	371	0	833	3,024	220	1,608	6,123	(2,141)	10,038	1,542	263,527
2042	7,961	247	0	556	2,849	110	1,648	6,123	(2,141)	9,392	1,325	270,116
2043	3,980	124	0	278	2,675	(0)	1,689	6,123	(2,141)	8,747	1,134	276,868

IN SERVICE COST	\$(000)	153,074
IN SERVICE YEAR		2019
BOOK LIFE (YRS)		25
EFFECT. 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: Commercial/Industrial Demand Reducti

(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%	5,582	5,582	6,123	6,123	5,551	5,551	12	14,288	0	0	0	12	(3,873)
2020	7.22%	10,746	16,328	6,123	12,246	5,551	11,103	2,004	14,288	0	0	0	2,004	(1,869)
2021	6.68%	9,939	26,267	6,123	18,369	5,551	16,654	1,693	14,288	0	0	0	1,693	(176)
2022	6.18%	9,199	35,466	6,123	24,492	5,551	22,206	1,407	14,288	0	0	0	1,407	1,231
2023	5.71%	8,504	43,971	6,123	30,615	5,551	27,757	1,139	14,288	0	0	0	1,139	2,370
2024	5.29%	7,867	51,838	6,123	36,738	5,551	33,309	893	14,288	0	0	0	893	3,263
2025	4.89%	7,276	59,114	6,123	42,861	5,551	38,860	665	14,288	0	0	0	665	3,928
2026	4.52%	6,731	65,845	6,123	48,984	5,551	44,411	455	14,288	0	0	0	455	4,383
2027	4.46%	6,642	72,487	6,123	55,107	5,551	49,963	421	14,288	0	0	0	421	4,804
2028	4.46%	6,640	79,127	6,123	61,229	5,551	55,514	420	14,288	0	0	0	420	5,224
2029	4.46%	6,642	85,769	6,123	67,352	5,551	61,066	421	14,288	0	0	0	421	5,645
2030	4.46%	6,640	92,410	6,123	73,475	5,551	66,617	420	14,288	0	0	0	420	6,065
2031	4.46%	6,642	99,052	6,123	79,598	5,551	72,169	421	14,288	0	0	0	421	6,486
2032	4.46%	6,640	105,692	6,123	85,721	5,551	77,720	420	14,288	0	0	0	420	6,906
2033	4.46%	6,642	112,334	6,123	91,844	5,551	83,272	421	14,288	0	0	0	421	7,326
2034	4.46%	6,640	118,974	6,123	97,967	5,551	88,823	420	14,288	0	0	0	420	7,746
2035	4.46%	6,642	125,616	6,123	104,090	5,551	94,374	421	14,288	0	0	0	421	8,167
2036	4.46%	6,640	132,257	6,123	110,213	5,551	99,926	420	14,288	0	0	0	420	8,587
2037	4.46%	6,642	138,899	6,123	116,336	5,551	105,477	421	14,288	0	0	0	421	9,008
2038	4.46%	6,640	145,539	6,123	122,459	5,551	111,029	420	14,288	0	0	0	420	9,428
2039	2.23%	3,321	148,860	6,123	128,582	5,551	116,580	(860)	14,288	0	0	0	(860)	8,568
2040	0.00%	0	148,860	6,123	134,705	5,551	122,132	(2,141)	14,288	0	0	0	(2,141)	6,426
2041	0.00%	0	148,860	6,123	140,828	5,551	127,683	(2,141)	14,288	0	0	0	(2,141)	4,285
2042	0.00%	0	148,860	6,123	146,951	5,551	133,234	(2,141)	14,288	0	0	0	(2,141)	2,143
2043	0.00%	0	148,860	6,123	153,074	5,551	138,786	(2,141)	14,288	0	0	0	(2,141)	2

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(3,884)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	14,288
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

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

(1)	(2)	(3)	(4)	(5) END OF YEAR NET PLANT IN SERVICE \$(000)	(5a)* ACCUMULATED DEPRECIATION \$(000)	(5b)* ACCUMULATED DEF TAXES \$(000)	(6) BEGINNING YEAR RATE BASE \$(000)	(7) ENDING OF YEAR RATE BASE \$(000)	(8) MID-YEAR RATE BASE \$(000)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)						
2019	3.75%	5,582	12	146,951	6,123	(3,873)	156,951	150,823	153,891
2020	7.22%	10,746	2,004	140,828	12,246	(1,869)	150,823	142,697	146,760
2021	6.68%	9,939	1,693	134,705	18,369	(176)	142,697	134,831	138,789
2022	6.18%	9,199	1,407	128,582	24,492	1,231	134,831	127,351	131,216
2023	5.71%	8,504	1,139	122,459	30,615	2,370	127,351	120,089	123,720
2024	5.29%	7,867	893	116,336	36,738	3,263	120,089	113,073	116,581
2025	4.89%	7,276	665	110,213	42,861	3,928	113,073	106,285	109,679
2026	4.52%	6,731	455	104,090	48,984	4,383	106,285	99,707	102,996
2027	4.46%	6,642	421	97,967	55,107	4,804	99,707	93,163	96,435
2028	4.46%	6,640	420	91,844	61,229	5,224	93,163	86,620	89,892
2029	4.46%	6,642	421	85,721	67,352	5,645	86,620	80,076	83,348
2030	4.46%	6,640	420	79,598	73,475	6,065	80,076	73,533	76,805
2031	4.46%	6,642	421	73,475	79,598	6,486	73,533	66,990	70,262
2032	4.46%	6,640	420	67,352	85,721	6,906	66,990	60,447	63,718
2033	4.46%	6,642	421	61,229	91,844	7,326	60,447	53,903	57,175
2034	4.46%	6,640	420	55,107	97,967	7,746	53,903	47,360	50,632
2035	4.46%	6,642	421	48,984	104,090	8,167	47,360	40,816	44,088
2036	4.46%	6,640	420	42,861	110,213	8,587	40,816	34,273	37,545
2037	4.46%	6,642	421	36,738	116,336	9,008	34,273	27,730	31,002
2038	4.46%	6,640	420	30,615	122,459	9,428	27,730	21,187	24,458
2039	2.23%	3,321	(860)	24,492	128,582	8,568	21,187	15,924	18,555
2040	0.00%	0	(2,141)	18,369	134,705	6,426	15,924	11,943	13,933
2041	0.00%	0	(2,141)	12,246	140,828	4,285	11,943	7,961	9,952
2042	0.00%	0	(2,141)	6,123	146,951	2,143	7,961	3,980	5,971
2043	0.00%	0	(2,141)	(0)	153,074	2	3,980	-2	1,989

* Column not specified in workbook

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

		100.00%		907.77									
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
NO. YEARS BEFORE IN-SERVICE	CUMULATIVE SPENDING WITH AFUDC (\$/kW)	DEBT AFUDC (\$/kW)	CUMULATIVE DEBT AFUDC (\$/kW)	YEARLY TOTAL AFUDC (\$/kW)	CUMULATIVE TOTAL AFUDC (\$/kW)	CONSTRUCTION PERIOD INTEREST (\$/kW)	CUMULATIVE CPI (\$/kW)	DEFERRED TAXES (\$/kW)	CUMULATIVE DEFERRED TAXES (\$/kW)	INCREMENTAL YEAR-END BOOK VALUE (\$/kW)	CUMULATIVE YEAR-END BOOK VALUE (\$/kW)	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
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
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
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
2013	-6	0.62	0.02	0.02	0.05	0.04	0.04	(0.01)	(0.01)	1.29	1.29		
2014	-5	9.29	0.29	0.30	0.79	0.65	0.70	(0.14)	(0.15)	16.78	18.07		
2015	-4	37.87	1.18	1.49	3.22	4.06	3.35	(0.57)	(0.72)	42.83	60.90		
2016	-3	226.84	7.07	8.56	19.29	23.36	19.25	(3.41)	(4.13)	351.16	412.06		
2017	-2	622.20	19.46	28.01	53.10	76.45	62.72	(9.26)	(13.39)	473.37	885.43		
2018	-1	934.83	29.46	57.47	80.39	156.84	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		BOOK BASIS		BOOK BASIS FOR DEF TAX		TAX BASIS	
PLANT COSTS		725,389,805.5		130,523		130,523		130,523	
AFUDC RATE		8.48%		14,288		8,263			
				8,263		18,333			
				TOTAL		153,074		148,856	

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

(1)	(2)	(3)	(4)	(5)	(6)*	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/kWh)	AVOIDED MARGINAL FUEL COST (\$/kWh)	INCREASED MARGINAL FUEL COST (\$/kWh)	REPLACEMENT FUEL COST (\$/kWh)	PROGRAM KW EFFECTIVENESS FACTOR	PROGRAM KWH EFFECTIVENESS FACTOR
2009	0	0	6.79	9.17	6.79	0.00	1.00	1.00
2010	13,073	13,073	6.41	16.51	6.41	0.00	1.00	1.00
2011	26,146	26,146	6.35	10.38	6.35	0.00	1.00	1.00
2012	39,219	39,219	6.43	13.34	6.43	0.00	1.00	1.00
2013	52,292	52,292	7.06	9.99	7.06	0.00	1.00	1.00
2014	64,636	64,636	7.53	10.61	7.53	0.00	1.00	1.00
2015	76,720	76,720	8.11	13.20	8.11	0.00	1.00	1.00
2016	88,544	88,544	9.00	13.90	9.00	0.00	1.00	1.00
2017	99,199	99,199	9.75	15.09	9.75	0.00	1.00	1.00
2018	107,645	107,645	10.52	15.46	10.52	0.00	1.00	1.00
2019	107,645	107,645	11.50	21.44	11.50	10.41	1.00	1.00
2020	107,645	107,645	12.08	20.17	12.08	10.50	1.00	1.00
2021	107,645	107,645	12.57	21.76	12.57	10.74	1.00	1.00
2022	107,645	107,645	13.06	23.66	13.06	10.81	1.00	1.00
2023	107,645	107,645	13.39	20.91	13.39	10.80	1.00	1.00
2024	107,645	107,645	13.95	22.19	13.95	10.84	1.00	1.00
2025	107,645	107,645	14.40	22.20	14.40	10.96	1.00	1.00
2026	107,645	107,645	14.70	22.41	14.70	11.05	1.00	1.00
2027	107,645	107,645	15.13	23.05	15.13	11.17	1.00	1.00
2028	107,645	107,645	15.60	23.70	15.60	11.36	1.00	1.00
2029	107,645	107,645	16.02	22.95	16.02	11.41	1.00	1.00
2030	107,645	107,645	16.52	23.78	16.52	11.59	1.00	1.00
2031	107,645	107,645	17.08	24.53	17.08	11.80	1.00	1.00
2032	107,645	107,645	17.50	24.55	17.50	11.88	1.00	1.00
2033	107,645	107,645	18.27	25.51	18.27	12.10	1.00	1.00
2034	107,645	107,645	18.73	25.89	18.73	12.14	1.00	1.00
2035	107,645	107,645	19.57	27.04	19.57	12.29	1.00	1.00
2036	107,645	107,645	20.40	28.26	20.40	12.55	1.00	1.00
2037	107,645	107,645	21.11	29.22	21.11	12.70	1.00	1.00
2038	107,645	107,645	22.02	30.23	22.02	13.04	1.00	1.00
2039	107,645	107,645	22.78	31.29	22.78	13.32	1.00	1.00
2040	107,645	107,645	23.59	32.02	23.59	13.44	1.00	1.00
2041	107,645	107,645	24.54	33.28	24.54	13.75	1.00	1.00
2042	107,645	107,645	25.50	34.66	25.50	14.10	1.00	1.00
2043	107,645	107,645	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 COSTS.

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

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

	(2)	(3)	(4)	(5)	(6)
	AVOIDED GEN UNIT EMISSION BENEFIT	REPLACEMENT EMISSION COST	PROGRAM EMISSION BENEFIT	OFF-PEAK EMISSION PAYBACK COST	NET EMISSION BENEFIT
YEAR	\$'(000)	\$'(000)	\$'(000)	\$'(000)	\$'(000)
2009	0	0	0	0	0
2010	0	0	0	0	0
2011	0	0	0	0	0
2012	0	0	1	0	1
2013	0	0	4	0	4
2014	0	0	5	0	5
2015	0	0	7	0	7
2016	0	0	10	0	9
2017	0	0	12	0	12
2018	0	0	14	1	14
2019	5,473	7,156	17	1	(1,667)
2020	8,334	10,794	18	1	(2,442)
2021	9,181	11,903	20	1	(2,703)
2022	10,722	13,868	22	1	(3,125)
2023	11,832	15,294	22	1	(3,441)
2024	13,623	17,567	25	1	(3,920)
2025	15,724	20,216	26	1	(4,467)
2026	17,437	22,285	26	1	(4,823)
2027	19,725	25,173	28	1	(5,421)
2028	21,629	27,557	30	1	(5,899)
2029	24,740	31,403	35	2	(6,629)
2030	27,432	34,796	37	2	(7,329)
2031	29,513	37,792	40	2	(7,940)
2032	32,829	41,529	42	2	(8,659)
2033	38,251	48,399	46	2	(10,064)
2034	42,341	53,483	47	2	(11,098)
2035	45,988	58,118	52	2	(12,079)
2036	50,205	63,433	56	3	(13,174)
2037	54,414	68,730	61	3	(14,258)
2038	58,985	74,492	64	3	(15,446)
2039	63,703	80,553	69	3	(16,785)
2040	68,840	87,037	68	4	(18,132)
2041	74,174	93,768	73	4	(19,525)
2042	74,174	93,768	79	4	(19,520)
2043	74,174	93,768	85	4	(19,514)
	0	0	0	0	0
	0	0	0	0	0
	0	0	0	0	0
	0	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	893,741	1,132,842	1,145	53	(238,068)
NPV	108,210	137,687	181	8	(29,305)

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

#722

2019	
8.89	%
infinite	

Discount Rate	3.89	%
Benefit/Cost Ratio (Col(12) / Col(7)):	3.03	