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May 6, 1997

By Hand Delivery

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

970345 E6


Re: Commercial/Industrial Heating, Ventilating and Air Conditioning Program

Dear Ms. Bayo

Enclosed for filing on behalf of Florida Power & Light Company are the original and fifteen (15) copies of Petition For Modification of Florida Power & Light Company's Commercial/Industrial Heating, Ventilating and Air Conditioning Program

If you or your Staff have any questions regarding this filing, please contact me

Very truly yours,



Charles A. Guyton

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Modification of)	Docket No.
Florida Power & Light Company's)	
Commercial/Industrial Heating,)	Filed: May 6, 1997
Ventilating and Air Conditioning)	
Program)	

PETITION FOR MODIFICATION OF FLORIDA POWER & LIGHT COMPANY'S COMMERCIAL/INDUSTRIAL HEATING, VENTILATING AND AIR CONDITIONING PROGRAM

Florida Power & Light Company ("FPL"), pursuant to Section 366 82(2), Florida Statutes (1995), hereby petitions the Florida Public Service Commission ("Commission") to (1) approve the modifications to FPL's Commercial/Industrial Heating, Ventilating and Air Conditioning Program ("C/I HVAC Program") set forth in this petition and attachments, (2) allow FPL to recover reasonable and prudent expenditures for the modified C/I HVAC Program, and (3) include FPL's modified C/I HVAC Program as part of FPL's approved DSM Plan. The grounds for this petition are:

1. FPL's address is 9250 West Flagler Street, Miami Florida, 33174. Correspondence, notices, orders and other documents concerning this petition should be sent to

Matthew M. Childs, P.A.
Charles A. Guyton
Steel Hector & Davis LLP
Suite 601, 215 S. Monroe St
Tallahassee, Florida 32301

William G. Walker
Vice President, Regulatory Affairs
Florida Power & Light Company
9250 West Flagler Street
Miami, Florida 33174

2. FPL is an investor-owned electric utility regulated by the Commission pursuant to Chapter 366, Florida Statutes. FPL is subject to the Florida Energy Efficiency Conservation Act ("FEECA"), Section 366.80-85, 413.519, Florida Statutes (1995), and its Energy Conservation Cost Recovery ("ECCR") clause is subject to the Commission's jurisdiction. FPL has Commission approved conservation goals. See, Order No. PSC-94-1313-FOF-EG issued on October 25, 1994. The Commission has previously approved a FPL DSM Plan to meet the goals approved for FPL. See, Order Nos. 95-1343-S-EG, 95-1343A-S-EG. As part of that DSM Plan the Commission approved FPL's C/I HVAC Program. FPL has a substantial interest in whether this program is modified as requested by FPL in this petition, approved as part of FPL's DSM Plan, and authorized for cost recovery.

3. The objective of the C/I HVAC Program is to reduce the current and future growth of coincident peak demand and energy consumption of commercial and industrial customers by increasing the use of high efficiency heating, ventilating, and air conditioning (HVAC) systems. Under this program FPL provides incentives to commercial and industrial customers (or their designees) who install eligible high efficiency HVAC equipment. The C/I HVAC Program, as FPL proposes to modify it, is more fully described in Appendix A attached to this petition.

4. The C/I HVAC Program, as modified, will help advance the policy objectives set forth in Rule 25-17.001, Florida Administrative Code and the FEECA. As shown in Appendix A, the modified C/I HVAC Program will reduce cumulative summer peak demand by 52.5 MW and

winter peak demand by 3.5 mW for the period 1998 through 2000. In addition, it will result in a reduction in annual energy consumption of 122.1 gWh by the year 2000.

5. The C/I HVAC Program, as modified, is projected to be cost-effective. Appendix B, attached hereto, shows the results of the cost-effectiveness analyses of the program using the Commission's methodology prescribed in Rule 25-17.008, Florida Administrative Code and supply option cost and performance assumptions from FPL's most recent resource planning study. FPL seeks to modify the C/I HVAC Program to make it cost-effective under current planning assumptions. To make the C/I HVAC Program cost-effective, FPL has (a) eliminated the payment of incentives for cold air distribution, (b) discontinued incentives for ventilation exhaust hoods, and (c) restructured incentives for thermal energy storage and duct sealing. Each of these modifications has the effect of helping the C/I HVAC Program to achieve a benefit/cost ratio greater than 1.0 under the RIM and Participants tests.

6. The C/I HVAC Program, as modified, is directly monitorable and will yield measurable results. FPL's monitoring plan is described in Section VI of Appendix A. This is the same monitoring plan as is currently being followed by FPL, and it has yielded measurable results.

7. FPL is not aware of any disputed issues of material fact.

8. FPL respectfully requests that this petition be processed with the Commission's Proposed Agency Action procedure, which is recognized in Section 120.80(13)(b), Florida Statutes.

WHEREFORE, FPL respectfully petitions the Commission to (1) approve the Commercial/Industrial HVAC Program, as modified, (2) allow FPL to recover reasonable and prudent expenditures for the Commercial/Industrial HVAC Program, as modified, through FPL's ECCR clause, and (3) approve the Commercial/Industrial Program, as modified, as part of FPL's approved DSM Plan.

Respectfully submitted,

STEEL HECTOR & DAVIS LLP
Suite 601, 215 S. Monroe St
Tallahassee, Florida 32301-1804

Attorneys for Florida Power
& Light Company

By: Charles A. Guyton
Charles A. Guyton

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Modification of)
Florida Power & Light Company's)
Commercial/Industrial Heating,)
Ventilating and Air Conditioning)
Program)

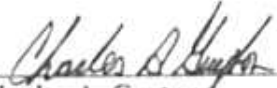
Docket No.
Filed: May 6, 1997

CERTIFICATE OF SERVICE

I hereby certify that on this the 6th day of May, 1997, a copy of the foregoing Petition for Modification of Florida Power & Light Company's Commercial/Industrial Heating, Ventilating and Air Conditioning Program was served by hand delivery* or First Class United States Mail on the following

Robert V. Elias, Esquire*
Chief of Electric & Gas
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Jack Shreve, Esquire
Public Counsel
Office of Public Counsel
Room 812
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Tallahassee, Florida 32399-1400

By 
Charles A. Guyton

APPENDIX A

COMMERCIAL/INDUSTRIAL HEATING, VENTILATING, AND AIR CONDITIONING PROGRAM

I. Program Description

FPL's Commercial/Industrial Heating, Ventilating, and Air Conditioning (C/I HVAC) Program is designed to reduce the current and future growth of coincident peak demand and energy consumption of commercial and industrial customers by increasing the use of high efficiency heating, ventilating, and air conditioning (HVAC) systems.

FPL will provide an incentive to customers (or their designees), who install qualifying HVAC equipment. The customers will also receive any operating savings from the installation of the equipment. FPL plans to make commercial and industrial customers aware of this program through dealers, distributors, contractors, other trade allies, appropriate advertising and promotion activities, as well as direct contact with potential participants by FPL personnel.

II. Summary of Program Changes

Based on an analysis of HVAC technologies the following changes are being made to maintain the cost-effectiveness of the program:

- 1) eliminate the payment of additional incentives for cold air distribution,
- 2) discontinue ventilation exhaust hoods as eligible equipment for program incentives,
- 3) change the existing incentive for thermal energy storage from not to exceed \$333 per summer kw peak reduction to not to exceed \$356 per summer kw peak reduction, and

- 4) change the existing incentive for duct seal of DX HVAC and heat pumps from not to exceed \$112 per summer kw peak reduction to not to exceed \$139 per summer kw peak reduction.

III. Description of Program Administration

All commercial and industrial customers are eligible for this program. The program applies to customers who are retrofitting / replacing existing or installing new HVAC equipment. They must also comply with the participation rules and regulations specified in the FPL Program Standards.

To qualify, the commercial/industrial customer must submit equipment specifications to FPL. These specifications must meet or exceed FPL's Program Standards. FPL's Program Standards shall consist of both equipment and installation requirements. The Standards will be subject to periodic review and change based on factors such as, but not limited to, equipment efficiencies, energy code, program results, incentive amounts, and operational considerations. If changed, they will be submitted to the Commission Staff for review as a change in the Program Standards.

The chiller and DX split/package electric equipment incentives are based on efficiency improvements above the Florida Energy Efficiency Code. New high efficiency chillers may include adjustable speed drives. Duct sealing provides the opportunity to reduce kw by improving the HVAC system for eligible customers. All thermal energy storage systems must use electricity as the primary energy source. The systems must be designed and operated to reduce FPL's summer and winter system peaks. When installing a thermal energy storage system, the cooling load to be shifted must regularly

operate or be designed to operate during FPL's on-peak hours as defined by the current or any subsequent applicable time-of-use rate tariff approved by the Commission.

The incentive for heating and air conditioning equipment will not exceed \$77 per summer peak kw reduction, except for thermal energy storage. The incentive for thermal energy storage will not exceed \$356 per summer peak kw reduction. Incentives for thermal energy storage will include both rebates paid for installations and funding for other inducements such as design expenses, maintenance agreements, and system commissioning. In addition, thermal energy storage feasibility study funding, of an amount not to exceed \$2,500 per major facility, will be available. The incentive for duct sealing will not exceed \$139. These incentives are based on cost-effectiveness analyses, an average participant's payback to be not less than 2 years, and the assumption the load being reduced is associated with equipment that operates between the hours of 3 p.m. and 6 p.m., weekdays, for the months of April through October.

IV. Projected Participation and Savings

The projected demand savings for the period 1998 through 2000 are 52.5 mW of summer peak demand reduction and 3.5 mW of winter peak demand reduction. In addition, the annual reduction in energy consumption by the year 2000 will be 122.1 gWh. The energy consumption and demand reduction projections are based on engineering assumptions and calculations.

V. Cost-Effectiveness Analysis

FPL has used the Commission approved cost-effectiveness methodologies required by Rule 25-17.008 to determine the cost-effectiveness of this program. These cost-effectiveness analyses can be found in Appendix B. These analyses show the following benefit-cost ratios for the Commercial/Industrial Heating, Ventilating, and Air Conditioning Program: 2.09 Participants, 1.05 RIM, 1.76 TRC.

VI. Program Monitoring and Evaluation

The impact of the program on demand and energy consumption will be evaluated over time by FPL. Baseline data will be developed from non-participants, and participants' data will be compared against non-participants' data to establish usage patterns and demand impacts and to validate engineering assumptions.

FPL will utilize any or all three major impact evaluation analysis methods in a manner that most cost-effectively meets the overall impact evaluation objectives -- engineering analysis, statistical billing analysis, and on-site metering research. As these evaluations proceed, the components to be analyzed and the periods for which data is available will increase, resulting in continual enhancements in the scope and accuracy of reported evaluation results.

Appendix B

Cost-effectiveness Run

INPUT DATA -- PART 1 CONTINUED
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Commercial/Industrial HVAC

I PROGRAM DEMAND SAVINGS & LINE LOSSES

- (1) CUSTOMER KW REDUCTION AT METER
- (2) GENERATOR KW REDUCTION PER CUSTOMER
- (3) KW LINE LOSS PERCENTAGE
- (4) GENERATOR KW REDUCTION PER CUSTOMER
- (5) KW LINE LOSS PERCENTAGE
- (6) GROUP LINE LOSS MULTIPLIER
- (7) CUSTOMER KW INCREASE AT METER

0.86 KW
1.10 KW
8.32 %
2.498.5 KW
8.75 %
1.0000
0.0

II ECONOMIC LIFE & K FACTORS

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

25 YEARS
30 YEARS
35 YEARS
1.81229
1.44767

III UTILITY & CUSTOMER COSTS

- (1) UTILITY NON RECURRING COST PER CUSTOMER
- (2) UTILITY RECURRING COST PER CUSTOMER
- (3) UTILITY COST ESCALATION RATE
- (4) CUSTOMER EQUIPMENT COST
- (5) CUSTOMER EQUIPMENT ESCALATION RATE
- (6) CUSTOMER O & M COST
- (7) CUSTOMER O & M COST ESCALATION RATE
- (8) INCREASED SUPPLY COSTS
- (9) SUPPLY COSTS ESCALATION RATES
- (10) UTILITY DISCOUNT RATE
- (11) UTILITY AFDUOC RATE
- (12) UTILITY NON RECURRING REBATE/PERCENTIVE
- (13) UTILITY RECURRING REBATE/PERCENTIVE
- (14) UTILITY REBATE/PERCENTIVE ESCALATION RATE

-- \$/CUST
-- \$/CUST
-- %
-- \$/CUST
-- %
-- \$/CUST/YR
-- %
-- \$/CUST/YR
-- %
8.22 %
10.70 %
-- \$/CUST
-- \$/CUST
-- %

IV AVOIDED GENERATOR AND T&D COSTS

- (1) BASE YEAR
- (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT
- (3) IN-SERVICE YEAR FOR AVOIDED T&D
- (4) BASE YEAR AVOIDED GENERATING COST
- (5) BASE YEAR AVOIDED TRANSMISSION COST
- (6) BASE YEAR DISTRIBUTION COST
- (7) GEN. TRAN & DIST COST ESCALATION RATE
- (8) GENERATOR FIXED O & M COST
- (9) GENERATOR FIXED O&M ESCALATION RATE
- (10) TRANSMISSION FIXED O & M COST
- (11) DISTRIBUTION FIXED O & M COST
- (12) T&D FIXED O&M ESCALATION RATE
- (13) AVOIDED GEN UNIT VARIABLE O & M COSTS
- (14) GENERATOR VARIABLE O&M COST ESCALATION RATE
- (15) GENERATOR CAPACITY FACTOR
- (16) AVOIDED GENERATING UNIT FUEL COST
- (17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE

1998
2001
1998-2001
285 \$/KW
70 \$/KW
50 \$/KW
2.55 %
8 \$/KWYR
3.24 %
2.73 \$/KW
13.01 \$/KW
3.34 %
0.020 CENTS\$/KW
2.47 %
30% - (In-service year)
1.88 CENTS PER KWHR - (In-service year)
5.02 %

V NON-FUEL ENERGY AND DEMAND CHARGES

- (1) NON FUEL COST IN CUSTOMER BILL
- (2) NON-FUEL COST ESCALATION RATE
- (3) DEMAND CHARGE IN CUSTOMER BILL
- (4) DEMAND CHARGE ESCALATION RATE

-- CENTS\$/KW
-- %
-- \$/KWMO
-- %

• 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 Commercial/Industrial HVAC

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)
1996	0	0	0	0	0	0	0	0	0	
1997	0	0	0	0	0	0	0	0	0	
1998	1,760	2,109	0	4,309	569	11,757	0	0	11,757	
1999	1,020	2,569	0	4,409	1,727	12,021	0	0	12,021	
2000	1,860	2,568	0	4,448	3,126	12,285	0	0	12,285	
2001	0	0	0	0	3,781	0	0	0	0	
2002	0	0	0	0	3,823	0	0	0	0	
2003	0	0	0	0	3,908	0	0	0	0	
2004	0	0	0	0	3,996	0	0	0	0	
2005	0	0	0	0	4,036	0	0	0	0	
2006	0	0	0	0	4,171	0	0	0	0	
2007	0	0	0	0	4,235	0	0	0	0	
2008	0	0	0	0	4,305	0	0	0	0	
2009	0	0	0	0	4,450	0	0	0	0	
2010	0	0	0	0	4,652	0	0	0	0	
2011	0	0	0	0	4,811	0	0	0	0	
2012	0	0	0	0	4,949	0	0	0	0	
2013	536	280	0	816	4,968	3,823	0	0	3,823	
2014	552	280	0	832	5,170	3,837	0	0	3,837	
2015	568	279	0	847	5,227	4,090	0	0	4,090	
2016	0	0	0	0	5,348	0	0	0	0	
2017	0	0	0	0	5,466	0	0	0	0	
2018	2,461	2,309	0	4,770	5,569	15,823	0	0	15,823	
2019	2,526	2,308	0	4,834	5,716	16,342	0	0	16,342	
2020	2,592	2,308	0	4,901	5,847	16,775	0	0	16,775	
NOM	14,695	15,030	0	30,228	100,260	78,438	0	0	96,913	
NPV	5,932	7,059	0	12,991	32,039	36,578	0	0	36,578	

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

CALCULATION OF GEN K FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Commercial/Industrial HVAC

YEAR	(2) MID-YEAR RATE BASE (\$000)	(3) DEBT (\$000)	(4) PREFERRED STOCK (\$000)	(5) COMMON EQUITY (\$000)	(6) INCOME TAXES (\$000)	(7) OTHER TAXES & INSURANCE (\$000)	(8) DEPRECIATION (\$000)	(9) DEFERRED TAXES (\$000)	(10) TOTAL FIXED CHARGES (\$000)	(11) PRESENT WORTH FIXED CHARGES (\$000)	(12) CUMULATIVE FIXED CHARGES (\$000)
2001	18,679	753	0	1,353	832	276	658	41	3,913	3,913	3,913
2002	18,881	721	0	1,298	537	276	658	300	3,768	3,468	7,281
2003	17,913	685	0	1,232	537	276	658	258	3,648	3,058	10,439
2004	17,014	651	0	1,170	535	276	658	222	3,513	2,696	13,135
2005	16,151	618	0	1,110	533	276	658	187	3,383	2,377	15,511
2006	15,321	588	0	1,053	529	276	658	155	3,258	2,096	17,608
2007	14,522	555	0	998	524	276	658	126	3,138	1,848	19,456
2008	13,752	528	0	945	518	276	658	98	3,023	1,630	21,086
2009	12,998	497	0	894	490	276	658	74	2,910	1,436	22,522
2010	12,246	468	0	842	458	276	658	54	2,797	1,264	23,786
2011	11,494	440	0	790	425	276	658	34	2,684	1,111	24,897
2012	10,742	411	0	738	393	276	658	14	2,571	974	25,871
2013	9,990	382	0	687	360	276	658	14	2,458	853	26,723
2014	9,238	353	0	635	328	276	658	14	2,345	745	27,468
2015	8,486	325	0	583	296	276	658	14	2,232	649	28,117
2016	7,734	296	0	532	263	276	658	14	2,119	564	28,681
2017	6,982	267	0	480	231	276	658	14	2,006	489	29,170
2018	6,230	238	0	428	198	276	658	14	1,893	422	29,592
2019	5,478	210	0	377	166	276	658	14	1,780	364	29,956
2020	4,726	181	0	325	133	276	658	14	1,667	312	30,268
2021	4,058	155	0	279	101	276	658	(73)	1,567	268	30,538
2022	3,596	138	0	244	71	276	658	(240)	1,482	234	30,770
2023	3,138	120	0	216	41	276	658	(240)	1,429	205	30,975
2024	2,719	104	0	187	16	276	658	(240)	1,388	179	31,155
2025	2,301	88	0	158	0	276	658	(240)	1,353	157	31,311
2026	1,882	72	0	129	0	276	658	(240)	1,320	137	31,448
2027	1,464	56	0	101	0	276	658	(240)	1,288	119	31,567
2028	1,046	40	0	72	0	276	658	(240)	1,258	103	31,670
2029	627	24	0	43	0	276	658	(240)	1,230	89	31,758
2030	209	8	0	14	0	276	658	(240)	969	77	31,835

IN SERVICE COST (\$000)

IN SERVICE YEAR	2001
BOOK LIFE (YRS)	30
EFFECTIVE TAX RATE	38.57%
DISCOUNT RATE	9.22%
OTAX & BMS RATE	1.40%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST
DEBT	46%	8.50%
PG	0%	0.00%
C/S	55%	12.50%

K-FACTOR = CPMFC / IN-SVC COST *

1.61229

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REG
PROGRAM NAME Commercial/Industrial HVAC

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX SCHEDULE	DEPRECIATION	ACCUMULATED DEPRECIATION	BOOK DEPR	ACCUMULATED DEPRECIATION	BOOK DEPR	ACCUMULATED DEPRECIATION	DEFERRED TAX DUE TO DEPRECIATION	TOTAL EQUITY AFUDC	BOOK DEPR RATE	(10/11) TAX RATE	SALVAGE TAX RATE	ANNUAL DEFERRED TAX	ACCUMULATED DEFERRED TAX
		(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	ANNUAL % LIFE	(\$000)	(\$000)	(\$000)	(\$000)
2001	3.75%	727	727	658	658	622	622	41	1,098	0	0	0	41	0
2002	7.27%	1,399	2,126	1,318	1,916	622	1,243	300	1,098	0	0	0	300	57
2003	6.08%	1,294	3,420	1,875	3,833	622	1,815	239	1,098	0	0	0	239	317
2004	6.19%	1,198	5,618	2,658	6,491	622	2,487	222	1,098	0	0	0	222	539
2005	5.71%	1,107	6,725	3,291	9,782	622	3,108	187	1,098	0	0	0	187	726
2006	5.29%	1,024	7,750	3,949	13,731	622	3,730	155	1,098	0	0	0	155	882
2007	4.89%	947	8,697	4,607	18,338	622	4,352	126	1,098	0	0	0	126	1,008
2008	4.52%	877	9,574	5,265	23,603	622	4,973	98	1,098	0	0	0	98	1,106
2009	4.18%	805	10,439	5,924	29,527	622	5,595	64	1,098	0	0	0	64	1,200
2010	3.87%	734	11,293	6,582	36,109	622	6,216	34	1,098	0	0	0	34	1,293
2011	3.58%	665	12,128	7,240	43,449	622	6,839	34	1,098	0	0	0	34	1,387
2012	3.31%	600	12,943	7,889	51,538	622	7,460	34	1,098	0	0	0	34	1,481
2013	3.06%	540	13,738	8,528	60,366	622	8,081	34	1,098	0	0	0	34	1,575
2014	2.83%	485	14,503	9,157	69,809	622	8,703	34	1,098	0	0	0	34	1,669
2015	2.62%	435	15,238	9,776	80,085	622	9,325	34	1,098	0	0	0	34	1,762
2016	2.43%	390	15,943	10,385	91,470	622	9,946	34	1,098	0	0	0	34	1,856
2017	2.25%	350	16,618	10,974	103,444	622	10,568	34	1,098	0	0	0	34	1,950
2018	2.09%	315	17,263	11,543	116,087	622	11,189	34	1,098	0	0	0	34	2,044
2019	1.94%	285	17,878	12,092	129,489	622	11,811	34	1,098	0	0	0	34	2,138
2020	1.80%	259	18,463	12,621	143,610	622	12,433	34	1,098	0	0	0	34	2,231
2021	1.67%	237	19,016	13,130	158,440	622	13,055	(73)	1,098	0	0	0	(73)	2,319
2022	1.55%	219	19,535	13,619	173,879	622	13,678	(40)	1,098	0	0	0	(40)	2,402
2023	1.44%	204	20,020	14,088	189,967	622	14,298	(40)	1,098	0	0	0	(40)	2,479
2024	1.34%	191	20,481	14,537	206,704	622	14,919	(40)	1,098	0	0	0	(40)	2,551
2025	1.25%	180	20,918	14,966	224,170	622	15,541	(40)	1,098	0	0	0	(40)	2,618
2026	1.17%	171	21,331	15,375	242,345	622	16,163	(40)	1,098	0	0	0	(40)	2,680
2027	1.10%	163	21,720	15,764	261,229	622	16,784	(40)	1,098	0	0	0	(40)	2,737
2028	1.04%	156	22,085	16,133	280,914	622	17,406	(40)	1,098	0	0	0	(40)	2,790
2029	0.99%	150	22,426	16,492	301,406	622	18,028	(40)	1,098	0	0	0	(40)	2,839
2030	0.95%	145	22,743	16,841	322,807	622	18,649	(40)	1,098	0	0	0	(40)	2,884

YEAR	SALVAGE / REMOVAL COST
2001	0.00%
2002	0.00%
2003	0.00%
2004	0.00%
2005	0.00%
2006	0.00%
2007	0.00%
2008	0.00%
2009	0.00%
2030	0.00%
TOTAL	3.33%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV. REQ
PROGRAM NAME Commercial/Industrial PVAC

(1)	(2)	(3)	(4)	(5)	(34)*	(52)*	(6)	(7)	(8)
YEAR	TAX SCHEDULE	DEPRECIATION	TAX DEPRECIATION	END OF YEAR NET SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
		\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
2001	3.75%	727	41	18,087	658	(342)	20,028	19,330	18,879
2002	7.27%	1,399	300	18,429	1,316	57	18,330	18,372	18,851
2003	6.89%	1,264	259	17,771	1,975	317	18,372	17,454	17,913
2004	6.18%	1,198	222	17,113	2,633	539	17,454	16,573	17,014
2005	5.71%	1,107	197	16,454	3,291	726	16,573	15,728	16,151
2006	5.23%	1,024	155	15,798	3,949	882	15,728	14,914	15,321
2007	4.89%	947	126	15,138	4,607	1,008	14,914	14,131	14,522
2008	4.52%	877	98	14,460	5,265	1,136	14,131	13,374	13,752
2009	4.46%	865	94	13,822	5,924	1,200	13,374	12,622	12,966
2010	4.46%	865	94	13,164	6,582	1,293	12,622	11,870	12,246
2011	4.46%	865	94	12,505	7,240	1,387	11,870	11,118	11,494
2012	4.46%	865	94	11,847	7,898	1,481	11,118	10,366	10,742
2013	4.46%	865	94	11,189	8,556	1,575	10,366	9,614	9,990
2014	4.46%	865	94	10,531	9,214	1,669	9,614	8,862	9,238
2015	4.46%	865	94	9,873	9,873	1,762	8,862	8,110	8,486
2016	4.46%	865	94	9,214	10,531	1,856	8,110	7,358	7,734
2017	4.46%	865	94	8,556	11,189	1,950	7,358	6,606	6,982
2018	4.46%	865	94	7,898	11,847	2,044	6,606	5,854	6,230
2019	4.46%	865	94	7,240	12,505	2,138	5,854	5,102	5,478
2020	4.46%	865	94	6,582	13,164	2,231	5,102	4,350	4,726
2021	2.23%	432	(73)	5,924	13,822	2,158	4,350	3,765	4,058
2022	0.00%	0	(240)	5,265	14,480	1,919	3,765	3,247	3,556
2023	0.00%	0	(240)	4,607	15,138	1,679	3,247	2,828	3,138
2024	0.00%	0	(240)	3,949	15,796	1,429	2,828	2,510	2,719
2025	0.00%	0	(240)	3,291	16,454	1,189	2,510	2,062	2,301
2026	0.00%	0	(240)	2,633	17,113	969	2,062	1,673	1,862
2027	0.00%	0	(240)	1,975	17,771	720	1,673	1,255	1,464
2028	0.00%	0	(240)	1,316	18,429	480	1,255	837	1,046
2029	0.00%	0	(240)	658	19,087	240	837	418	627
2030	0.00%	0	(240)	(6)	19,745	0	418	0	209

* Column not specified in worksheet

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$AW)	(7) CUMULATIVE AVERAGE SPENDING (\$AW)
1996	5	0.00%	1.000	0.00%	0.00	0.00
1997	4	2.55%	1.026	0.00%	0.00	0.00
1998	3	2.55%	1.052	0.00%	0.00	0.00
1999	2	2.67%	1.080	36.77%	113.15	56.57
2000	1	2.89%	1.111	63.22%	200.20	213.25

100.00% 313.34

(8) NO YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING WITH AFUDC (\$AW)	(10) DEBT AFUDC (\$AW)	(11) CUMULATIVE DEBT AFUDC (\$AW)	(12) YEARLY TOTAL AFUDC (\$AW)	(13) CUMULATIVE TOTAL AFUDC (\$AW)	(14) CONSTRUCTION PERIOD INTEREST (\$AW)	(15) CUMULATIVE CPI (\$AW)	(16) DEFERRED TAXES (\$AW)	(17) CUMULATIVE DEFERRED TAXES (\$AW)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$AW)	(19) CUMULATIVE YEAR-END BOOK VALUE (\$AW)
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	56.57	2.16	2.16	6.05	6.05	4.81	4.81	(1.02)	(1.02)	119.20	119.20
1	219.30	8.43	10.59	23.57	29.63	18.53	23.34	(3.90)	(4.92)	223.77	342.97

10.59 29.63 23.34 14.92 342.97

	BOOK BASIS		TAX BASIS
	BOOK BASIS	FOR DEF TAX	
CONSTRUCTION CASH	16,040	16,040	16,040
EQUITY AFUDC	1,096		
DEBT AFUDC	610	610	
CPI			1,340
TOTAL	18,746	16,650	19,380

IN SERVICE YEAR 2001
PLANT COSTS 205
AFUDC RATE 10.70%

* Column not specified in workbook

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

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (\$/kWh)	(5) AVOIDED MARGINAL FUEL COST (\$/kWh)	(6)* INCREASED MARGINAL FUEL COST (\$/kWh)	(7) REPLACEMENT FUEL COST (\$/kWh)	(8) PROGRAM kW EFFECTIVENESS FACTOR	(9) PROGRAM kWh EFFECTIVENESS FACTOR
1996	0	0	0.00	2.64	2.39	0.00	1.00	1.00
1997	0	0	0.00	2.08	2.42	0.00	1.00	1.00
1998	17,491	17,491	0.00	2.85	2.52	0.00	1.00	1.00
1999	34,980	34,980	0.00	2.97	2.56	0.00	1.00	1.00
2000	52,462	52,462	0.00	3.25	2.67	0.00	1.00	1.00
2001	52,462	52,462	0.00	3.69	2.89	2.26	1.00	1.00
2002	52,462	52,462	0.00	3.55	2.85	2.50	1.00	1.00
2003	52,462	52,462	0.00	3.53	2.84	2.49	1.00	1.00
2004	52,462	52,462	0.00	3.85	3.05	2.96	1.00	1.00
2005	52,462	52,462	0.00	3.98	3.16	3.22	1.00	1.00
2006	52,462	52,462	0.00	4.23	3.35	3.45	1.00	1.00
2007	52,462	52,462	0.00	4.50	3.57	3.76	1.00	1.00
2008	52,462	52,462	0.00	4.64	3.71	3.67	1.00	1.00
2009	52,462	52,462	0.00	4.91	3.91	3.93	1.00	1.00
2010	52,462	52,462	0.00	5.25	3.99	4.39	1.00	1.00
2011	52,462	52,462	0.00	5.53	4.35	4.76	1.00	1.00
2012	52,462	52,462	0.00	5.82	4.54	4.74	1.00	1.00
2013	52,462	52,462	0.00	6.01	4.63	5.02	1.00	1.00
2014	52,462	52,462	0.00	6.23	4.78	5.08	1.00	1.00
2015	52,462	52,462	0.00	6.71	5.20	5.67	1.00	1.00
2016	52,462	52,462	0.00	6.95	5.32	5.80	1.00	1.00
2017	52,462	52,462	0.00	7.17	5.45	5.95	1.00	1.00
2018	52,462	52,462	0.00	7.53	5.69	6.33	1.00	1.00
2019	52,462	52,462	0.00	7.80	5.94	6.44	1.00	1.00
2020	52,462	52,462	0.00	7.97	6.01	6.53	1.00	1.00

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

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AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Commercial/Industrial WAC

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)
1996	0	0	0	0	0	0
1997	0	0	0	0	0	0
1998	0	0	0	0	0	0
1999	0	0	0	0	0	0
2000	0	0	0	0	0	0
2001	3,913	502	51	2,828	3,400	3,953
2002	3,798	574	39	2,233	2,823	3,812
2003	3,648	598	30	1,870	2,078	4,070
2004	3,513	624	32	2,060	2,506	3,672
2005	3,363	650	34	2,443	2,861	3,628
2006	3,258	678	37	2,865	3,271	3,687
2007	3,138	708	38	3,261	3,581	3,653
2008	3,023	738	39	3,518	3,480	3,628
2009	2,910	770	34	2,973	3,157	3,529
2010	2,797	803	21	1,709	2,087	3,223
2011	2,684	839	21	1,787	2,245	3,086
2012	2,571	878	38	3,368	3,973	2,881
2013	2,458	918	37	3,200	3,964	2,837
2014	2,345	957	38	3,179	3,728	2,780
2015	2,232	1,001	39	3,081	4,444	2,709
2016	2,119	1,046	34	3,181	3,773	2,627
2017	2,006	1,091	29	2,558	3,100	2,583
2018	1,893	1,137	32	3,112	3,071	2,502
2019	1,780	1,185	31	3,083	3,817	2,462
2020	1,667	1,235	30	2,896	3,440	2,388

NOM	50,125	16,978	679	58,417	65,387	63,970
NPV	19,471	4,741	223	17,011	18,058	21,787

AVOIDED TLD AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Commercial/Industrial HVAC

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$'000	(3) AVOIDED TRANSMISSION O&M COST \$'000	(4) TOTAL AVOIDED TRANSMISSION CAP COST \$'000	(5) AVOIDED DISTRIBUTION CAP COST \$'000	(6) AVOIDED DISTRIBUTION O&M COST \$'000	(7) TOTAL AVOIDED DISTRIBUTION CAP COST \$'000	(8) PROGRAM FUEL SAVINGS \$'000	(9) PROGRAM OFF-PEAK PAYBACK \$'000
1996	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	487	0
1999	250	58	308	163	253	416	1,540	0
2000	494	120	614	323	528	850	2,842	0
2001	731	188	919	478	821	1,300	3,939	0
2002	704	198	900	461	855	1,316	3,752	0
2003	677	204	881	443	891	1,334	3,738	0
2004	651	213	863	428	929	1,355	4,088	0
2005	626	222	848	410	968	1,378	4,225	0
2006	602	231	833	394	1,005	1,404	4,494	0
2007	579	241	820	379	1,054	1,433	4,785	0
2008	557	252	809	365	1,099	1,464	4,930	0
2009	534	263	797	350	1,147	1,487	5,231	0
2010	512	274	786	335	1,196	1,532	5,649	0
2011	490	288	778	321	1,249	1,570	5,893	0
2012	468	299	768	306	1,305	1,611	6,204	0
2013	445	312	757	292	1,363	1,655	6,444	0
2014	423	326	749	277	1,425	1,702	6,678	0
2015	401	341	742	262	1,480	1,752	7,191	0
2016	379	356	735	248	1,537	1,805	7,470	0
2017	356	372	728	233	1,625	1,858	7,715	0
2018	334	388	722	219	1,693	1,912	8,118	0
2019	313	404	716	205	1,764	1,969	8,414	0
2020	294	421	715	192	1,839	2,031	8,598	0
NOM	10,819	5,954	16,764	7,065	26,058	33,143	122,430	0
NPV	4,123	1,745	5,868	2,700	7,624	10,324	35,978	0

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

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REG
PROGRAM NAME: Commercial/Industrial HVAC

(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 TEL BENEFITS \$ (000)	PROGRAM FUEL SAVINGS \$ (000)	OTHER BENEFITS \$ (000)	TOTAL BENEFITS \$ (000)	NET BENEFITS \$ (000)	CUMULATIVE DISCOUNTED NET BENEFITS \$ (000)
1998	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	487	0	487	(13,060)	(13,060)
1996	0	1,790	11,757	0	13,547	0	0	1,540	0	2,284	(11,376)	(19,825)
1995	0	1,820	12,221	0	14,041	0	774	2,842	0	4,308	(8,838)	(28,728)
2000	0	1,880	12,285	0	14,165	0	1,464	3,929	0	10,100	10,100	(20,241)
2001	0	0	0	0	0	3,963	2,318	3,752	0	8,780	8,780	(14,481)
2002	0	0	0	0	0	3,812	2,215	3,726	0	10,021	10,021	(5,078)
2003	0	0	0	0	0	4,070	2,318	4,058	0	8,978	8,978	(4,152)
2004	0	0	0	0	0	3,672	2,218	4,225	0	10,078	10,078	403
2005	0	0	0	0	0	3,628	2,225	4,484	0	10,418	10,418	4,714
2006	0	0	0	0	0	3,587	2,227	4,785	0	10,862	10,862	8,764
2007	0	0	0	0	0	3,653	2,254	4,830	0	11,030	11,030	12,860
2008	0	0	0	0	0	3,628	2,272	4,830	0	11,054	11,054	16,101
2009	0	0	0	0	0	3,529	2,294	5,649	0	11,200	11,200	19,357
2010	0	0	0	0	0	3,233	2,318	5,649	0	11,304	11,304	22,372
2011	0	0	0	0	0	3,098	2,348	5,893	0	11,482	11,482	25,170
2012	0	0	0	0	0	2,891	2,377	6,224	0	11,694	11,694	28,827
2013	0	0	0	0	0	2,837	2,413	6,444	0	11,817	11,817	30,324
2014	0	0	0	0	0	2,790	2,451	6,676	0	12,384	12,384	31,839
2015	0	0	0	0	0	2,739	2,494	7,191	0	12,817	12,817	33,859
2016	0	0	0	0	0	2,627	2,540	7,470	0	13,254	13,254	35,222
2017	0	0	0	0	0	2,583	2,588	7,715	0	13,562	13,562	36,525
2018	0	0	0	0	0	2,481	2,633	8,114	0	13,732	13,732	37,847
2019	0	0	0	0	0	2,528	2,462	8,598	0	13,562	13,562	38,525
2020	0	0	0	0	0	2,582	2,388	8,598	0	13,732	13,732	39,847

NCM	0	14,896	98,913	0	111,808	63,910	48,927	122,430	0	236,268	124,658
NPV	0	5,532	36,578	0	42,110	21,787	16,152	38,578	0	75,958	31,847

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

9.22 %
1.78

PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: Commercial/Industrial HVAC

(1) YEAR	(2) SAVINGS IN PARTICIPANTS F.LLS \$/000	(3) TAX CREDITS \$/000	(4) UTILITY REBATES \$/000	(5) OTHER BENEFITS \$/000	(6) TOTAL BENEFITS \$/000	(7) CUSTOMER EQUIPMENT COSTS \$/000	(8) CUSTOMER O&M COSTS \$/000	(9) OTHER COSTS \$/000	(10) TOTAL COSTS \$/000	(11) NET BENEFITS \$/000	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$/000
1996	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0
1998	1,400	0	2,509	0	3,909	11,757	0	0	11,757	(7,768)	(6,512)
1999	4,238	0	2,589	0	6,827	12,021	0	0	12,021	(5,194)	(10,408)
2000	6,964	0	2,568	0	9,532	12,295	0	0	12,295	(2,723)	(12,387)
2001	8,354	0	0	0	8,354	0	0	0	0	8,354	(7,023)
2002	8,385	0	0	0	8,385	0	0	0	0	8,385	(2,084)
2003	8,483	0	0	0	8,483	0	0	0	0	8,483	7,490
2004	8,630	0	0	0	8,630	0	0	0	0	8,630	6,750
2005	8,641	0	0	0	8,641	0	0	0	0	8,641	10,058
2006	8,909	0	0	0	8,909	0	0	0	0	8,909	14,342
2007	9,064	0	0	0	9,064	0	0	0	0	9,064	17,776
2008	9,312	0	0	0	9,312	0	0	0	0	9,312	21,008
2009	9,527	0	0	0	9,527	0	0	0	0	9,527	24,032
2010	10,321	0	0	0	10,321	0	0	0	0	10,321	27,022
2011	10,383	0	0	0	10,383	0	0	0	0	10,383	29,796
2012	10,619	0	0	0	10,619	0	0	0	0	10,619	32,354
2013	10,725	0	280	0	11,014	3,823	0	0	3,823	7,192	33,989
2014	11,135	0	280	0	11,396	3,937	0	0	3,937	7,459	35,513
2015	11,318	0	279	0	11,415	4,050	0	0	4,050	7,304	36,950
2016	11,318	0	0	0	11,318	0	0	0	0	11,318	38,628
2017	11,524	0	0	0	11,524	0	0	0	0	11,524	40,035
2018	11,728	0	2,309	0	14,047	15,923	0	0	15,923	(1,876)	40,306
2019	11,968	0	2,309	0	14,265	16,342	0	0	16,342	(2,077)	40,003
2020	12,182	0	2,308	0	14,490	16,775	0	0	16,775	(2,284)	39,818

NPV	214,865	0	15,530	0	230,405	58,913	0	0	58,913	133,582
NPV	69,337	0	7,059	0	76,396	36,578	0	0	36,578	38,818

In Service of Gen Unit
Discount Rate: 9.22 %
Benefit/Cost Ratio (Col(6) / Col(10)): 2.69

RATE IMPACT TEST
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Commercial/Industrial HVAC

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$000	UTILITY PROGRAM COSTS \$000	PERCENTAGES \$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
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	1,790	2,589	1,180	0	5,559	487	0	0	0	487	(5,072)	(4,251)
1999	0	1,820	2,589	3,586	0	7,895	1,540	724	0	0	2,264	(5,731)	(8,949)
2000	0	1,880	2,588	5,098	0	10,344	2,842	1,464	0	0	4,306	(6,028)	(12,892)
2001	0	0	0	7,026	0	7,026	7,881	2,218	0	0	10,100	3,274	(10,814)
2002	0	0	0	7,042	0	7,042	7,564	2,215	0	0	9,780	2,737	(8,302)
2003	0	0	0	7,110	0	7,110	7,808	2,215	0	0	10,021	2,910	(7,723)
2004	0	0	0	7,226	0	7,226	7,790	2,218	0	0	9,878	2,752	(6,374)
2005	0	0	0	7,223	0	7,223	7,852	2,225	0	0	10,078	2,855	(5,084)
2006	0	0	0	7,443	0	7,443	8,181	2,237	0	0	10,418	2,974	(3,853)
2007	0	0	0	7,576	0	7,576	8,438	2,254	0	0	10,692	3,116	(2,673)
2008	0	0	0	7,778	0	7,778	8,757	2,274	0	0	11,030	3,251	(1,545)
2009	0	0	0	7,964	0	7,964	8,790	2,294	0	0	11,084	3,080	(564)
2010	0	0	0	8,616	0	8,616	8,883	2,318	0	0	11,200	2,565	189
2011	0	0	0	8,693	0	8,693	8,978	2,345	0	0	11,324	2,631	668
2012	0	0	0	8,890	0	8,890	9,105	2,377	0	0	11,462	2,802	1,522
2013	0	308	280	8,989	0	9,805	9,281	2,413	0	0	11,694	1,809	1,844
2014	0	552	280	9,300	0	10,131	9,488	2,451	0	0	11,917	1,785	2,309
2015	0	568	279	9,299	0	10,149	9,900	2,494	0	0	12,394	2,248	2,729
2016	0	0	0	9,439	0	9,439	10,077	2,540	0	0	12,617	3,179	3,273
2017	0	0	0	9,803	0	9,803	10,208	2,585	0	0	12,884	3,281	3,788
2018	0	2,411	2,308	9,774	0	14,544	10,621	2,633	0	0	13,254	1,290	3,603
2019	0	2,528	2,308	9,948	0	14,782	10,877	2,685	0	0	13,562	3,442	(1,229)
2020	0	2,592	2,308	10,128	0	15,029	10,988	2,746	0	0	13,732	(1,287)	3,288

NPV	0	14,899	15,530	178,728	0	208,954	180,329	48,927	0	0	238,286	28,313	
NPV	0	5,532	7,059	58,080	0	70,671	57,765	16,182	0	0	73,958	3,368	

Discount Rate
Benefit/Cost Ratio (Col 12) / Col(7) 1.88 9.22 %