

**BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION**

**DOCKET NOS. 040029-EG, 040660-EG
FLORIDA POWER & LIGHT COMPANY**

JULY 15, 2005

TESTIMONY & EXHIBITS OF:

STEVEN R. SIM

DOCUMENT NUMBER-DATE

06725 JUL 15 '05

FPSC-COMMISSION CLERK

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2 **FLORIDA POWER & LIGHT COMPANY**

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5 **JULY 15, 2005**

6
7 **Q. Please state your name and business address.**

8 A. My name is Steven R. Sim and my business address is 9250 West
9 Flagler Street, Miami, Florida 33174.

10 **Q. By whom are you employed and what position do you hold?**

11 A. I am employed by Florida Power & Light Company (FPL) as a
12 Supervisor in the Resource Assessment & Planning Business Unit.

13 **Q. Please describe your duties and responsibilities in that position.**

14 A. I supervise a group that is responsible for determining the magnitude
15 and timing of FPL's future resource needs, analyzing supply and
16 demand side management (DSM) options which could potentially
17 meet these future needs, and developing FPL's integrated resource plan
18 (IRP) with which FPL intends to meet these needs.

19 **Q. Please describe your education and professional experience.**

20 A. I graduated from the University of Miami (Florida) with a Bachelor's
21 degree in Mathematics in 1973. I subsequently earned a Master's
22 degree in Mathematics from the University of Miami (Florida) in 1975
23 and a Doctorate in Environmental Science and Engineering from the

1 University of California at Los Angeles (UCLA) in 1979.

2

3 While completing my degree program at UCLA, I was also employed
4 full-time as a Research Associate at the Florida Solar Energy Center
5 during 1977-1979. My responsibilities at the Florida Solar Energy
6 Center included an evaluation of Florida consumers' experiences with
7 solar water heaters and an analysis of potential renewable resources
8 including photovoltaics, biomass, wind power, etc., applicable in the
9 southeastern United States.

10

11 In 1979 I joined FPL, and from then until 1985, I worked first in the
12 Marketing Department and then in the Energy Management Research
13 Department. My responsibilities during this time included the
14 development and monitoring of numerous DSM programs. In 1985 I
15 began working in FPL's Load Management Department as Supervisor
16 of Planning. My responsibilities there involved design of FPL's load
17 management programs, cost-effectiveness analyses and monitoring of
18 these programs, and the integration of these programs with FPL's
19 capacity resource plans.

20

21 In 1991, I joined my current department, then named the System
22 Planning Department, as a Supervisor of Supply and Demand
23 Analysis, where my responsibilities included the cost-effectiveness

1 analyses of a variety of individual supply and DSM options. I assumed
2 my present position in 1993.

3 **Q. What is the purpose of your testimony?**

4 A. The purpose of my testimony is to explain how FPL concluded that the
5 redesigned BuildSmart program that FPL included in its DSM Plan to
6 meet FPL's DSM Goals for the 2005 through 2014 time frame is a
7 cost-effective DSM program for FPL and its customers.

8 **Q. Are you sponsoring an exhibit in this case?**

9 A. Yes, it consists of the following documents:
10 Document No. SRS-1, Cost-Effectiveness Analysis;

11 **Q. How is your testimony structured?**

12 A. My testimony is presented in two parts. First, I discuss key points
13 related to the Commission-approved DSM Goals for FPL and the
14 BuildSmart program and then provide a summary of the cost-
15 effectiveness analyses that were conducted as part of FPL's DSM
16 Goals work. Second, I discuss the specific numeric results of the cost-
17 effectiveness analyses of the BuildSmart program that were carried out
18 as part of this work. I conclude that the redesigned BuildSmart
19 program is a cost-effective DSM program for FPL and its customers.

20

21

I. Overview of Key Aspects of FPL's DSM Goals Work and a Summary of the Cost-Effectiveness Evaluations Carried Out as Part of this Work

Q. Did the Commission approve FPL's DSM Goals for the 2005 through 2014 time frame?

A. Yes. The Commission approved FPL's DSM Goals in Order No. PSC-04-0763-PPA-EG.

Q. Did FPL conduct DSM cost-effectiveness analyses as part of that process?

A. Yes. FPL conducted cost-effectiveness analyses of both individual DSM programs/measures and of the DSM Plan as a whole.

Q. Please briefly summarize this entire cost-effectiveness evaluation process?

A. The entire process and the results are summarized as follows:

1) FPL utilized its basic Integrated Resource Planning (IRP) process to determine how much DSM was cost-effective to add in the 2005 through 2014 time frame. Economic impacts were determined on a levelized system average electric rate basis (i.e., a Rate Impact Measure or RIM test basis), which is the equitable way to compare supply and DSM options that have different effects on a utility system.

- 1 2) FPL included the appropriate key assumptions in its analyses
2 regarding supply options (i.e., Martin Unit No. 8, Manatee Unit
3 No. 3, and Turkey Point Unit No. 5) to which FPL had either
4 already committed or, due to the size (1,144 MW) and nearness
5 of its planned in-service date (2007), incremental new DSM
6 could not reasonably avoid or defer.
- 7 3) The initial economic or cost-effectiveness screening of DSM
8 options was performed using the Commission's approved cost-
9 effectiveness methodology, and an appropriate type of supply
10 option (i.e., new combined-cycle unit capacity). This screening
11 allowed FPL to determine optimal incentive payments and
12 achievable market potential levels for each DSM measure that
13 was shown to be potentially cost-effective in the cost-
14 effectiveness screening.
- 15 4) Two long-term resource plans were developed: one without
16 any additional DSM (the Supply Only resource plan) and one
17 with a portfolio of DSM measures that had been shown to be
18 individually cost-effective (the With-DSM resource plan).
19 These two resource plans were developed using the EGEAS
20 model and were designed to provide adequate and comparable
21 system reliability.
- 22 5) The two resource plans were then compared on a system
23 average levelized rate basis. The With-DSM resource plan

1 resulted in a lower system average levelized rate, thus showing
2 that it is the cost-effective resource plan. FPL proposed the
3 amount of DSM contained in the With-DSM resource plan as
4 its new DSM Goals for the 2005 through 2014 time frame.

5
6 The Commission approved this level of DSM as FPL's DSM Goals for
7 the 2005-2014 time period.

8 **Q. What can be concluded from this summary of the cost-**
9 **effectiveness analysis work that was carried out in preparation of**
10 **FPL's DSM Goals filing?**

11 A. Two main conclusions can be drawn from this summary of FPL's cost-
12 effectiveness analyses. First, FPL utilized proper analysis tools,
13 analysis approaches, and cost-effectiveness tests in its work. Second,
14 all DSM programs – including the redesigned BuildSmart program –
15 that emerged from this process were shown to be cost-effective twice;
16 once on an individual basis and again when combined into the DSM
17 portfolio that comprised FPL's DSM Goals.

18 **Q. Did your direct testimony in the DSM Goals proceeding discuss in**
19 **detail the specific cost-effectiveness analysis results of individual**
20 **DSM measures or programs like the redesigned BuildSmart**
21 **program?**

22 A. No. While that testimony described in considerable detail the cost-
23 effectiveness analyses conducted for the DSM portfolio as a whole and

1 also discussed in detail the steps involved in the cost-effectiveness
2 analyses of individual DSM measures, the testimony did not attempt to
3 provide specific details (i.e., numeric results) regarding the individual
4 cost-effectiveness analysis for each of the hundreds of DSM measures
5 examined.

6
7 **II. Cost-Effectiveness Results for the Redesigned BuildSmart**
8 **Program for Analyses Conducted During Individual DSM Option**
9 **Screening**

10
11 **Q. What were the results of the cost-effectiveness analyses for the**
12 **redesigned BuildSmart program conducted during the individual**
13 **DSM Option screening work?**

14 A. The cost-effectiveness analyses for the redesigned program can be
15 found in Document SRS-1. The analyses resulted in the following
16 benefit-to-cost ratios:

17
18 RIM Test = 1.05

19 Participant Test = 1.77

20 TRC= 1.10

21
22 Since the program's benefit-to-cost ratio for the tests are greater than
23 one, the program successfully passed the cost-effectiveness tests.

1 **Q. Were the cost-effectiveness analyses that provided these benefit-to-**
2 **cost ratios for the redesigned BuildSmart program consistent with**
3 **the analyses in FPL's DSM Goals filing in Docket No. 040029-EG?**

4 A. Yes. All of the cost-effectiveness analyses that were carried out for
5 individual DSM options during the DSM Goals work were consistent
6 with the analyses used in that proceeding.

7 **Q. What do you conclude from the cost-effectiveness analyses of the**
8 **redesigned BuildSmart program?**

9 A. Since the program passed the individual DSM option screening, and
10 the DSM portfolio containing the program was found to also be cost-
11 effective, my conclusion is that the redesigned BuildSmart program is
12 a cost-effective DSM option for FPL and its customers.

13 **Q. Does this conclude your testimony?**

14 A. Yes.

Document No. SRS – 1
Cost – Effectiveness Analysis of FPL’s Residential New
Construction DSM Option
(BuildSmartR)

	A	B	C	D	E	F	G	H	I	J	K
1	Program Name:		New Construction (BuildSmartR)								Rev: 9/18/96
2	Generator and T&D Cost File:		2010cost.xls		CPF96			Input File Revision			
3	Financial Assumptions File:		FINANCE2004.XLS								
4								COSTS:			
5	Base Year		2004		Billing KW by month						
6	Summer KW Red. @mtr (System / Billing)		0.78		JAN	0.0000		Util non-rec. cost/part.		400.00	\$/cust
7	Winter KW Red. @mtr (System / Billing)		0.880		FEB	0.0000		Util rec. cost/part.yr.		\$0.00	\$/cust/yr
8	Annual KWH Red. @mtr		1,460 kWh		MAR	0.0000		Part. equip. cost		724.00	\$/cust
9	KW Rebound Factor		NOT USED	%	APR	0.0000		Part. O&M cost		-	\$/cust/yr
10	KWH Rebound Factor		NOT USED	%	MAY	0.0000		Util non-rec. rebate		-	\$/cust
11	Load-shifting%		0	%	JUN	0.0000		Util rec. rebate		0.00	\$/cust/yr
12	Rate Class		RS		JUL	0.0000					
13	Rate Class Prior To DSM		RS		AUG	0.0000		Load Control Data:			
14	Life Cycle		15	years	SEP	0.0000		Computer Capital Equipment		0.00	\$/cust
15					OCT	0.0000		Substation Capital Equipment		0.00	\$/cust
16	Calculate costs?		TRUE	Calculate	NOV	0.0000		Transponder Capital Equipment		0.00	\$/cust
17					DEC	0.0000		Monitoring Capital Cost		0.00	\$/cust
18	Participants for Year		2004	0				Replacement Install Cost		0.00	\$/cust
19	Participants for Year		2005	3810				Administrative Cost		0.00	\$/cust
20	Participants for Year		2006	5344				Moved or Drop-Off Customers		12.0%	
21	Participants for Year		2007	6945				%Admin Cost for Moving Cust		25.0%	
22	Participants for Year		2008	8338				Transponder Failure Rate		1.0%	
23	Participants for Year		2009	9170							
24	Participants for Year		2010	0				Carrying Charge Rates For Capital Investments:			
25	Participants for Year		2011	0				Substations			
26	Participants for Year		2012	0				Transponders			Computer
27	Participants for Year		2013	0				& End Use			Equipment
28	Participants for Year		2014	0				17.8%			17.7%
29	Participants for Year		2015	0				23.0%			32.5%
30								30.0%			28.2%
31								27.3%			26.4%
32	Effectiveness for Year		2004	1.00	1.00			24.3%			23.9%
33	Effectiveness for Year		2005	1.00	1.00			12.8%			19.3%
34	Effectiveness for Year		2006	1.00	1.00						
35	Effectiveness for Year		2007	1.00	1.00						
36	Effectiveness for Year		2008	1.00	1.00						
37	Effectiveness for Year		2009	1.00	1.00						
38	Effectiveness for Year		2010	1.00	1.00						
39	Effectiveness for Year		2011	1.00	1.00						
40	Effectiveness for Year		2012	1.00	1.00						
41	Effectiveness for Year		2013	1.00	1.00						
42	Effectiveness for Year		2014	1.00	1.00						
43	Effectiveness for Year		2015	1.00	1.00						
44	Effectiveness for Year		2016	1.00	1.00						
45	Effectiveness for Year		2017	1.00	1.00						
46	Effectiveness for Year		2018	1.00	1.00						
47	Effectiveness for Year		2019	1.00	1.00						
48	Effectiveness for Year		2020	1.00	1.00						
49	Effectiveness for Year		2021	1.00	1.00						
50	Effectiveness for Year		2022	1.00	1.00						
51	Effectiveness for Year		2023	1.00	1.00						
52	Effectiveness for Year		2024	1.00	1.00						
53	Effectiveness for Year		2025	1.00	1.00						
54	Effectiveness for Year		2026	1.00	1.00						
55	Effectiveness for Year		2027	1.00	1.00						
56	Effectiveness for Year		2028	1.00	1.00						

INPUT DATA -- PART I CONTINUED
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: New Construction (BuildSmart)

I. PROGRAM DEMAND SAVINGS & LINE LOSSES

(1) CUSTOMER kW REDUCTION AT METER	0.80 kW
(2) GENERATOR kW REDUCTION PER CUSTOMER	1.07 kW
(3) kW LINE LOSS PERCENTAGE	9.53 %
(4) GENERATOR kWh REDUCTION PER CUSTOMER	1,577.18 kWh
(5) kWh LINE LOSS PERCENTAGE	7.43 %
(6) GROUP LINE LOSS MULTIPLIER	1.09
(7) CUSTOMER kWh INCREASE AT METER	0.00 kWh

II. ECONOMIC LIFE & K FACTORS

(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	26 YEARS
(2) GENERATOR ECONOMIC LIFE	25 YEARS
(3) T&D ECONOMIC LIFE	35 YEARS
(4) K FACTOR FOR GENERATION	1.65516
(5) K FACTOR FOR T & D	1.65761

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	7.93 %
(11) UTILITY AFUDC RATE	7.84 %
(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	2004
(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2010
(3) IN-SERVICE YEAR FOR AVOIDED T&D	2007-2010
(4) BASE YEAR AVOIDED GENERATING COST	485.29 \$/kW
(5) BASE YEAR AVOIDED TRANSMISSION COST	84.37 \$/kW
(6) BASE YEAR DISTRIBUTION COST	23.05 \$/kW
(7) GEN, TRAN & DIST COST ESCALATION RATE	3.00 %**
(8) GENERATOR FIXED O & M COST	27.78 \$/kW/YR
(9) GENERATOR FIXED O&M ESCALATION RATE	4.24 %**
(10) TRANSMISSION FIXED O & M COST	2.47 \$/kW
(11) DISTRIBUTION FIXED O & M COST	1.43 \$/kW
(12) T&D FIXED O&M ESCALATION RATE	4.24 %**
(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.018 CENTS/kWh
(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	1.88 %**
(15) GENERATOR CAPACITY FACTOR	47% ** (In-service year)
(16) AVOIDED GENERATING UNIT FUEL COST	3.70 CENTS PER kWh** (In-service year)
(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	3.14 %**

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: New Construction (BuildSmart(R))

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)
2004	0	0	0	0	0	0	0	0	0	0
2005	1,555	0	0	1,555	210	0	2,815	0	0	2,815
2006	2,223	0	0	2,223	714	0	4,023	0	0	4,023
2007	2,953	0	0	2,953	1,378	0	5,345	0	0	5,345
2008	3,632	0	0	3,632	2,233	0	6,574	0	0	6,574
2009	4,105	0	0	4,105	3,212	0	7,430	0	0	7,430
2010	0	0	0	0	3,729	0	0	0	0	0
2011	0	0	0	0	3,739	0	0	0	0	0
2012	0	0	0	0	3,783	0	0	0	0	0
2013	0	0	0	0	3,822	0	0	0	0	0
2014	0	0	0	0	3,822	0	0	0	0	0
2015	0	0	0	0	3,847	0	0	0	0	0
2016	0	0	0	0	3,857	0	0	0	0	0
2017	0	0	0	0	3,891	0	0	0	0	0
2018	0	0	0	0	3,960	0	0	0	0	0
2019	0	0	0	0	3,998	0	0	0	0	0
2020	2,354	0	0	2,354	4,037	0	4,260	0	0	4,260
2021	3,408	0	0	3,408	4,076	0	6,169	0	0	6,169
2022	4,582	0	0	4,582	4,116	0	8,293	0	0	8,293
2023	5,688	0	0	5,688	4,156	0	10,295	0	0	10,295
2024	6,475	0	0	6,475	4,196	0	11,719	0	0	11,719
2025	0	0	0	0	4,237	0	0	0	0	0
2026	0	0	0	0	4,278	0	0	0	0	0
2027	0	0	0	0	4,319	0	0	0	0	0
2028	0	0	0	0	4,361	0	0	0	0	0
2029	0	0	0	0	4,404	0	0	0	0	0
NOM	36,974	0	0	36,974	88,377	0	66,922	0	0	66,922
NPV	16,704	0	0	16,704	32,319	0	30,234	0	0	30,234

* 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: New Construction (BuildSmartR)

PSC FORM CE 1.1A
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	(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													
2010	23,063	706	0	1,395	923	0	0	901	1	3,925	3,925	3,925	22,321
2011	22,164	678	0	1,341	593	443	90	901	296	4,342	4,023	7,948	23,196
2012	20,967	642	0	1,269	594	424	93	901	250	4,172	3,581	11,530	23,892
2013	19,817	606	0	1,199	593	406	96	901	207	4,008	3,188	14,718	24,609
2014	18,709	572	0	1,132	590	387	99	901	168	3,849	2,837	17,554	25,347
2015	17,640	540	0	1,067	586	369	102	901	131	3,696	2,523	20,078	26,107
2016	16,608	508	0	1,005	581	351	105	901	97	3,547	2,244	22,322	26,891
2017	15,610	478	0	944	574	332	108	901	66	3,403	1,995	24,316	27,697
2018	14,643	448	0	886	542	314	111	901	61	3,263	1,772	26,088	28,528
2019	13,681	419	0	828	506	295	115	901	61	3,124	1,572	27,660	29,384
2020	12,719	389	0	770	469	277	118	901	61	2,984	1,391	29,052	30,266
2021	11,757	360	0	711	433	258	122	901	61	2,845	1,229	30,281	31,174
2022	10,795	330	0	653	396	240	125	901	61	2,706	1,083	31,364	32,109
2023	9,834	301	0	595	360	221	129	901	61	2,568	952	32,316	33,072
2024	8,872	271	0	537	323	203	133	901	61	2,429	834	33,150	34,064
2025	7,910	242	0	479	286	184	137	901	61	2,290	729	33,879	35,086
2026	6,948	213	0	420	250	166	141	901	61	2,152	635	34,514	36,139
2027	5,986	183	0	362	213	148	145	901	61	2,013	550	35,064	37,223
2028	5,024	154	0	304	177	129	150	901	61	1,875	475	35,539	38,340
2029	4,062	124	0	246	140	111	154	901	61	1,737	407	35,946	39,490
2030	3,100	95	0	188	293	92	159	901	(129)	1,599	348	36,294	40,675
2031	2,328	71	0	141	454	74	163	901	(319)	1,485	299	36,593	41,895
2032	1,746	53	0	106	432	55	168	901	(319)	1,397	261	36,854	43,152
2033	1,164	36	0	70	410	37	173	901	(319)	1,308	226	37,080	44,446
2034	582	18	0	35	388	18	179	901	(319)	1,220	195	37,275	45,780

IN SERVICE COST (\$000)	22,321
IN SERVICE YEAR	2010
BOOK LIFE (YRS)	25
EFFEC. TAX RATE	38.575
DISCOUNT RATE	7.99%
PROPERTY TAX	2.05%
PROPERTY INSURANCE	0.39%

CAPITAL STRUCTURE

SOURCE	WEIGHT	COST	
DEBT	45%	6.80	%
P/S	0%	0.00	%
C/S	55%	11.00	%

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

1.65516

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: New Construction (BuildSmartR)

(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)
2010	3.75%	827	827	901	901	826	826	-	1,868	0	0	0	-	(344)
2011	7.22%	1,593	2,420	901	1,802	826	1,652	256	1,868	0	0	0	296	(248)
2012	6.68%	1,473	3,894	901	2,702	826	2,478	250	1,868	0	0	0	250	1
2013	6.18%	1,364	5,257	901	3,603	826	3,304	207	1,868	0	0	0	207	209
2014	5.71%	1,261	6,518	901	4,504	826	4,131	168	1,868	0	0	0	168	376
2015	5.29%	1,166	7,684	901	5,405	826	4,957	131	1,868	0	0	0	131	507
2016	4.89%	1,079	8,762	901	6,306	826	5,783	97	1,868	0	0	0	97	605
2017	4.52%	998	9,760	901	7,207	826	6,609	66	1,868	0	0	0	66	671
2018	4.46%	985	10,745	901	8,107	826	7,435	61	1,868	0	0	0	61	732
2019	4.46%	984	11,729	901	9,008	826	8,261	61	1,868	0	0	0	61	793
2020	4.46%	985	12,713	901	9,909	826	9,087	61	1,868	0	0	0	61	854
2021	4.46%	984	13,698	901	10,810	826	9,913	61	1,868	0	0	0	61	915
2022	4.46%	985	14,682	901	11,711	826	10,739	61	1,868	0	0	0	61	976
2023	4.46%	984	15,667	901	12,612	826	11,566	61	1,868	0	0	0	61	1,037
2024	4.46%	985	16,651	901	13,512	826	12,392	61	1,868	0	0	0	61	1,098
2025	4.46%	984	17,635	901	14,413	826	13,218	61	1,868	0	0	0	61	1,159
2026	4.46%	985	18,620	901	15,314	826	14,044	61	1,868	0	0	0	61	1,221
2027	4.46%	984	19,604	901	16,215	826	14,870	61	1,868	0	0	0	61	1,282
2028	4.46%	985	20,589	901	17,116	826	15,696	61	1,868	0	0	0	61	1,343
2029	4.46%	984	21,573	901	18,016	826	16,522	61	1,868	0	0	0	61	1,404
2030	2.23%	492	22,065	901	18,917	826	17,348	(129)	1,868	0	0	0	(129)	1,275
2031	0.00%	0	22,065	901	19,818	826	18,174	(319)	1,868	0	0	0	(319)	956
2032	0.00%	0	22,065	901	20,719	826	19,001	(319)	1,868	0	0	0	(319)	638
2033	0.00%	0	22,065	901	21,620	826	19,827	(319)	1,868	0	0	0	(319)	319
2034	0.00%	0	22,065	901	22,521	826	20,653	(319)	1,868	0	0	0	(319)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(545)
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	1,868
BOOK DEPR RATE - 1/USEFUL LIFE	4.00%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED: REV. REQ
PROGRAM NAME: New Construction (BuildsmntR)

(1)	(2)	(3)	(4)	(5)	(5a)*	(5b)*	(6)	(7)	(8)
YEAR	TAX DEPRECIATION - SCHEDULE	TAX DEPRECIATION \$(000)	DEFERRED TAX \$(000)	NET PLANT IN SERVICE \$(000)	ACCUMULATED DEPRECIATION \$(000)	ACCUMULATED DEF TAXES \$(000)	BEGINNING YEAR RATE BASIS \$(000)	ENDING OF YEAR RATE BASIS \$(000)	MID-YEAR RATE BASE \$(000)
2010	3.75%	837	1	22,521	901	(544)	23,065	22,164	22,614
2011	7.22%	1,593	296	21,620	1,802	(248)	22,164	20,967	21,566
2012	6.68%	1,473	250	20,719	2,702	-	20,967	19,817	20,392
2013	6.18%	1,364	207	19,818	3,603	209	19,817	18,709	19,263
2014	5.71%	1,261	168	18,917	4,504	376	18,709	17,640	18,174
2015	5.29%	1,166	131	18,016	5,405	507	17,640	16,608	17,124
2016	4.89%	1,079	97	17,116	6,306	605	16,608	15,610	16,109
2017	4.52%	998	66	16,215	7,207	671	15,610	14,645	15,127
2018	4.46%	985	61	15,314	8,107	732	14,645	13,681	14,162
2019	4.46%	984	61	14,413	9,008	793	13,681	12,719	13,200
2020	4.46%	985	61	13,512	9,909	854	12,719	11,757	12,238
2021	4.46%	984	61	12,612	10,810	915	11,757	10,795	11,276
2022	4.46%	985	61	11,711	11,711	976	10,795	9,834	10,314
2023	4.46%	984	61	10,810	12,612	1,037	9,834	8,872	9,353
2024	4.46%	985	61	9,909	13,512	1,098	8,872	7,910	8,391
2025	4.46%	984	61	9,008	14,413	1,159	7,910	6,948	7,429
2026	4.46%	985	61	8,107	15,314	1,221	6,948	5,986	6,467
2027	4.46%	984	61	7,207	16,215	1,282	5,986	5,024	5,505
2028	4.46%	985	61	6,306	17,116	1,343	5,024	4,062	4,543
2029	4.46%	984	61	5,405	18,016	1,404	4,062	3,100	3,581
2030	2.23%	492	(129)	4,504	18,917	1,475	3,100	2,128	2,714
2031	0.00%	0	0	3,603	19,818	956	2,128	1,164	1,455
2032	0.00%	0	0	2,702	20,719	638	1,164	582	873
2034	0.00%	0	(319)	1,802	21,620	319	582	0	291

* Columns 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)
2004	-6	0.00%	1.000	0.00%	0.00	0.00
2005	-5	3.00%	1.030	0.00%	0.00	0.00
2006	-4	3.00%	1.061	16.00%	82.38	41.19
2007	-3	3.00%	1.093	30.00%	159.09	161.92
2008	-2	3.00%	1.126	32.00%	174.78	328.85
2009	-1	3.00%	1.159	22.00%	123.77	478.13

		100.00%		540.01									
		(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)	
2004	-6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2005	-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2006	-4	41.19	1.26	1.26	3.23	3.23	2.80	2.80	(0.59)	(0.59)	85.60	85.60	
2007	-3	163.15	5.07	6.33	12.99	16.22	11.20	14.00	(2.36)	(2.96)	172.08	257.69	
2008	-2	345.08	10.65	16.98	27.29	43.51	23.31	37.32	(4.89)	(7.84)	202.07	459.75	
2009	-1	521.64	16.20	33.18	41.51	85.02	35.05	72.37	(7.27)	(15.11)	165.28	625.03	

33.18

85.02

72.37

(15.11)

625.03

IN SERVICE YEAR	2010
PLANT COSTS	485.29
AFUDC RATE	7.84%

	BOOK BASIS	BOOK BASIS FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	19,437	19,437	19,437
EQUITY AFUDC	1,868		
DEBT AFUDC	1,196	1,196	
CPI			2,607
TOTAL	22,521	20,633	22,045

* Column not specified in workbook

INPUT DATA - PART 2
 PROGRAM METHOD SELECTED : REV_REQ
 PROGRAM NAME: New Construction (BuildSmart)

(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
2004	0	0	4.22	5.16	4.52	0.00	1.00	1.00
2005	3,816	3,816	3.88	4.69	4.15	0.00	1.00	1.00
2006	9,159	9,159	3.77	4.68	4.04	0.00	1.00	1.00
2007	16,104	16,104	3.71	4.52	3.96	0.00	1.00	1.00
2008	24,439	24,439	3.66	4.61	3.92	0.00	1.00	1.00
2009	33,609	33,609	3.79	4.77	4.05	0.00	1.00	1.00
2010	33,609	33,609	3.90	4.72	4.14	5.14	1.00	1.00
2011	33,609	33,609	4.17	4.99	4.42	5.31	1.00	1.00
2012	33,609	33,609	4.18	5.11	4.41	4.92	1.00	1.00
2013	33,609	33,609	4.31	5.31	4.56	4.83	1.00	1.00
2014	33,609	33,609	4.39	5.43	4.64	4.91	1.00	1.00
2015	33,609	33,609	4.55	5.71	4.81	4.98	1.00	1.00
2016	33,609	33,609	4.69	5.86	4.94	5.27	1.00	1.00
2017	33,609	33,609	4.77	5.97	5.03	6.18	1.00	1.00
2018	33,609	33,609	4.92	6.19	5.18	6.59	1.00	1.00
2019	33,609	33,609	5.06	6.35	5.31	5.84	1.00	1.00
2020	33,609	33,609	5.16	6.54	5.43	5.71	1.00	1.00
2021	33,609	33,609	5.26	6.67	5.52	5.71	1.00	1.00
2022	33,609	33,609	5.50	6.98	5.77	6.49	1.00	1.00
2023	33,609	33,609	5.57	6.90	5.83	7.93	1.00	1.00
2024	33,609	33,609	5.66	6.97	5.92	8.04	1.00	1.00
2025	33,609	33,609	5.76	7.45	6.01	8.15	1.00	1.00
2026	33,609	33,609	5.87	7.12	6.10	8.26	1.00	1.00
2027	33,609	33,609	5.97	7.20	6.20	8.37	1.00	1.00
2028	33,609	33,609	6.07	7.27	6.29	8.49	1.00	1.00
2029	33,609	33,609	6.18	7.35	6.39	8.60	1.00	1.00

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

AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: New Construction (BuildSmartR)

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)
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	3,925	1,279	31	5,437	7,561	3,111
2011	4,342	1,336	33	9,329	12,995	2,066
2012	4,172	1,396	55	9,619	12,188	3,054
2013	4,008	1,460	57	9,844	11,988	3,380
2014	3,849	1,526	58	10,166	12,166	3,433
2015	3,696	1,597	58	10,423	12,056	3,719
2016	3,547	1,669	61	11,067	12,885	3,458
2017	3,403	1,742	61	11,067	14,629	1,643
2018	3,263	1,817	62	11,292	15,460	973
2019	3,124	1,898	64	11,710	13,722	3,074
2020	2,984	1,984	65	11,967	13,201	3,800
2021	2,845	2,075	66	12,064	12,933	4,117
2022	2,706	2,169	69	12,965	14,869	3,039
2023	2,568	2,261	65	12,225	16,548	570
2024	2,429	2,360	66	12,353	16,401	807
2025	2,290	2,463	66	12,483	16,254	1,049
2026	2,152	2,575	67	12,615	16,109	1,299
2027	2,013	2,692	68	12,748	15,965	1,555
2028	1,875	2,814	69	12,882	15,823	1,817
2029	1,737	2,942	70	13,017	15,681	2,085

NOM	60,929	40,056	1,228	225,273	279,436	48,050
NPV	22,741	12,103	392	71,194	88,732	17,699

AVOIDED T&D AND PROGRAM FUEL SAVINGS
 PROGRAM METHOD SELECTED: REV_REQ
 PROGRAM NAME: New Construction (BuildSmartR)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8a)*
YEAR	AVOIDED TRANSMISSION CAP COST \$(000)	AVOIDED TRANSMISSION O&M COST, \$(000)	TOTAL AVOIDED TRANSMISSION COST \$(000)	AVOIDED DISTRIBUTION CAP COST \$(000)	AVOIDED DISTRIBUTION O&M COST \$(000)	TOTAL AVOIDED DISTRIBUTION COST \$(000)	PROGRAM FUEL SAVINGS \$(000)	PROGRAM OFF-PEAK PAYBACK \$(000)
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	157	0
2006	67	11	78	14	5	18	538	0
2007	159	27	187	32	12	44	1,003	0
2008	278	50	328	56	21	78	1,666	0
2009	420	79	499	85	34	119	2,473	0
2010	573	114	687	116	49	165	2,782	0
2011	552	119	671	112	51	163	2,924	0
2012	531	124	655	108	53	161	3,023	0
2013	510	130	640	103	56	159	3,157	0
2014	490	136	626	99	58	158	3,232	0
2015	471	142	613	95	61	156	3,420	0
2016	452	148	601	92	64	155	3,506	0
2017	434	155	588	88	66	154	3,574	0
2018	415	162	577	84	69	153	3,713	0
2019	397	169	565	80	72	153	3,802	0
2020	378	176	555	77	76	152	3,931	0
2021	360	184	544	73	79	152	4,012	0
2022	341	193	534	69	83	152	4,200	0
2023	323	201	524	65	86	152	4,108	0
2024	305	210	514	62	90	152	4,138	0
2025	286	219	505	58	94	152	4,169	0
2026	268	229	497	54	98	153	4,200	0
2027	250	239	490	51	103	154	4,231	0
2028	234	250	484	47	107	155	4,261	0
2029	219	262	481	44	112	157	4,292	0
NOM.	8,714	3,729	12,443	1,766	1,601	3,367	80,510	0
NPV	3,609	1,198	4,807	731	514	1,246	28,079	0

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

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: New Construction (BuildSmartUR)

(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)
2004	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	1,555	2,815	0	4,370	0	0	157	0	157	(4,213)	(3,903)
2006	0	2,223	4,023	0	6,246	0	96	538	0	634	(5,612)	(8,721)
2007	0	2,953	5,345	0	8,298	0	231	1,003	0	1,234	(7,064)	(14,340)
2008	0	3,632	6,574	0	10,206	0	406	1,666	0	2,072	(8,134)	(20,334)
2009	0	4,165	7,430	0	11,534	0	618	2,473	0	3,091	(8,444)	(26,099)
2010	0	0	0	0	0	3,111	852	2,782	0	6,745	6,745	(21,832)
2011	0	0	0	0	0	2,066	833	2,924	0	5,823	5,823	(18,419)
2012	0	0	0	0	0	3,054	815	3,023	0	6,893	6,893	(14,675)
2013	0	0	0	0	0	3,380	799	3,157	0	7,336	7,336	(10,984)
2014	0	0	0	0	0	3,433	783	3,232	0	7,448	7,448	(7,512)
2015	0	0	0	0	0	3,719	769	3,420	0	7,908	7,908	(4,096)
2016	0	0	0	0	0	3,458	756	3,506	0	7,720	7,720	(1,006)
2017	0	0	0	0	0	1,643	743	3,574	0	5,959	5,959	1,204
2018	0	0	0	0	0	973	730	3,713	0	5,417	5,417	3,065
2019	0	0	0	0	0	3,074	718	3,802	0	7,594	7,594	5,482
2020	0	2,354	4,260	0	6,613	3,800	707	3,931	0	8,438	1,825	6,020
2021	0	3,408	6,169	0	9,577	4,117	696	4,012	0	8,826	(751)	5,815
2022	0	4,582	8,293	0	12,874	3,039	686	4,200	0	7,925	(4,949)	4,562
2023	0	5,688	10,295	0	15,983	570	676	4,108	0	5,353	(10,630)	2,068
2024	0	6,475	11,719	0	18,194	807	666	4,138	0	5,611	(12,583)	(667)
2025	0	0	0	0	0	1,049	657	4,169	0	5,875	5,875	516
2026	0	0	0	0	0	1,299	649	4,200	0	6,148	6,148	1,663
2027	0	0	0	0	0	1,555	643	4,231	0	6,429	6,429	2,775
2028	0	0	0	0	0	1,817	639	4,261	0	6,718	6,718	3,851
2029	0	0	0	0	0	2,085	638	4,292	0	7,015	7,015	4,892

NOM	0	36,974	66,922	0	103,896	48,050	15,810	80,510	0	144,369	40,473
NPV	0	16,704	30,234	0	46,938	17,699	6,053	28,079	0	51,830	4,892

Discount Rate:

7.93 %

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

1.10

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: New Construction (BuildSmartR)

(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)
2004	0	0	0	0	0	0	0	0	0	0	0
2005	345	0	0	0	345	2,815	0	0	2,815	(2,470)	(2,288)
2006	1,171	0	0	0	1,171	4,023	0	0	4,023	(2,853)	(4,737)
2007	2,259	0	0	0	2,259	5,345	0	0	5,345	(3,085)	(7,191)
2008	3,660	0	0	0	3,660	6,574	0	0	6,574	(2,913)	(9,338)
2009	5,266	0	0	0	5,266	7,430	0	0	7,430	(2,164)	(10,816)
2010	6,113	0	0	0	6,113	0	0	0	0	6,113	(6,948)
2011	6,130	0	0	0	6,130	0	0	0	0	6,130	(3,355)
2012	6,202	0	0	0	6,202	0	0	0	0	6,202	13
2013	6,266	0	0	0	6,266	0	0	0	0	6,266	3,166
2014	6,266	0	0	0	6,266	0	0	0	0	6,266	6,087
2015	6,307	0	0	0	6,307	0	0	0	0	6,307	8,811
2016	6,323	0	0	0	6,323	0	0	0	0	6,323	11,342
2017	6,379	0	0	0	6,379	0	0	0	0	6,379	13,707
2018	6,492	0	0	0	6,492	0	0	0	0	6,492	15,937
2019	6,555	0	0	0	6,555	0	0	0	0	6,555	18,024
2020	6,618	0	0	0	6,618	4,260	0	0	4,260	2,358	18,719
2021	6,682	0	0	0	6,682	6,169	0	0	6,169	513	18,860
2022	6,747	0	0	0	6,747	8,293	0	0	8,293	(1,546)	18,468
2023	6,813	0	0	0	6,813	10,295	0	0	10,295	(3,483)	17,651
2024	6,879	0	0	0	6,879	11,719	0	0	11,719	(4,840)	16,599
2025	6,946	0	0	0	6,946	0	0	0	0	6,946	17,998
2026	7,013	0	0	0	7,013	0	0	0	0	7,013	19,307
2027	7,081	0	0	0	7,081	0	0	0	0	7,081	20,531
2028	7,150	0	0	0	7,150	0	0	0	0	7,150	21,676
2029	7,219	0	0	0	7,219	0	0	0	0	7,219	22,747

NOM	144,881	0	0	0	144,881	66,922	0	0	66,922	77,958
NPV	52,981	0	0	0	52,981	30,234	0	0	30,234	22,747

In Service of Gen Unit:

Discount Rate:

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

2010

7.93

%

1.75

RATE IMPACT TEST
PROGRAM METHOD SELECTED: REV_REQ
PROGRAM NAME: New Construction (BuildSmartR)

(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)
2004	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	1,555	0	210	0	1,765	157	0	0	0	157	(1,609)	(1,490)
2006	0	2,223	0	714	0	2,937	538	96	0	0	634	(2,303)	(3,467)
2007	0	2,953	0	1,378	0	4,331	1,003	231	0	0	1,234	(3,098)	(5,931)
2008	0	3,632	0	2,233	0	5,865	1,666	406	0	0	2,072	(3,793)	(8,726)
2009	0	4,105	0	3,212	0	7,317	2,473	618	0	0	3,091	(4,226)	(11,612)
2010	0	0	0	3,729	0	3,729	5,893	852	0	0	6,745	3,015	(9,704)
2011	0	0	0	3,739	0	3,739	4,990	833	0	0	5,823	2,084	(8,482)
2012	0	0	0	3,783	0	3,783	6,077	815	0	0	6,893	3,110	(6,793)
2013	0	0	0	3,822	0	3,822	6,537	799	0	0	7,336	3,513	(5,926)
2014	0	0	0	3,822	0	3,822	6,665	783	0	0	7,448	3,626	(3,335)
2015	0	0	0	3,847	0	3,847	7,139	769	0	0	7,908	4,061	(1,581)
2016	0	0	0	3,857	0	3,857	6,965	756	0	0	7,720	3,864	(35)
2017	0	0	0	3,891	0	3,891	5,217	743	0	0	5,959	2,068	732
2018	0	0	0	3,960	0	3,960	4,686	730	0	0	5,417	1,457	1,233
2019	0	0	0	3,998	0	3,998	6,875	718	0	0	7,594	3,595	2,377
2020	0	2,354	0	4,037	0	6,391	7,731	707	0	0	8,438	2,048	2,981
2021	0	3,408	0	4,076	0	7,484	8,129	696	0	0	8,826	1,341	3,348
2022	0	4,582	0	4,116	0	8,697	7,239	686	0	0	7,925	(772)	3,152
2023	0	5,688	0	4,156	0	9,844	4,677	676	0	0	5,353	(4,491)	2,099
2024	0	6,475	0	4,196	0	10,671	4,945	666	0	0	5,611	(5,060)	999
2025	0	0	0	4,237	0	4,237	5,218	657	0	0	5,875	1,638	1,329
2026	0	0	0	4,278	0	4,278	5,499	649	0	0	6,148	1,870	1,678
2027	0	0	0	4,319	0	4,319	5,786	643	0	0	6,429	2,110	2,042
2028	0	0	0	4,361	0	4,361	6,079	639	0	0	6,718	2,357	2,420
2029	0	0	0	4,404	0	4,404	6,377	638	0	0	7,015	2,612	2,808

NOM.	0	36,974	0	88,377	0	125,351	128,560	15,810	0	0	144,369	19,019
NPV	0	16,704	0	32,319	0	49,023	45,778	6,053	0	0	51,830	2,808

Discount Rate

7.93 %

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

1.06