

1994 DEMAND SIDE MANAGEMENT
BASE PLANNING STUDY

VOLUME III.

TECHNICAL AND
ACHIEVABLE POTENTIAL

GAINESVILLE REGIONAL UTILITIES
DECEMBER 23, 1994

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PURPOSE AND SCOPE

This report is the third volume of the five volumes comprising GRU's 1994 Demand Side Management Base Planning Study. The five volumes include:

- I. The Value of Conservation for Gainesville Regional Utilities
- II. Patterns of Energy Use in Gainesville
- III. Technical and Achievable Potential
- IV. Energy Conservation Measures
- V. Market Segment Characterizations

The purpose of this volume is to present the results of the technical and achievable conservation potential analysis for both existing and new residential and commercial buildings.

The technical potential results presented for each ECM include: power demand reduction, energy reduction, customer equipment cost, utility rebates/incentives, participant test cost effectiveness ratio, rate impact measure test cost effectiveness ratio, and the total resource cost test cost effectiveness ratio.

The customer equipment cost represents the cost of the ECM minus the utility rebate/incentive. All power and energy figures represent the mean coincident reductions for the utility system at the customer's meter. These results are shown for each energy conservation measure (ECM) considered, regardless of cost effectiveness.

The utility incentives are determined by performing the Rate Impact Measure Cost Effectiveness Test first, determining if the RIM benefit/cost ratio is greater than one, then back-calculating the incentive which would reduce the RIM B/C ratio to one. This gives the maximum incentive to the customer which will not adversely impact electric rates. This is done first because all measures are screened on the basis of cost effectiveness to the participant. No incentive is given to ECMs which do not pass the RIM test.

The average customer must save more money than the measure cost for the ECM to be included in an achievable potential portfolio. The portfolio section presents the summaries of power and energy reductions along with the utility electric rate impact for all the measures that pass the associated cost effectiveness test.

The results are based upon the long run market share of each technology determined as a function of consumer acceptance and market diffusion. The RIM portfolio is likely to be the basis for goal setting by the Florida Public Service Commission (FPSC). The FPSC based conservation goals for Florida's Investor Owned Utilities upon their RIM portfolios.

ESTIMATION OF LONG RUN MARKET SHARE

Market Segments. Residential and commercial customers have very different patterns of energy use and appliances. Furthermore, patterns of energy use vary within the residential customer class. For instance, apartments are very different than single family dwelling and mobile homes. The differences among commercial establishments are even more profound. These differences affect the energy savings potential of various energy conservation measures in each market segment. The thirteen market segments identified for analysis are listed in Table 1.

TABLE 1
MARKET SEGMENT CODING SYSTEM

RESIDENTIAL	SINGLE FAMILY	SF
	ATTACHED	AT
	MOBILE HOMES	MH
COMMERCIAL	OFFICE	OF
	RESTAURANT/BARS	RB
	RETAIL OUTLET	RO
	SUPERMKT/GROCERY	SG
	WAREHOUSE	WH
	SCHOOLS	SC
	COLLEGES	CO
	HOSPITALS	HS
	HOTEL/MOTEL	HM
	MISCELLANEOUS	MS

End Use Models. End use models for each market segment were developed for each market segment, both for existing and new construction. These models were designed to allow the energy and demand savings potential of each ECM to be calculated as a function of the appliance being affected as they are typically deployed and utilized in each market segment. The methodologies used to assign energy to each appliance type included manipulation of metered energy consumption records, seasonal demand analyses, multiple regression statistical studies (sometimes called conditional demand analyses), field monitoring programs, engineering calculations, and data reported in the literature from other studies. A key feature of the models was the ability to evaluate the effect of envelope changes on both heating and cooling systems,

as well as calculating the gas required (a participant cost) for fuel switching measures.

An essential component of any end use modeling effort is appliance saturation data. This is information on how many customers use a certain type of technology for a given function, or end use, typically expressed as a percentage. This information was collected from voluntary questionnaires administered to randomly selected residential customers. Additional residential information collected, and used in the end use models, included the age of key appliances (appliance vintages), energy using habits, and implementation of conservation measures, all of which are useful for estimating the efficiency of existing appliance stocks as a point of comparison to new appliances.

Appliance saturations and end use analyses for commercial market segments were developed by statistical analyses of commercial energy audits performed by GRU. These results were extrapolated to each market segment by classifying each commercial customer (for load analysis) and by extracting property square footage from tax roll databases. Supplemental surveys included a survey of gas availability to a study of solar availability (Gainesville has an extensive tree canopy).

Energy by major sector was readily established from billing records, and the total coincident peak demand for native load is known by subtracting off-system sales, whose coincident peaks are known, from the total system peak of 339 MW (NEL) during the summer of 1993. Transmission and distribution losses of 6% (on peak) were subtracted to establish the metered native load coincident demand. Coincident demand was further disaggregated using rate class load factors established by load research performed to support rate designs for GRU tariffs.

Payback Acceptance. Estimates of future market penetration are based on an approach similar to that used in the SRC study. The payback acceptance curves developed by SRC using an implicit discount rate methodology are used to determine market penetration even though these curves will overstate the achievable conservation potential in Gainesville due to the large proportion of renters in the residential sector. Renters, mainly from Gainesville's large student population, are typically not willing to invest in conservation measures that have a payback period of more than one year. No adjustments were made for "free riders" or "no riders".

Willingness to adopt direct load control is not amenable to a payback acceptance methodology, since there are no participant costs, yet reluctance for a substantial portion of customers has been amply demonstrated. Accordingly, GRU used customer responses to the GRU "Customer Energy Planning Study" to establish the acceptability of direct load control.

Vintage and Technology Diffusion. Some measures, for example high efficiency air conditioners, are only likely to be installed when the whole system must be replaced. In such instances, GRU's analysis was based only upon the marginal costs of the improved efficiency. For this reason, it was necessary to consider the average age of appliances in each year of analysis in order to capture the number of systems being replaced. The methodology employed by GRU overstates the market potential as no adjustment was made for delays due to information

and program lag, in which case conversion opportunities would be permanently lost.

Market diffusion of "new" technologies" was based upon the Lawrence-Lawton diffusion curve used by SRC. This technique may also overstate the conservation potential due to the transient nature of Gainesville's population. For "new" ECMs requiring marginal cost analysis and a consideration of appliance vintage, an integrated joint probability diffusion factor was computed.

Utility Incentives. In the event an ECM had a positive rim test (benefit/cost ratio greater than 1.0), the net benefits to the utility were iteratively applied as participant cost reductions in order to establish the maximum market potential. As direct load control has no takers without incentives, the rebates offered by Florida Power and Light were employed in the initial run.

Competing Measures. Many ECMs address the same end use and appliance, and may be characterized as being in the same end use family. To avoid double counting energy savings, the energy savings from the measure with the highest degree of market penetration was set as a maximum potential and allocated among the other ECM's based upon their relative share of energy savings in the end use family.

MARKET PENETRATION PORTFOLIOS

Sections II and III contain tables which summarize the aggregated residential and commercial energy and demand savings, ECM costs, and cost/benefit test results for the measures evaluated by GRU. These data were calculated from technical potential results, since in some cases there were no ECM adopters. It should be noted that results computed after payback acceptance modeling in many cases would have higher aggregated savings per customer, due to differential adoption rates among market segments. Utility and customer equipment costs are expressed in units of present worth as if they were installed in 1995. The tables are numbered to correspond to their numbering in FPSC Docket No. 930553.

Section IV contains tables which combine the individual ECM results, by year, of all measures that either passed RIM or TRC benefit/cost test (greater than or equal to 1.0 as found in Sections II and III). Annual values were developed from long term market shares, computed for the year 2002, by fitting a uniform logistic curve. As discussed previously, GRU believes that this long term market share over estimates conservation potential due to lost appliance vintage turnover opportunities, and the assumption of optimal customer decision making and perfect information in the market place.

II. RESIDENTIAL ENERGY CONSERVATION MEASURE RESULTS

TABLE B1-R. EXISTING RESIDENTIAL CONSTRUCTION ECMs.

ECM ID	EXISTING CONSTRUCTION MEASURES	CUSTOMER kW REDUCTION AT THE METER (kW/CUST)	CUSTOMER kWh REDUCTION AT THE METER (kWh/CUST/yr)	UTILITY NON-RECURRING COST PER CUSTOMER (\$/CUST)	UTILITY RECURRING COST PER CUSTOMER (\$/CUST)	CUSTOMER EQUIPMENT COST (\$/CUST)
1050	DUCT LEAKAGE REPAIR	0.418	1,153.112	\$0.00	\$0.00	\$275.01
1070	SETBACK/PROGRAM. THERMOSTAT	(0.102)	892.296	\$0.00	\$0.00	\$87.00
1080	LOAD CONTROL - ELEC. HEAT	0.000	22.695	\$135.00	\$2.92	\$0.00
1085	LOAD CONTROL - HEAT PUMP	0.000	15.848	\$135.00	\$2.92	\$0.00
2010	CEILING INSULATION (R-0 TO R-19)	0.312	1,106.022	\$0.00	\$0.00	\$678.85
2012	CEILING INSULATION (R-11 TO R-30)	0.157	409.875	\$0.00	\$0.00	\$663.34
2014	CEILING INSULATION (R-19 TO R-30)	0.092	208.678	\$0.00	\$0.00	\$482.78
2016	CEILING INSULATION (R-30 TO R-38)	0.019	64.640	\$0.00	\$0.00	\$404.58
2020	WALL INSULATION (R-0 TO R-11)	0.104	615.208	\$0.00	\$0.00	\$1,356.07
2030	WSTRIP/CAULK&BLOWER DOOR	0.031	77.499	\$0.00	\$0.00	\$230.01
2050	LOW EMISSIVITY GLASS	0.123	728.038	\$0.00	\$0.00	\$555.02
2070	REFLECTIVE ROOF COATINGS	0.314	697.487	\$0.00	\$0.00	\$1,127.05
2080	ATTIC RADIANT BARRIERS	0.246	792.005	\$0.00	\$0.00	\$525.02
3030	WHOLE HOUSE FAN	0.000	684.303	\$0.00	\$0.00	\$466.03
3040	HIGH EFF. ROOM AC	0.407	675.527	\$151.29	\$0.00	\$142.01
3050	CENTRAL AC MAINTENANCE	0.183	353.892	\$36.57	\$0.00	\$150.01
3055	HEAT PUMP MAINTENANCE	0.154	332.243	\$35.19	\$0.00	\$150.01
3060	LOAD CONTROL - CENTRAL AC	0.527	99.273	\$135.00	\$2.92	\$0.00
3065	LOAD CONTROL - HEAT PUMP	0.515	96.637	\$135.00	\$2.92	\$0.00
3070	LANDSCAPE SHADING	0.123	528.918	\$0.00	\$0.00	\$558.02
4060	WH TANK WRAP	0.025	158.847	\$0.00	\$0.00	\$35.00
4070	WH PIPE INSULATION	0.007	44.513	\$0.00	\$0.00	\$20.00
4080	HEAT TRAP - WATER LINES	0.018	109.237	\$0.00	\$0.00	\$28.00
4090	LOW-FLOW SHOWERHEAD	0.025	151.401	\$0.00	\$0.00	\$20.00
4100	LOAD CONTROL - ELECTRIC WH	0.382	10.673	\$135.00	\$2.92	\$0.00
5040	MOTION DETECTORS - LIGHTING	0.000	735.775	\$0.00	\$0.00	\$35.00
6010	HIGH EFF. REFRIG. - FROST FREE	0.040	389.293	\$0.00	\$0.00	\$877.03
6020	HIGH EFF. REFRIG. - MANUAL	0.063	556.760	\$0.00	\$0.00	\$522.02
6030	REMOVE SECOND REFRIG - FF	0.252	2,308.101	\$0.00	\$0.00	\$35.00
6035	REMOVE SECOND REFRIG - MAN	0.252	2,226.956	\$0.00	\$0.00	\$35.00
6050	HIGH EFF. FREEZER - FROST FREE	0.055	508.174	\$0.00	\$0.00	\$542.02
6060	HIGH EFF. FREEZER - MANUAL	0.053	487.749	\$0.00	\$0.00	\$390.06
6070	REMOVE SECOND FREEZER - FF	0.253	2,318.681	\$0.00	\$0.00	\$35.17
6075	REMOVE SECOND FREEZER - MAN	0.281	2,217.391	\$0.00	\$0.00	\$35.17
6080	HIGH EFF. CLOTHES DRYER	0.052	170.922	\$0.00	\$0.00	\$470.02
6090	HIGH EFF. CLOTHES WASHER	0.007	45.858	\$0.00	\$0.00	\$650.03
6100	HIGH EFF. POOL PUMP	0.044	237.630	\$0.00	\$0.00	\$37.00
6110	DOWN-SIZE POOL PUMP	0.308	1,841.108	\$0.00	\$0.00	\$50.01
6120	LOAD CONTROL - POOL PUMP	0.493	13.229	\$135.00	\$2.92	\$0.00
1010	HIGH EFF. HEAT PUMP	0.000	468.756	\$0.00	\$0.00	\$925.07
1020	GROUND SOURCE HEAT PUMP	0.000	1,048.322	\$0.00	\$0.00	\$2,252.96
1030	TWO SPEED HEAT PUMP	0.000	621.949	\$0.00	\$0.00	\$1,055.63
1090	GAS FURNACE	0.000	720.849	\$0.00	\$0.00	\$900.04
3010	HIGH EFF. CENTRAL AC	0.427	892.482	\$183.18	\$0.00	\$625.03
3020	TWO SPEED CENTRAL AC	0.266	890.540	\$0.00	\$0.00	\$700.03
3090	GAS AIR CONDITIONING	1.539	2,630.828	\$768.50	\$0.00	\$7,500.33
4010	HIGH EFF. ELECTRIC WH	0.022	131.082	\$0.00	\$0.00	\$70.00
4020	HEAT PUMP WH - INTEGRAL	0.000	1,068.820	\$0.00	\$0.00	\$1,225.06
4030	HEAT PUMP WH - ADD-ON	0.000	1,004.968	\$0.00	\$0.00	\$700.03
4040	SOLAR WH	0.382	1,446.045	\$0.00	\$0.00	\$2,700.13
4050	HEAT RECOVERY WH	0.383	442.887	\$175.84	\$0.00	\$815.03
4110	GAS WH	0.383	2,505.732	\$0.00	\$0.00	\$515.02
5010	COMPACT FLOURESCENT	0.048	114.445	\$0.00	\$0.00	\$45.00
5020	HIGH EFF. INCANDESCENT	0.020	52.330	\$0.00	\$0.00	\$5.83
5030	HIGH PRESSURE SODIUM FLOODLIGHT	0.000	560.664	\$0.00	\$0.00	\$67.00
5050	LOW PRESSURE SODIUM FLOODLIGHT	0.000	598.042	\$0.00	\$0.00	\$85.00
2040	WINDOW FILM	0.107	386.658	\$0.00	\$0.00	\$202.12
2060	SHADE SCREENS	0.112	404.863	\$0.00	\$0.00	\$100.24
1032	HIGH EFF. HEAT PUMP - ER HT	0.000	1,257.990	\$0.00	\$0.00	\$925.04
1034	GROUND SOURCE HEAT PUMP - ER HT	0.000	2,194.434	\$0.00	\$0.00	\$2,253.08
1036	TWO SPEED HEAT PUMP - ER HT	0.000	1,349.178	\$0.00	\$0.00	\$1,050.40

TABLE B2-R. EXISTING RESIDENTIAL CONSTRUCTION ECMs.

ECM ID #	EXISTING CONSTRUCTION MEASURES	UTILITY NON- RECURRING REBATE/INCENTIVE (\$/CUST)	UTILITY RECURRING REBATE/INCENTIVE (\$/CUST/YR)	PARTICIPANT TEST COST EFFECTIVENESS RATIO	RATE IMPACT TEST COST EFFECTIVENESS RATIO	TOTAL RESOURCE COST TEST COST EFFECTIVENESS RATIO
1050	DUCT LEAKAGE REPAIR	\$0.00	\$0.00	2.350	0.942	2.720
1070	SETBACK/PROGRAM THERMOSTAT	\$0.00	\$0.00	5.331	0.000	0.068
1080	LOAD CONTROL - ELEC. HEAT	\$0.00	\$4.00	99.000	0.000	0.034
1085	LOAD CONTROL - HEAT PUMP	\$0.00	\$4.00	99.000	0.000	0.024
2010	CEILING INSULATION (R-0 TO R-19)	\$0.00	\$0.00	1.036	0.799	0.903
2012	CEILING INSULATION (R-11 TO R-30)	\$0.00	\$0.00	0.428	0.947	0.412
2014	CEILING INSULATION (R-19 TO R-30)	\$0.00	\$0.00	0.318	0.985	0.316
2016	CEILING INSULATION (R-30 TO R-38)	\$0.00	\$0.00	0.101	0.810	0.089
2020	WALL INSULATION (R-0 TO R-11)	\$0.00	\$0.00	0.280	0.489	0.188
2030	WSTRIP/CAULK&BLOWER DOOR	\$0.00	\$0.00	0.235	0.969	0.231
2050	LOW EMISSIVITY GLASS	\$0.00	\$0.00	0.808	0.492	0.545
2070	REFLECTIVE ROOF COATINGS	\$0.00	\$0.00	0.470	0.998	0.472
2080	ATTIC RADIANT BARRIERS	\$0.00	\$0.00	0.988	0.848	0.892
3030	WHOLE HOUSE FAN	\$0.00	\$0.00	0.907	0.000	0.364
3040	HIGH EFF. ROOM AC	\$144.08	\$0.00	4.388	1.000	4.158
3050	CENTRAL AC MAINTENANCE	\$34.83	\$0.00	1.788	1.000	1.775
3055	HEAT PUMP MAINTENANCE	\$33.51	\$0.00	1.687	1.000	1.676
3060	LOAD CONTROL - CENTRAL AC	\$0.00	\$38.00	99.000	0.884	4.504
3065	LOAD CONTROL - HEAT PUMP	\$0.00	\$38.00	99.000	0.877	4.415
3070	LANDSCAPE SHADING	\$0.00	\$0.00	0.585	0.719	0.487
4060	WH TANK WRAP	\$0.00	\$0.00	2.788	0.489	1.898
4070	WH PIPE INSULATION	\$0.00	\$0.00	1.374	0.482	0.945
4080	HEAT TRAP - WATER LINES	\$0.00	\$0.00	2.408	0.501	1.670
4090	LOW-FLOW SHOWERHEAD	\$0.00	\$0.00	4.673	0.506	3.255
4100	LOAD CONTROL - ELECTRIC WH	\$0.00	\$42.00	99.000	0.582	3.020
5040	MOTION DETECTORS - LIGHTING	\$0.00	\$0.00	12.977	0.000	5.018
6010	HIGH EFF. REFRIG. - FROST FREE	\$0.00	\$0.00	0.337	0.330	0.198
6020	HIGH EFF. REFRIG. - MANUAL	\$0.00	\$0.00	0.658	0.342	0.393
6030	REMOVE SECOND REFRIG. - FF	\$0.00	\$0.00	40.707	0.330	23.967
6035	REMOVE SECOND REFRIG. - MAN	\$0.00	\$0.00	39.278	0.342	23.415
6050	HIGH EFF. FREEZER - FROST FREE	\$0.00	\$0.00	0.579	0.329	0.341
6060	HIGH EFF. FREEZER - MANUAL	\$0.00	\$0.00	0.740	0.342	0.441
6070	REMOVE SECOND FREEZER - FF	\$0.00	\$0.00	40.738	0.329	23.979
6075	REMOVE SECOND FREEZER - MAN	\$0.00	\$0.00	39.272	0.342	23.412
6080	HIGH EFF. CLOTHES DRYER	\$0.00	\$0.00	0.228	0.907	0.214
6090	HIGH EFF. CLOTHES WASHER	\$0.00	\$0.00	0.044	0.478	0.030
6100	HIGH EFF. POOL PUMP	\$0.00	\$0.00	3.984	0.584	2.904
6110	DOWN-SIZE POOL PUMP	\$0.00	\$0.00	20.259	0.584	14.840
6120	LOAD CONTROL - POOL PUMP	\$0.00	\$38.00	99.000	0.908	4.111
1010	HIGH EFF. HEAT PUMP	\$0.00	\$0.00	0.325	0.000	0.127
1020	GROUND SOURCE HEAT PUMP	\$0.00	\$0.00	0.288	0.000	0.111
1030	TWO SPEED HEAT PUMP	\$0.00	\$0.00	0.364	0.000	0.142
1090	GAS FURNACE	\$0.00	\$0.00	0.423	0.241	0.154
3010	HIGH EFF. CENTRAL AC	\$155.41	\$0.00	1.039	1.000	1.039
3020	TWO SPEED CENTRAL AC	\$0.00	\$0.00	0.785	0.928	0.750
3090	GAS AIR CONDITIONING	\$732.85	\$0.00	0.327	1.000	0.305
4010	HIGH EFF. ELECTRIC WH	\$0.00	\$0.00	1.158	0.501	0.802
4020	HEAT PUMP WH - INTEGRAL	\$0.00	\$0.00	0.538	0.000	0.208
4030	HEAT PUMP WH - ADD-ON	\$0.00	\$0.00	0.888	0.000	0.343
4040	SOLAR WH	\$0.00	\$0.00	0.331	0.757	0.281
4050	HEAT RECOVERY WH	\$187.47	\$0.00	0.834	1.000	0.837
4110	GAS WH	\$0.00	\$0.00	1.209	0.815	1.100
5010	COMPACT FLOURESCENT	\$0.00	\$0.00	1.789	0.984	1.782
5020	HIGH EFF. INCANDESCENT	\$0.00	\$0.00	8.105	0.978	5.882
5030	HIGH PRESSURE SODIUM FLOODLIGHT	\$0.00	\$0.00	5.188	0.000	1.997
5050	LOW PRESSURE SODIUM FLOODLIGHT	\$0.00	\$0.00	4.343	0.000	1.679
2040	WINDOW FILM	\$0.00	\$0.00	1.218	0.826	1.090
2060	SHADE SCREENS	\$0.00	\$0.00	2.589	0.827	2.296
1032	HIGH EFF. HEAT PUMP - ER HT	\$0.00	\$0.00	0.840	0.000	0.313
1034	GROUND SOURCE HEAT PUMP - ER HT	\$0.00	\$0.00	0.801	0.000	0.226
1036	TWO SPEED HEAT PUMP - ER HT	\$0.00	\$0.00	0.793	0.000	0.296

TABLE B3-R. NEW RESIDENTIAL CONSTRUCTION ECMs.

ECM ID	NEW CONSTRUCTION MEASURES	CUSTOMER kW REDUCTION AT THE METER (kW/CUST)	CUSTOMER kWh REDUCTION AT THE METER (kWh/CUST/yr)	UTILITY NON-RECURRING COST PER CUSTOMER (\$/CUST)	UTILITY RECURRING COST PER CUSTOMER (\$/CUST)	CUSTOMER EQUIPMENT COST (\$/CUST)
1050	DUCT LEAKAGE REPAIR	0.115	296.074	\$0.00	\$0.00	\$275.01
1070	SETBACK/PROGRAM. THERMOSTAT	(0.122)	993.338	\$0.00	\$0.00	\$87.01
1080	LOAD CONTROL - ELEC. HEAT	0.000	22.727	\$135.00	\$2.92	\$0.00
1085	LOAD CONTROL - HEAT PUMP	0.000	15.833	\$135.00	\$2.92	\$0.00
2014	CEILING INSULATION (R-19 TO R-30)	0.084	191.914	\$0.00	\$0.00	\$463.23
2016	CEILING INSULATION (R-30 TO R-38)	0.025	86.075	\$0.00	\$0.00	\$430.95
2050	LOW EMISSIVITY GLASS	0.029	176.234	\$0.00	\$0.00	\$690.03
3030	WHOLE HOUSE FAN	0.000	571.429	\$0.00	\$0.00	\$466.06
3040	HIGH EFF. ROOM AC	0.407	675.539	\$151.29	\$0.00	\$142.01
3050	CENTRAL AC MAINTENANCE	0.163	353.902	\$36.57	\$0.00	\$150.01
3055	HEAT PUMP MAINTENANCE	0.154	332.255	\$35.19	\$0.00	\$150.01
3060	LOAD CONTROL - CENTRAL AC	0.527	99.308	\$135.00	\$2.92	\$0.00
3065	LOAD CONTROL - HEAT PUMP	0.515	96.625	\$135.00	\$2.92	\$0.00
3070	LANDSCAPE SHADING	0.147	638.367	\$0.00	\$0.00	\$558.01
4070	WH PIPE INSULATION	0.018	111.311	\$0.00	\$0.00	\$70.00
4080	HEAT TRAP - WATER LINES	0.018	109.240	\$0.00	\$0.00	\$28.00
4100	LOAD CONTROL - ELECTRIC WH	0.002	10.673	\$135.00	\$2.92	\$0.00
5040	MOTION DETECTORS - LIGHTING	0.000	735.820	\$0.00	\$0.00	\$35.00
6010	HIGH EFF. REFRIG. - FROST FREE	0.040	369.296	\$0.00	\$0.00	\$677.03
6020	HIGH EFF. REFRIG. - MANUAL	0.063	556.721	\$0.00	\$0.00	\$522.01
6050	HIGH EFF. FREEZER - FROST FREE	0.055	508.093	\$0.00	\$0.00	\$541.99
6060	HIGH EFF. FREEZER - MANUAL	0.053	467.967	\$0.00	\$0.00	\$390.00
6080	HIGH EFF. CLOTHES DRYER	0.052	170.920	\$0.00	\$0.00	\$470.02
6090	HIGH EFF. CLOTHES WASHER	0.007	45.852	\$0.00	\$0.00	\$650.03
6100	HIGH EFF. POOL PUMP	0.044	237.665	\$0.00	\$0.00	\$37.00
6110	DOWN-SIZE POOL PUMP	0.307	1,638.968	\$0.00	\$0.00	\$49.94
6120	LOAD CONTROL - POOL PUMP	0.002	13.420	\$135.00	\$2.92	\$0.00
1010	HIGH EFF. HEAT PUMP	0.000	487.069	\$0.00	\$0.00	\$925.24
1020	GROUND SOURCE HEAT PUMP	0.000	1,095.510	\$0.00	\$0.00	\$2,253.95
1030	TWO SPEED HEAT PUMP	0.000	621.648	\$0.00	\$0.00	\$1,055.82
1090	GAS FURNACE	0.000	720.864	\$0.00	\$0.00	\$850.05
3010	HIGH EFF. CENTRAL AC	0.409	690.801	\$148.99	\$0.00	\$625.03
3020	TWO SPEED CENTRAL AC	0.267	890.610	\$0.00	\$0.00	\$700.03
3090	GAS AIR CONDITIONING	1.539	2,630.651	\$769.50	\$0.00	\$7,000.37
4010	HIGH EFF. ELECTRIC WH	0.022	131.075	\$0.00	\$0.00	\$70.00
4020	HEAT PUMP WH - INTEGRAL	0.000	1,061.234	\$0.00	\$0.00	\$1,225.04
4030	HEAT PUMP WH - ADD-ON	0.000	998.121	\$0.00	\$0.00	\$700.04
4040	SOLAR WH	0.360	1,449.444	\$0.00	\$0.00	\$2,700.07
4050	HEAT RECOVERY WH	0.359	583.353	\$133.33	\$0.00	\$615.03
4110	GAS WH	0.359	2,505.694	\$0.00	\$0.00	\$515.01
5010	COMPACT FLOURESCENT	0.046	114.445	\$0.00	\$0.00	\$45.00
5020	HIGH EFF. INCANDESCENT	0.020	52.333	\$0.00	\$0.00	\$5.83
5030	HIGH PRESSURE SODIUM FLOODLIGHT	0.000	580.654	\$0.00	\$0.00	\$67.00
5050	LOW PRESSURE SODIUM FLOODLIGHT	0.000	598.040	\$0.00	\$0.00	\$85.00
2040	REFLECTIVE GLASS	0.099	374.626	\$0.00	\$0.00	\$260.84
2060	SHADE SCREENS	0.118	439.867	\$0.00	\$0.00	\$141.85
2070	REFLECTIVE ROOF COATINGS	0.267	655.976	\$0.00	\$0.00	\$1,403.06
2080	ATTIC RADIANT BARRIERS	0.246	791.998	\$0.00	\$0.00	\$368.02

TABLE B4-R. NEW RESIDENTIAL CONSTRUCTION ECMs.

ECM ID	NEW CONSTRUCTION MEASURES	UTILITY NON-RECURRING REBATE/INCENTIVE (\$/CUST)	UTILITY RECURRING REBATE/INCENTIVE (\$/CUST/YR)	PARTICIPANT TEST COST EFFECTIVENESS RATIO	RATE IMPACT TEST COST EFFECTIVENESS RATIO	TOTAL RESOURCE COST TEST COST EFFECTIVENESS RATIO
1050	DUCT LEAKAGE REPAIR	\$0.00	\$0.00	0.755	0.966	0.739
1070	SETBACK/PROGRAM. THERMOSTAT	\$0.00	\$0.00	7.046	0.000	1.063
1080	LOAD CONTROL - ELEC. HEAT	\$0.00	\$4.00	99.000	0.000	0.034
1085	LOAD CONTROL - HEAT PUMP	\$0.00	\$4.00	99.000	0.000	0.024
2014	CEILING INSULATION (R-19 TO R-30)	\$0.00	\$0.00	0.303	0.986	0.302
2016	CEILING INSULATION (R-30 TO R-38)	\$0.00	\$0.00	0.128	0.801	0.112
2050	LOW EMISSIVITY GLASS	\$0.00	\$0.00	0.158	0.473	0.105
3030	WHOLE HOUSE FAN	\$0.00	\$0.00	0.757	0.000	0.304
3040	HIGH EFF. ROOM AC	\$144.09	\$0.00	4.386	1.000	4.158
3050	CENTRAL AC MAINTENANCE	\$34.83	\$0.00	1.788	1.000	1.775
3055	HEAT PUMP MAINTENANCE	\$33.51	\$0.00	1.687	1.000	1.676
3060	LOAD CONTROL - CENTRAL AC	\$0.00	\$36.00	99.000	0.884	4.504
3065	LOAD CONTROL - HEAT PUMP	\$0.00	\$36.00	99.000	0.877	4.415
3070	LANDSCAPE SHADING	\$0.00	\$0.00	0.706	0.719	0.588
4070	WH PIPE INSULATION	\$0.00	\$0.00	0.982	0.488	0.673
4080	HEAT TRAP - WATER LINES	\$0.00	\$0.00	2.408	0.497	1.666
4100	LOAD CONTROL - ELECTRIC WH	\$0.00	\$42.00	99.000	0.003	0.033
5040	MOTION DETECTORS - LIGHTING	\$0.00	\$0.00	14.010	0.000	4.769
6010	HIGH EFF. REFRIG. - FROST FREE	\$0.00	\$0.00	0.337	0.330	0.198
6020	HIGH EFF. REFRIG. - MANUAL	\$0.00	\$0.00	0.658	0.342	0.393
6050	HIGH EFF. FREEZER - FROST FREE	\$0.00	\$0.00	0.579	0.329	0.341
6060	HIGH EFF. FREEZER - MANUAL	\$0.00	\$0.00	0.740	0.342	0.441
6080	HIGH EFF. CLOTHES DRYER	\$0.00	\$0.00	0.226	0.907	0.214
6090	HIGH EFF. CLOTHES WASHER	\$0.00	\$0.00	0.044	0.476	0.030
6100	HIGH EFF. POOL PUMP	\$0.00	\$0.00	3.964	0.564	2.904
6110	DOWN-SIZE POOL PUMP	\$0.00	\$0.00	20.259	0.564	14.840
6120	LOAD CONTROL - POOL PUMP	\$0.00	\$36.00	99.000	0.005	0.043
1010	HIGH EFF. HEAT PUMP	\$0.00	\$0.00	0.325	0.000	0.127
1020	GROUND SOURCE HEAT PUMP	\$0.00	\$0.00	0.300	0.000	0.115
1030	TWO SPEED HEAT PUMP	\$0.00	\$0.00	0.364	0.000	0.142
1090	GAS FURNACE	\$0.00	\$0.00	0.444	0.241	0.162
3010	HIGH EFF. CENTRAL AC	\$141.89	\$0.00	1.007	1.000	1.007
3020	TWO SPEED CENTRAL AC	\$0.00	\$0.00	0.785	0.930	0.753
3090	GAS AIR CONDITIONING	\$732.86	\$0.00	0.349	1.000	0.326
4010	HIGH EFF. ELECTRIC WH	\$0.00	\$0.00	1.156	0.497	0.800
4020	HEAT PUMP WH - INTEGRAL	\$0.00	\$0.00	0.535	0.000	0.207
4030	HEAT PUMP WH - ADD-ON	\$0.00	\$0.00	0.880	0.000	0.340
4040	SOLAR WH	\$0.00	\$0.00	0.331	0.750	0.281
4050	HEAT RECOVERY WH	\$126.98	\$0.00	0.881	1.000	0.882
4110	GAS WH	\$0.00	\$0.00	1.209	0.811	1.095
5010	COMPACT FLOURESCENT	\$0.00	\$0.00	1.789	0.984	1.762
5020	HIGH EFF. INCANDESCENT	\$0.00	\$0.00	6.105	0.978	5.882
5030	HIGH PRESSURE SODIUM FLOODLIGHT	\$0.00	\$0.00	5.687	0.000	1.946
5050	LOW PRESSURE SODIUM FLOODLIGHT	\$0.00	\$0.00	4.782	0.000	1.643
2040	REFLECTIVE GLASS	\$0.00	\$0.00	0.903	0.806	0.798
2060	SHADE SCREENS	\$0.00	\$0.00	1.955	0.813	1.734
2070	REFLECTIVE ROOF COATINGS	\$0.00	\$0.00	0.340	0.969	0.335
2080	ATTIC RADIANT BARRIERS	\$0.00	\$0.00	1.411	0.846	1.271

III. COMMERCIAL ENERGY CONSERVATION MEASURE RESULTS

TABLE B1-C. EXISTING COMMERCIAL CONSTRUCTION ECMs.

ECM ID	EXISTING CONSTRUCTION MEASURES	CUSTOMER KW REDUCTION AT THE METER (KW/CUST)	CUSTOMER KWH REDUCTION AT THE METER (KWh/CUST/yr)	UTILITY NON-RECURRING COST PER CUSTOMER (\$/CUST)	UTILITY RECURRING COST PER CUSTOMER (\$/CUST)	CUSTOMER EQUIPMENT COST (\$/CUST)
1060	INSTALL COOL STORAGE	31.068	(16,195.489)	\$28,856.37	\$0.00	\$16,877.86
1070	HEAT PIPE ENHANCED DX	0.711	3,028.624	\$0.00	\$0.00	\$3,786.00
1080	HOTEL OCCUPANCY SENSORS	0.813	4,219.780	\$0.00	\$0.00	\$3,447.30
1090	2-SPEED MOTOR - COOLING TOWER	0.026	917.067	\$0.00	\$0.00	\$404.86
1100	SPEED CONTROL - COOLING TOWER	0.033	1,133.875	\$0.00	\$0.00	\$286.09
1110	AC MAINTENANCE - CHILLER	0.158	731.993	\$0.00	\$0.00	\$433.11
1120	AC MAINTENANCE - DX	0.128	533.597	\$0.00	\$0.00	\$383.12
1130	AIR DUCT/WATER PIPE INSUL - CHILLER	0.013	58.130	\$0.00	\$0.00	\$360.06
1140	AIR DUCT/WATER PIPE INSUL - DX	0.010	42.013	\$0.00	\$0.00	\$1,280.86
1150	ENRG MGT SYSTEM - CHILLER	0.485	3,571.033	\$0.00	\$0.00	\$3,434.00
1160	ENRG MGT SYSTEM - DX	0.910	4,139.580	\$0.00	\$0.00	\$3,803.01
1170	TEMP SETUP/SETBACK - CHILLER	0.068	1,807.350	\$0.00	\$0.00	\$194.89
1180	TEMP SETUP/SETBACK - DX	0.186	2,779.819	\$0.00	\$0.00	\$209.47
1190	REPLER HEAT W/ GAS HEAT	0.857	5,278.393	\$0.00	\$0.00	\$3,161.59
2010	INC ROOF INSUL -	1.298	4,760.659	\$0.00	\$0.00	\$2,864.65
2150	ADD WIND FILM-	1.254	3,182.690	\$0.00	\$0.00	\$785.91
2280	LIGHT ROOF-	0.479	1,563.584	\$0.00	\$0.00	\$1,174.96
3020	NO DUCT LEAKS - DX AC	0.597	2,548.427	\$0.00	\$0.00	\$369.36
3200	TIME/PROG CON - CHILLER	0.000	3,548.577	\$0.00	\$0.00	\$582.71
3210	TIME/PROG CON - DX AC	0.014	2,195.182	\$0.00	\$0.00	\$870.78
3260	HE VN MOTORS - CHILLER	0.381	1,588.729	\$0.00	\$0.00	\$114.27
3270	HE VN MOTORS - DX AC	0.145	636.024	\$0.00	\$0.00	\$177.36
3320	MAKEUP AIR/EX - CHILLER	9.640	24,640.000	\$0.00	\$0.00	\$14,133.58
3330	MAKEUP AIR/EX - DX AC	11.026	33,479.167	\$0.00	\$0.00	\$9,098.43
4270	ENERGY MANAGEMENT SYSTEM	0.432	3,267.735	\$0.00	\$0.00	\$4,291.30
4280	OCCUPANCY SENSORS	0.307	6,129.560	\$0.00	\$0.00	\$536.41
5070	ANTI-CONDENS HEAT CONTROL	0.500	2,875.033	\$0.00	\$0.00	\$133.29
5080	HIGH R-VALUE GLASS DOORS	3.000	16,988.852	\$0.00	\$0.00	\$685.55
5090	ENERGY MANAGEMENT SYSTEM	3.014	21,634.293	\$0.00	\$0.00	\$6,456.92
5100	DUAL PATH SUPERMARKET AC	0.000	42,170.051	\$0.00	\$0.00	\$2,280.13
6030	HEAT RECOVERY WATER HEATER	1.265	1,648.433	\$0.00	\$0.00	\$113.86
6040	DHW HEATER INSULATION	0.072	329.720	\$0.00	\$0.00	\$2.61
6050	DHW HEAT TRAP	0.143	659.395	\$0.00	\$0.00	\$0.71
6060	LOW FLOW/VARIABLE FLOW SHOWERHEAD	0.195	900.053	\$0.00	\$0.00	\$0.93
6070	DHW CIRCULATION PUMP	0.000	5,291.337	\$0.00	\$0.00	\$11.27
1010	INSTALL HE CHILLER	0.784	5,674.391	\$0.00	\$0.00	\$540.51
1020	INSTALL HE CHILLER	4.090	22,033.835	\$0.00	\$0.00	\$1,281.63
1030	INSTALL HE CHILLER & ASD	7.163	81,045.918	\$0.00	\$0.00	\$14,492.33
1040	REPLACE DX W/ HE DX	0.788	3,140.742	\$0.00	\$0.00	\$1,799.14
1050	REPLACE RM AC W/ HE RM AC	1.204	5,136.432	\$0.00	\$0.00	\$1,138.11
1200	GAS-FIRED COOLING	2.652	11,196.609	\$0.00	\$0.00	\$4,274.53
3080	VAV W/INLET V - CHILLER	3.393	13,724.051	\$0.00	\$0.00	\$3,491.12
3140	ASD CON W/VAV - CHILLER	5.574	27,011.812	\$0.00	\$0.00	\$2,284.73

TABLE B1-C. EXISTING COMMERCIAL CONSTRUCTION ECMs.

ECM ID	EXISTING CONSTRUCTION MEASURES	CUSTOMER KW REDUCTION AT THE METER (kW/CUST)	CUSTOMER kWh REDUCTION AT THE METER (kWh/CUST/yr)	UTILITY NON-RECURRING COST PER CUSTOMER (\$/CUST)	UTILITY RECURRING COST PER CUSTOMER (\$/CUST)	CUSTOMER EQUIPMENT COST (\$/CUST)
3090	VAV W/INLET V - DX AC	1.721	7,041.782	\$0.00	\$0.00	\$4,783.26
3150	ASD CON W/VAV - DX AC	2.796	13,678.655	\$0.00	\$0.00	\$3,142.04
4010	4'-34W FL W/ HYBRID BAL #1	1.992	8,116.510	\$0.00	\$0.00	\$1,067.49
4020	4'-34W FL W/ HYBRID BAL #2	1.041	4,220.489	\$0.00	\$0.00	\$1,218.82
4030	4'-34W FL W/ ELECTRONIC BAL #1	1.992	8,116.510	\$0.00	\$0.00	\$1,607.93
4040	4'-34W FL W/ ELECTRONIC BAL #2	1.041	4,220.489	\$0.00	\$0.00	\$1,841.49
4070	T8 LAMPS/ELEC BALLAST #1	1.840	7,498.377	\$0.00	\$0.00	\$1,767.44
4080	T8 LAMPS/ELEC BALLAST #2	0.830	3,364.539	\$0.00	\$0.00	\$2,022.88
4090	REF/DE-L FL: 4'-40W, ELEC B	3.298	13,438.140	\$0.00	\$0.00	\$1,501.87
4100	REF/DE-L FL: 4'-34&40W, ELEC B	3.473	14,078.120	\$0.00	\$0.00	\$1,733.93
4130	REF/DE-L FL: 4'-34&40W, HYBRID B #1	4.202	17,120.196	\$0.00	\$0.00	\$1,670.57
4140	REF/DE-L FL: 4'-34&40W, HYBRID B #2	4.272	17,454.853	\$0.00	\$0.00	\$1,914.14
4150	REF/DE-L FL: 4'-34&40W, ELEC B #1	4.202	17,120.196	\$0.00	\$0.00	\$1,940.79
4160	REF/DE-L FL: 4'-34&40W, ELEC B #2	4.033	16,350.693	\$0.00	\$0.00	\$2,223.88
4190	4'-34W FL/DIMMING BALLASTS #1	4.202	13,420.963	\$0.00	\$0.00	\$2,446.21
4200	4'-34W FL/DIMMING BALLASTS #2	4.833	15,486.404	\$0.00	\$0.00	\$3,391.27
4050	8'-60W FL W/ELEC BALLAST #1	2.419	9,406.702	\$0.00	\$0.00	\$2,383.30
4060	8'-60W FL W/ELEC BALLAST #2	1.071	3,652.609	\$0.00	\$0.00	\$2,344.84
4110	REF/DE-L FL: 8'-75W, ELEC B	3.903	15,172.975	\$0.00	\$0.00	\$2,276.25
4120	REF/DE-L FL: 8'-60W, ELEC B	4.696	16,021.352	\$0.00	\$0.00	\$2,277.98
4170	REF/DE-L FL: 8'-60W, ELEC BAL #1	5.112	19,876.700	\$0.00	\$0.00	\$2,854.96
4180	REF/DE-L FL: 8'-60W, ELEC BAL #2	5.233	17,848.161	\$0.00	\$0.00	\$2,816.12
4210	HPS (70/100/150/250W)	1.928	7,403.382	\$0.00	\$0.00	\$2,129.13
4220	HPS (70/100/150/250W), ELEC BAL	2.027	7,778.583	\$0.00	\$0.00	\$2,178.85
4310	LPS SECURITY LIGHTS	3.032	12,102.730	\$0.00	\$0.00	\$2,973.80
4230	HPS (35W)	4.270	18,685.185	\$0.00	\$0.00	\$12,374.28
4240	METAL HALIDE (32W)	4.348	19,022.222	\$0.00	\$0.00	\$14,498.48
4250	COMPACT FL (15/18/27W)	5.033	21,135.209	\$0.00	\$0.00	\$5,034.05
4260	TWO COMPACT FL LAMPS (18W)	5.411	22,720.721	\$0.00	\$0.00	\$14,276.15
4300	PHOTOELECTRIC CONTROL	0.208	5,612.406	\$0.00	\$0.00	\$18.01
5010	MULTIPLEX: AIR COOL	1.971	16,533.141	\$0.00	\$0.00	\$3,557.87
5020	MULTIPLEX: AIR COOL/ AMB SUBC	1.959	17,505.970	\$0.00	\$0.00	\$4,214.96
5030	MULTIPLEX: AIR COOL/ MECH SUBC	1.925	17,879.786	\$0.00	\$0.00	\$4,429.27
5040	MULTIPLEX: AIR COOL/ AMB&MECH SUBC	1.913	18,852.203	\$0.00	\$0.00	\$4,429.27
5050	MULTIPLEX: AIR COOL/EXT LIQ SUCT HX	8.925	23,790.037	\$844.17	\$0.00	\$5,741.13
5060	OPEN-DRIVE REFRIG (ASD)	9.074	15,111.980	\$3,263.28	\$0.00	\$7,772.20
6010	HEAT PUMP WATER HEATER	0.716	3,298.999	\$0.00	\$0.00	\$276.63
6020	SOLAR WATER HEATER	0.925	4,259.821	\$0.00	\$0.00	\$736.75
6080	GAS WATER HEATER	1.418	6,528.191	\$0.00	\$0.00	\$153.34
7010	CONVECTION OVENS	0.469	2,034.052	\$0.00	\$0.00	\$318.07
7020	ENERGY EFFICIENT ELEC FRYERS	0.646	2,420.063	\$0.00	\$0.00	\$135.88
7030	GAS COOKING	3.739	15,589.479	\$0.00	\$0.00	\$205.10

TABLE B2-C. EXISTING COMMERCIAL CONSTRUCTION ECMs.

ECM ID	EXISTING CONSTRUCTION MEASURES	UTILITY NON-RECURRING REBATE/INCENTIVE (\$/CUST)	UTILITY RECURRING REBATE/INCENTIVE (\$/CUST/YR)	PARTICIPANT TEST COST EFFECTIVENESS RATIO	RATE IMPACT TEST COST EFFECTIVENESS RATIO	TOTAL RESOURCE COST TEST COST EFFECTIVENESS RATIO
1060	INSTALL COOL STORAGE	\$27,482.26	\$0.00	2.734	1.000	1.792
1070	HEAT PIPE ENHANCED DX	\$0.00	\$0.00	0.503	0.718	0.417
1080	HOTEL OCCUPANCY SENSORS	\$0.00	\$0.00	0.755	0.596	0.573
1090	2-SPEED MOTOR - COOLING TOWER	\$0.00	\$0.00	1.398	0.087	0.614
1100	SPEED CONTROL - COOLING TOWER	\$0.00	\$0.00	2.447	0.089	1.077
1110	AC MAINTENANCE - CHILLER	\$0.00	\$0.00	1.048	0.647	0.821
1120	AC MAINTENANCE - DX	\$0.00	\$0.00	0.865	0.720	0.716
1130	AIR DUCT/WATER PIPE INSUL - CHILLER	\$0.00	\$0.00	0.097	0.687	0.078
1140	AIR DUCT/WATER PIPE INSUL - DX	\$0.00	\$0.00	0.020	0.721	0.017
1150	ENRG MGT SYSTEM - CHILLER	\$0.00	\$0.00	0.642	0.411	0.411
1160	ENRG MGT SYSTEM - DX	\$0.00	\$0.00	0.677	0.668	0.541
1170	TEMP SETUP/SETBACK - CHILLER	\$0.00	\$0.00	5.725	0.106	2.366
1180	TEMP SETUP/SETBACK - DX	\$0.00	\$0.00	8.192	0.191	3.879
1190	REP ER HEAT W/ GAS HEAT	\$0.00	\$0.00	0.928	0.562	0.658
2010	INC ROOF INSUL -	\$0.00	\$0.00	1.047	0.761	0.884
2150	ADD WIND FILM-	\$0.00	\$0.00	2.875	0.977	2.798
2280	LIGHT ROOF-	\$0.00	\$0.00	0.854	0.891	0.797
3020	NO DUCT LEAKS - DX AC	\$0.00	\$0.00	4.274	0.706	3.501
3200	TIME/PROG CON - CHILLER	\$0.00	\$0.00	3.759	0.000	1.467
3210	TIME/PROG CON - DX AC	\$0.00	\$0.00	1.556	0.020	0.637
3260	HE VN MOTORS - CHILLER	\$0.00	\$0.00	8.604	0.725	7.152
3270	HE VN MOTORS - DX AC	\$0.00	\$0.00	2.218	0.690	1.798
3320	MAKEUP AIR/EX - CHILLER	\$0.00	\$0.00	1.221	0.993	1.214
3330	MAKEUP AIR/EX - DX AC	\$0.00	\$0.00	2.458	0.902	2.296
4270	ENERGY MANAGEMENT SYSTEM	\$0.00	\$0.00	0.470	0.410	0.305
4280	OCCUPANCY SENSORS	\$0.00	\$0.00	7.054	0.152	3.389
5070	ANTI-CONDENS HEAT CONTROL	\$0.00	\$0.00	13.318	0.526	9.443
5080	HI R-VALUE GLASS DOORS	\$0.00	\$0.00	15.300	0.534	10.921
5090	ENERGY MANAGEMENT SYSTEM	\$0.00	\$0.00	2.068	0.436	1.377
5100	DUAL PATH SUPERMARKET AC	\$0.00	\$0.00	11.417	0.000	4.413
6030	HEAT RECOVERY WATER HEATER	\$0.00	\$0.00	15.950	0.992	11.995
6040	DHW HEATER INSULATION	\$0.00	\$0.00	78.073	0.658	61.525
6050	DHW HEAT TRAP	\$0.00	\$0.00	572.621	0.658	439.962
6060	LO FLO/VARI FLO SHOWERHEAD	\$0.00	\$0.00	597.437	0.654	452.902
6070	DHW CIRCULATION PUMP	\$0.00	\$0.00	289.941	0.000	112.716
1010	INSTALL HE CHILLER	\$0.00	\$0.00	6.481	0.418	4.166
1020	INSTALL HE CHILLER	\$0.00	\$0.00	10.613	0.561	7.754
1030	INSTALL HE CHILLER & ASD	\$0.00	\$0.00	3.452	0.267	1.900
1040	RPL LE DX W/ HE DX	\$0.00	\$0.00	1.085	0.751	0.919
1050	RPL LE RM AC W/ HE RM AC	\$0.00	\$0.00	2.797	0.706	2.292
1200	GAS-FIRED COOLING	\$0.00	\$0.00	1.015	0.957	0.985
3080	VAV W/INLET V - CHILLER	\$0.00	\$0.00	2.489	0.702	2.013
3140	ASD CON W/VAV - CHILLER	\$0.00	\$0.00	7.333	0.614	5.569

TABLE B2-C. EXISTING COMMERCIAL CONSTRUCTION ECMs.

ECM ID #	EXISTING CONSTRUCTION MEASURES	UTILITY NON-RECURRING REBATE/INCENTIVE (\$/CUST)	UTILITY RECURRING REBATE/INCENTIVE (\$/CUST/YR)	PARTICIPANT TEST COST EFFECTIVENESS RATIO	RATE IMPACT TEST COST EFFECTIVENESS RATIO	TOTAL RESOURCE COST TEST COST EFFECTIVENESS RATIO
3090	VAV W/INLET V - DX AC	\$0.00	\$0.00	0.969	0.625	0.712
3150	ASD CON W/VAV - DX AC	\$0.00	\$0.00	2.727	0.580	1.988
4010	4'-34W FL W/ HYBRID BAL #1	\$0.00	\$0.00	4.726	0.735	3.951
4020	4'-34W FL W/ HYBRID BAL #2	\$0.00	\$0.00	2.150	0.738	1.802
4030	4'-34W FL W/ ELECTRONIC BAL #1	\$0.00	\$0.00	3.138	0.735	2.625
4040	4'-34W FL W/ ELECTRONIC BAL #2	\$0.00	\$0.00	1.423	0.738	1.193
4070	T8 LAMPS/ELEC BALLAST #1	\$0.00	\$0.00	2.637	0.735	2.206
4080	T8 LAMPS/ELEC BALLAST #2	\$0.00	\$0.00	1.033	0.738	0.866
4090	REF/DE-L FL: 4'-40W, ELEC B	\$0.00	\$0.00	5.562	0.735	4.649
4100	REF/DE-L FL: 4'-34&40W, ELEC B	\$0.00	\$0.00	5.042	0.738	4.221
4130	REF/DE-L FL: 4'-34&40W, HYBRID B #1	\$0.00	\$0.00	6.370	0.735	5.323
4140	REF/DE-L FL: 4'-34&40W, HYBRID B #2	\$0.00	\$0.00	5.660	0.732	4.718
4150	REF/DE-L FL: 4'-34&40W, ELEC B #1	\$0.00	\$0.00	5.483	0.735	4.583
4160	REF/DE-L FL: 4'-34&40W, ELEC B #2	\$0.00	\$0.00	4.565	0.738	3.823
4190	4'-34W FL/DIMMING BALLASTS #1	\$0.00	\$0.00	3.546	0.880	3.260
4200	4'-34W FL/DIMMING BALLASTS #2	\$0.00	\$0.00	2.970	0.865	2.702
4050	8'-60W FL W/ELEC BALLAST #1	\$0.00	\$0.00	2.438	0.780	2.109
4060	8'-60W FL W/ELEC BALLAST #2	\$0.00	\$0.00	0.963	0.890	0.899
4110	REF/DE-L FL: 8'-75W, ELEC B	\$0.00	\$0.00	4.117	0.780	3.562
4120	REF/DE-L FL: 8'-60W, ELEC B	\$0.00	\$0.00	4.349	0.890	4.057
4170	REF/DE-L FL: 8'-60W, ELEC BAL #1	\$0.00	\$0.00	4.300	0.780	3.721
4180	REF/DE-L FL: 8'-60W, ELEC BAL #2	\$0.00	\$0.00	3.919	0.890	3.656
4210	HPS (70/100/150/250W)	\$0.00	\$0.00	2.154	0.787	1.874
4220	HPS (70/100/150/250W), ELEC BAL	\$0.00	\$0.00	2.212	0.788	1.925
4310	LPS SECURITY LIGHTS	\$0.00	\$0.00	2.521	0.758	2.147
4230	HPS (35W)	\$0.00	\$0.00	0.933	0.692	0.757
4240	METAL HALIDE (32W)	\$0.00	\$0.00	0.811	0.692	0.658
4250	COMPACT FL (15/18/27W)	\$0.00	\$0.00	2.596	0.721	2.152
4260	TWO COMPACT FL LAMPS (18W)	\$0.00	\$0.00	0.984	0.720	0.816
4300	PHOTOELECTRIC CONTROL	\$0.00	\$0.00	192.389	0.114	89.755
5010	MULTIPLEX: AIR COOL	\$0.00	\$0.00	2.869	0.360	1.743
5020	MULTIPLEX: AIR COOL/ AMB SUBC	\$0.00	\$0.00	2.564	0.338	1.523
5030	MULTIPLEX: AIR COOL/ MECH SUBC	\$0.00	\$0.00	2.492	0.325	1.461
5040	MULTIPLEX: AIR COOL/ AMB&MECH SU	\$0.00	\$0.00	2.628	0.307	1.510
5050	MULTIPLEX: AIR COOL/EXT LIQ SUCT H	\$803.97	\$0.00	2.758	1.000	2.741
5060	OPEN-DRIVE REFRIG (ASD)	\$3,107.89	\$0.00	1.772	1.000	1.750
6010	HEAT PUMP WATER HEATER	\$0.00	\$0.00	7.365	0.658	5.825
6020	SOLAR WATER HEATER	\$0.00	\$0.00	3.573	0.658	2.827
6080	GAS WATER HEATER	\$0.00	\$0.00	1.973	0.955	2.611
7010	CONVECTION OVENS	\$0.00	\$0.00	3.956	0.706	3.253
7020	ENERGY EFFICIENT ELEC FRYERS	\$0.00	\$0.00	11.013	0.827	9.867
7030	GAS COOKING	\$0.00	\$0.00	2.901	0.926	4.126

TABLE B3-C. NEW COMMERCIAL CONSTRUCTION ECMs.

ECM ID	NEW CONSTRUCTION MEASURES	CUSTOMER KW REDUCTION AT THE METER (kW/CUST)	CUSTOMER kWh REDUCTION AT THE METER (kWh/CUST/yr)	UTILITY NON-RECURRING COST PER CUSTOMER (\$/CUST)	UTILITY RECURRING COST PER CUSTOMER (\$/CUST)	CUSTOMER EQUIPMENT COST (\$/CUST)
1060	INSTALL COOL STORAGE	35.667	(16,866.667)	\$32,570.86	\$0.00	\$16,062.88
1070	HEAT PIPE ENHANCED DX	0.968	3,242.588	\$0.00	\$0.00	\$3,986.93
1080	HOTEL OCCUPANCY SENSORS	0.500	3,500.000	\$0.00	\$0.00	\$3,375.96
1090	2-SPEED MOTOR - COOLING TOWER	0.021	647.887	\$0.00	\$0.00	\$346.31
1100	SPEED CONTROL - COOLING TOWER	0.028	809.859	\$0.00	\$0.00	\$209.37
1110	AC MAINTENANCE - CHILLER	0.164	596.244	\$0.00	\$0.00	\$385.09
1120	AC MAINTENANCE - DX	0.196	788.660	\$0.00	\$0.00	\$437.28
1130	AIR DUCT/WATER PIPE INSUL - CHILLER	0.019	65.728	\$0.00	\$0.00	\$313.65
1140	AIR DUCT/WATER PIPE INSUL - DX	0.014	50.000	\$0.00	\$0.00	\$1,306.18
1150	ENRG MGT SYSTEM - CHILLER	0.552	4,117.241	\$0.00	\$0.00	\$3,454.32
1160	ENRG MGT SYSTEM - DX	1.163	4,771.863	\$0.00	\$0.00	\$3,994.11
1170	TEMP SETUP/SETBACK - CHILLER	0.052	2,000.000	\$0.00	\$0.00	\$196.55
1180	TEMP SETUP/SETBACK - DX	0.263	3,181.624	\$0.00	\$0.00	\$230.14
1190	REP ER HEAT W/ GAS HEAT	1.427	6,854.902	\$0.00	\$0.00	\$3,265.38
2010	INC ROOF INSUL -	0.543	1,497.475	\$0.00	\$0.00	\$2,395.40
2150	ADD WIND FILM-	1.263	3,382.576	\$0.00	\$0.00	\$877.15
2280	LIGHT ROOF-	0.703	1,979.167	\$0.00	\$0.00	\$1,197.70
3020	NO DUCT LEAKS - DX AC	0.344	1,057.903	\$0.00	\$0.00	\$141.12
3200	TIME/PROG CON - CHILLER	0.032	4,735.135	\$0.00	\$0.00	\$585.53
3210	TIME/PROG CON - DX AC	0.022	2,575.000	\$0.00	\$0.00	\$888.16
3260	HE VN MOTORS - CHILLER	0.680	2,546.392	\$0.00	\$0.00	\$142.82
3270	HE VN MOTORS - DX AC	0.216	799.687	\$0.00	\$0.00	\$180.71
3330	MAKEUP AIR/EX - DX AC	18.000	45,666.667	\$0.00	\$0.00	\$12,532.15
4270	ENERGY MANAGEMENT SYSTEM	0.606	4,096.899	\$0.00	\$0.00	\$4,378.38
4280	OCCUPANCY SENSORS	0.434	8,121.447	\$0.00	\$0.00	\$547.30
5070	ANTI-CONDENS HEAT CONTROL	0.298	1,017.544	\$0.00	\$0.00	\$182.66
5080	HI R-VALUE GLASS DOORS	1.918	6,655.738	\$0.00	\$0.00	\$965.17
5090	ENERGY MANAGEMENT SYSTEM	0.222	1,333.333	\$0.00	\$0.00	\$6,438.67
5100	DUAL PATH SUPERMARKET AC	0.000	2,647.059	\$0.00	\$0.00	\$2,274.68
6030	HEAT RECOVERY WATER HEATER	1.196	1,306.878	\$0.00	\$0.00	\$187.31
6040	DHW HEATER INSULATION	0.069	243.534	\$0.00	\$0.00	\$4.00
1010	INSTALL HE CHILLER	1.151	6,466.667	\$0.00	\$0.00	\$542.91
1040	RPL LE DX W/ HE DX	0.910	3,565.217	\$0.00	\$0.00	\$1,881.26
1050	RPL LE RM AC W/ HE RM AC	1.593	5,925.926	\$0.00	\$0.00	\$1,210.19
1200	GAS-FIRED COOLING	3.342	12,000.000	\$0.00	\$0.00	\$3,967.94
3080	VAV W/INLET V - CHILLER	5.862	20,293.578	\$0.00	\$0.00	\$3,989.00
3140	ASD CON W/VAV - CHILLER	10.092	39,651.376	\$0.00	\$0.00	\$2,659.25

TABLE B3-C. NEW COMMERCIAL CONSTRUCTION ECMs.

ECM ID	NEW CONSTRUCTION MEASURES	CUSTOMER KW REDUCTION AT THE METER (kW/CUST)	CUSTOMER kWh REDUCTION AT THE METER (kWh/CUST/yr)	UTILITY NON-RECURRING COST PER CUSTOMER (\$/CUST)	UTILITY RECURRING COST PER CUSTOMER (\$/CUST)	CUSTOMER EQUIPMENT COST (\$/CUST)
3090	VAV W/INLET V - DX AC	2.532	9,162.839	\$0.00	\$0.00	\$4,876.22
3150	ASD CON W/VAV - DX AC	4.084	17,319.415	\$0.00	\$0.00	\$3,203.12
4010	4'-34W FL W/ HYBRID BAL #1	0.000	0.000	\$0.00	\$0.00	\$0.00
4020	4'-34W FL W/ HYBRID BAL #2	0.000	0.000	\$0.00	\$0.00	\$0.00
4030	4'-34W FL W/ ELECTRONIC BAL #1	3.140	11,873.144	\$0.00	\$0.00	\$886.54
4040	4'-34W FL W/ ELECTRONIC BAL #2	0.000	0.000	\$0.00	\$0.00	\$0.00
4070	T8 LAMPS/ELEC BALLAST #1	3.439	13,000.000	\$0.00	\$0.00	\$1,046.43
4080	T8 LAMPS/ELEC BALLAST #2	0.000	0.000	\$0.00	\$0.00	\$0.00
4190	4'-34W FL/DIMMING BALLASTS #1	6.322	18,672.414	\$0.00	\$0.00	\$1,339.06
4050	8'-60W FL W/ELEC BALLAST #1	3.506	12,933.333	\$0.00	\$0.00	\$2,976.45
4060	8'-60W FL W/ELEC BALLAST #2	1.409	4,363.636	\$0.00	\$0.00	\$2,998.16
4110	REF/DE-L FL: 8'-75W, ELEC B	5.648	20,861.111	\$0.00	\$0.00	\$2,856.29
4120	REF/DE-L FL: 8'-60W, ELEC B	6.074	18,740.741	\$0.00	\$0.00	\$2,852.19
4170	REF/DE-L FL: 8'-60W, ELEC BAL #1	7.398	27,333.333	\$0.00	\$0.00	\$3,581.14
4180	REF/DE-L FL: 8'-60W, ELEC BAL #2	6.741	20,888.889	\$0.00	\$0.00	\$3,527.09
4210	HPS (70/100/150/250W)	3.037	10,740.741	\$0.00	\$0.00	\$2,210.74
4220	HPS (70/100/150/250W), ELEC BAL	3.185	11,259.259	\$0.00	\$0.00	\$2,262.29
4310	LPS SECURITY LIGHTS	5.279	19,139.535	\$0.00	\$0.00	\$2,999.13
4230	HPS (35W)	7.167	28,333.333	\$0.00	\$0.00	\$10,756.88
4240	METAL HALIDE (32W)	7.333	28,833.333	\$0.00	\$0.00	\$12,668.86
4250	COMPACT FL (15/18/27W)	8.464	33,107.143	\$0.00	\$0.00	\$4,439.23
4260	TWO COMPACT FL LAMPS (18W)	9.667	37,833.333	\$0.00	\$0.00	\$11,700.96
4290	DAYLIGHTING DESIGN	6.322	18,672.414	\$0.00	\$0.00	\$3,390.13
4300	PHOTOELECTRIC CONTROL	0.368	8,929.825	\$0.00	\$0.00	\$22.34
5010	MULTIPLEX: AIR COOL	0.375	2,104.167	\$0.00	\$0.00	\$3,855.39
5020	MULTIPLEX: AIR COOL/ AMB SUBC	0.375	2,208.333	\$0.00	\$0.00	\$4,567.44
5030	MULTIPLEX: AIR COOL/ MECH SUBC	0.375	2,270.833	\$0.00	\$0.00	\$4,799.67
5040	MULTIPLEX: AIR COOL/ AMB&MECH SUBC	0.354	2,395.833	\$0.00	\$0.00	\$5,511.52
5050	MULTIPLEX: AIR COOL/EXT LIQ SUCT HX	1.708	3,020.833	\$562.10	\$0.00	\$6,221.24
5060	OPEN-DRIVE REFRIG (ASD)	1.563	1,916.667	\$738.04	\$0.00	\$8,422.14
6010	HEAT PUMP WATER HEATER	0.686	2,430.686	\$0.00	\$0.00	\$423.44
6020	SOLAR WATER HEATER	0.887	3,145.553	\$0.00	\$0.00	\$1,274.39
6080	GAS WATER HEATER	1.360	4,818.810	\$0.00	\$0.00	\$167.45
7010	CONVECTION OVENS	0.289	1,052.632	\$0.00	\$0.00	\$375.80
7020	ENERGY EFFICIENT ELEC FRYERS	0.192	615.385	\$0.00	\$0.00	\$183.07
7030	GAS COOKING	2.159	7,710.145	\$0.00	\$0.00	\$263.02

TABLE B4-C. NEW COMMERCIAL CONSTRUCTION ECMs.

ECM ID	NEW CONSTRUCTION MEASURES	UTILITY NON-RECURRING REBATE/INCENTIVE (\$/CUST)	UTILITY RECURRING REBATE/INCENTIVE (\$/CUST/YR)	PARTICIPANT TEST COST EFFECTIVENESS RATIO	RATE IMPACT TEST COST EFFECTIVENESS RATIO	TOTAL RESOURCE COST TEST COST EFFECTIVENESS RATIO
1060	INSTALL COOL STORAGE	\$31,019.87	\$0.00	3.300	1.000	2.121
1070	HEAT PIPE ENHANCED DX	\$0.00	\$0.00	0.530	0.857	0.484
1080	HOTEL OCCUPANCY SENSORS	\$0.00	\$0.00	0.602	0.510	0.427
1090	2-SPEED MOTOR - COOLING TOWER	\$0.00	\$0.00	1.154	0.105	0.521
1100	SPEED CONTROL - COOLING TOWER	\$0.00	\$0.00	2.388	0.099	1.071
1110	AC MAINTENANCE - CHILLER	\$0.00	\$0.00	0.972	0.808	0.856
1120	AC MAINTENANCE - DX	\$0.00	\$0.00	1.130	0.737	0.946
1130	AIR DUCT/WATER PIPE INSUL - CHILLER	\$0.00	\$0.00	0.129	0.840	0.116
1140	AIR DUCT/WATER PIPE INSUL - DX	\$0.00	\$0.00	0.024	0.813	0.021
1150	ENRG MGT SYSTEM - CHILLER	\$0.00	\$0.00	0.738	0.405	0.468
1160	ENRG MGT SYSTEM - DX	\$0.00	\$0.00	0.755	0.720	0.626
1170	TEMP SETUP/SETBACK - CHILLER	\$0.00	\$0.00	6.283	0.074	2.469
1180	TEMP SETUP/SETBACK - DX	\$0.00	\$0.00	8.535	0.236	4.299
1190	REP ER HEAT W/ GAS HEAT	\$0.00	\$0.00	1.183	0.676	0.943
2010	INC ROOF INSUL -	\$0.00	\$0.00	0.433	0.847	0.388
2150	ADD WIND FILM-	\$0.00	\$0.00	2.709	0.916	2.532
2280	LIGHT ROOF-	\$0.00	\$0.00	1.129	0.932	1.080
3020	NO DUCT LEAKS - DX AC	\$0.00	\$0.00	4.869	0.921	4.585
3200	TIME/PROG CON - CHILLER	\$0.00	\$0.00	4.992	0.020	2.009
3210	TIME/PROG CON - DX AC	\$0.00	\$0.00	1.790	0.026	0.737
3260	HE VN MOTORS - CHILLER	\$0.00	\$0.00	11.229	0.788	9.660
3270	HE VN MOTORS - DX AC	\$0.00	\$0.00	2.775	0.798	2.427
3330	MAKEUP AIR/EX - DX AC	\$0.00	\$0.00	2.620	0.952	2.510
4270	ENERGY MANAGEMENT SYSTEM	\$0.00	\$0.00	0.578	0.460	0.392
4280	OCCUPANCY SENSORS	\$0.00	\$0.00	9.160	0.162	4.463
5070	ANTI-CONDENS HEAT CONTROL	\$0.00	\$0.00	3.473	0.858	3.168
5080	HI R-VALUE GLASS DOORS	\$0.00	\$0.00	4.269	0.867	3.918
5090	ENERGY MANAGEMENT SYSTEM	\$0.00	\$0.00	0.129	0.502	0.091
5100	DUAL PATH SUPERMARKET AC	\$0.00	\$0.00	0.714	0.000	0.276
6030	HEAT RECOVERY WATER HEATER	\$0.00	\$0.00	8.776	0.998	7.347
6040	DHW HEATER INSULATION	\$0.00	\$0.00	38.277	0.834	33.220
1010	INSTALL HE CHILLER	\$0.00	\$0.00	7.352	0.539	5.275
1040	RPL LE DX W/ HE DX	\$0.00	\$0.00	1.188	0.754	1.007
1050	RPL LE RM AC W/ HE RM AC	\$0.00	\$0.00	3.063	0.801	2.684
1200	GAS-FIRED COOLING	\$0.00	\$0.00	1.156	0.995	1.190
3080	VAV W/INLET V - CHILLER	\$0.00	\$0.00	3.267	0.805	2.846
3140	ASD CON W/VAV - CHILLER	\$0.00	\$0.00	9.297	0.753	7.838

TABLE B4-C. NEW COMMERCIAL CONSTRUCTION ECMs.

ECM ID #	NEW CONSTRUCTION MEASURES	UTILITY NON-RECURRING REBATE/INCENTIVE (\$/CUST)	UTILITY RECURRING REBATE/INCENTIVE (\$/CUST/YR)	PARTICIPANT TEST COST EFFECTIVENESS RATIO	RATE IMPACT TEST COST EFFECTIVENESS RATIO	TOTAL RESOURCE COST TEST COST EFFECTIVENESS RATIO
3090	VAV W/INLET V - DX AC	\$0.00	\$0.00	1.246	0.701	0.987
3150	ASD CON W/VAV - DX AC	\$0.00	\$0.00	3.395	0.671	2.675
4010	4'-34W FL W/ HYBRID BAL #1	\$0.00	\$0.00	0.000	0.000	0.000
4020	4'-34W FL W/ HYBRID BAL #2	\$0.00	\$0.00	0.000	0.000	0.000
4030	4'-34W FL W/ ELECTRONIC BAL #1	\$0.00	\$0.00	8.400	0.780	7.217
4040	4'-34W FL W/ ELECTRONIC BAL #2	\$0.00	\$0.00	0.000	0.000	0.000
4070	T8 LAMPS/ELEC BALLAST #1	\$0.00	\$0.00	7.792	0.780	6.698
4080	T8 LAMPS/ELEC BALLAST #2	\$0.00	\$0.00	0.000	0.000	0.000
4190	4'-34W FL/DIMMING BALLASTS #1	\$0.00	\$0.00	9.102	0.936	8.546
4050	8'-60W FL W/ELEC BALLAST #1	\$0.00	\$0.00	2.748	0.789	2.382
4060	8'-60W FL W/ELEC BALLAST #2	\$0.00	\$0.00	0.939	0.915	0.889
4110	REF/DE-L FL: 8'-75W, ELEC B	\$0.00	\$0.00	4.619	0.789	3.995
4120	REF/DE-L FL: 8'-60W, ELEC B	\$0.00	\$0.00	4.234	0.915	3.981
4170	REF/DE-L FL: 8'-60W, ELEC BAL #1	\$0.00	\$0.00	4.826	0.789	4.173
4180	REF/DE-L FL: 8'-60W, ELEC BAL #2	\$0.00	\$0.00	3.814	0.915	3.589
4210	HPS (70/100/150/250W)	\$0.00	\$0.00	3.054	0.833	2.733
4220	HPS (70/100/150/250W), ELEC BAL	\$0.00	\$0.00	3.130	0.833	2.802
4310	LPS SECURITY LIGHTS	\$0.00	\$0.00	3.990	0.820	3.542
4230	HPS (35W)	\$0.00	\$0.00	1.637	0.755	1.390
4240	METAL HALIDE (32W)	\$0.00	\$0.00	1.415	0.755	1.202
4250	COMPACT FL (15/18/27W)	\$0.00	\$0.00	4.657	0.762	3.965
4260	TWO COMPACT FL LAMPS (18W)	\$0.00	\$0.00	2.021	0.762	1.723
4290	DAYLIGHTING DESIGN	\$0.00	\$0.00	3.595	0.936	3.425
4300	PHOTOELECTRIC CONTROL	\$0.00	\$0.00	246.674	0.124	116.625
5010	MULTIPLEX: AIR COOL	\$0.00	\$0.00	0.335	0.541	0.241
5020	MULTIPLEX: AIR COOL/ AMB SUBC	\$0.00	\$0.00	0.300	0.508	0.209
5030	MULTIPLEX: AIR COOL/ MECH SUBC	\$0.00	\$0.00	0.291	0.489	0.200
5040	MULTIPLEX: AIR COOL/ AMB&MECH SU	\$0.00	\$0.00	0.267	0.461	0.179
5050	MULTIPLEX: AIR COOL/EXT LIQ SUCT H	\$535.33	\$0.00	0.422	1.000	0.426
5060	OPEN-DRIVE REFRIG (ASD)	\$702.90	\$0.00	0.260	1.000	0.264
6010	HEAT PUMP WATER HEATER	\$0.00	\$0.00	3.611	0.834	3.233
6020	SOLAR WATER HEATER	\$0.00	\$0.00	1.552	0.834	1.392
6080	GAS WATER HEATER	\$0.00	\$0.00	2.083	0.989	2.803
7010	CONVECTION OVENS	\$0.00	\$0.00	1.745	0.812	1.545
7020	ENERGY EFFICIENT ELEC FRYERS	\$0.00	\$0.00	2.064	0.930	1.977
7030	GAS COOKING	\$0.00	\$0.00	2.796	0.951	3.800

IV. PORTFOLIO SECTION RESULTS

TABLE C1. SUMMARY OF RESIDENTIAL MEASURES THAT PASS RIM

YEAR	WINTER kW REDUCTION	SUMMER kW REDUCTION	MWh ENERGY REDUCTION	RATE IMPACT	
				ANNUAL (cents/kWh)	CUMULATIVE (cents/kWh)
1996	77.09	171.98	331.86	0.00	0.00
1997	182.72	407.65	786.63	0.00	0.00
1998	411.12	917.22	1,769.92	0.00	0.00
1999	830.81	1,853.55	3,576.71	0.00	0.00
2000	1,427.50	3,184.80	6,145.55	0.00	0.00
2001	2,024.20	4,516.05	8,714.39	0.00	0.00
2002	2,443.88	5,452.38	10,521.18	0.00	0.00
2003	2,669.43	5,955.58	11,492.18	0.00	0.00
2004	2,777.92	6,197.62	11,959.24	0.00	0.00
2005	2,855.00	6,369.60	12,291.10	0.00	0.00

TABLE C1. SUMMARY OF COMMERCIAL MEASURES THAT PASS RIM

YEAR	WINTER kW REDUCTION	SUMMER kW REDUCTION	MWh ENERGY REDUCTION	RATE IMPACT	
				ANNUAL (cents/kWh)	CUMULATIVE (cents/kWh)
1996	0.02	32.89	0.01	0.00	0.00
1997	0.04	77.95	0.03	0.00	0.00
1998	0.10	175.39	0.07	0.00	0.00
1999	0.20	354.44	0.14	0.00	0.00
2000	0.35	609.00	0.24	0.00	0.00
2001	0.49	863.56	0.34	0.00	0.00
2002	0.59	1,042.61	0.41	0.00	0.00
2003	0.65	1,138.83	0.45	0.00	0.00
2004	0.67	1,185.11	0.46	0.00	0.00
2005	0.69	1,218.00	0.48	0.00	0.00

TABLE C2. SUMMARY OF RESIDENTIAL MEASURES THAT PASS TRC

YEAR	WINTER kW REDUCTION	SUMMER kW REDUCTION	MWh ENERGY REDUCTION	RATE IMPACT	
				ANNUAL (cents/kWh)	CUMULATIVE (cents/kWh)
1996	314.61	626.13	1,591.79	0.01	0.01
1997	745.74	1,484.16	3,773.12	(0.01)	0.00
1998	1,677.92	3,339.36	8,489.52	(0.04)	(0.04)
1999	3,390.79	6,748.29	17,155.91	(0.10)	(0.14)
2000	5,826.10	11,595.00	29,477.50	(0.17)	(0.31)
2001	8,261.41	16,441.71	41,799.10	(0.21)	(0.52)
2002	9,974.28	19,850.64	50,465.48	(0.20)	(0.72)
2003	10,894.81	21,682.65	55,122.93	(0.18)	(0.90)
2004	11,337.59	22,563.87	57,363.22	0.08	(0.82)
2005	11,652.20	23,190.00	58,955.00	0.05	(0.77)

TABLE C2. SUMMARY OF COMMERCIAL MEASURES THAT PASS TRC

YEAR	WINTER kW REDUCTION	SUMMER kW REDUCTION	MWh ENERGY REDUCTION	RATE IMPACT	
				ANNUAL (cents/kWh)	CUMULATIVE (cents/kWh)
1996	644.92	544.91	2,463.16	0.02	(0.75)
1997	1,528.70	1,291.64	5,838.59	0.01	(0.74)
1998	3,439.58	2,906.19	13,136.83	(0.03)	(0.77)
1999	6,950.83	5,872.93	26,547.35	(0.12)	(0.89)
2000	11,943.00	10,090.95	45,614.00	(0.26)	(1.15)
2001	16,935.17	14,308.97	64,680.65	(0.42)	(1.57)
2002	20,446.42	17,275.71	78,091.17	(0.56)	(2.13)
2003	22,333.41	18,870.08	85,298.18	(0.68)	(2.81)
2004	23,241.08	19,636.99	88,764.84	(0.69)	(3.50)
2005	23,886.00	20,181.90	91,228.00	(0.70)	(4.20)

TABLE C3. SUMMARY OF ALL MEASURES THAT PASS RIM

YEAR	WINTER kW REDUCTION	SUMMER kW REDUCTION	MWh ENERGY REDUCTION	RATE IMPACT	
				ANNUAL (cents/kWh)	CUMULATIVE (cents/kWh)
1996	77.10	204.87	331.87	0.00	0.00
1997	182.76	485.61	786.66	0.00	0.00
1998	411.22	1,092.61	1,769.99	0.00	0.00
1999	831.01	2,207.99	3,576.85	0.00	0.00
2000	1,427.85	3,793.80	6,145.79	0.00	0.00
2001	2,024.69	5,379.61	8,714.73	0.00	0.00
2002	2,444.47	6,494.99	10,521.59	0.00	0.00
2003	2,670.07	7,094.41	11,492.62	0.00	0.00
2004	2,778.59	7,382.73	11,959.70	0.00	0.00
2005	2,855.69	7,587.60	12,291.58	0.00	0.00

TABLE C3. SUMMARY OF ALL MEASURES THAT PASS TRC

YEAR	WINTER kW REDUCTION	SUMMER kW REDUCTION	MWh ENERGY REDUCTION	RATE IMPACT	
				ANNUAL (cents/kWh)	CUMULATIVE (cents/kWh)
1996	959.53	1,171.04	4,054.94	0.03	(0.74)
1997	2,274.44	2,775.80	9,611.71	0.00	(0.74)
1998	5,117.50	6,245.55	21,626.35	(0.07)	(0.81)
1999	10,341.62	12,621.22	43,703.25	(0.22)	(1.03)
2000	17,769.10	21,685.95	75,091.50	(0.43)	(1.46)
2001	25,196.58	30,750.68	106,479.75	(0.63)	(2.09)
2002	30,420.70	37,126.35	128,556.65	(0.76)	(2.85)
2003	33,228.22	40,552.73	140,421.11	(0.86)	(3.71)
2004	34,578.67	42,200.86	146,128.06	(0.61)	(4.32)
2005	35,538.20	43,371.90	150,183.00	(0.65)	(4.97)