

ORIGINAL

**BEFORE THE FLORIDA  
PUBLIC SERVICE COMMISSION**

**DOCKET NO. 040029-EG  
FLORIDA POWER & LIGHT COMPANY**

**IN RE: FLORIDA POWER & LIGHT COMPANY'S  
PETITION FOR APPROVAL OF  
NUMERIC CONSERVATION GOALS**

CMP \_\_\_\_\_

COM S+1 orig Ct. Rpr

CTR \_\_\_\_\_

ECR \_\_\_\_\_

GCL 1

OFC \_\_\_\_\_

MMS \_\_\_\_\_

RCA \_\_\_\_\_

SCR \_\_\_\_\_

SEC 1

OTH \_\_\_\_\_

**DIRECT TESTIMONY & EXHIBIT OF:**

**C. DENNIS BRANDT**

DOCUMENT NUMBER - DATE

06195 JUN-18

1                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2                   **FLORIDA POWER & LIGHT COMPANY**

3                   **TESTIMONY OF C. DENNIS BRANDT**

4                   **DOCKET NO. 040029-EG**

5                   **JUNE 1, 2004**

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

8           A.     My name is C. Dennis Brandt, and my business address is: 9250 West Flagler  
9                 Street, Miami, Florida 33174.

10  
11          **Q.     Who is your employer and what position do you hold?**

12          A.     I am employed by Florida Power & Light Company (FPL) as Director of  
13                 Product Management and Operations.

14  
15          **Q.     What are your responsibilities and duties as Director of Product**  
16                 **Management and Operations related to the development of FPL's**  
17                 **Demand Side Management (DSM) goals and the corresponding programs**  
18                 **to support them?**

19          A.     I am responsible for managing products and services for FPL's residential and  
20                 business customers. This includes overseeing the implementation,  
21                 development of systems, training, and tracking of the various DSM programs  
22                 offered to residential and business customers.

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

2       A.    I received a Bachelor of Science Degree in Industrial Engineering from the  
3            University of Miami in 1978. I received my Masters Degree in Industrial  
4            Engineering from the University of Miami in 1984. I am a certified  
5            Professional Engineer in the State of Florida. I was hired by FPL in 1979 in  
6            the Materials Management Department and have worked in positions of  
7            increasing responsibility in the areas of Load Management, Commercial and  
8            Industrial Marketing, Residential and General Business Marketing, and  
9            Product Management and Operations.

10

11           In 1991, I was promoted to the position of Manager of Residential and  
12           General Business Marketing. I held this position until 1993, when I became  
13           the Manager of Commercial/Industrial Marketing. In late 1996, I became the  
14           Manager of Sales & Marketing Product Support. In 1999, I became the  
15           Director of Product Management and Operations.

16

17       **Q.    What is the purpose of your direct testimony?**

18       A.    The purpose of my testimony is to present FPL's proposed numerical DSM  
19            goals for the period 2005 - 2014. FPL's goals proposal is based upon the  
20            analytical work performed by FPL to comply with the requirements of the  
21            Florida Administrative Code (FAC) Rule 25-17.0021. My testimony will  
22            discuss the methodology used to arrive at goals that are reasonably achievable  
23            for the period 2005 - 2014.

1       **Q.     Please describe how your direct testimony is organized.**

2       **A.     I have organized my testimony into seven (7) sections.**

3

4               Section I of my testimony presents FPL’s proposed numerical DSM goals for  
5               the period 2005 – 2014.

6

7               Section II discusses the methodology used by FPL in developing the measures  
8               that were selected for evaluation.

9

10              Section III discusses the methodology used by FPL in developing its  
11              achievable potential projections of DSM, based on the potentially cost-  
12              effective measures selected and evaluated.

13

14              Section IV explains FPL’s analysis of the Code Utility Evaluation (CUE)  
15              measures.

16

17              Section V discusses FPL’s analysis of natural gas measures.

18

19              Section VI discusses renewable measures and high thermal efficiency  
20              cogeneration, and why FPL proposes no renewable potential or high thermal  
21              efficiency cogeneration be used to establish overall goals.

22

23              Section VII presents my conclusions based on the results of this goal setting

1 process.

2

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

4 A. Yes, it consists of the following documents:

- 5 • Document No. CDB-1: Goals by Market Sectors
- 6 • Document No. CDB-2: Comparison of Achieved kW and kWh
- 7 Reductions with Annual Target in Public Service Commission Approved
- 8 Goals
- 9 • Document No. CDB-3: Achievable Potential by End Use
- 10 • Document No. CDB-4: Achievable Potential by Measure
- 11 • Document No. CDB-5: FPL Measure Identification Process
- 12 • Document No. CDB-6: Measure Selection Process Step 1
- 13 • Document No. CDB-7: Measure Selection Process Step 2
- 14 • Document No. CDB-8: Measure Selection Process Step 3
- 15 • Document No. CDB-9: Measure Selection Process Results
- 16 • **Document No. CDB-10: Measure Impacts and Costs.**

17

18 **SECTION I: FPL'S PROPOSED NUMERICAL DSM GOALS**

19

20 **Q. What overall kW and kWh DSM goals are being proposed by FPL in this**  
21 **proceeding?**

22 A. The DSM goals proposed by FPL for the period 2005 - 2014 are shown on my  
23 Document No. CDB-1. These goals are based upon the achievable potential

1 of DSM measures analyzed by FPL as being cost-effective under the Rate  
2 Impact Measure (RIM) and Participant tests.

3

4 **Q. What are the cumulative demand and energy goals FPL proposes**  
5 **through 2014?**

6 A. For the period 2005 through 2014, FPL proposes cumulative DSM demand  
7 reduction goals of 802 MW's (Summer), 512 MW's (Winter) and a  
8 cumulative reduction of 1,059 GWh over the same period. This represents the  
9 achievable potential for usable cost-effective DSM under the RIM and  
10 Participant tests over this ten-year period as determined in FPL's Integrated  
11 Resource Planning (IRP) process. The following are the goals by market  
12 segment:

Goal	Summer MW's	Winter MW's	GWH
Residential	586.9	405.1	931
Commercial/Industrial	214.9	107.3	127.6

13

14 Note: All demand and energy values detailed in this testimony are at the  
15 meter unless otherwise stated.

16

17 **Q. How does FPL's proposed goals for the 2005 through 2014 time period**  
18 **compare to FPL's current goals for the 2000 through 2009 time period?**

19 A. FPL's proposed goals are comparable with the current approved goals. The  
20 following is a comparison of the goals for the two time periods.

21

Goals By Time Period	Summer MW	Winter MW	GWH
Existing Goals (2000 – 2009)	765	505	1,287
Proposed Goals (2005 – 2014)	802	512	1,059

1

2 **Q. How has FPL performed relative to the goals set as part of the last goals**  
3 **docket for the 2000 through 2003 time period?**

4 A. As shown in Document No. CDB-2, as of 2003, FPL has met the cumulative  
5 summer MW, winter MW and annual energy goals for both the Residential  
6 and Commercial/Industrial market segments.

7

8 **Q. How effective has FPL been in implementing DSM, and what are the**  
9 **resulting impacts of these efforts?**

10 A. FPL has a long history of identifying, developing and implementing DSM  
11 programs to avoid or defer the construction of new power plants. FPL first  
12 began offering DSM programs in the late 1970s with the introduction of its  
13 Watt-Wise Home Program. An increasing number of additional DSM  
14 programs were offered in subsequent years. These programs have included  
15 both conservation and load management programs, targeting the residential,  
16 commercial and industrial markets.

17

18 FPL's portfolio of DSM programs has evolved over time. FPL continually  
19 looks for new DSM opportunities in its research and development (R&D)  
20 activities. When a new DSM opportunity is identified and projected to be  
21 cost-effective, FPL attempts either to implement a new DSM program or to

1 incorporate this DSM opportunity into one or more of its existing DSM  
2 programs. In addition, FPL has modified DSM programs over time in order to  
3 maintain the cost-effectiveness of the programs. This has allowed FPL to  
4 continue to offer the greatest number of cost-effective programs possible. On  
5 occasion, FPL has also terminated DSM programs that were no longer cost-  
6 effective and could not be modified to become cost-effective.

7  
8 FPL has been very successful in cost-effectively avoiding new power plant  
9 construction using DSM. Since the inception of its programs, through the end  
10 of 2003, FPL has achieved 3,270 MW (at the generator) of summer peak  
11 demand reduction, 2,604 MW (at the generator) of winter peak demand  
12 reduction, and 25,429 GWh (at the generator) of energy savings. FPL has also  
13 completed more than 1,900,000 energy audits of customers' homes and  
14 facilities.

15  
16 This amount of peak demand reduction has eliminated the need for the  
17 equivalent of 10 power plants of 400 MW capacity each (after including the  
18 impacts for reserve margin requirements). Significantly, FPL has achieved  
19 this level of demand reduction without penalizing customers who are non-  
20 participants in its DSM programs. FPL has been able to avoid penalizing non-  
21 participating customers by offering only DSM programs that reduce electric  
22 rates for all customers, DSM participants and non-participants alike.



1       **Q.     How do FPL's DSM efforts compare to those of other utilities?**

2       A     The U.S. Department of Energy (DOE) reports on the effectiveness of utility  
3           DSM efforts through its Energy Information Administration. The DOE  
4           separately measures both conservation and load management. Based on the  
5           most current comparative data available, which is for the year 2002, FPL is  
6           ranked number one nationally for cumulative conservation achievement and  
7           number four in load management potential.

8  
9       **Q.     How were FPL's proposed new DSM goals developed?**

10      A.    FPL's proposed goals are based on DSM projections developed in FPL's 2004  
11          IRP work. This work identified the total cost-effective, and usable on FPL's  
12          system, demand and annual energy savings reasonably achievable in both the  
13          Residential and Commercial/Industrial classes. These achievable savings are  
14          cost-effective under the RIM and Participants test.

15  
16          In developing these projections, FPL used a multi-step process. The first step  
17          was to determine which measures should be evaluated for cost-effectiveness.  
18          The process used to select measures is described in detail in Section II. All  
19          selected measures were then screened for potential cost-effectiveness. The  
20          resulting potentially cost-effective measures were used to develop the 2005  
21          through 2014 achievable potential. This process is described in Section III.  
22          FPL's achievable potential results were further analyzed as part of FPL's 2004  
23          IRP work to identify the most cost-effective DSM portfolio for FPL's

1 customers. The result of this analysis is further discussed in Dr. Sim's  
2 testimony.

3  
4 The goals FPL has proposed reflect the cost-effective achievable potential  
5 projected by FPL for program measures analyzed under the RIM and  
6 Participant tests. They also reflect the proper consideration of high thermal  
7 efficiency cogeneration, renewable resources, CUE measures, and natural gas  
8 measures.

9  
10 I have prepared Document No. CDB-3 that provides FPL's projections of  
11 reasonably achievable, cost-effective DSM for the Residential and  
12 Commercial/Industrial major end uses broken out by summer and winter  
13 demand, and energy savings.

14  
15 To further document the specific measures that comprise each of the end-use  
16 values in Document No. CDB-3, I have prepared Document No. CDB-4,  
17 which provides by measure for the years 2005 through 2014 the cost-effective,  
18 achievable potential summer and winter demand and energy savings by new  
19 and existing construction.

20  
21 **Q. How would you characterize FPL's proposed DSM goals?**

22 A. FPL's proposed goals are reasonably achievable and based on FPL's IRP  
23 process. FPL has proposed as its goals an 802 MW (Summer) DSM portfolio

1 that is cost-effective under the RIM and Participant tests.

2

3 **Q. Is the process you have broadly outlined an appropriate process for**  
4 **developing DSM projections and establishing DSM goals for FPL?**

5 A. Yes. The process, as I have outlined it and as is further explained in the  
6 remainder of my testimony and Dr. Sim's testimony, is a sound, analytical  
7 process. This process has been properly employed by FPL, using the best data  
8 available. Thus, FPL's proposed DSM goals are the results of a reasonable and  
9 sound process and analysis.

10

11 **Q. Has FPL addressed the energy conservation needs of lower income**  
12 **customers as part of the goal setting process?**

13 A. Yes. This customer segment benefits in several ways as a result of this  
14 process.

15

16 First, by basing goals only on RIM-passing measures, all customers receive  
17 the benefit from minimizing the rate impact of continuing to meet the growing  
18 customer demand for electricity in the most cost-effective manner. Even if a  
19 customer chooses not to participate in any of FPL's DSM programs, use of the  
20 RIM test ensures that non-participants still receive direct benefits through  
21 reduced rates.

22

23 Second, the measures used to develop our proposed goals all pass the

1 Participant test. This test ensures that each measure makes economic sense  
2 for customers who elect to participate in an FPL DSM program.

3  
4 Third, FPL recently completed an R&D project to investigate cost-effective  
5 methods of increasing the energy efficiency in the homes of FPL's low-  
6 income customers. This research project addressed the needs of low-income  
7 housing retrofits by providing monetary incentives to various housing  
8 authorities. These incentives were used by the housing authorities to leverage  
9 their funds to increase the overall energy efficiency of the homes they are  
10 retrofitting. The final report for this project was filed in November 2003. The  
11 Commission approved a permanent Low-Income Weatherization Program in  
12 March 2004, and FPL is currently implementing this program.

13  
14 Lastly, FPL is committed to educating low-income customers on energy  
15 conservation programs and encouraging the implementation of conservation  
16 measures. The following are a few examples of our activities in this area for  
17 the last several years:

- 18 • FPL works directly with local housing authorities and social service  
19 agencies to facilitate the accessibility of DSM to lower income customers.
- 20 • Homebuyer seminars were held at area community centers and help  
21 customers meet the requirements for low interest loans.
- 22 • FPL has worked directly with low-income housing assistance  
23 organizations such as Habitat for Humanity to apply its BuildSmart energy

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23

efficiency program to over 600 new homes.

- FPL employees participated in Habitat for Humanity “work days” helping to build four homes in Dade and Palm Beach counties.
- FPL co-partnered with the University of Florida to provide Energy Efficiency Affordable Housing Seminars. These seminars emphasize the Energy Star Home program and FPL’s BuildSmart Program as a model for promoting energy efficiency to the affordable home market.
- FPL is an active board member of the Florida Housing Coalition providing expertise on the Energy Advisory Panel. This panel was instrumental in promoting changes to the Florida Building Code in two ways. First, the code change provided builders with additional flexibility in selecting energy efficiency features in new home construction. Second, the code included more stringent baseline standards for space heating equipment in Central and South Florida and for windows statewide.
- FPL is currently working with the Florida Solar Energy Research and Education Foundation to identify eligible low income candidates for solar water heating systems.
- For the past several years, FPL employees have participated in neighborhood projects such as “Christmas in April”. This project identifies homes in lower income neighborhoods for energy conservation surveys and general “fix-up” needs. In one instance, the customer’s home was in such a state of disrepair, FPL worked with participating contractors, the local television station and a supermarket to install a new

1 energy efficient water heater, entirely rewire the electrical system, and  
2 weatherstrip the doors and windows. The customer now has a more  
3 affordable electric bill due to the energy efficiency measures installed.  
4

## 5 **SECTION II: IDENTIFICATION OF MEASURES FOR EVALUATION**

6

7 **Q. What was the process used to determine which measures should be**  
8 **included for evaluation in determining reasonably achievable DSM goals**  
9 **for 2005 - 2014?**

10 **A. FPL used a three-step process to develop the list of DSM measures to be**  
11 **analyzed in this proceeding. This process, which is attached as Document No.**  
12 **CDB-5, builds upon the analyses performed in prior DSM Goals proceedings.**

13  
14 **Step One. The first step of FPL's process was the review of all the**  
15 **measures analyzed in the last two DSM Goals proceedings that FPL**  
16 **identified as "Utility Program" or "UP" measures. UP measures are those**  
17 **that have been determined to be a candidate to be included as part of a utility's**  
18 **DSM plan, if found to be cost-effective. The total list of measures included**  
19 **those identified in the first DSM Goals proceeding and measures that were**  
20 **added as part of the last DSM Goals proceeding. This resulting list consists of**  
21 **205 measures and is included as Document No. CDB-6.**

22  
23 **Step Two. The second step in FPL's process calls for adding new**

1           **measures that were not analyzed by FPL during the last Goals-setting**  
2           **process.** For the current Goals-setting process, FPL added 66 measures,  
3           including natural gas measures. Document No. CDB-7 is a summary of the  
4           new additional measures. Thus, the net effect of Step 2 was to expand the list  
5           of measures from 205 to 271 measures.

6  
7           **Step Three. The third step was the addition of CUE measures used from**  
8           **prior Goals-setting processes.** This step added 58 CUE measures to the  
9           process. This list of measures was based on those measures identified by the  
10          pre-hearing officer during the first DSM Goals proceeding. Document No.  
11          CDB-8 is a summary of this step in the process. FPL's analysis of CUE  
12          measures is discussed in more detail in Section IV of my testimony.

13  
14          **Q. How many DSM measures were ultimately analyzed for cost-effectiveness**  
15          **as a result of the three-step process?**

16          A. Three hundred and twenty nine (329) measures were analyzed. Document No.  
17          CDB-9 is a final listing of the measures resulting from this three-step process.

18  
19          **Q. What sources did you use for your data?**

20          A. Data sources used for each measure varied by sector and end-use, but for the  
21          most part, it was consistent for the measures within an end-use. Generally  
22          speaking, FPL utilized the data and assumptions based on its actual experience  
23          for measures that are part of FPL's existing programs. This included the latest

1 findings from FPL's ongoing end-use evaluation efforts and actual measure  
2 administration costs. For measures for which FPL did not have sufficient  
3 data, outside sources such as the Florida Solar Energy Center (FSEC) and the  
4 SRC Study were used. The SRC Study is an evaluation of DSM measures  
5 done by Synergic Resources Corporation (SRC) for the State of Florida  
6 Energy Office in 1992.

7  
8 **Q. Does the implementation of multiple DSM measures affect the savings**  
9 **potential assumed for each measure if implemented individually?**

10 A. Yes, it can. Measures can be classified as either competing or  
11 complementary. In determining the net impact of each measure on demand  
12 and energy usage, these effects must be considered. For example, the savings  
13 provided by adding ceiling insulation will be less when calculated with a high-  
14 efficiency air conditioning system than with a standard efficiency system.  
15 Ceiling insulation is an example of a complementary measure.  
16 Complementary measures are options that can be installed alone, or jointly,  
17 regardless of the other options installed. Competing measures, such as two  
18 different types of high-efficiency central air conditioners, force the customer  
19 to choose only one of the measures to install. As a part of FPL's extensive  
20 end-use evaluation efforts, these effects are part of the evaluation process, and  
21 the resulting demand and energy impacts account for these interactive effects  
22 as they occur in the FPL customer population.



1       **Q.     In developing the demand and energy impacts of each measure, did FPL**  
2       **consider overlapping measures?**

3       A.     Yes, the statistical and engineering analyses conducted to estimate FPL  
4       measure impacts are based upon primary end-use metered (EUM), billing, and  
5       customer survey data that reflect the energy usage characteristics of FPL's  
6       entire customer population. As such, EUM and billing data were analyzed for  
7       a representative sample of the population, including participants who  
8       participate in more than one program. The resulting impacts, therefore,  
9       include the effects of overlapping measures on program impacts.

10

11       **Q.     In developing the demand and energy impacts of each measure, did FPL**  
12       **address rebound effects?**

13       A.     Yes. Rebound, if present, would result in a higher than expected (from an  
14       engineering model perspective) post-participation level of energy usage, and,  
15       therefore, lower than expected actual impacts. As part of FPL's end-use  
16       evaluation efforts, a statistical analysis is performed which explicitly accounts  
17       for rebound. This analysis, which considers both pre- and post-participation  
18       electricity usage, captures changes in behavior (for example, lowering the  
19       thermostat set point as a result of the purchase of a new air conditioner).

20

21       **Q.     In developing the demand and energy impacts of each measure, did FPL**  
22       **consider free ridership?**

23       A.     Yes, measure net benefits, which encompass both free ridership (free riders

1 are program participants who would have installed the identical efficiency  
2 measure at the same time even if the utility program did not exist) and free  
3 drivership (free drivers are non-participating customers who install the  
4 identical efficiency measure which program participants installed because the  
5 utility program increased the prevalence and awareness of the efficiency  
6 measure in the marketplace), are analyzed in comprehensive assessments of  
7 the effects of FPL's measures on the targeted energy-efficient technologies by  
8 both participants and non-participants. A key feature of these assessments is  
9 substantial annual non-participant and baseline surveys, which form the basis  
10 for addressing these effects.

11  
12 **Q. In developing the demand and energy impacts of each measure, how did**  
13 **FPL address the interactions with building codes and appliance efficiency**  
14 **standards?**

15 A. Current and expected building codes and appliance efficiency standards are a  
16 key input to the baseline efficiency levels established for each of FPL's  
17 measures. Upcoming changes to the State of Florida Building Code and the  
18 DOE efficiency standards were factored in to the potential baselines and  
19 demand and energy impacts. In addition, the effects of these codes and  
20 standards on non-participant and baseline energy efficiency actions are  
21 captured in the large non-participant and baseline surveys mentioned above.

1       **Q.     How were the administrative and participant costs developed?**

2       A.     These costs were based on either FPL's experience with the same or similar  
3           measures that are part of existing DSM programs or estimates developed by  
4           other entities such as FSEC or from the SRC study, updated by FPL to reflect  
5           current conditions. See Document No. CDB-10 for a measure-by-measure,  
6           detailed summary of the costs used and the sources of the information.

7

8       **Q     Please describe the screening methodology used?**

9       A.     The first screening was to perform preliminary cost-effectiveness tests,  
10          assuming no incentives or administrative costs. This screening eliminated  
11          those measures that would not be cost-effective using the RIM test, given the  
12          most favorable conditions of considering lost revenues as the only cost. This  
13          resulted in 93 measures being eliminated. (Dr. Sim's testimony shows this  
14          number as 62 measures because he did not separately analyze measures in  
15          different market segments, like residential new and existing construction, that  
16          had identical cost characteristics and savings.)

17

18          The next screening identified those measures that had a participant payback of  
19          less than two years without a utility incentive. Thirty-five (35) measures met  
20          this criteria and were eliminated from further evaluation. (Dr. Sim's  
21          testimony shows this as 23 measures because he did not analyze measures that  
22          had consistent cost and savings impacts in multiple market segments.)

1 The third screening was to perform preliminary cost-effectiveness tests with  
2 the addition of administrative costs, but assuming no incentives. This  
3 identified 50 measures that failed the RIM test when the cost to administer  
4 them as part of a DSM program was included. (Dr. Sim's testimony shows  
5 this as 29 measures because he did not analyze measures that had consistent  
6 cost and savings impacts in multiple market segments.)

7  
8 The next step in the screening process was to determine the incentive amount  
9 for the remaining measures. The maximum incentive dollars were determined  
10 by calculating the incentive cost, which ensures the measure is cost-effective  
11 using the RIM test when compared to the 2010 avoided unit and is potentially  
12 cost-effective when viewed from the perspective of multiple unit deferrals as  
13 explained in Dr. Sim's testimony. This incentive cost was also used to  
14 validate that the measure was cost-effective using the Participant test. A total  
15 of 59 measures did not pass both tests. (Dr. Sim's testimony shows this as 56  
16 measures because he did not analyze measures that had consistent cost and  
17 savings impacts in multiple market segments.)

18  
19 A final check of the incentive level was performed to ensure that it did not  
20 provide a payback of less than two years. If the payback is greater than two  
21 years, the maximum incentive was used. If the payback with maximum  
22 incentive was less than two years, the incentive was adjusted downward to  
23 ensure a payback period of not less than two years.

1       **Q.     Why did you use the two year payback criteria?**

2       A.     Incentives were calculated based on providing a two year payback to  
3           encourage the customer to implement the DSM measure.  If a customer  
4           investment in a DSM measure will naturally pay for itself in less than two  
5           years, it is thought to be sufficient motivation, requiring no additional  
6           incentive by FPL.  Without such a program design, free ridership, the  
7           phenomenon of paying incentives to participants who would participate  
8           anyway, would be higher.  Simply stated, it is thought that FPL's DSM  
9           programs should not pay people to do what they would do anyway.  This two  
10          year payback methodology is the same methodology that has been  
11          successfully used by FPL to minimize free ridership for the last two goal  
12          setting proceedings.

13  
14       **Q.     How many measures were remaining upon completion of this screening  
15           process?**

16       A.     A total of 92 measures were found to be potentially cost-effective using the  
17           RIM and Participant tests and did not have paybacks less than two years.  (Dr.  
18           Sim's testimony shows this as 54 measures because he only analyzed unique  
19           measures.)

1       **SECTION III: DETERMINATION OF THE 2005 - 2014 ACHIEVABLE**  
2       **POTENTIAL**

3  
4       **Q.     How was the achievable market potential estimate for the years 2005**  
5       **through 2014 determined?**

6       A.     Achievable potential estimates were calculated in a two-part, iterative process.  
7             First, base-year (2004) eligible market estimates were made using data from  
8             FPL's Customer Information System (CIS), Marketing Information System  
9             (MIS), Home Energy Survey (HES), Commercial/Industrial Sector Survey  
10            (CISS) and Non-participant Canvass Survey data. Customer decisions  
11            regarding measure purchase and measure participation were then modeled by  
12            analyzing either stated preference or revealed preference data on customer  
13            response to program and measure features, as well as program awareness  
14            estimates obtained from Non-participant Canvass Surveys. The resulting  
15            estimates of the percentage of the eligible market installing a measure in a  
16            given year were then multiplied by the number of customers in the eligible  
17            market to obtain estimates of measure participation in a given year.  
18            Participation estimates were calibrated to actual participant and non-  
19            participant purchase data for 2003, to provide the best possible estimates of  
20            base-year (2004) participation levels. 2004 participation and non-participant  
21            purchase estimates, as well as estimates of the growth and demolition of  
22            residences and facilities in FPL's service territory, were then combined with  
23            the 2004 eligible market data to estimate the eligible market in the next year

1 (2005). Updated measure features (primarily incentive level), technology cost  
2 and savings and awareness data were entered into the stated and/or revealed  
3 preference-based choice algorithms, and measure participation for the year  
4 2005 was estimated. This procedure was repeated to estimate measure  
5 participation levels for each year in the planning period. The estimates of the  
6 number of measure participants were combined with end-use evaluation-based  
7 demand and energy impacts to develop the achievable potential estimates.

8  
9 For load management measures a different methodology is more appropriate.  
10 For these types of measures, it is critical to determine how much load  
11 management is actually "usable" for an individual utility. Consideration must  
12 be given to the system load shapes and characteristics of load management  
13 measures, including control strategies (cycling loads vs. continuous  
14 interruptions), length of the control periods and the payback effects once load  
15 control is released. FPL has developed a technique, described in Dr. Sim's  
16 testimony that addresses these load management characteristics. Performing  
17 this analysis for the various years in the goal setting time frame provides the  
18 upper annual limit of the amount of incremental load management FPL can  
19 use. The achievable potential for the load management measures are the lesser  
20 of the amount derived using this approach and the market potentials.

21  
22 Achievable potential for the leak free ducts measures for all three  
23 Commercial/Industrial rate classes was estimated as zero due to upcoming

1 building code changes that will require this repair to be performed whenever  
2 DX air conditioners are replaced.

3  
4 Lastly, there are several Commercial/Industrial measures that are cost-  
5 effective but only for selective rate classes. These measures are:

- 6 • HRU for GSLD customers
- 7 • Window Film for GSLD customers
- 8 • Multiplex Air Cooled External Liquid Suction HX for GSD and GSLD  
9 customers.

10 It is difficult to administer DSM programs that do not allow all  
11 Commercial/Industrial rate classes to be eligible. This causes confusion for  
12 our customers and our trade allies. FPL currently addresses these types of  
13 measures utilizing the Business Custom Incentive program. An achievable  
14 potential estimate was included to address these measures that will ultimately  
15 be part of the Business Custom Incentive program. This estimate was based  
16 on the historical achievements of this program.

17

18 **Q. What is the resulting achievable usable market potential estimate?**

19 A. FPL's estimated achievable market potential estimate for the years 2005  
20 through 2014 is 802 MW's of summer demand reduction.



1           **SECTION IV: CODE UTILITY EVALUATION (CUE) MEASURES**

2  
3           **Q.     What type of analysis was done to determine the achievable potential for**  
4           **the CUE measures?**

5           A.     CUE measures are those that should be included as a prescriptive measure for  
6           the Florida Building Code, or a measure that should be included as a candidate  
7           for inclusion as an optional measure in the Florida Building Code. FPL has  
8           analyzed the potential cost-effectiveness of 58 CUE measures. As described  
9           above, FPL used the same process as was used for the UP measures to  
10          determine which measures should be screened for cost-effectiveness.  
11          Document No. CDB-9 shows the CUE measures that were screened for  
12          potential cost-effectiveness with the results of the analysis. Document No.  
13          CDB-10 is a summary of the administrative and participant costs associated  
14          with each CUE measure and the source of the information.

15  
16          **Q.     What was the result of the CUE measure cost-effectiveness screening?**

17          A.     Only Window Film for GSLD customers and Multiplex Air Cooled External  
18          Liquid Suction HX for GSD and GSLD customers passed both the RIM and  
19          Participant tests.

20  
21          **Q.     What should the Commission do with the CUE measures that passed the**  
22          **RIM and Participant tests?**

23          A.     CUE measures that passed the cost-effectiveness tests are candidates for

1 inclusion in the Florida Building Code. The Commission should work with  
2 utilities and the Department of Community Affairs (DCA) to include these  
3 measures in the Florida Building Code. Code implementation, particularly  
4 inclusion in the mandatory portion of the Code, should achieve far higher  
5 market penetrations than utility programs. FPL volunteers to assist in this  
6 process.

7

8 **Q. Should the savings associated with these measures be considered in the**  
9 **goals process?**

10 A. No. The Florida Building Code is the more efficient means to implement  
11 these efficiency measures. Mandatory code measures should be extremely  
12 effective in achieving market penetration in relation to utility programs. The  
13 Florida Building Code is reviewed and updated on a periodic basis; thus, it  
14 does not seem reasonable to incur implementation costs for measures that  
15 have the potential to become part of the Code in the near future.

16

## 17 **SECTION V: NATURAL GAS**

18

19 **Q. How did FPL evaluate natural gas measures?**

20 A. In 1999, FPL completed an extensive R&D effort to develop Florida-specific  
21 information on the performance and cost-effectiveness of natural gas heating,  
22 cooling, dehumidification and water heating. A primary focus of this effort  
23 was to determine the appropriate inputs to the cost-effectiveness tests for

1 residential gas heat pumps, residential gas water heating,  
2 Commercial/Industrial gas engine chiller and Commercial/Industrial gas  
3 desiccant cooling. These measures were added to the screening process for  
4 this evaluation as discussed in Section II.

5

6 **Q. What are your conclusions regarding the natural gas measures?**

7 A. Based on the research to-date and the results of the cost-effectiveness  
8 evaluations done for this proceeding, FPL finds no cost-effective potential for  
9 the natural gas end-uses examined. FPL does not recommend the inclusion of  
10 natural gas measures as part of this goals process.

11

12 **SECTION VI: RENEWABLE AND HIGH THERMAL EFFICIENCY**  
13 **COGENERATION**

14

15 **Q. How did FPL evaluate renewables and high thermal efficiency**  
16 **cogeneration?**

17 A. FPL evaluates high thermal efficiency cogeneration from a supply-side  
18 perspective, while renewables may be evaluated from either a supply-side  
19 perspective or a demand-side opportunity depending on the application.

20

21 **High Thermal Efficiency Cogeneration**

22 **Q. How does FPL define high thermal efficiency cogeneration?**

23 A. FPL uses the following definition of high thermal efficiency cogeneration:

1 "The simultaneous production of electricity and thermal energy from a single  
2 fuel source. The cogeneration facility will also meet the basic thermal  
3 efficiency requirements of the Public Utility Regulatory Policy Act (PURPA),  
4 which requires at least 5% of the thermal output to be applied to a useful  
5 application. The facility must meet the requirements of a qualifying facility  
6 under the PURPA standards so that overall fuel source efficiency would be  
7 higher than simply direct conversion of a fuel into electric generation only."  
8 This definition excludes independent power producers and non-Qualifying  
9 Facilities that do not qualify or choose not to qualify under the PURPA  
10 standards, and small generation facilities that do not try to improve on overall  
11 fuel efficiency by providing a thermal output as well as an electric output.

12  
13 **Q. What are the key factors for screening cogeneration options?**

14 **A.** The two primary screening factors that should be evaluated with high thermal  
15 efficiency cogeneration are the steam requirements of the facility and a readily  
16 available fuel source. For example, a paper and pulp company may have  
17 wood chips and "black liquor" available from their industrial processes to be  
18 used as fuel. The sugar industry may have bagasse (the waste products of  
19 their sugar cane production) available as low cost fuel source for cogeneration  
20 options. The thermal loads of the host facility must be relatively large and  
21 constant in order to make the output of the cogeneration facility effective.  
22 With sizable thermal loads of long duration, the cogeneration facility can  
23 operate many more hours throughout the year and take advantage of overall

1 fuel efficiencies. If the thermal load is small, the operational feasibility of the  
2 project diminishes considerably. In FPL's service territory, there are  
3 relatively few known applications where the most effective thermal loads,  
4 steam and hot water, are large enough and of ample duration to make the high  
5 thermal efficiency cogeneration option viable.

6  
7 **Q. What are the results of your analysis?**

8 A. FPL currently has under contract three facilities that use high thermal  
9 efficiency cogeneration, representing approximately 715 MW of generating  
10 capability. FPL also has 5 additional cogeneration projects in its service  
11 territory, with an installed generating capacity of approximately 190 MW that  
12 sell their electric output to FPL on an as-available basis and/or use the electric  
13 output of the cogeneration facility to offset their electric consumption. These  
14 facilities typically use steam in the production of sugar, paper products,  
15 cement, pulp and hot water.

16  
17 From time to time there are Commercial/Industrial customers who considered  
18 high thermal efficiency cogeneration as an alternative. Many of these  
19 customers utilized FPL's assistance to evaluate the various cogeneration  
20 alternatives. Presently, FPL is working with two customers who are  
21 considering cogeneration as an energy alternative. It is uncertain how much  
22 activity will result from these specific evaluations, but these site-specific,  
23 case-by-case evaluations do not lend themselves to the Goals-setting process.

1 In addition, FPL is performing demonstration projects utilizing fuel cells and  
2 microturbines to understand the costs and operating characteristics of these  
3 emerging combined heat and power technologies.

4  
5 **Q. What is your conclusion regarding high thermal efficiency cogeneration?**

6 A. High thermal efficiency cogeneration must be evaluated as a supply-side  
7 alternative on a case-by-case basis. Therefore, FPL reflects no value for this  
8 end-use in the development of its overall DSM goals.

9  
10 **Renewables**

11 **Q. What energy sources does FPL consider renewable resources?**

12 A. In January 2003, the Florida Public Service Commission and the Department  
13 of Environmental Protection completed a study titled "An Assessment of  
14 Renewable Electric Generating Technologies for Florida". This study  
15 identified biomass, municipal solid waste, landfill gas, digester gas, solar,  
16 hydroelectric, exothermic reactions, wind, geothermal, ocean thermal and  
17 hydrogen as renewable resources.

18  
19 **Q. Did this study identify any renewable technologies that are deployable in  
20 the near future and commercially mature?**

21 A. Yes, biomass, municipal solid waste, landfill gas, digester gas, solar,  
22 hydroelectric and exothermic reactions met this criteria. As mentioned above,  
23 a few of the high thermal efficiency cogeneration facilities in FPL's service

1 area use biomass as the primary fuel source. There are two landfill gas  
2 facilities and one facility that burns sewer-produced methane gas to generate  
3 electricity in FPL's service area. These facilities total approximately 14 MW  
4 of generating capacity. In addition, there are several municipal solid waste  
5 facilities in our service territory with which FPL has agreements to purchase  
6 the power output on a consistent basis. These facilities have a generating  
7 capacity of approximately 150 MW.

8  
9 FPL's recently implemented Green Energy program has increased the number  
10 of inquiries from these types of facilities.

11  
12 **Q. How would FPL classify these renewable resources for this evaluation?**

13 A. FPL considers biomass, municipal solid waste, landfill gas, digester gas, solar  
14 (depending on the specific technologies), hydroelectric and exothermic  
15 reactions as supply-side alternatives, similar to high thermal efficiency  
16 cogeneration.

17  
18 **Q. Are there any renewable resources that should be evaluated as demand-**  
19 **side alternatives?**

20 A. Yes, solar water heating and solar photovoltaics were analyzed like other  
21 potential utility program measures.

1       **Q.     What is FPL's conclusion regarding demand-side renewable resources?**

2       A.     Based on the analysis performed as part of this Goals-setting process, it was  
3             found that solar water heating and solar photovoltaics are not cost-effective  
4             from a DSM perspective and were not included as part of the proposed DSM  
5             goals.

6

7       **Q.     Has FPL performed any other activities to promote renewable/solar  
8             energy?**

9       A.     Yes, FPL has been the leading Florida utility in regard to examining ways to  
10            utilize renewable energy technologies to meet its customers' current and future  
11            needs. FPL has been involved since 1976 in renewable energy R&D and in  
12            facilitating the implementation of various renewable technologies.

13

14            In terms of renewable technology R&D, FPL assisted FSEC in the late 1970s  
15            in demonstrating the first residential solar photovoltaic (PV) system east of  
16            the Mississippi. This PV installation at FSEC's Brevard County location was  
17            in operation for more than 15 years and provided valuable information about  
18            PV performance capabilities on both a daily and annual basis in Florida. FPL  
19            later installed a second PV system at the FPL Flagami substation in Miami.  
20            This 10 kilowatt (kW) system was placed into operation in 1984. The testing  
21            of this PV installation was completed and the system was removed in 1990 to  
22            make room for substation expansion.



1 FPL initiated the first utility-sponsored conservation program in Florida  
2 designed to facilitate the implementation of solar technologies by its  
3 customers. FPL's Conservation Water Heating Program, first implemented in  
4 1982, offered incentive payments to customers choosing solar water heaters.  
5 Before the program ended (because it was not cost-effective), FPL paid  
6 incentives to approximately 48,000 customers who installed solar water  
7 heaters.

8  
9 In the mid-1980s, FPL introduced another renewable energy program. FPL's  
10 Passive Home Program was created to broadly disseminate information about  
11 passive solar building design techniques, which are most applicable in  
12 Florida's climate. Complete designs and construction blueprints for six  
13 passive homes were created by three Florida architectural firms with the  
14 assistance of FSEC and FPL. These designs and blueprints were available to  
15 customers at a low cost. During its existence, this program was popular and  
16 received a U.S. Department of Energy award for innovation. The program was  
17 eventually phased out due to a revision to the Florida Model Energy Building  
18 Code. This revision was brought about in part by FPL's Passive Home  
19 Program, and the revision incorporated into the Code one of the most  
20 significant passive design techniques highlighted in the program: radiant  
21 barrier insulation.

22  
23 In early 1991, FPL received approval from the Commission to conduct a

1 research project to evaluate the feasibility of using small PV systems to  
2 directly power residential swimming pool pumps. This research project was  
3 completed with mixed results. Some of the performance problems identified  
4 in the test may be solvable, particularly when new pools are constructed.  
5 However, the high cost of PV, the significant percentage of sites with  
6 unacceptable shading, as well as customer satisfaction issues, remain as  
7 significant barriers to wide acceptance and use of this particular solar  
8 application.

9  
10 During 2002 and 2003, FPL monitored five sites with PV roofing systems.  
11 These sites were located in Homestead, Rockledge, Merritt Island, Palm Coast  
12 and Miami, Florida. All of these sites were grid interconnected. These sites  
13 utilized “flat plate” crystalline technology on the roofs of the respective  
14 houses, and the sizes ranged from 1.2 kW to 4.8 kW (direct current rating).  
15 The project energy and economic data was analyzed for cost-effectiveness  
16 utilizing the Commission-approved DSM cost-effectiveness methodology.  
17 The PV systems were not cost-effective from a FPL or customer perspective.  
18 FPL also hosted three one-day PV training seminars in Miami, West Palm  
19 Beach and Port Charlotte in the fall of 2002. Over 100 individuals attended  
20 the seminar including local code officials from various regions, and electrical  
21 contractors. The seminars were conducted by representatives from FSEC and  
22 FPL and provided invitees PV systems-related information, including  
23 inspection procedures and FPL’s PV interconnection rules.

1 From 1997 to 1999, FPL conducted a Green Pricing R&D project to test the  
2 willingness of FPL's customers to support the installation of photovoltaic  
3 panels in a grid connected facility at FPL's Martin power plant. The program  
4 concept allowed customers to voluntarily contribute towards the purchase of  
5 renewable resources by FPL that would otherwise not be cost-effective for  
6 FPL to acquire. Solicitations for the project were sent to both Residential and  
7 Commercial/Industrial customers. The total solicitations received were in  
8 excess of \$89,000, which was above FPL's goal of \$70,000. This level of  
9 contribution allowed FPL to construct an 11 kW PV facility. A key lesson  
10 learned from this project was that a full-scale program that relies on voluntary  
11 contributions is not sustainable.

12  
13 After the completion of the Green Pricing R&D project, FPL initiated a Green  
14 Energy R&D effort to determine a program structure that would support a  
15 sustainable renewable initiative. Under this project, FPL examined the  
16 feasibility of purchasing tradable renewable energy credits. The concept was  
17 to allow customers to support renewable energy by paying a monthly  
18 premium for purchasing tradable renewable energy credits.

19  
20 Development of a Green Energy project was completed, and FPL filed a  
21 petition for approval with the Commission in August 2003. As part of this  
22 process, a supply contract was put into place that allows FPL to match supply  
23 with customer demand for renewable energy. The Commission approved the

1 project on December 2, 2003, and implementation began in the first quarter of  
2 2004.

3

4 **SECTION VII: CONCLUSIONS**

5

6 **Q. How much DSM have you concluded is reasonably achievable and usable**  
7 **for FPL?**

8 A. Based on the analysis performed for this Goals proceeding, FPL can  
9 successfully achieve 802 MW's of cost-effective DSM between 2005 and  
10 2014. Document No. CDB-1 is a summary of the 2005 through 2014  
11 reasonably achievable goals.

12

13 FPL believes that DSM is a tool to increase energy efficiency, and to lower  
14 electric rates and bills for all customers. FPL has ample incentive to promote  
15 DSM where appropriate. FPL is keenly aware, from years of regulatory  
16 efforts and from customer feedback, that keeping rates low is critical. FPL  
17 firmly believes that implementing the proposed Goals and the resulting  
18 resource plan is the best choice for FPL's customers.

19

20 **Q. Has FPL used a reasonable and sound process to arrive at its Goals?**

21 A. Yes. FPL has used its experience and analysis from prior Goal-setting  
22 proceedings to implement a methodology that allows it to focus its efforts on  
23 using the best available data to arrive at reasonably achievable Goals, which

1 are both cost-effective and provide direct benefits to both DSM program  
2 participants and non-participants.

3

4 **Q. Does the methodology used by FPL address the requirements of Rule 25-**  
5 **17.0021?**

6 A. Yes. FPL has properly evaluated the UP measures. FPL supplemented this  
7 list with additional measures that resulted in increasing the achievable  
8 potential. FPL also evaluated the feasibility of natural gas measures, CUE  
9 measures, renewable measures and high thermal efficiency cogeneration. In  
10 addition, FPL has developed Goals using its most current assumptions to  
11 arrive at annual summer demand, winter demand and energy Goals for both  
12 the Residential and Commercial/Industrial segments for the ten-year horizon  
13 of 2005 through 2014.

14

15 **Q. Are the proposed Goals effective in avoiding or deferring the addition of**  
16 **new generation capacity?**

17 A. Yes. FPL's proposed Goals for the period 2005 through 2014 avoids the need  
18 for a 170 MW purchase in 2007 and two new combustion turbines in 2008  
19 that would otherwise be needed. This amount of incremental DSM also  
20 results in multiple one-year deferrals in the in-service date of new combined  
21 cycle units. Dr. Sim's testimony addresses these DSM impacts in his  
22 testimony.

1       **Q.     Does FPL’s proposed Goals adequately address the needs of lower income**  
2       **customers?**

3       A.     Yes. The results of the process used by FPL to establish the reasonably  
4       achievable cost-effective DSM Goals ensure that these customers benefit by  
5       using a RIM test which minimizes the rate impact of continuing to meet the  
6       growing demand for electricity of our customers. The RIM test ensures that  
7       non-participants still receive direct benefits through reduced rates. In  
8       addition, FPL has included measures in its evaluation that are targeted to  
9       lower income customers.

10  
11       **Q.     Do the proposed Goals provide a cost-effective plan for helping to meet**  
12       **the need for additional capacity through 2014?**

13       A.     Yes. As Dr. Sim discusses, FPL’s IRP work considered the cost-effectiveness  
14       of the various resources available to meet future capacity needs. By basing  
15       the DSM component of this plan on only measures that pass the RIM test and  
16       are achievable, FPL is assured that its ratepayers are provided the most cost-  
17       effective portfolio of resources to meet future capacity needs.

18  
19       **Q.     Should FPL’s proposed Goals of 802 MW’s be approved for the time**  
20       **period 2005 through 2014?**

21       A.     Yes. FPL’s proposed Goals are based on a sound and prudent methodology  
22       that uses the best available data to arrive at Goals that: 1) meet the  
23       requirements of Rule 25-17.0021, 2) address the needs of our customers, 3)

1 provides 802 MW's of summer demand reduction, 4) minimizes the rate  
2 impact of meeting the future need for capacity, 5) are cost-effective to both  
3 participants and non-participants, and 6) are reasonably achievable and usable  
4 on FPL's system.

5

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

7 **A. Yes, it does.**

### Goals by Market Sector

#### Summer MW @ Meter

Year	Residential		Commercial		Total	
	Annual	Cum	Annual	Cum	Annual	Cum
2005	47.8	47.8	26.3	26.3	74.0	74.0
2006	44.1	91.9	23.6	49.8	67.6	141.7
2007	48.7	140.6	21.4	71.3	70.2	211.9
2008	54.0	194.6	21.3	92.6	75.3	287.2
2009	57.5	252.1	21.2	113.8	78.8	365.9
2010	61.1	313.2	20.8	134.6	81.9	447.9
2011	63.8	377.1	20.4	155.1	84.3	532.1
2012	66.5	443.6	20.2	175.2	86.7	618.8
2013	69.2	512.8	19.9	195.1	89.1	707.9
2014	74.1	586.9	19.8	214.9	93.8	801.7

#### Winter MW @ Meter

Year	Residential		Commercial		Total	
	Annual	Cum	Annual	Cum	Annual	Cum
2005	26.0	26.0	12.8	12.8	38.8	38.8
2006	29.6	55.6	10.9	23.7	40.4	79.3
2007	33.6	89.2	9.6	33.3	43.2	122.5
2008	38.1	127.3	9.9	43.2	48.0	170.6
2009	40.6	168.0	10.3	53.5	50.9	221.5
2010	43.3	211.3	10.4	63.9	53.7	275.2
2011	45.1	256.5	10.5	74.4	55.7	330.9
2012	46.9	303.3	10.7	85.1	57.6	388.5
2013	48.7	352.0	11.0	96.1	59.6	448.1
2014	53.1	405.1	11.3	107.3	64.3	512.4

#### Energy (GWH) @ Meter

Year	Residential		Commercial		Total	
	Annual	Cum	Annual	Cum	Annual	Cum
2005	90.3	90.3	31.5	31.5	121.8	121.8
2006	75.7	166.0	19.3	50.8	95.0	216.8
2007	80.9	246.9	8.3	59.1	89.2	306.0
2008	86.4	333.3	8.7	67.8	95.1	401.1
2009	90.9	424.1	9.2	77.0	100.1	501.2
2010	95.4	519.5	9.5	86.5	104.9	606.1
2011	98.4	617.9	9.8	96.4	108.2	714.3
2012	101.4	719.3	10.1	106.5	111.5	825.8
2013	104.3	823.7	10.4	116.9	114.7	940.5
2014	107.3	931.0	10.7	127.6	118.1	1058.6



**FLORIDA POWER & LIGHT**  
**Comparison of Achieved kW and kWh Reductions**  
**with Annual Target Included in Public Service Commission Approved Goals**  
**December 31, 2003**

**Residential and Commercial/Industrial**

Year	Win = Peak mW Reduction			Sum = Peak mW Reduction			gV = Energy Reduction		
	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance
2000	94.6	112.1	-16%	134.9	121.7	11%	188.9	160.4	18%
2001	175.2	171.2	2%	244.8	199.8	22%	400.0	275.9	45%
2002	266.7	214.1	25%	363.0	269.0	35%	606.9	393.5	54%
2003	391.5	257.2	52%	528.2	339.4	56%	803.2	514.4	56%
2004		300.2			410.4			637.7	
2005		344.8			483.6			766.8	
2006		386.1			554.2			895.8	
2007		427.0			625.0			1,025.0	
2008		467.9			696.6			1,155.6	
2009		505.4			764.7			1,286.6	

Year	Win = Peak mW Reduction			Sum = Peak mW Reduction			gV = Energy Reduction		
	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance
2000	78.3	91.6	-15%	93.4	75.5	24%	123.7	91.9	35%
2001	139.4	139.0	0%	158.4	126.5	25%	231.0	178.3	30%
2002	225.2	170.0	32%	243.1	169.4	44%	350.3	267.1	31%
2003	256.0	200.4	28%	293.4	212.8	38%	434.9	357.3	22%
2004		230.1			256.6			448.9	
2005		260.6			302.0			544.2	
2006		289.0			347.0			640.9	
2007		317.2			392.6			739.3	
2008		345.7			439.4			840.3	
2009		372.4			485.9			943.2	

Year	Win = Peak mW Reduction			Sum = Peak mW Reduction			gV = Energy Reduction		
	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance	Cumulative Total Achieved	Cumulative Commission Approved Goal	% Variance
2000	16.4	20.5	-20%	41.5	46.2	-10%	65.2	68.5	-5%
2001	35.9	32.2	11%	86.3	73.3	18%	169.0	97.6	73%
2002	41.4	44.1	-6%	119.8	99.6	20%	256.7	126.4	103%
2003	135.5	56.8	139%	234.8	126.6	85%	368.3	157.1	134%
2004		70.1			153.8			188.8	
2005		84.2			181.6			222.6	
2006		97.1			207.2			254.9	
2007		109.8			232.4			285.7	
2008		122.2			257.2			315.3	
2009		133.0			278.8			343.4	

**Achievable Potential by End Use**

**Residential Summer Incremental MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.00	33.00	0.00	23.82	0.00	24.84	0.00	26.10	0.00	27.29	0.00	28.39	0.00	29.41	0.00	30.37	0.00	31.27	0.00	32.15
Building Envelope	0.00	6.55	0.00	7.68	0.00	8.00	0.00	8.35	0.00	8.72	0.00	9.11	0.00	9.53	0.00	9.98	0.00	10.46	0.00	10.98
Peak Load Shaving	0.52	4.72	0.84	7.57	1.05	9.44	1.31	11.76	1.44	12.92	1.57	14.17	1.70	15.33	1.83	16.48	1.96	17.64	2.31	20.76
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	2.98	0.00	4.17	0.00	5.42	0.00	6.50	0.00	7.15	0.00	7.87	0.00	7.87	0.00	7.87	0.00	7.87	0.00	7.87	0.00
<b>Total</b>	<b>3.50</b>	<b>44.27</b>	<b>5.01</b>	<b>39.07</b>	<b>6.47</b>	<b>42.28</b>	<b>7.81</b>	<b>46.20</b>	<b>8.59</b>	<b>48.92</b>	<b>9.44</b>	<b>51.67</b>	<b>9.57</b>	<b>54.27</b>	<b>9.70</b>	<b>56.83</b>	<b>9.83</b>	<b>59.38</b>	<b>10.17</b>	<b>63.89</b>

**Residential Summer Cumulative MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.00	33.00	0.00	56.81	0.00	81.65	0.00	107.75	0.00	135.03	0.00	163.42	0.00	192.83	0.00	223.20	0.00	254.47	0.00	286.62
Building Envelope	0.00	6.55	0.00	14.23	0.00	22.23	0.00	30.58	0.00	39.30	0.00	48.41	0.00	57.94	0.00	67.92	0.00	78.38	0.00	89.35
Peak Load Shaving	0.52	4.72	1.37	12.30	2.42	21.74	3.72	33.50	5.16	46.42	6.73	60.59	8.43	75.91	10.27	92.40	12.23	110.04	14.53	130.80
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	2.98	0.00	7.14	0.00	12.56	0.00	19.06	0.00	26.21	0.00	34.08	0.00	41.95	0.00	49.81	0.00	57.68	0.00	65.54	0.00
<b>Total</b>	<b>3.50</b>	<b>44.27</b>	<b>8.51</b>	<b>83.34</b>	<b>14.98</b>	<b>125.62</b>	<b>22.78</b>	<b>171.83</b>	<b>31.37</b>	<b>220.75</b>	<b>40.81</b>	<b>272.42</b>	<b>50.38</b>	<b>326.69</b>	<b>60.08</b>	<b>383.51</b>	<b>69.90</b>	<b>442.89</b>	<b>80.07</b>	<b>506.78</b>

**Achievable Potential by End Use**

**Residential Winter Incremental MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.00	6.65	0.00	4.79	0.00	5.00	0.00	5.25	0.00	5.49	0.00	5.71	0.00	5.92	0.00	6.11	0.00	6.29	0.00	6.47
Building Envelope	0.00	9.78	0.00	10.03	0.00	9.99	0.00	9.98	0.00	9.98	0.00	9.99	0.00	10.02	0.00	10.07	0.00	10.14	0.00	10.24
Peak Load Shaving	0.63	5.63	1.00	9.03	1.25	11.26	1.56	14.02	1.71	15.40	1.88	16.89	2.03	18.27	2.18	19.65	2.34	21.03	2.75	24.74
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	3.36	0.00	4.70	0.00	6.11	0.00	7.33	0.00	8.07	0.00	8.87	0.00	8.87	0.00	8.87	0.00	8.87	0.00	8.87	0.00
<b>Total</b>	<b>3.98</b>	<b>22.06</b>	<b>5.71</b>	<b>23.85</b>	<b>7.36</b>	<b>26.25</b>	<b>8.89</b>	<b>29.25</b>	<b>9.78</b>	<b>30.87</b>	<b>10.75</b>	<b>32.59</b>	<b>10.90</b>	<b>34.21</b>	<b>11.06</b>	<b>35.83</b>	<b>11.21</b>	<b>37.47</b>	<b>11.62</b>	<b>41.45</b>

**Residential Winter Cumulative MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.00	6.65	0.00	11.44	0.00	16.44	0.00	21.69	0.00	27.18	0.00	32.90	0.00	38.82	0.00	44.93	0.00	51.23	0.00	57.70
Building Envelope	0.00	9.78	0.00	19.81	0.00	29.80	0.00	39.78	0.00	49.76	0.00	59.75	0.00	69.77	0.00	79.85	0.00	89.99	0.00	100.23
Peak Load Shaving	0.63	5.63	1.63	14.66	2.88	25.91	4.44	39.93	6.15	55.33	8.02	72.22	10.05	90.48	12.24	110.13	14.57	131.16	17.32	155.90
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	3.36	0.00	8.06	0.00	14.17	0.00	21.51	0.00	29.58	0.00	38.45	0.00	47.32	0.00	56.20	0.00	65.07	0.00	73.94	0.00
<b>Total</b>	<b>3.98</b>	<b>22.06</b>	<b>9.69</b>	<b>45.91</b>	<b>17.05</b>	<b>72.16</b>	<b>25.94</b>	<b>101.40</b>	<b>35.72</b>	<b>132.27</b>	<b>46.47</b>	<b>164.87</b>	<b>57.38</b>	<b>199.07</b>	<b>68.43</b>	<b>234.91</b>	<b>79.64</b>	<b>272.37</b>	<b>91.27</b>	<b>313.82</b>

**Achievable Potential by End Use**

**Residential Incremental GWH**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.00	69.17	0.00	49.93	0.00	52.06	0.00	54.70	0.00	57.20	0.00	59.51	0.00	61.66	0.00	63.66	0.00	65.56	0.00	67.39
Building Envelope	0.00	15.42	0.00	17.85	0.00	18.51	0.00	19.24	0.00	20.02	0.00	20.84	0.00	21.73	0.00	22.67	0.00	23.68	0.00	24.76
Peak Load Shaving	0.01	0.09	0.02	0.14	0.02	0.18	0.02	0.22	0.03	0.24	0.03	0.27	0.03	0.29	0.03	0.31	0.04	0.33	0.04	0.39
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	5.57	0.00	7.80	0.00	10.14	0.00	12.17	0.00	13.39	0.00	14.72	0.00	14.72	0.00	14.72	0.00	14.72	0.00	14.72	0.00
Total	5.58	84.68	7.82	67.92	10.16	70.76	12.19	74.17	13.42	77.46	14.75	80.62	14.75	83.67	14.76	86.64	14.76	89.57	14.77	92.55

**Residential Cumulative GWH**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.00	69.17	0.00	119.10	0.00	171.16	0.00	223.86	0.00	283.06	0.00	342.57	0.00	404.23	0.00	467.88	0.00	533.44	0.00	600.84
Building Envelope	0.00	15.42	0.00	33.27	0.00	51.79	0.00	71.03	0.00	91.05	0.00	111.89	0.00	133.62	0.00	156.28	0.00	179.96	0.00	204.73
Peak Load Shaving	0.01	0.09	0.03	0.23	0.05	0.41	0.07	0.63	0.10	0.87	0.13	1.14	0.16	1.43	0.19	1.74	0.23	2.07	0.27	2.46
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	5.57	0.00	13.37	0.00	23.51	0.00	35.68	0.00	49.07	0.00	63.79	0.00	78.51	0.00	93.24	0.00	107.96	0.00	122.68	0.00
Total	5.58	84.68	13.40	152.60	23.56	223.36	35.75	297.52	49.17	374.98	63.92	455.60	78.67	539.27	93.43	625.91	108.19	715.48	122.95	808.03

**Achievable Potential by End Use**

**Commercial/Industrial Summer Incremental MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	1.84	6.34	1.82	6.30	1.82	6.33	1.84	6.20	1.87	6.12	1.81	5.76	1.76	5.46	1.73	5.21	1.71	5.01	1.71	4.87
Building Envelope	0.00	2.15	0.00	1.85	0.00	1.84	0.00	1.83	0.00	1.81	0.00	1.80	0.00	1.79	0.00	1.77	0.00	1.76	0.00	1.75
Peak Load Shaving	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77	1.09	9.77
Lighting	0.00	4.79	0.00	2.45	0.00	0.31	0.00	0.31	0.00	0.31	0.00	0.31	0.00	0.30	0.00	0.30	0.00	0.30	0.00	0.30
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Power Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freezing Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self Service Cogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28
<b>Total</b>	<b>2.92</b>	<b>23.33</b>	<b>2.91</b>	<b>20.66</b>	<b>2.91</b>	<b>18.53</b>	<b>2.92</b>	<b>18.39</b>	<b>2.95</b>	<b>18.29</b>	<b>2.89</b>	<b>17.92</b>	<b>2.85</b>	<b>17.60</b>	<b>2.81</b>	<b>17.34</b>	<b>2.79</b>	<b>17.12</b>	<b>2.79</b>	<b>16.97</b>

**Commercial/Industrial Summer Cumulative MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	1.84	6.34	3.66	12.64	5.48	18.96	7.31	25.16	9.18	31.28	10.99	37.04	12.75	42.50	14.48	47.71	16.18	52.71	17.89	57.58
Building Envelope	0.00	2.15	0.00	4.00	0.00	5.84	0.00	7.67	0.00	9.48	0.00	11.28	0.00	13.07	0.00	14.84	0.00	16.60	0.00	18.35
Peak Load Shaving	1.09	9.77	2.17	19.54	3.26	29.31	4.34	39.09	5.43	48.86	6.51	58.63	7.60	68.40	8.69	78.17	9.77	87.94	10.86	97.71
Lighting	0.00	4.79	0.00	7.24	0.00	7.55	0.00	7.86	0.00	8.17	0.00	8.48	0.00	8.78	0.00	9.09	0.00	9.39	0.00	9.68
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Power Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freezing Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self Service Cogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.28	0.00	0.56	0.00	0.85	0.00	1.13	0.00	1.41	0.00	1.69	0.00	1.97	0.00	2.26	0.00	2.54	0.00	2.82
<b>Total</b>	<b>2.92</b>	<b>23.33</b>	<b>5.83</b>	<b>43.99</b>	<b>8.74</b>	<b>62.52</b>	<b>11.66</b>	<b>80.91</b>	<b>14.61</b>	<b>99.20</b>	<b>17.50</b>	<b>117.12</b>	<b>20.35</b>	<b>134.72</b>	<b>23.16</b>	<b>152.06</b>	<b>25.95</b>	<b>169.18</b>	<b>28.75</b>	<b>186.14</b>

**Achievable Potential by End Use**

**Commercial/Industrial Winter Incremental MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.55	1.80	0.58	1.86	0.61	1.94	0.71	2.13	0.82	2.38	0.87	2.45	0.93	2.55	1.00	2.67	1.08	2.82	1.18	3.02
Building Envelope	0.00	0.71	0.00	0.26	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.24	0.00	0.24	0.00	0.24	0.00	0.24
Peak Load Shaving	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70	0.63	5.70
Lighting	0.00	3.14	0.00	1.57	0.00	0.21	0.00	0.21	0.00	0.20	0.00	0.20	0.00	0.20	0.00	0.20	0.00	0.20	0.00	0.20
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Power Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freezing Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self Service Cogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28	0.00	0.28
Total	1.18	11.62	1.21	9.67	1.25	8.38	1.34	8.57	1.46	8.81	1.51	8.88	1.57	8.98	1.64	9.09	1.71	9.24	1.81	9.44

**Commercial/Industrial Winter Cumulative MW**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	0.55	1.80	1.12	3.65	1.74	5.60	2.44	7.73	3.27	10.10	4.14	12.55	5.07	15.11	6.08	17.78	7.16	20.60	8.34	23.63
Building Envelope	0.00	0.71	0.00	0.96	0.00	1.22	0.00	1.47	0.00	1.71	0.00	1.96	0.00	2.20	0.00	2.44	0.00	2.68	0.00	2.91
Peak Load Shaving	0.63	5.70	1.27	11.40	1.90	17.10	2.53	22.80	3.17	28.50	3.80	34.20	4.43	39.90	5.07	45.60	5.70	51.30	6.33	57.00
Lighting	0.00	3.14	0.00	4.71	0.00	4.92	0.00	5.13	0.00	5.33	0.00	5.53	0.00	5.73	0.00	5.93	0.00	6.13	0.00	6.33
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Power Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freezing Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self Service Cogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.28	0.00	0.56	0.00	0.84	0.00	1.12	0.00	1.40	0.00	1.68	0.00	1.96	0.00	2.24	0.00	2.53	0.00	2.81
Total	1.18	11.62	2.39	21.29	3.64	29.67	4.98	38.24	6.43	47.05	7.94	55.93	9.51	64.90	11.14	74.00	12.86	83.24	14.67	92.67

**Achievable Potential by End Use**

**Commercial/Industrial Incremental GWH**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	1.09	1.41	1.05	1.38	0.96	1.28	1.14	1.58	1.31	1.90	1.42	2.14	1.53	2.37	1.63	2.60	1.73	2.83	1.85	3.08
Building Envelope	0.00	4.23	0.00	3.60	0.00	3.57	0.00	3.54	0.00	3.52	0.00	3.49	0.00	3.46	0.00	3.44	0.00	3.41	0.00	3.39
Peak Load Shaving	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08	0.01	0.08
Lighting	0.00	23.83	0.00	12.29	0.00	1.54	0.00	1.53	0.00	1.52	0.00	1.51	0.00	1.50	0.00	1.49	0.00	1.48	0.00	1.47
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Power Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freezing Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self Service Cogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86	0.00	0.86
Total	1.10	30.41	1.06	18.21	0.97	7.33	1.15	7.59	1.32	7.87	1.43	8.08	1.54	8.28	1.64	8.47	1.74	8.66	1.86	8.88

**Commercial/Industrial Cumulative GWH**

End Use	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014	
	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist	New	Exist
HVAC	1.09	1.41	2.14	2.79	3.11	4.07	4.25	5.65	5.56	7.54	6.99	9.68	8.52	12.05	10.15	14.65	11.88	17.47	13.74	20.56
Building Envelope	0.00	4.23	0.00	7.83	0.00	11.40	0.00	14.94	0.00	18.45	0.00	21.94	0.00	25.41	0.00	28.84	0.00	32.26	0.00	35.64
Peak Load Shaving	0.01	0.08	0.02	0.16	0.03	0.24	0.04	0.32	0.05	0.41	0.05	0.49	0.06	0.57	0.07	0.65	0.08	0.73	0.09	0.81
Lighting	0.00	23.83	0.00	36.12	0.00	37.66	0.00	39.19	0.00	40.71	0.00	42.22	0.00	43.72	0.00	45.21	0.00	46.69	0.00	48.17
Water Heating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Power Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Refrigeration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freezing Equip	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Appliances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar & Renewables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Self Service Cogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.86	0.00	1.72	0.00	2.59	0.00	3.45	0.00	4.31	0.00	5.17	0.00	6.03	0.00	6.89	0.00	7.76	0.00	8.62
Total	1.10	30.41	2.16	48.62	3.13	55.95	4.28	63.55	5.61	71.42	7.04	79.50	8.58	87.78	10.22	96.25	11.96	104.91	13.83	113.79

**DSM Achievable Potential By Measure - Summer MW**

**Residential New Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BuildSmart	RS	2.98	4.17	5.42	6.50	7.15	7.87	7.87	7.87	7.87	7.87
Load Control	RS	0.52	0.84	1.05	1.31	1.44	1.57	1.70	1.83	1.96	2.31

**Residential Existing Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
RHVAC -Grnd	RS	2.72	1.96	2.05	2.15	2.25	2.34	2.42	2.50	2.58	2.65
RHVAC -HP	RS	6.32	4.56	4.75	4.99	5.22	5.43	5.63	5.81	5.98	6.15
RHVAC -SC	RS	23.91	17.24	17.98	18.89	19.75	20.55	21.29	21.98	22.64	23.27
Plenum Repair - HP	RS	0.06	0.17	0.19	0.22	0.25	0.29	0.33	0.38	0.43	0.48
Plenum Repair - SC	RS	0.21	0.62	0.71	0.82	0.95	1.08	1.23	1.40	1.59	1.79
Duct- Strip Heat	RS	1.75	1.78	1.82	1.85	1.88	1.92	1.95	1.98	2.01	2.04
Duct - HP	RS	0.68	0.69	0.71	0.72	0.73	0.75	0.76	0.77	0.78	0.79
RBE Strip heat	RS	2.46	2.40	2.34	2.28	2.23	2.17	2.12	2.07	2.02	1.98
RBE HP	RS	0.95	0.93	0.91	0.89	0.87	0.85	0.83	0.81	0.79	0.77
Refl Roof	RS	0.42	1.07	1.30	1.54	1.79	2.03	2.29	2.55	2.82	3.09
Low Income AC Maintenace	RS	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
Low Income Infiltration	RS	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
Load Control	RS	4.72	7.57	9.44	11.76	12.92	14.17	15.33	16.48	17.64	20.76



**DSM Achievable Potential By Measure - Summer MW**

**Commercial/Industrial New Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Chiller	GSD	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Chiller	GSLD	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.04
DX	GS	0.08	0.08	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.09
DX	GSD	0.14	0.13	0.12	0.13	0.14	0.15	0.16	0.16	0.16	0.17
DX	GSLD	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Room AC	GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Room AC	GSD	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Room AC	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV Strip Heat No Bypass	GSLD	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV Strip Heat Act Bypass	GSLD	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV No Heat No Bypass	GSLD	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV No Heat Act Bypass	GSLD	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV Strip Heat No Bypass	GSD	0.03	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.12
ERV Strip Heat Act Bypass	GSD	0.03	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.12
ERV No Heat No Bypass	GSD	0.03	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.12
ERV No Heat Act Bypass	GSD	0.03	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.12
ERV Strip Heat No Bypass	GS	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV Strip Heat Act Bypass	GS	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV No Heat No Bypass	GS	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
ERV No Heat Act Bypass	GS	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
TES	GSD	0.37	0.37	0.37	0.35	0.33	0.29	0.27	0.24	0.22	0.19
TES	GSLD	0.97	0.96	0.96	0.91	0.85	0.77	0.69	0.62	0.56	0.50
CDR	GSLD	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Business On Call	GS	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
Business On Call	GSD	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23

**DSM Achievable Potential By Measure - Summer MW**

**Commercial/Industrial Existing Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Chiller	GSD	0.11	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.08	0.08
Chiller	GSLD	0.25	0.24	0.23	0.22	0.21	0.20	0.20	0.19	0.18	0.17
DX	GS	0.08	0.08	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.09
DX	GSD	0.14	0.13	0.12	0.13	0.14	0.15	0.16	0.16	0.16	0.17
DX	GSLD	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
Room AC	GS	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Room AC	GSD	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
Room AC	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV Strip Heat No Bypass	GSLD	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05	0.05
ERV Strip Heat Act Bypass	GSLD	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05	0.05
ERV No Heat No Bypass	GSLD	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05	0.05
ERV No Heat Act Bypass	GSLD	0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05	0.05
ERV Strip Heat No Bypass	GSD	0.06	0.07	0.08	0.11	0.15	0.17	0.19	0.22	0.24	0.27
ERV Strip Heat Act Bypass	GSD	0.06	0.07	0.08	0.11	0.15	0.17	0.19	0.22	0.24	0.27
ERV No Heat No Bypass	GSD	0.06	0.07	0.08	0.11	0.15	0.17	0.19	0.22	0.24	0.27
ERV No Heat Act Bypass	GSD	0.06	0.07	0.08	0.11	0.15	0.17	0.19	0.22	0.24	0.27
ERV Strip Heat No Bypass	GS	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05
ERV Strip Heat Act Bypass	GS	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05
ERV No Heat No Bypass	GS	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05
ERV No Heat Act Bypass	GS	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.05
TES	GSD	1.49	1.47	1.48	1.39	1.31	1.18	1.06	0.96	0.86	0.77
TES	GSLD	3.88	3.83	3.84	3.62	3.41	3.07	2.76	2.49	2.24	2.01
Roof Insulation	GS	0.08	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Roof Insulation	GSD	0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Roof Insulation	GSLD	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reflective Roof Coatings	GS	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.36	0.36	0.36
Reflective Roof Coatings	GSD	1.14	1.13	1.13	1.12	1.11	1.10	1.10	1.09	1.08	1.07
Reflective Roof Coatings	GSLD	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Ceiling Insulation	GS	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Ceiling Insulation	GSD	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Ceiling Insulation	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lighting	GS	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Lighting	GSD	2.30	2.23	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Lighting	GSLD	2.32	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.19
BCI	GSD	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
BCI	GSLD	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
CDR	GSLD	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70
Business On Call	GS	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04
Business On Call	GSD	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04

**DSM Achievable Potential By Measure - Winter MW**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BuildSmart	RS	3.36	4.70	6.11	7.33	8.07	8.87	8.87	8.87	8.87	8.87
Load Control	RS	0.63	1.00	1.25	1.56	1.71	1.88	2.03	2.18	2.34	2.75

**Residential Existing Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
RHVAC -Grnd	RS	1.04	0.75	0.78	0.82	0.86	0.90	0.93	0.96	0.99	1.02
RHVAC -HP	RS	5.60	4.04	4.21	4.43	4.63	4.82	4.99	5.15	5.31	5.45
RHVAC -SC	RS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plenum Repair - HP	RS	0.06	0.16	0.19	0.22	0.25	0.29	0.33	0.37	0.42	0.48
Plenum Repair - SC	RS	0.14	0.39	0.45	0.52	0.59	0.68	0.78	0.88	1.00	1.13
Duct- Strip Heat	RS	1.98	2.02	2.06	2.10	2.14	2.17	2.21	2.24	2.28	2.31
Duct - HP	RS	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.56	0.57	0.58
RBE Strip heat	RS	5.76	5.63	5.49	5.36	5.23	5.11	4.98	4.87	4.75	4.64
RBE HP	RS	1.33	1.30	1.27	1.23	1.21	1.18	1.15	1.12	1.09	1.07
Refl Roof	RS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Low Income AC Maintenance	RS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Low Income Infiltration	RS	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Load Control	RS	5.63	9.03	11.26	14.02	15.40	16.89	18.27	19.65	21.03	24.74

**DSM Achievable Potential By Measure - Winter MW**

**Commercial/Industrial New Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Chiller	GSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chiller	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DX	GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DX	GSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DX	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Room AC	GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Room AC	GSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Room AC	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV Strip Heat No Bypass	GSLD	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.06	0.06	0.07
ERV Strip Heat Act Bypass	GSLD	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.06	0.06	0.07
ERV No Heat No Bypass	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV No Heat Act Bypass	GSLD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV Strip Heat No Bypass	GSD	0.09	0.10	0.11	0.15	0.20	0.23	0.26	0.29	0.33	0.37
ERV Strip Heat Act Bypass	GSD	0.09	0.10	0.11	0.15	0.20	0.23	0.26	0.29	0.33	0.37
ERV No Heat No Bypass	GSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV No Heat Act Bypass	GSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV Strip Heat No Bypass	GS	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.07
ERV Strip Heat Act Bypass	GS	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.07
ERV No Heat No Bypass	GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERV No Heat Act Bypass	GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TES	GSD	0.09	0.08	0.08	0.08	0.08	0.07	0.06	0.05	0.05	0.04
TES	GSLD	0.22	0.22	0.22	0.21	0.20	0.18	0.16	0.14	0.13	0.12
CDR	GSLD	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Business On Call	GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Business On Call	GSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



**DSM Achievable Potential By Measure - GWH**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BuildSmart	RS	5.57	7.80	10.14	12.17	13.39	14.72	14.72	14.72	14.72	14.72
Load Control	RS	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04

**Residential Existing Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
RHVAC -Gmd	RS	5.42	3.91	4.08	4.28	4.48	4.66	4.83	4.99	5.13	5.28
RHVAC -HP	RS	15.14	10.92	11.39	11.97	12.51	13.02	13.49	13.92	14.34	14.74
RHVAC -SC	RS	48.50	34.98	36.48	38.33	40.08	41.70	43.20	44.60	45.93	47.22
Plenum Repair - HP	RS	0.12	0.33	0.38	0.44	0.51	0.58	0.66	0.75	0.85	0.96
Plenum Repair - SC	RS	0.43	1.24	1.42	1.64	1.89	2.16	2.47	2.80	3.17	3.59
Duct- Strip Heat	RS	3.72	3.79	3.87	3.94	4.01	4.07	4.14	4.21	4.27	4.34
Duct - HP	RS	1.27	1.30	1.33	1.35	1.37	1.40	1.42	1.44	1.46	1.49
RBE Strip heat	RS	6.55	6.40	6.24	6.09	5.95	5.80	5.67	5.53	5.40	5.27
RBE HP	RS	2.31	2.25	2.20	2.15	2.09	2.04	2.00	1.95	1.90	1.86
Refl Roof	RS	0.99	2.49	3.03	3.58	4.15	4.73	5.32	5.93	6.55	7.19
Low Income AC Maintenance	RS	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.15	0.16	0.16
Low Income Infiltration	RS	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06
Load Control	RS	0.09	0.14	0.18	0.22	0.24	0.27	0.29	0.31	0.33	0.39

**DSM Achievable Potential By Measure - GWH**

**Commercial/Industrial New Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Chiller	GSD	0.123	0.118	0.114	0.110	0.106	0.102	0.098	0.094	0.091	0.088
Chiller	GSLD	0.266	0.256	0.246	0.237	0.228	0.219	0.211	0.203	0.195	0.187
DX	GS	0.278	0.265	0.236	0.252	0.265	0.276	0.286	0.295	0.302	0.309
DX	GSD	0.517	0.487	0.426	0.487	0.535	0.556	0.574	0.589	0.600	0.617
DX	GSLD	0.089	0.083	0.073	0.086	0.101	0.105	0.107	0.109	0.111	0.113
Room AC	GS	0.005	0.005	0.006	0.007	0.007	0.008	0.008	0.009	0.009	0.010
Room AC	GSD	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.016	0.017
Room AC	GSLD	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003
ERV Strip Heat No Bypass	GSLD	0.005	0.005	0.006	0.009	0.012	0.014	0.016	0.018	0.020	0.022
ERV Strip Heat Act Bypass	GSLD	0.007	0.008	0.009	0.012	0.017	0.020	0.022	0.025	0.028	0.031
ERV No Heat No Bypass	GSLD	0.004	0.004	0.005	0.007	0.009	0.011	0.012	0.013	0.015	0.017
ERV No Heat Act Bypass	GSLD	0.006	0.006	0.007	0.010	0.014	0.016	0.019	0.021	0.023	0.026
ERV Strip Heat No Bypass	GSD	0.027	0.030	0.034	0.047	0.062	0.071	0.081	0.091	0.102	0.116
ERV Strip Heat Act Bypass	GSD	0.038	0.043	0.049	0.067	0.088	0.101	0.115	0.129	0.145	0.164
ERV No Heat No Bypass	GSD	0.021	0.023	0.026	0.036	0.048	0.055	0.062	0.070	0.078	0.089
ERV No Heat Act Bypass	GSD	0.032	0.036	0.041	0.056	0.074	0.084	0.096	0.108	0.121	0.137
ERV Strip Heat No Bypass	GS	0.005	0.006	0.007	0.009	0.011	0.013	0.015	0.017	0.019	0.021
ERV Strip Heat Act Bypass	GS	0.008	0.009	0.010	0.013	0.016	0.018	0.021	0.024	0.027	0.030
ERV No Heat No Bypass	GS	0.004	0.005	0.005	0.007	0.009	0.010	0.011	0.013	0.015	0.016
ERV No Heat Act Bypass	GS	0.006	0.007	0.008	0.011	0.013	0.015	0.018	0.020	0.022	0.025
TES	GSD	-0.113	-0.112	-0.112	-0.106	-0.099	-0.090	-0.081	-0.073	-0.065	-0.059
TES	GSLD	-0.246	-0.243	-0.244	-0.230	-0.216	-0.195	-0.175	-0.158	-0.142	-0.128
CDR	GSLD	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
Business On Call	GS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Business On Call	GSD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**DSM Achievable Potential By Measure - GWH**

**Commercial/Industrial Existing Construction**

2005-2014 Measures	Rate Class	Achievable Potential Estimates									
		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Chiller	GSD	0.492	0.474	0.456	0.439	0.423	0.407	0.392	0.378	0.364	0.350
Chiller	GSLD	1.064	1.024	0.985	0.947	0.911	0.876	0.843	0.811	0.780	0.750
DX	GS	0.278	0.265	0.236	0.252	0.265	0.276	0.286	0.295	0.302	0.309
DX	GSD	0.517	0.487	0.426	0.487	0.535	0.556	0.574	0.589	0.600	0.617
DX	GSLD	0.089	0.083	0.073	0.086	0.101	0.105	0.107	0.109	0.111	0.113
Room AC	GS	0.011	0.013	0.014	0.015	0.017	0.018	0.019	0.020	0.022	0.023
Room AC	GSD	0.019	0.021	0.024	0.026	0.028	0.030	0.032	0.034	0.036	0.039
Room AC	GSLD	0.003	0.004	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.007
ERV Strip Heat No Bypass	GSLD	0.011	0.013	0.014	0.020	0.029	0.032	0.036	0.041	0.046	0.051
ERV Strip Heat Act Bypass	GSLD	0.016	0.018	0.020	0.029	0.040	0.046	0.052	0.058	0.065	0.073
ERV No Heat No Bypass	GSLD	0.009	0.010	0.011	0.016	0.022	0.025	0.028	0.031	0.035	0.039
ERV No Heat Act Bypass	GSLD	0.013	0.015	0.017	0.024	0.034	0.038	0.043	0.048	0.054	0.061
ERV Strip Heat No Bypass	GSD	0.063	0.071	0.080	0.110	0.145	0.166	0.189	0.213	0.239	0.270
ERV Strip Heat Act Bypass	GSD	0.089	0.101	0.114	0.156	0.206	0.235	0.267	0.301	0.338	0.382
ERV No Heat No Bypass	GSD	0.048	0.055	0.062	0.085	0.111	0.127	0.145	0.163	0.183	0.207
ERV No Heat Act Bypass	GSD	0.074	0.084	0.095	0.130	0.172	0.197	0.223	0.252	0.282	0.320
ERV Strip Heat No Bypass	GS	0.012	0.014	0.016	0.021	0.027	0.030	0.035	0.039	0.044	0.050
ERV Strip Heat Act Bypass	GS	0.018	0.020	0.023	0.030	0.038	0.043	0.049	0.056	0.063	0.070
ERV No Heat No Bypass	GS	0.010	0.011	0.013	0.016	0.020	0.023	0.027	0.030	0.034	0.038
ERV No Heat Act Bypass	GS	0.015	0.017	0.019	0.025	0.031	0.036	0.041	0.046	0.052	0.059
TES	GSD	-0.452	-0.447	-0.448	-0.423	-0.398	-0.358	-0.322	-0.290	-0.261	-0.235
TES	GSLD	-0.984	-0.972	-0.975	-0.919	-0.866	-0.779	-0.701	-0.631	-0.568	-0.511
Roof Insulation	GS	0.183	0.039	0.039	0.039	0.039	0.038	0.038	0.038	0.038	0.038
Roof Insulation	GSD	0.542	0.117	0.116	0.115	0.115	0.114	0.113	0.112	0.112	0.112
Roof Insulation	GSLD	0.049	0.011	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Reflective Roof Coatings	GS	0.698	0.694	0.689	0.684	0.680	0.675	0.670	0.666	0.661	0.657
Reflective Roof Coatings	GSD	2.229	2.214	2.199	2.184	2.169	2.155	2.140	2.126	2.111	2.097
Reflective Roof Coatings	GSLD	0.210	0.208	0.207	0.205	0.204	0.203	0.201	0.200	0.199	0.197
Ceiling Insulation	GS	0.121	0.119	0.117	0.115	0.113	0.111	0.110	0.108	0.106	0.104
Ceiling Insulation	GSD	0.198	0.195	0.192	0.189	0.186	0.183	0.180	0.177	0.174	0.171
Ceiling Insulation	GSLD	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lighting	GS	0.615	0.078	0.076	0.075	0.073	0.071	0.070	0.068	0.066	0.065
Lighting	GSD	11.536	11.188	0.444	0.442	0.440	0.438	0.436	0.435	0.433	0.431
Lighting	GSLD	11.674	1.026	1.020	1.014	1.007	1.001	0.995	0.989	0.983	0.977
BCI	GSD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
BCI	GSLD	0.862	0.862	0.862	0.862	0.862	0.862	0.862	0.862	0.862	0.862
CDR	GSLD	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077
Business On Call	GS	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Business On Call	GSD	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002



### FPL Measure Identification Process

	Step 1 Utility Program "UP" measures from last DSM Goals proceeding	Step 2 New measures added since last DSM Goals proceeding	Step 3 Code Utility Evaluation "CUE" measures from last DSM Goals proceeding	Total Measures
Measure Summary				
- Res New Construction	12	4	8	24
- Res Existing Construction	45	16		61
- C/I New Construction	37	20	50	107
- C/I Existing Construction	111	26		137
<b>Total</b>	<b>205</b>	<b>66</b>	<b>58</b>	<b>329</b>

## Measure Selection Process Step 1

### Residential New Construction

Measure	Description
BLDSMT-1	BuildSmart - EPI less than 90
RLC-1	Residential Load Control
RSC-24	High Efficiency Room AC
WH-3	Solar Water Heater
WH-6	DHW Heater Tank Insulation
CW-1	High Efficiency Clothes Washer
RSCLT-1	Residential Indoor Lighting
RSCLT-1	Residential Outdoor Lighting
RF-1	Bst Ref Frost Free
RF-2	Bst Ref Manual
FR-1	Bst Freezer FF
FR-2	Bst Freezer Manual

## Measure Selection Process Step 1

### Residential Existing Construction

Measure	Description
RSC-1	Hi Efficiency Air Source Heat Pump
RSC-2	Ground Source Heat Pump
RSC-3	Two Speed Heat Pump
RSC-5A	Reduced Duct Leakage
RSC-5B	Reduced Duct Leakage
RSC-7A	Setback/Programmable Thermostat
RSC-7B	Setback/Programmable Thermostat
RSC-10A	Ceiling Ins. R0-R19
RSC-10B	Ceiling Ins. R0-R19
RSC-14A	Wall Insulation R0-R11 .EXS
RSC-14B	Wall Insulation R0-R11 .EXS
RSC-15A	Weather Strip/Caulk w/Blower Door
RSC-15B	Weather Strip/Caulk w/Blower Door
RSC-16A	Window Film & Reflective Glass
RSC-16B	Window Film & Reflective Glass
RSC-17A	Low E-Glass
RSC-17B	Low E-Glass
RSC-18A	Shade Screens
RSC-18B	Shade Screens
RSC-21A	Hi Efficiency Central AC
RSC-22A	2 Speed Central AC
RSC-24A	High Efficiency Room AC
RSC-25A	Air Cond/ Heat Pump Maintenance
RSC-25B	Air Cond/ Heat Pump Maintenance
RSC-27	Landscape Shading
WH-1	High Efficiency Elect. Resist. Water Heating
WH-2	Integral Heat Pump Water Heater
WH-3	Solar Water Heater
WH-4	Heat Recovery (Desuperheater)
WH-5	Add-On Heat Pump Water Heater
WH-6	DHW Heater Tank Insulation
WH-7	DHW Pipe Insulation
WH-8	DHW Heat Trap
WH-9	Low Flow Shower Head, HD
CW-1	High Efficiency Clothes Washer
RF-1	Bst Ref Frost Free
RF-2	Bst Ref Manual
RF-3	Remove 2nd Ref
FR-1	Bst Freezer FF
FR-2	Bst Freezer Manual
FR-3	Remove 2nd Freezer
PP-1	High Efficiency Pool Pumps
RLC-1	Residential Load Control
RSCLT-1	Residential Indoor Lighting
RSCLT-1	Residential Outdoor Lighting

## Measure Selection Process Step 1

### Commercial/Industrial New Construction

Measure	Rate Class	Description
SC-D-1/2	GSD	High Eff. Chiller
SC-D-1/2	GSLD	High Eff. Chiller
SC-D-3	GS	Hi Efficiency DX AC
SC-D-3	GSD	Hi Efficiency DX AC
SC-D-3	GSLD	Hi Efficiency DX AC
SC-D-4	GS	Hi Eff. Room AC
SC-D-4	GSD	Hi Eff. Room AC
SC-D-4	GSLD	Hi Eff. Room AC
SC-D-5	GSD	Cool Storage
SC-D-5	GSLD	Cool Storage
V-D-8	GSD	High Eff. Motors Chiller
V-D-8	GSLD	High Eff. Motors Chiller
V-D-9	GS	High Eff. Motors DX AC
V-D-9	GSD	High Eff. Motors DX AC
V-D-9	GSLD	High Eff. Motors DX AC
W-D-11	GS	Heat Pump Water Heater
W-D-11	GSD	Heat Pump Water Heater
W-D-11	GSLD	Heat Pump Water Heater
W-D-12	GS	Solar Water Heating
W-D-12	GSD	Solar Water Heating
W-D-12	GSLD	Solar Water Heating
W-D-13	GS	HRU
W-D-13	GSD	HRU
W-D-13	GSLD	HRU
C-D-18	GS	Convection Oven
C-D-18	GSD	Convection Oven
C-D-18	GSLD	Convection Oven
C-D-19	GS	Energy Eff. Electric Fryer
C-D-19	GSD	Energy Eff. Electric Fryer
C-D-19	GSLD	Energy Eff. Electric Fryer
FPLM-1	GS	Motors
FPLM-1	GSD	Motors
FPLM-1	GSLD	Motors
OPBC	GSD	Off Peak Battery Charging / Bus Custom Incentive
OPBC	GSLD	Off Peak Battery Charging / Bus Custom Incentive
CILM	GS	Commercial/Industrial Load Management
CILM	GSLD	Commercial/Industrial Load Management

## Measure Selection Process Step 1

### Commercial/Industrial Existing Construction

Measure	Rate Class	Description
SC-D-1/2	GSD	High Eff. Chiller
SC-D-1/2	GSLD	High Eff. Chiller
SC-D-3	GS	Hi Efficiency DX AC
SC-D-3	GSD	Hi Efficiency DX AC
SC-D-3	GSLD	Hi Efficiency DX AC
SC-D-4	GSD	Hi Eff. Room AC
SC-D-4	GSLD	Hi Eff. Room AC
SC-D-5	GSD	Cool Storage
SC-D-5	GSLD	Cool Storage
SC-D-6	GS	Heat Pipe DX AC
SC-D-6	GSD	Heat Pipe DX AC
SC-D-6	GSLD	Heat Pipe DX AC
SC-D-8	GSD	<b>3 Speed Motor for Cooling Tower</b>
SC-D-8	GSLD	<b>3 Speed Motor for Cooling Tower</b>
SC-D-10	GSD	AC Maintenance Chiller
SC-D-10	GSLD	AC Maintenance Chiller
SC-D-11	GS	AC Maintenance DX AC
SC-D-11	GSD	AC Maintenance DX AC
SC-D-11	GSLD	AC Maintenance DX AC
SC-D-12	GSD	<b>HVAC Air Duct/Water Pipe Insul Chiller</b>
SC-D-12	GSLD	<b>HVAC Air Duct/Water Pipe Insul Chiller</b>
SC-D-13	GS	HVAC Air Duct/Water Pipe Insul DX AC
SC-D-13	GSD	HVAC Air Duct/Water Pipe Insul DX AC
SC-D-13	GSLD	HVAC Air Duct/Water Pipe Insul DX AC
SC-D-18/19	GS	Roof Insulation
SC-D-18/19	GSD	Roof Insulation
SC-D-18/19	GSLD	Roof Insulation
SC-D-22/23	GS	Window Film
SC-D-22/23	GSD	Window Film
SC-D-22/23	GSLD	Window Film
V-D-1	GS	Leak Free Ducts DX AC
V-D-1	GSD	Leak Free Ducts DX AC
V-D-1	GSLD	Leak Free Ducts DX AC
V-D-8	GSD	High Eff. Motors Chiller
V-D-8	GSLD	High Eff. Motors Chiller
V-D-9	GS	High Eff. Motors DX AC
V-D-9	GSD	High Eff. Motors DX AC
V-D-9	GSLD	High Eff. Motors DX AC
V-D-10	GSD	Sep Makeup Air / Exhaust Hoods Chiller
V-D-10	GSLD	Sep Makeup Air / Exhaust Hoods Chiller
V-D-11	GS	Sep Makeup Air / Exhaust Hoods DX AC
V-D-11	GSD	Sep Makeup Air / Exhaust Hoods DX AC
V-D-11	GSLD	Sep Makeup Air / Exhaust Hoods DX AC
FL-HP	GS	Fluorescent High Permanence
FL-HP	GSD	Fluorescent High Permanence
FL-HP	GSLD	Fluorescent High Permanence

## Measure Selection Process Step 1

### Commercial/Industrial Existing Construction (con't)

Measure	Rate Class	Description
R-D-1	GS	Multiplex: Air-Cooled/No Subcooling
R-D-1	GSD	Multiplex: Air-Cooled/No Subcooling
R-D-1	GSLD	Multiplex: Air-Cooled/No Subcooling
R-D-2	GS	Multiplex: Air-Cooled/Ambient Subcooling
R-D-2	GSD	Multiplex: Air-Cooled/Ambient Subcooling
R-D-2	GSLD	Multiplex: Air-Cooled/Ambient Subcooling
R-D-3	GS	Multiplex: Air-Cooled/Mechanical Subcooling
R-D-3	GSD	Multiplex: Air-Cooled/Mechanical Subcooling
R-D-3	GSLD	Multiplex: Air-Cooled/Mechanical Subcooling
R-D-4	GS	Multiplex: Air-Cooled/Ambient & Mech. Subcooling
R-D-4	GSD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling
R-D-4	GSLD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling
R-D-5	GS	Multiplex: Air-Cooled/External Liquid Suction HX
R-D-5	GSD	Multiplex: Air-Cooled/External Liquid Suction HX
R-D-5	GSLD	Multiplex: Air-Cooled/External Liquid Suction HX
R-D-6	GS	Open - Drive Refrigeration System (ASD)
R-D-6	GSD	Open - Drive Refrigeration System (ASD)
R-D-6	GSLD	Open - Drive Refrigeration System (ASD)
R-D-7	GS	Anti - Condensate Heater Controls
R-D-7	GSD	Anti - Condensate Heater Controls
R-D-7	GSLD	<b>Anti - Condensate Heater Controls</b>
R-D-8	GS	High R-Value Glass Doors
R-D-8	GSD	High R-Value Glass Doors
R-D-8	GSLD	High R-Value Glass Doors
R-D-9	GS	Refrigeration Energy Mgt System
R-D-9	GSD	Refrigeration Energy Mgt System
R-D-9	GSLD	Refrigeration Energy Mgt System
R-D-10	GS	Dual Path AC
R-D-10	GSD	Dual Path AC
R-D-10	GSLD	Dual Path AC
W-D-11	GS	Heat Pump Water Heater
W-D-11	GSD	Heat Pump Water Heater
W-D-11	GSLD	Heat Pump Water Heater
W-D-12	GS	Solar Water Heating
W-D-12	GSD	Solar Water Heating
W-D-12	GSLD	Solar Water Heating
W-D-13	GS	HRU
W-D-13	GSD	HRU
W-D-13	GSLD	HRU
W-D-14	GS	DWH Heater Insulation
W-D-14	GSD	DWH Heater Insulation
W-D-14	GSLD	DWH Heater Insulation
W-D-15	GS	DWH Heat Trap
W-D-15	GSD	DWH Heat Trap
W-D-15	GSLD	DWH Heat Trap
W-D-16	GS	Low Flow/Variable Flow Shower Head
W-D-16	GSD	Low Flow/Variable Flow Shower Head
W-D-16	GSLD	Low Flow/Variable Flow Shower Head

## Measure Selection Process Step 1

### Commercial/Industrial Existing Construction (con't)

Measure	Rate Class	Description
W-D-17	GS	DWH Recirculation pump
W-D-17	GSD	DWH Recirculation pump
W-D-17	GSLD	DWH Recirculation pump
C-D-18	GS	Convection Oven
C-D-18	GSD	Convection Oven
C-D-18	GSLD	Convection Oven
C-D-19	GS	Energy Eff. Electric Fryer
C-D-19	GSD	Energy Eff. Electric Fryer
C-D-19	GSLD	Energy Eff. Electric Fryer
FPLM-1	GS	Motors
FPLM-1	GSD	Motors
FPLM-1	GSLD	Motors
OPBC	GSD	Off Peak Battery Charging / Bus Custom Incentive
OPBC	GSLD	Off Peak Battery Charging / Bus Custom Incentive
CILM	GS	Commercial/Industrial Load Management
CILM	GSLD	Commercial/Industrial Load Management

## Measure Selection Process Step 2

### Residential New Construction

Measure	Description
FPLPV	Photovoltaics
FPLRG1	Natural Gas Water Heating
FPLRG2	Residential Gas Heat Pump - Elec HP
FPLRG3	Residential Gas Heat Pump - Elec AC

### Residential Existing Construction

Measure	Description
FPLRRR	Reflective Roofs
FPLPRA	Plenum Repair AC
FPLPRB	Plenum Repair HP
FPLRR1	Roof Coatings AC
FPLRR2	Roof Coatings HP
FPLPV	Photovoltaics
FPLLI1	Low Income AC Maintenance
FPLLI2	Low Income Infiltration
FPLLI3	Low Income Pipe Insulation
FPLLI4	Low Income Tank Insulation
FPLLI5	Low Income Low Flow Showerhead
FPLLI6	Low Income Compact Fluor
FPLLI7	Low Income Room AC
FPLRG1	Natural Gas Water Heating
FPLRG2	Residential Gas Heat Pump - Elec HP
FPLRG3	Residential Gas Heat Pump - Elec AC



## Measure Selection Process Step 2

### Commercial/Industrial New Construction

Measure	Rate Class	Description
FPLEV1	GS	ERV Strip Heat No Bypass
FPLEV2	GSD	ERV Strip Heat No Bypass
FPLEV3	GSLD	ERV Strip Heat No Bypass
FPLEV4	GS	ERV Strip Heat Act Bypass
FPLEV5	GSD	ERV Strip Heat Act Bypass
FPLEV6	GSLD	ERV Strip Heat Act Bypass
FPLEV7	GS	ERV No Heat No Bypass
FPLEV8	GSD	ERV No Heat No Bypass
FPLEV9	GSLD	ERV No Heat No Bypass
FPLEV10	GS	ERV No Heat Act Bypass
FPLEV11	GSD	ERV No Heat Act Bypass
FPLEV12	GSLD	ERV No Heat Act Bypass
CILM	GSD	Commercial/Industrial Load Management
FPLGD1	GS	Gas Dessicant
FPLGD2	GSD	Gas Dessicant
FPLCD3	GSLD	Gas Dessicant
FPLGC1	GSD	Gas - Air Source Chiller
FPLGC2	GSLD	Gas - Air Source Chiller
FPLGC3	GSD	Gas - Water Source Chiller
FPLGC4	GSLD	Gas - Water Source Chiller

### Commercial/Industrial Existing Construction

Measure	Rate Class	Description
FPLCI1	GS	CIBE Ceiling Insulation
FPLCI2	GSD	CIBE Ceiling Insulation
FPLCI3	GSLD	CIBE Ceiling Insulation
FPLRR1	GS	CIBE Reflective Roof
FPLRR2	GSD	CIBE Reflective Roof
FPLRR3	GSLD	CIBE Reflective Roof
FPLEV1	GS	ERV Strip Heat No Bypass
FPLEV2	GSD	ERV Strip Heat No Bypass
FPLEV3	GSLD	ERV Strip Heat No Bypass
FPLEV4	GS	ERV Strip Heat Act Bypass
FPLEV5	GSD	ERV Strip Heat Act Bypass
FPLEV6	GSLD	ERV Strip Heat Act Bypass
FPLEV7	GS	ERV No Heat No Bypass
FPLEV8	GSD	ERV No Heat No Bypass
FPLEV9	GSLD	ERV No Heat No Bypass
FPLEV7	GS	ERV No Heat Act Bypass
FPLEV8	GSD	ERV No Heat Act Bypass
FPLEV9	GSLD	ERV No Heat Act Bypass
CILM	GSD	Commercial/Industrial Load Management
FPLGD1	GS	Gas Dessicant
FPLGD2	GSD	Gas Dessicant
FPLCD3	GSLD	Gas Dessicant
FPLGC1	GSD	Gas - Air Source Chiller
FPLGC2	GSLD	Gas - Air Source Chiller
FPLGC3	GSD	Gas - Water Source Chiller
FPLGC4	GSLD	Gas - Water Source Chiller

### Measure Selection Process Step 3 - CUE

#### Residential New Construction

Measure		Description
RSC-6A		Reduced Duct Heat Transfer
RSC-6B		Reduced Duct Heat Transfer
RSC-9A		Ceiling Insulation
RSC-9B		Ceiling Insulation
RSC-28A		Ceiling Fans
RSC-28B		Ceiling Fans
PP-1		High Efficiency Pool Pump
PP-2		Big Pipe Little Pump

Measure	Rate Class	Description
SC-D-8	GSD	3 Speed Motor for Cooling Tower
SC-D-8	GSLD	3 Speed Motor for Cooling Tower
SC-D-9	GSD	Speed Control for Cooling Tower
SC-D-9	GSLD	Speed Control for Cooling Tower
SC-D-18/19	GS	Roof Insulation Code +
SC-D-18/19	GSD	Roof Insulation Code +
SC-D-18/19	GSLD	Roof Insulation Code +
SC-D-20	GSD	Wall Insulation - Chiller
SC-D-20	GSLD	Wall Insulation - Chiller
SC-D-21	GS	Wall Insulation - DX AC
SC-D-21	GSD	Wall Insulation - DX AC
SC-D-21	GSLD	Wall Insulation - DX AC
SC-D-22/23	GS	Window Film
SC-D-22/23	GSD	Window Film
SC-D-22/23	GSLD	Window Film
SC-D-24	GSD	<b>Spectrally Selective</b> Glass - Chiller
SC-D-24	GSLD	<b>Spectrally Selective</b> Glass - Chiller
SC-D-25	GS	<b>Spectrally Selective</b> Glass - DX AC
SC-D-25	GSD	<b>Spectrally Selective</b> Glass - DX AC
SC-D-25	GSLD	<b>Spectrally Selective</b> Glass - DX AC
FL-HPN	GS	<b>Fluorescent High Permanence</b> New Construction
FL-HPN	GSD	<b>Fluorescent High Permanence</b> New Construction
FL-HPN	GSLD	<b>Fluorescent High Permanence</b> New Construction
R-D-1	GS	Multiplex: Air-Cooled/No Subcooling
R-D-1	GSD	Multiplex: Air-Cooled/No Subcooling
R-D-1	GSLD	Multiplex: Air-Cooled/No Subcooling
R-D-2	GS	Multiplex: Air-Cooled/Ambient Subcooling
R-D-2	GSD	Multiplex: Air-Cooled/Ambient Subcooling
R-D-2	GSLD	Multiplex: Air-Cooled/Ambient Subcooling
R-D-3	GS	Multiplex: Air-Cooled/Mechanical Subcooling
R-D-3	GSD	Multiplex: Air-Cooled/Mechanical Subcooling
R-D-3	GSLD	Multiplex: Air-Cooled/Mechanical Subcooling
R-D-4	GS	Multiplex: Air-Cooled/Ambient & Mech. Subcooling
R-D-4	GSD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling
R-D-4	GSLD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling
R-D-5	GS	Multiplex: Air-Cooled/External Liquid Suction HX
R-D-5	GSD	Multiplex: Air-Cooled/External Liquid Suction HX
R-D-5	GSLD	Multiplex: Air-Cooled/External Liquid Suction HX
R-D-6	GS	Open - Drive Refrigeration System (ASD)
R-D-6	GSD	Open - Drive Refrigeration System (ASD)
R-D-6	GSLD	Open - Drive Refrigeration System (ASD)
R-D-7	GS	Anti - Condensate Heater Controls
R-D-7	GSD	Anti - Condensate Heater Controls
R-D-7	GSLD	Anti - Condensate Heater Controls
R-D-8	GS	High R-Value Glass Doors
R-D-8	GSD	High R-Value Glass Doors
R-D-8	GSLD	High R-Value Glass Doors
R-D-9	GS	Refrigeration Energy Mgt System
R-D-9	GSD	Refrigeration Energy Mgt System
R-D-9	GSLD	Refrigeration Energy Mgt System

## Measure Results

### Residential New Construction

Type	Measure	Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	BLDSMT-1	BuildSmart - EPI less than 90					1.05	1.10	1.78	\$0	Yes
UP	RLC-1	Residential Load Control					1.28	2.87	NA	\$45	Yes
UP	RSC-24	High Efficiency Room AC			Fail		0.78	0.43	0.79	\$0	
UP	WH-3	Solar Water Heater	Fail				0.94	0.16	0.27	\$0	
UP	WH-6	DHW Heater Tank Insulation	Fail				0.65	2.06	8.81	\$0	
UP	CW-1	High Efficiency Clothes Washer	Fail				0.39	0.08	0.18	\$0	
UP	RSCLT-1	Residential Indoor Lighting	Fail				0.12	0.06	0.22	\$0	
UP	RSCLT-1	Residential Outdoor Lighting	Fail				0.23	0.15	0.63	\$0	
UP	RF-1	Bst Ref Frost Free			Fail		0.88	0.66	1.13	\$0	
UP	RF-2	Bst Ref Manual			Fail		0.80	0.55	0.97	\$0	
UP	FR-1	Bst Freezer FF			Fail		0.99	1.16	2.03	\$0	
UP	FR-2	Bst Freezer Manual			Fail		0.89	1.28	2.87	\$0	
UP	FPLPV	Photovoltaics				Fail	0.11	0.10	1.01	\$22,940	
UP	FPLRG1	Natural Gas Water Heating	Fail				0.75	0.38	0.29	\$0	
UP	FPLRG2	Residential Gas Heat Pump - Elec HP				Fail	0.33	0.29	1.01	\$11,820	
UP	FPLRG3	Residential Gas Heat Pump - Elec AC		Fail			0.30	0.26	1.01	\$12,437	

### Residential Cue

Type	Measure	Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Potential Cue
CUE	RSC-6A	Reduced Duct Heat Transfer			Fail		0.94	0.07	0.07	\$0	
CUE	RSC-6B	Reduced Duct Heat Transfer			Fail		0.87	0.06	0.06	\$0	
CUE	RSC-9A	Ceiling Insulation				Fail	0.54	0.45	1.01	\$177	
CUE	RSC-9B	Ceiling Insulation				Fail	0.16	0.16	1.01	\$299	
CUE	RSC-28A	Ceiling Fans				Fail	0.16	0.15	1.01	\$1,033	
CUE	RSC-28B	Ceiling Fans				Fail	0.13	0.12	1.01	\$1,095	
CUE	PP-1	High Efficiency Pool Pump			Fail		0.81	0.83	1.70	\$0	
CUE	PP-2	Big Pipe Little Pump		Fail			1.15	3.04	5.50	\$0	

Measure Results

Residential Existing Construction

Type	Measure	Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	RSC-1	Hi Efficiency Air Source Heat Pump					1.02	0.70	1.01	\$260	Yes
UP	RSC-2	Ground Source Heat Pump					1.11	1.06	1.43	\$260	Yes
UP	RSC-3	Two Speed Heat Pump				Fail	0.35	0.30	1.01	\$925	
UP	RSC-5A	Reduced Duct Leakage					1.02	1.65	2.73	\$70	Yes
UP	RSC-5B	Reduced Duct Leakage					1.02	1.81	3.04	\$70	Yes
UP	RSC-7A	Setback/Programmable Thermostat	Fail				0.53	0.64	2.05	\$0	
UP	RSC-7B	Setback/Programmable Thermostat	Fail				0.51	0.62	2.07	\$0	
UP	RSC-10A	Ceiling Ins. R0-R19					1.05	1.87	2.87	\$131	Yes
UP	RSC-10B	Ceiling Ins. R0-R19					1.02	1.68	2.63	\$131	Yes
UP	RSC-14A	Wall Insulation R0-R11 .EXS	Fail				0.88	0.07	0.12	\$0	
UP	RSC-14B	Wall Insulation R0-R11 .EXS	Fail				0.76	0.05	0.10	\$0	
UP	RSC-15A	Weather Strip/Caulk w/Blower Door	Fail				0.52	0.50	1.53	\$0	
UP	RSC-15B	Weather Strip/Caulk w/Blower Door	Fail				0.53	0.51	1.53	\$0	
UP	RSC-16A	Window Film & Reflective Glass			Fail		0.96	0.47	0.66	\$0	
UP	RSC-16B	Window Film & Reflective Glass			Fail		0.93	0.48	0.71	\$0	
UP	RSC-17A	Low E-Glass				Fail	0.20	0.19	1.01	\$390	
UP	RSC-17B	Low E-Glass				Fail	0.24	0.23	1.01	\$266	
UP	RSC-18A	Shade Screens				Fail	0.29	0.26	1.01	\$351	
UP	RSC-18B	Shade Screens				Fail	0.27	0.24	1.01	\$340	
UP	RSC-21A	Hi Efficiency Central AC					1.02	0.91	1.32	\$260	Yes
UP	RSC-22A	2 Speed Central AC				Fail	0.97	0.66	1.01	\$174	
UP	RSC-24A	High Efficiency Room AC			Fail		0.78	0.43	0.79	\$0	
UP	RSC-25A	Air Cond/ Heat Pump Maintenance			Fail		1.00	0.68	1.03	\$0	
UP	RSC-25B	Air Cond/ Heat Pump Maintenance			Fail		0.95	0.60	0.95	\$0	
UP	RSC-27	Landscape Shading	Fail				0.68	0.37	0.82	\$0	
UP	WH-1	High Efficiency Elect. Resist. Water Heating	Fail				0.65	0.18	0.33	\$0	
UP	WH-2	Integral Heat Pump Water Heater				Fail	0.28	0.24	1.01	\$1,404	
UP	WH-3	Solar Water Heater	Fail				0.94	0.16	0.27	\$0	
UP	WH-4	Heat Recovery (Desuperheater)				Fail	0.11	0.11	1.01	\$1,032	
UP	WH-5	Add-On Heat Pump Water Heater				Fail	0.40	0.33	1.01	\$1,056	
UP	WH-6	DHW Heater Tank Insulation	Fail				0.65	2.06	8.81	\$0	

Measure Results

Residential Existing Construction (con't)

Type	Measure	Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	WH-7	DHW Pipe Insulation			Fail		0.43	0.28	0.61	\$0	
UP	WH-8	DHW Heat Trap			Fail		0.60	0.27	0.37	\$0	
UP	WH-9	Low Flow Shower Head, HD	Fail				0.41	0.56	3.30	\$0	
UP	CW-1	High Efficiency Clothes Washer	Fail				0.39	0.08	0.18	\$0	
UP	RF-1	Bst Ref Frost Free			Fail		0.88	0.66	1.13	\$0	
UP	RF-2	Bst Ref Manual			Fail		0.80	0.55	0.97	\$0	
UP	RF-3	Remove 2nd Ref		Fail			1.00	11.03	26.92	\$0	
UP	FR-1	Bst Freezer FF			Fail		0.99	1.16	2.03	\$0	
UP	FR-2	Bst Freezer Manual			Fail		0.89	1.28	2.87	\$0	
UP	FR-3	Remove 2nd Freezer		Fail			1.03	10.44	24.54	\$0	
UP	PP-1	High Efficiency Pool Pumps			Fail		0.81	0.83	1.70	\$0	
UP	RLC-1	Residential Load Control					1.28	2.87	NA	\$45	Yes
UP	RSCLT-1	Residential Indoor Lighting	Fail				0.12	0.06	0.22	\$0	
UP	RSCLT-1	Residential Outdoor Lighting	Fail				0.23	0.15	0.63	\$0	
UP	FPLRRR	Reflective Roofs					1.01	1.10	2.46	\$240	Yes
UP	FPLPRA	Plenum Repair AC					1.10	1.49	2.05	\$40	Yes
UP	FPLPRB	Plenum Repair HP					1.07	1.46	2.05	\$40	Yes
UP	FPLRR1	Roof Coatings AC				Fail	0.21	0.20	1.01	\$2,290	
UP	FPLRR2	Roof Coatings HP				Fail	0.18	0.17	1.01	\$2,345	
UP	FPLPV	Photovoltaics				Fail	0.11	0.10	1.01	\$22,940	
UP	FPLLI1	Low Income AC Maintenance					1.04	1.10	1.64	\$35	Yes
UP	FPLLI2	Low Income Infiltration					1.08	1.37	2.16	\$10	Yes
UP	FPLLI3	Low Income Pipe Insulation	Fail				0.50	1.35	26.36	\$0	
UP	FPLLI4	Low Income Tank Insulation	Fail				0.65	2.06	8.81	\$0	
UP	FPLLI5	Low Income Low Flow Showerhead	Fail				0.68	3.96	23.43	\$0	
UP	FPLLI6	Low Income Compact Fluor	Fail				0.56	1.67	13.62	\$0	
UP	FPLLI7	Low Income Room AC	Fail				0.88	0.92	1.71	\$0	
UP	FPLRG1	Natural Gas Water Heating	Fail				0.75	0.38	0.29	\$0	
UP	FPLRG2	Residential Gas Heat Pump - Elec HP				Fail	0.33	0.29	1.01	\$11,820	
UP	FPLRG3	Residential Gas Heat Pump - Elec AC		Fail			0.30	0.26	1.01	\$12,437	

Measure Results

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	SC-D-1/2	GSD	High Eff. Chiller					1.06	2.52	3.06	\$75	Yes
UP	SC-D-1/2	GSLD	High Eff. Chiller					1.10	2.52	2.95	\$75	Yes
UP	SC-D-3	GS	Hi Efficiency DX AC					1.01	2.03	2.74	\$100	Yes
UP	SC-D-3	GSD	Hi Efficiency DX AC					1.07	2.11	2.55	\$100	Yes
UP	SC-D-3	GSLD	Hi Efficiency DX AC					1.10	1.10	1.25	\$100	Yes
UP	SC-D-4	GS	Hi Eff. Room AC					1.14	1.00	1.14	\$100	Yes
UP	SC-D-4	GSD	Hi Eff. Room AC					1.07	1.00	1.11	\$100	Yes
UP	SC-D-4	GSLD	Hi Eff. Room AC					1.09	1.00	1.08	\$100	Yes
UP	SC-D-5	GSD	Cool Storage					1.02	1.14	1.14	\$328	Yes
UP	SC-D-5	GSLD	Cool Storage					1.03	1.16	1.16	\$358	Yes
UP	V-D-8	GSD	High Eff. Motors Chiller			Fail		0.87	1.48	2.84	\$0	
UP	V-D-8	GSLD	High Eff. Motors Chiller			Fail		0.89	1.48	2.74	\$0	
UP	V-D-9	GS	High Eff. Motors DX AC			Fail		0.79	1.20	2.43	\$0	
UP	V-D-9	GSD	High Eff. Motors DX AC			Fail		0.88	1.42	2.61	\$0	
UP	V-D-9	GSLD	High Eff. Motors DX AC		Fail			0.90	1.77	3.77	\$0	
UP	W-D-11	GS	Heat Pump Water Heater	Fail				0.86	1.10	1.74	\$0	
UP	W-D-11	GSD	Heat Pump Water Heater	Fail				0.95	0.68	0.92	\$0	
UP	W-D-11	GSLD	Heat Pump Water Heater			Fail		0.99	0.68	0.88	\$0	
UP	W-D-12	GS	Solar Water Heating				Fail	0.21	0.20	1.01	\$6,793	
UP	W-D-12	GSD	Solar Water Heating				Fail	0.21	0.20	1.01	\$7,020	
UP	W-D-12	GSLD	Solar Water Heating				Fail	0.21	0.20	1.01	\$7,100	
UP	W-D-13	GS	HRU	Fail				0.95	0.64	0.90	\$0	
UP	W-D-13	GSD	HRU			Fail		1.01	0.84	1.07	\$0	
UP	W-D-13	GSLD	HRU					1.01	0.84	1.05	\$110	Yes
UP	C-D-18	GS	Convection Oven	Fail				0.74	1.26	2.32	\$0	
UP	C-D-18	GSD	Convection Oven	Fail				0.96	1.26	1.71	\$0	
UP	C-D-18	GSLD	Convection Oven			Fail		1.01	1.26	1.63	\$0	
UP	C-D-19	GS	Energy Eff. Electric Fryer	Fail				0.72	2.56	5.03	\$0	
UP	C-D-19	GSD	Energy Eff. Electric Fryer	Fail				0.97	2.56	3.61	\$0	
UP	C-D-19	GSLD	Energy Eff. Electric Fryer		Fail			1.02	2.56	3.44	\$0	
UP	FPLM-1	GS	Motors			Fail		0.87	0.99	1.67	\$0	

Measure Results

Commercial/Industrial New Construction (con't)

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	FPLM-1	GSD	Motors			Fail		0.80	0.99	1.69	\$0	
UP	FPLM-1	GSLD	Motors			Fail		0.82	0.99	1.63	\$0	
UP	OPBC	GSD	Off Peak Battery Charging / Bus Custom Incentive					1.03	1.32	1.90	\$450	Yes
UP	OPBC	GSLD	Off Peak Battery Charging / Bus Custom Incentive					1.03	2.17	2.65	\$300	Yes
UP	FPLEV1	GS	ERV Strip Heat No Bypass					1.39	1.78	1.57	\$523	Yes
UP	FPLEV2	GSD	ERV Strip Heat No Bypass					1.04	1.78	1.94	\$357	Yes
UP	FPLEV3	GSLD	ERV Strip Heat No Bypass					1.05	1.78	1.91	\$367	Yes
UP	FPLEV4	GS	ERV Strip Heat Act Bypass					1.27	1.79	1.76	\$524	Yes
UP	FPLEV5	GSD	ERV Strip Heat Act Bypass					1.04	1.79	2.00	\$399	Yes
UP	FPLEV6	GSLD	ERV Strip Heat Act Bypass					1.05	1.79	1.96	\$413	Yes
UP	FPLEV7	GS	ERV No Heat No Bypass					1.03	1.22	1.40	\$581	Yes
UP	FPLEV8	GSD	ERV No Heat No Bypass					1.01	1.25	1.39	\$121	Yes
UP	FPLEV9	GSLD	ERV No Heat No Bypass					1.01	1.25	1.38	\$140	Yes
UP	FPLEV10	GS	ERV No Heat Act Bypass					1.01	1.32	1.60	\$575	Yes
UP	FPLEV11	GSD	ERV No Heat Act Bypass					1.01	1.32	1.51	\$160	Yes
UP	FPLEV12	GSLD	ERV No Heat Act Bypass					1.01	1.32	1.50	\$189	Yes
UP	CILM	GS	Commercial/Industrial Load Management					1.52	4.73	NA	\$39	Yes
UP	CILM	GSD	Commercial/Industrial Load Management					1.52	4.73	NA	\$39	Yes
UP	CILM	GSLD	Commercial/Industrial Load Management					2.08	16.29	NA	\$57	Yes
UP	FPLGD1	GS	Gas Dessicant		Fail			0.09	0.09	1.01	\$23,474	
UP	FPLGD2	GSD	Gas Dessicant		Fail			0.10	0.10	1.01	\$9,988	
UP	FPLCD3	GSLD	Gas Dessicant		Fail			0.34	0.32	1.01	\$3,497	
UP	FPLGC1	GSD	Gas - Air Source Chiller		Fail			0.38	0.35	1.01	\$4,141	
UP	FPLGC2	GSLD	Gas - Air Source Chiller		Fail			0.42	0.39	1.01	\$3,716	
UP	FPLGC3	GSD	Gas - Water Source Chiller		Fail			0.41	0.38	1.01	\$4,102	
UP	FPLGC4	GSLD	Gas - Water Source Chiller		Fail			0.44	0.40	1.01	\$3,717	



## Measure Results

### Commercial/Industrial CUE

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Potential CUE
CUE	SC-D-8	GSD	3 Speed Motor for Cooling Tower	Fail				0.14	0.19	2.60	\$0	
CUE	SC-D-8	GSLD	3 Speed Motor for Cooling Tower	Fail				0.14	0.19	2.55	\$0	
CUE	SC-D-9	GSD	Speed Control for Cooling Tower	Fail				0.33	0.37	1.26	\$0	
CUE	SC-D-9	GSILD	Speed Control for Cooling Tower	Fail				0.34	0.37	1.23	\$0	
CUE	SC-D-18/19	GS	Roof Insulation Code +				Fail	0.64	0.55	1.01	\$1,520	
CUE	SC-D-18/19	GSD	Roof Insulation Code +				Fail	0.60	0.55	1.01	\$1,690	
CUE	SC-D-18/19	GSLD	Roof Insulation Code +				Fail	0.58	0.53	1.01	\$1,890	
CUE	SC-D-20	GSD	Wall Insulation - Chiller				Fail	0.04	0.04	1.01	\$65,200	
CUE	SC-D-20	GSLD	Wall Insulation - Chiller				Fail	0.04	0.04	1.01	\$58,200	
CUE	SC-D-21	GS	Wall Insulation - DX AC				Fail	0.06	0.06	1.01	\$21,480	
CUE	SC-D-21	GSD	Wall Insulation - DX AC				Fail	0.08	0.08	1.01	\$18,670	
CUE	SC-D-21	GSLD	Wall Insulation - DX AC				Fail	0.09	0.09	1.01	\$16,430	
CUE	SC-D-22/23	GS	Window Film	Fail				0.91	0.98	1.46	\$0	
CUE	SC-D-22/23	GSD	Window Film				Fail	1.01	1.33	1.69	\$7	
CUE	SC-D-22/23	GSLD	Window Film					1.05	1.33	1.61	\$182	Yes
CUE	SC-D-24	GSD	Spectrally Selective Glass - Chiller				Fail	0.31	0.30	1.01	\$4,705	
CUE	SC-D-24	GSLD	Spectrally Selective Glass - Chiller				Fail	0.31	0.30	1.01	\$4,895	
CUE	SC-D-25	GS	Spectrally Selective Glass - DX AC				Fail	0.40	0.37	1.01	\$3,030	
CUE	SC-D-25	GSD	Spectrally Selective Glass - DX AC				Fail	0.41	0.39	1.01	\$3,105	
CUE	SC-D-25	GSLD	Spectrally Selective Glass - DX AC				Fail	0.37	0.35	1.01	\$3,865	
CUE	FL-HPN	GS	Fluorescent High Permanence New Construction		Fail			1.07	18.85	31.66	\$0	
CUE	FL-HPN	GSD	Fluorescent High Permanence New Construction		Fail			1.06	23.06	36.66	\$0	
CUE	FL-HPN	GSLD	Fluorescent High Permanence New Construction		Fail			1.09	23.12	35.44	\$0	
CUE	R-D-1	GS	Multiplex: Air-Cooled/No Subcooling	Fail				0.78	1.37	2.41	\$0	
CUE	R-D-1	GSD	Multiplex: Air-Cooled/No Subcooling	Fail				0.97	1.38	1.87	\$0	
CUE	R-D-1	GSLD	Multiplex: Air-Cooled/No Subcooling			Fail		1.00	1.44	1.90	\$0	
CUE	R-D-2	GS	Multiplex: Air-Cooled/Ambient Subcooling	Fail				0.76	1.22	2.22	\$0	
CUE	R-D-2	GSD	Multiplex: Air-Cooled/Ambient Subcooling	Fail				0.96	1.22	1.66	\$0	
CUE	R-D-2	GSLD	Multiplex: Air-Cooled/Ambient Subcooling			Fail		1.00	1.22	1.59	\$0	
CUE	R-D-3	GS	Multiplex: Air-Cooled/Mechanical Subcooling	Fail				0.74	1.16	2.14	\$0	
CUE	R-D-3	GSD	Multiplex: Air-Cooled/Mechanical Subcooling	Fail				0.95	1.16	1.60	\$0	

Measure Results

Commercial/Industrial CUE (con't)

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Potential CUE
CUE	R-D-3	GSLD	Multiplex: Air-Cooled/Mechanical Subcooling			Fail		0.99	1.16	1.52	\$0	
CUE	R-D-4	GS	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	Fail				0.73	1.03	1.93	\$0	
CUE	R-D-4	GSD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	Fail				0.95	1.03	1.43	\$0	
CUE	R-D-4	GSLD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling			Fail		0.99	1.03	1.36	\$0	
CUE	R-D-5	GS	Multiplex: Air-Cooled/External Liquid Suction HX	Fail				0.88	1.35	2.12	\$0	
CUE	R-D-5	GSD	Multiplex: Air-Cooled/External Liquid Suction HX					1.01	1.35	1.72	\$71	Yes
CUE	R-D-5	GSLD	Multiplex: Air-Cooled/External Liquid Suction HX					1.01	1.35	1.70	\$173	Yes
CUE	R-D-6	GS	Open - Drive Refrigeration System (ASD)	Fail				0.68	0.52	1.02	\$0	
CUE	R-D-6	GSD	Open - Drive Refrigeration System (ASD)	Fail				0.97	0.54	0.74	\$0	
CUE	R-D-6	GSLD	Open - Drive Refrigeration System (ASD)				Fail	0.53	0.46	1.01	\$6,525	
CUE	R-D-7	GS	Anti - Condensate Heater Controls	Fail				0.86	0.55	0.85	\$0	
CUE	R-D-7	GSD	Anti - Condensate Heater Controls				Fail	0.04	0.04	1.01	\$60,683	
CUE	R-D-7	GSLD	Anti - Condensate Heater Controls				Fail	0.02	0.02	1.01	\$134,761	
CUE	R-D-8	GS	High R-Value Glass Doors	Fail				0.86	3.89	7.08	\$0	
CUE	R-D-8	GSD	High R-Value Glass Doors		Fail			1.03	3.89	5.54	\$0	
CUE	R-D-8	GSLD	High R-Value Glass Doors		Fail			1.07	3.89	5.29	\$0	
CUE	R-D-9	GS	Refrigeration Energy Mgt System	Fail				0.70	1.41	2.75	\$0	
CUE	R-D-9	GSD	Refrigeration Energy Mgt System	Fail				0.94	0.23	0.31	\$0	
CUE	R-D-9	GSLD	Refrigeration Energy Mgt System			Fail		0.99	0.02	0.03	\$0	

Measure Results

Commercial/Industrial Existing Construction

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	SC-D-1/2	GSD	High Eff. Chiller					1.06	2.52	3.06	\$75	Yes
UP	SC-D-1/2	GSLD	High Eff. Chiller					1.10	2.52	2.95	\$75	Yes
UP	SC-D-3	GS	Hi Efficiency DX AC					1.01	2.03	2.74	\$100	Yes
UP	SC-D-3	GSD	Hi Efficiency DX AC					1.07	2.11	2.55	\$100	Yes
UP	SC-D-3	GSLD	Hi Efficiency DX AC					1.10	1.10	1.25	\$100	Yes
UP	SC-D-4	GS	Hi Eff. Room AC					1.14	1.00	1.14	\$100	Yes
UP	SC-D-4	GSD	Hi Eff. Room AC					1.07	1.00	1.11	\$100	Yes
UP	SC-D-4	GSLD	Hi Eff. Room AC					1.09	1.00	1.08	\$100	Yes
UP	SC-D-5	GSD	Cool Storage					1.02	1.14	1.14	\$328	Yes
UP	SC-D-5	GSLD	Cool Storage					1.03	1.16	1.16	\$358	Yes
UP	SC-D-6	GS	Heat Pipe DX AC	Fail				0.39	-0.11	-0.41	\$0	
UP	SC-E-6	GSD	Heat Pipe DX AC		Fail			-0.16	-0.18	1.01	\$7,305	
UP	SC-E-6	GSLD	Heat Pipe DX AC		Fail			-0.10	-0.11	1.01	\$6,665	
UP	SC-E-8	GSD	3 Speed Motor for Cooling Tower	Fail				0.14	0.19	2.60	\$0	
UP	SC-D-8	GSLD	3 Speed Motor for Cooling Tower	Fail				0.14	0.19	2.55	\$0	
UP	SC-E-10	GSD	AC Maintenance Chiller				Fail	0.24	0.23	1.01	\$779	
UP	SC-E-10	GSLD	AC Maintenance Chiller				Fail	0.24	0.23	1.01	\$786	
UP	SC-E-11	GS	AC Maintenance DX AC				Fail	0.27	0.26	1.01	\$544	
UP	SC-E-11	GSD	AC Maintenance DX AC				Fail	0.27	0.26	1.01	\$517	
UP	SC-E-11	GSLD	AC Maintenance DX AC				Fail	0.27	0.26	1.01	\$521	
UP	SC-D-12	GSD	HVAC Air Duct/Water Pipe Insul Chiller	Fail				0.94	2.64	3.79	\$0	
UP	SC-E-12	GSLD	HVAC Air Duct/Water Pipe Insul Chiller	Fail				0.99	2.64	3.59	\$0	
UP	SC-E-13	GS	HVAC Air Duct/Water Pipe Insul DX AC				Fail	0.51	0.46	1.01	\$2,108	
UP	SC-D-13	GSD	HVAC Air Duct/Water Pipe Insul DX AC				Fail	0.49	0.46	1.01	\$1,955	
UP	SC-D-13	GSLD	HVAC Air Duct/Water Pipe Insul DX AC				Fail	0.49	0.46	1.01	\$1,993	
UP	SC-D-18/19	GS	Roof Insulation					1.17	2.10	2.56	\$182	Yes
UP	SC-D-18/19	GSD	Roof Insulation					1.15	2.10	2.37	\$182	Yes
UP	SC-D-18/19	GSLD	Roof Insulation					1.22	2.02	2.15	\$182	Yes
UP	SC-D-22/23	GS	Window Film	Fail				0.91	0.98	1.46	\$0	
UP	SC-D-22/23	GSD	Window Film				Fail	1.01	1.33	1.69	\$7	
UP	SC-D-22/23	GSLD	Window Film					1.05	1.33	1.61	\$182	Yes

**Measure Results**

**Commercial/Industrial Existing Construction (con't)**

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	V-D-1	GS	Leak Free Ducts DX AC					1.29	1.97	2.11	\$0	Yes
UP	V-D-1	GSD	Leak Free Ducts DX AC					1.18	1.97	2.08	\$0	Yes
UP	V-D-1	GSLD	Leak Free Ducts DX AC					1.20	1.97	2.02	\$0	Yes
UP	V-D-8	GSD	High Eff. Motors Chiller			Fail		0.87	1.48	2.84	\$0	
UP	V-D-8	GSLD	High Eff. Motors Chiller			Fail		0.89	1.48	2.74	\$0	
UP	V-D-9	GS	High Eff. Motors DX AC			Fail		0.79	1.20	2.43	\$0	
UP	V-D-9	GSD	High Eff. Motors DX AC			Fail		0.88	1.42	2.61	\$0	
UP	V-D-9	GSLD	High Eff. Motors DX AC		Fail			0.90	1.77	3.77	\$0	
UP	V-D-10	GSD	Sep Makeup Air / Exhaust Hoods Chiller				Fail	0.60	0.54	1.01	\$1,523	
UP	V-D-10	GSLD	Sep Makeup Air / Exhaust Hoods Chiller				Fail	0.59	0.54	1.01	\$1,590	
UP	V-D-11	GS	Sep Makeup Air / Exhaust Hoods DX AC				Fail	0.65	0.57	1.01	\$1,060	
UP	V-D-11	GSD	Sep Makeup Air / Exhaust Hoods DX AC				Fail	0.62	0.57	1.01	\$1,027	
UP	V-D-11	GSLD	Sep Makeup Air / Exhaust Hoods DX AC				Fail	0.61	0.57	1.01	\$1,060	
UP	FL-HP	GS	Fluorescent High Permanence					1.03	2.59	3.49	\$101	Yes
UP	FL-HP	GSD	Fluorescent High Permanence					1.02	3.17	4.03	\$101	Yes
UP	FL-HP	GSLD	Fluorescent High Permanence					1.06	3.18	3.90	\$101	Yes
UP	R-D-1	GS	Multiplex: Air-Cooled/No Subcooling	Fail				0.78	1.37	2.41	\$0	
UP	R-D-1	GSD	Multiplex: Air-Cooled/No Subcooling	Fail				0.97	1.38	1.87	\$0	
UP	R-D-1	GSLD	Multiplex: Air-Cooled/No Subcooling			Fail		1.00	1.44	1.90	\$0	
UP	R-D-2	GS	Multiplex: Air-Cooled/Ambient Subcooling	Fail				0.76	1.22	2.22	\$0	
UP	R-D-2	GSD	Multiplex: Air-Cooled/Ambient Subcooling	Fail				0.96	1.22	1.66	\$0	
UP	R-D-2	GSLD	Multiplex: Air-Cooled/Ambient Subcooling			Fail		1.00	1.22	1.59	\$0	
UP	R-D-3	GS	Multiplex: Air-Cooled/Mechanical Subcooling	Fail				0.74	1.16	2.14	\$0	
UP	R-D-3	GSD	Multiplex: Air-Cooled/Mechanical Subcooling	Fail				0.95	1.16	1.60	\$0	
UP	R-D-3	GSLD	Multiplex: Air-Cooled/Mechanical Subcooling			Fail		0.99	1.16	1.52	\$0	
UP	R-D-4	GS	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	Fail				0.73	1.03	1.93	\$0	
UP	R-D-4	GSD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	Fail				0.95	1.03	1.43	\$0	
UP	R-D-4	GSLD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling			Fail		0.99	1.03	1.36	\$0	
UP	R-D-5	GS	Multiplex: Air-Cooled/External Liquid Suction HX	Fail				0.88	1.35	2.12	\$0	
UP	R-D-5	GSD	Multiplex: Air-Cooled/External Liquid Suction HX					1.01	1.35	1.72	\$71	Yes
UP	R-D-5	GSLD	Multiplex: Air-Cooled/External Liquid Suction HX					1.01	1.35	1.70	\$173	Yes

Measure Results

Commercial/Industrial Existing Construction (con't)

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	R-D-5	GS	Open - Drive Refrigeration System (ASD)	Fail				0.68	0.52	1.02	\$0	
UP	R-D-5	GSD	Open - Drive Refrigeration System (ASD)	Fail				0.97	0.54	0.74	\$0	
UP	R-D-5	GSLD	Open - Drive Refrigeration System (ASD)				Fail	0.53	0.46	1.01	\$6,525	
UP	R-D-7	GS	Anti - Condensate Heater Controls	Fail				0.86	0.55	0.85	\$0	
UP	R-D-7	GSD	Anti - Condensate Heater Controls				Fail	0.04	0.04	1.01	\$60,683	
UP	R-D-7	GSLD	Anti - Condensate Heater Controls				Fail	0.02	0.02	1.01	\$134,761	
UP	R-D-3	GS	High R-Value Glass Doors	Fail				0.86	3.89	7.08	\$0	
UP	R-D-3	GSD	High R-Value Glass Doors		Fail			1.03	3.89	5.54	\$0	
UP	R-D-3	GSLD	High R-Value Glass Doors		Fail			1.07	3.89	5.29	\$0	
UP	R-D-9	GS	Refrigeration Energy Mgt System	Fail				0.70	1.41	2.75	\$0	
UP	R-D-9	GSD	Refrigeration Energy Mgt System	Fail				0.94	0.23	0.31	\$0	
UP	R-D-9	GSLD	Refrigeration Energy Mgt System			Fail		0.99	0.02	0.03	\$0	
UP	R-D-10	GS	Dual Path AC	Fail				0.49	-0.23	-0.66	\$0	
UP	R-D-10	GSD	Dual Path AC	Fail				0.96	-0.23	-0.37	\$0	
UP	R-D-10	GSLD	Dual Path AC	Fail				1.04	-0.23	-0.34	\$0	
UP	W-D-11	GS	Heat Pump Water Heater	Fail				0.86	1.10	1.74	\$0	
UP	W-D-11	GSD	Heat Pump Water Heater	Fail				0.95	0.68	0.92	\$0	
UP	W-D-11	GSLD	Heat Pump Water Heater			Fail		0.99	0.68	0.88	\$0	
UP	W-D-12	GS	Solar Water Heating				Fail	0.21	0.20	1.01	\$6,793	
UP	W-D-12	GSD	Solar Water Heating				Fail	0.21	0.20	1.01	\$7,020	
UP	W-D-12	GSLD	Solar Water Heating				Fail	0.21	0.20	1.01	\$7,100	
UP	W-D-13	GS	HRU	Fail				0.95	0.64	0.90	\$0	
UP	W-D-13	GSD	HRU			Fail		1.01	0.84	1.07	\$0	
UP	W-D-13	GSLD	HRU					1.01	0.84	1.05	\$110	Yes
UP	W-D-14	GS	DWH Heater Insulation	Fail				0.07	0.05	0.24	\$0	
UP	W-D-14	GSD	DWH Heater Insulation	Fail				0.07	0.38	9.20	\$0	
UP	W-D-14	GSLD	DWH Heater Insulation	Fail				0.07	0.38	9.15	\$0	
UP	W-D-15	GS	DWH Heat Trap	Fail				0.62	13.92	30.73	\$0	
UP	W-D-15	GSD	DWH Heat Trap	Fail				0.94	13.92	20.33	\$0	
UP	W-D-15	GSLD	DWH Heat Trap	Fail				0.99	13.92	19.26	\$0	
UP	W-D-16	GS	Low Flow/Variable Flow Shower Head		Fail			1.03	21.17	63.07	\$0	

**Measure Results**

**Commercial/Industrial Existing Construction (con't)**

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	W-D-16	GSD	Low Flow/Variable Flow Shower Head		Fail			1.10	21.17	54.65	\$0	
UP	W-D-16	GSLD	Low Flow/Variable Flow Shower Head		Fail			1.14	21.17	52.46	\$0	
UP	W-D-17	GS	DWH Recirculation pump	Fail				0.41	1.10	24.58	\$0	
UP	W-D-17	GSD	DWH Recirculation pump	Fail				0.10	1.10	106.40	\$0	
UP	W-D-17	GSLD	DWH Recirculation pump	Fail				0.10	1.10	105.52	\$0	
UP	C-D-18	GS	Convection Oven	Fail				0.74	1.26	2.32	\$0	
UP	C-D-18	GSD	Convection Oven	Fail				0.96	1.26	1.71	\$0	
UP	C-D-18	GSLD	Convection Oven			Fail		1.01	1.26	1.63	\$0	
UP	C-D-19	GS	Energy Eff. Electric Fryer	Fail				0.72	2.56	5.03	\$0	
UP	C-D-19	GSD	Energy Eff. Electric Fryer	Fail				0.97	2.56	3.61	\$0	
UP	C-D-19	GSLD	Energy Eff. Electric Fryer		Fail			1.02	2.56	3.44	\$0	
UP	FPLM-1	GS	Motors			Fail		0.87	0.99	1.67	\$0	
UP	FPLM-1	GSD	Motors			Fail		0.80	0.99	1.69	\$0	
UP	FPLM-1	GSLD	Motors			Fail		0.82	0.99	1.63	\$0	
UP	OPBC	GSD	Off Peak Battery Charging / Bus Custom Incentive					1.03	1.32	1.90	\$450	Yes
UP	OPBC	GSLD	Off Peak Battery Charging / Bus Custom Incentive					1.03	2.17	2.65	\$300	Yes
UP	FPLC11	GS	CIBE Ceiling Insulation					1.21	2.10	2.49	\$182	Yes
UP	FPLC12	GSD	CIBE Ceiling Insulation					1.07	2.05	2.51	\$182	Yes
UP	FPLC13	GSLD	CIBE Ceiling Insulation					1.25	2.10	2.18	\$182	Yes
UP	FPLRR1	GS	CIBE Reflective Roof					1.11	1.15	1.36	\$182	Yes
UP	FPLRR2	GSD	CIBE Reflective Roof					1.03	1.19	1.39	\$182	Yes
UP	FPLRR3	GSLD	CIBE Reflective Roof					1.11	1.19	1.29	\$182	Yes
UP	FPLEV1	GS	ERV Strip Heat No Bypass					1.39	1.78	1.57	\$523	Yes
UP	FPLEV2	GSD	ERV Strip Heat No Bypass					1.04	1.78	1.94	\$357	Yes
UP	FPLEV3	GSLD	ERV Strip Heat No Bypass					1.05	1.78	1.91	\$367	Yes
UP	FPLEV4	GS	ERV Strip Heat Act Bypass					1.27	1.79	1.76	\$524	Yes
UP	FPLEV5	GSD	ERV Strip Heat Act Bypass					1.04	1.79	2.00	\$399	Yes
UP	FPLEV6	GSLD	ERV Strip Heat Act Bypass					1.05	1.79	1.96	\$413	Yes
UP	FPLEV7	GS	ERV No Heat No Bypass					1.03	1.22	1.40	\$581	Yes
UP	FPLEV8	GSD	ERV No Heat No Bypass					1.01	1.25	1.39	\$121	Yes
UP	FPLEV9	GSLD	ERV No Heat No Bypass					1.01	1.25	1.38	\$140	Yes

**Measure Results**

**Commercial/Industrial Existing Construction (con't)**

Type	Measure		Description	RIM Lost Rev Only	Payback < 2 Yr	RIM Lost Rev & Admin	RIM w/ All Costs	RIM	TRC	Part	Incentive *	Achievable
UP	FPLEV10	GS	ERV No Heat Act Bypass					1.01	1.32	1.60	\$575	Yes
UP	FPLEV11	GSD	ERV No Heat Act Bypass					1.01	1.32	1.51	\$160	Yes
UP	FPLEV9	GSLD	ERV No Heat Act Bypass					1.01	1.32	1.50	\$189	Yes
UP	CILM	GS	Commercial/Industrial Load Management					1.52	4.73	NA	\$39	Yes
UP	CILM	GSD	Commercial/Industrial Load Management					1.52	4.73	NA	\$39	Yes
UP	CILM	GSLD	Commercial/Industrial Load Management					2.08	16.29	NA	\$57	Yes
UP	FPLGD1	GS	Gas Dessicant		Fail			0.09	0.09	1.01	\$23,474	
UP	FPLGD2	GSD	Gas Dessicant		Fail			0.10	0.10	1.01	\$9,988	
UP	FPLCD3	GSLD	Gas Dessicant		Fail			0.34	0.32	1.01	\$3,497	
UP	FPLGC1	GSD	Gas - Air Source Chiller		Fail			0.38	0.35	1.01	\$4,141	
UP	FPLGC2	GSLD	Gas - Air Source Chiller		Fail			0.42	0.39	1.01	\$3,716	
UP	FPLGC3	GSD	Gas - Water Source Chiller		Fail			0.41	0.38	1.01	\$4,102	
UP	FPLGC4	GSLD	Gas - Water Source Chiller		Fail			0.44	0.40	1.01	\$3,717	

\* Incentive for load management measures is annual recurring incentive

Measure Impacts and Costs

Residential New Construction

Type	Measure	Description	Participant	Summer kW	Winter kW	kWh	Part Cost	Admin / Part *	Data Sources		
									kw & kwh	Participant Cost	Admin Cost
UP	BLDSMT-1	BuildSmart - EPI less than 90	Participant	0.78	0.88	1460	\$724	\$400	End-Use Eval	BuildSmart Pgm	BuildSmart Pgm
UP	RLC-1	Residential Load Control	Participant	0.99	1.18	19	\$0	\$29	End-Use Eval	NA	RLC Pgm
UP	RSC-24	High Efficiency Room AC	Participant	0.05	0.00	215	\$178	\$27	End-Use Eval	End-Use Eval	Res HVAC Pgm
UP	WH-3	Solar Water Heater	Participant	0.20	0.31	1736	\$3,419	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	WH-6	DHW Heater Tank Insulation	Participant	0.01	0.03	107	\$16	\$16	End-Use Eval	U of F R&D	Res HVAC Pgm
UP	CW-1	High Efficiency Clothes Washer	Participant	0.00	0.02	77	\$226	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RSCLT-1	Residential Indoor Lighting	Participant	0.00	0.03	60	\$67	\$50	FPL/EPRI	FPL	Res HVAC Pgm
UP	RSCLT-1	Residential Outdoor Lighting	Participant	0.00	0.03	172	\$67	\$50	FPL/EPRI	FPL	Res HVAC Pgm
UP	RF-1	Bst Ref Frost Free	Participant	0.04	0.02	196	\$99	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RF-2	Bst Ref Manual	Participant	0.03	0.02	156	\$93	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	FR-1	Bst Freezer FF	Participant	0.06	0.04	282	\$80	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	FR-2	Bst Freezer Manual	Participant	0.04	0.03	193	\$39	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	FPLPV	Photovoltaics	Participant	1.01	0.03	2483	\$21,030	\$233	Photovoltaic R&D	Photovoltaic R&D	Photovoltaic R&D
UP	FPLRG1	Natural Gas Water Heating	Participant	0.16	0.46	1858	\$532	\$27	Gas R&D	Gas R&D	Gas R&D
UP	FPLRG2	Residential Gas Heat Pump - Elec HP	Participant	2.23	3.20	6767	\$8,165	\$27	Gas R&D	Gas R&D	Gas R&D
UP	FPLRG3	Residential Gas Heat Pump - Elec AC	Participant	2.23	1.60	5952	\$7,989	\$27	Gas R&D	Gas R&D	Gas R&D

Residential CUE

Type	Measure	Description	Participant	Summer kW	Winter kW	kWh	Part Cost	Admin / Part *	Data Sources		
									kw & kwh	Participant Cost	Admin Cost
CUE	RSC-6A	Reduced Duct Heat Transfer	Participant	0.05	0.01	130	\$1,418	\$45	SRC Study	SRC Study	Res Duct Rep Pgm
CUE	RSC-6B	Reduced Duct Heat Transfer	Participant	0.04	0.02	102	\$1,418	\$45	SRC Study	SRC Study	Res Duct Rep Pgm
CUE	RSC-9A	Ceiling Insulation	Participant	0.06	0.09	170	\$300	\$17	End-Use Eval	Res Bldg Env Pgm	Res Bldg Env Pgm
CUE	RSC-9B	Ceiling Insulation	Participant	0.03	0.06	27	\$300	\$17	End-Use Eval	Res Bldg Env Pgm	Res Bldg Env Pgm
CUE	RSC-28A	Ceiling Fans	Participant	0.11	0.00	550	\$1,022	\$17	SRC Study	SRC Study	Res Bldg Env Pgm
CUE	RSC-28B	Ceiling Fans	Participant	0.09	0.00	427	\$1,022	\$17	SRC Study	SRC Study	Res Bldg Env Pgm
CUE	PP-1	High Efficiency Pool Pump	Participant	0.04	0.01	181	\$43	\$27	SRC Study	SRC Study	Res HVAC Pgm
CUE	PP-2	Big Pipe Little Pump	Participant	0.21	0.06	847	\$62	\$27	SRC Study	SRC Study	Res HVAC Pgm



Measure Impacts and Costs

Residential Existing Construction

Type	Measure	Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
									kw & kwh	Participant Cost	Admin Cost
UP	RSC-1	Hi Efficiency Air Source Heat Pump	Participant	0.53	0.47	1270	\$1,324	\$27	End-Use Eval	Res HVAC Pgm	Res HVAC Pgm
UP	RSC-2	Ground Source Heat Pump	Participant	0.73	0.28	1455	\$1,052	\$27	End-Use Eval	Res HVAC Pgm	Res HVAC Pgm
UP	RSC-3	Two Speed Heat Pump	Participant	0.20	0.01	1091	\$1,344	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RSC-5A	Reduced Duct Leakage	Participant	0.15	0.11	281	\$160	\$50	End-Use Eval	RDuct Rep Pgm	RDuct Rep Pgm
UP	RSC-5B	Reduced Duct Leakage	Participant	0.15	0.17	319	\$160	\$50	End-Use Eval	RDuct Rep Pgm	RDuct Rep Pgm
UP	RSC-7A	Setback/Programmable Thermostat	Participant	0.00	0.00	609	\$118	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RSC-7B	Setback/Programmable Thermostat	Participant	0.00	0.00	519	\$100	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RSC-10A	Ceiling Ins. R0-R19	Participant	0.23	0.54	614	\$325	\$50	End-Use Eval	RDuct Rep Pgm	RDuct Rep Pgm
UP	RSC-10B	Ceiling Ins. R0-R19	Participant	0.23	0.32	556	\$325	\$50	End-Use Eval	RDuct Rep Pgm	RDuct Rep Pgm
UP	RSC-14A	Wall Insulation R0-R11 .EXS	Participant	0.01	0.26	262	\$1,749	\$17	SRC Study	SRC Study	Res Build Env Pgm
UP	RSC-14B	Wall Insulation R0-R11 .EXS	Participant	0.01	0.09	215	\$1,749	\$17	SRC Study	SRC Study	Res Build Env Pgm
UP	RSC-15A	Weather Strip/Caulk w/Blower Door	Participant	0.00	0.00	121	\$70	\$17	SRC Study	SRC Study	Res Build Env Pgm
UP	RSC-15B	Weather Strip/Caulk w/Blower Door	Participant	0.01	0.01	121	\$70	\$17	SRC Study	SRC Study	Res Build Env Pgm
UP	RSC-16A	Window Film & Reflective Glass	Participant	0.04	0.02	97	\$96	\$17	End-Use Eval	Res Build Env Pgm	Res Build Env Pgm
UP	RSC-16B	Window Film & Reflective Glass	Participant	0.04	0.01	104	\$96	\$17	End-Use Eval	Res Build Env Pgm	Res Build Env Pgm
UP	RSC-17A	Low E-Glass	Participant	0.04	0.23	117	\$379	\$17	End-Use Eval	SRC Study	Res Build Env Pgm
UP	RSC-17B	Low E-Glass	Participant	0.04	0.18	99	\$271	\$17	End-Use Eval	SRC Study	Res Build Env Pgm
UP	RSC-18A	Shade Screens	Participant	0.09	0.05	183	\$392	\$17	End-Use Eval	SRC Study	Res Build Env Pgm
UP	RSC-18B	Shade Screens	Participant	0.08	-0.02	197	\$392	\$17	End-Use Eval	SRC Study	Res Build Env Pgm
UP	RSC-21A	Hi Efficiency Central AC	Participant	0.59	0.00	1197	\$964	\$27	End-Use Eval	Res HVAC Pgm	Res HVAC Pgm
UP	RSC-22A	2 Speed Central AC	Participant	0.39	0.00	1539	\$964	\$27	End-Use Eval	SRC Study	Res HVAC Pgm
UP	RSC-24A	High Efficiency Room AC	Participant	0.05	0.00	215	\$178	\$27	End-Use Eval	End-Use Eval	Res HVAC Pgm
UP	RSC-25A	Air Cond/ Heat Pump Maintenance	Participant	0.14	0.00	385	\$194	\$29	SRC Study	SRC Study	Res HVAC Pgm
UP	RSC-25B	Air Cond/ Heat Pump Maintenance	Participant	0.12	0.01	353	\$194	\$29	SRC Study	SRC Study	Res HVAC Pgm
UP	RSC-27	Landscape Shading	Participant	0.02	0.00	111	\$179	\$17	Cool Comm R&D	Cool Comm R&D	Res Build Env Pgm
UP	WH-1	High Efficiency Elect. Resist. Water Heating	Participant	0.02	0.03	160	\$258	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	WH-2	Integral Heat Pump Water Heater	Participant	0.20	0.08	1280	\$1,838	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	WH-3	Solar Water Heater	Participant	0.20	0.31	1736	\$3,419	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	WH-4	Heat Recovery (Desuperheater)	Participant	0.10	0.00	250	\$903	\$27	End-Use Eval	SRC Study	Res HVAC Pgm
UP	WH-5	Add-On Heat Pump Water Heater	Participant	0.23	0.43	1392	\$1,613	\$27	U of F R&D	SRC Study	Res HVAC Pgm
UP	WH-6	DHW Heater Tank Insulation	Participant	0.01	0.03	107	\$16	\$16	End-Use Eval	U of F R&D	Res HVAC Pgm
UP	WH-7	DHW Pipe Insulation	Participant	0.01	0.01	30	\$65	\$50	SRC Study	SRC Study	Res HVAC Pgm
UP	WH-8	DHW Heat Trap	Participant	0.01	0.01	30	\$65	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	WH-9	Low Flow Shower Head, HD	Participant	0.02	0.02	130	\$26	\$50	SRC Study	SRC Study	Res Build Env Pgm
UP	CW-1	High Efficiency Clothes Washer	Participant	0.00	0.02	77	\$226	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RF-1	Bst Ref Frost Free	Participant	0.04	0.02	196	\$99	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RF-2	Bst Ref Manual	Participant	0.03	0.02	156	\$93	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	RF-3	Remove 2nd Ref	Participant	0.23	0.14	1674	\$50	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	FR-1	Bst Freezer FF	Participant	0.06	0.04	282	\$80	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	FR-2	Bst Freezer Manual	Participant	0.04	0.03	193	\$39	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	FR-3	Remove 2nd Freezer	Participant	0.23	0.14	1526	\$50	\$27	SRC Study	SRC Study	Res HVAC Pgm
UP	PP-1	High Efficiency Pool Pumps	Participant	0.04	0.01	181	\$43	\$27	SRC Study	SRC Study	Res HVAC Pgm

Measure Impacts and Costs

Residential Existing Construction (con't)

Type	Measure	Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
									kw & kWh	Participant Cost	Admin Cost
UP	RLC-1	Residential Load Control	Participant	0.99	1.18	19	\$0	\$29	End-Use Eval	NA	RLC Pgm
UP	RSCLT-	Residential Indoor Lighting	Participant	0.00	0.03	60	\$67	\$50	FPL/EPRI	FPL	Res HVAC Pgm
UP	RSCLT-	Residential Outdoor Lighting	Participant	0.00	0.03	172	\$67	\$50	FPL/EPRI	FPL	Res HVAC Pgm
UP	FPLRRR	Reflective Roofs	Participant	0.52	0.00	1218	\$497	\$75	FSEC Eff Roof Study	FSEC Eff Roof Study	Res Build Env Pgm
UP	FPLPRA	Plenum Repair AC	Participant	0.10	0.10	194	\$100	\$6	RDuct Plenn Rep R&D	RDuct Plenn Rep R&D	Res Duct Rep Pgm
UP	FPLPRB	Plenum Repair HP	Participant	0.10	0.06	194	\$100	\$6	RDuct Plenn Rep R&D	RDuct Plenn Rep R&D	Res Duct Rep Pgm
UP	FPLRR1	Roof Coatings AC	Participant	0.46	0.00	561	\$2,185	\$17	Cool Comm R&D	Res Build Env Pgm	Res Build Env Pgm
UP	FPLRR2	Roof Coatings HP	Participant	0.39	0.00	476	\$2,185	\$17	Cool Comm R&D	Res Build Env Pgm	Res Build Env Pgm
UP	FPLPV	Photovoltaics	Participant	1.01	0.03	2483	\$21,030	\$233	Photovoltaic R&D	Photovoltaic R&D	Photovoltaic R&D
UP	FPLLI1	Low Income AC Maintenance	Participant	0.24	0.00	484	\$170	\$25	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLLI2	Low Income Infiltration	Participant	0.08	0.09	186	\$80	\$25	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLLI3	Low Income Pipe Insulation	Participant	0.00	0.01	40	\$2	\$16	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLLI4	Low Income Tank Insulation	Participant	0.01	0.03	107	\$16	\$16	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLLI5	Low Income Low Flow Showerhead	Participant	0.01	0.04	160	\$9	\$16	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLLI6	Low Income Compact Fluor	Participant	0.01	0.01	62	\$6	\$16	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLLI7	Low Income Room AC	Participant	0.04	0.00	195	\$150	\$16	FPL Weatherzn Eval	FPL Weatherzn Eval	Res Duct Rep Pgm
UP	FPLRG1	Natural Gas Water Heating	Participant	0.16	0.46	1858	\$532	\$27	Gas R&D	Gas R&D	Gas R&D
UP	FPLRG2	Residential Gas Heat Pump - Elec HP	Participant	2.23	3.20	6767	\$8,165	\$27	Gas R&D	Gas R&D	Gas R&D
UP	FPLRG3	Residential Gas Heat Pump - Elec AC	Participant	2.23	1.60	5952	\$7,989	\$27	Gas R&D	Gas R&D	Gas R&D

Measure Impacts and Costs

Commercial/Industrial New Construction

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kwh	Participant Cost	Admin Cost
UP	SC-D-1/2	GSD	High Eff. Chiller	1 Summer kW	1.00	0.03	4300	\$930	\$46	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - Chiller
UP	SC-D-1/2	GSLD	High Eff. Chiller	1 Summer kW	1.00	0.03	4305	\$930	\$46	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - Chiller
UP	SC-D-3	GS	Hi Efficiency DX AC	1 Summer kW	1.00	0.00	3334	\$930	\$43	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - DX
UP	SC-D-3	GSD	Hi Efficiency DX AC	1 Summer kW	1.00	0.00	3690	\$930	\$64	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - DX
UP	SC-D-3	GSLD	Hi Efficiency DX AC	1 Summer kW	1.00	0.00	3702	\$1,842	\$64	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - DX
UP	SC-D-4	GS	Hi Eff. Room AC	1 Summer kW	1.00	0.00	2165	\$1,108	\$43	SRC Study	HVAC Pgm - DX	HVAC Pgm - DX
UP	SC-D-4	GSD	Hi Eff. Room AC	1 Summer kW	1.00	0.00	2165	\$1,108	\$43	SRC Study	HVAC Pgm - DX	HVAC Pgm - DX
UP	SC-D-4	GSLD	Hi Eff. Room AC	1 Summer kW	1.00	0.00	2165	\$1,108	\$43	SRC Study	HVAC Pgm - DX	HVAC Pgm - DX
UP	SC-D-5	GSD	Cool Storage	1 Summer kW	1.00	0.23	-304	\$515	\$65	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - TES
UP	SC-D-5	GSLD	Cool Storage	1 Summer kW	1.00	0.23	-254	\$515	\$65	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - TES
UP	V-D-8	GSD	High Eff. Motors Chiller	1 Summer kW	1.00	0.69	5163	\$892	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-8	GSLD	High Eff. Motors Chiller	1 Summer kW	1.00	0.69	5163	\$892	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-9	GS	High Eff. Motors DX AC	1 Summer kW	1.00	1.00	5895	\$1,332	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-9	GSD	High Eff. Motors DX AC	1 Summer kW	1.00	1.00	5870	\$1,001	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-9	GSLD	High Eff. Motors DX AC	1 Summer kW	1.00	1.00	5869	\$666	\$705	SRC Study	SRC Study	Motors Program
UP	W-D-11	GS	Heat Pump Water Heater	1 Summer kW	1.00	0.77	7896	\$1,838	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-11	GSD	Heat Pump Water Heater	1 Summer kW	1.00	1.08	12450	\$4,064	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-11	GSLD	Heat Pump Water Heater	1 Summer kW	1.00	1.08	12450	\$4,064	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-12	GS	Solar Water Heating	1 Summer kW	1.00	0.04	4317	\$7,031	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-12	GSD	Solar Water Heating	1 Summer kW	1.00	0.04	4317	\$7,031	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-12	GSLD	Solar Water Heating	1 Summer kW	1.00	0.04	4317	\$7,031	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-13	GS	HRU	1 Summer kW	1.00	0.98	6284	\$2,837	\$92	U of F R&D	U of F R&D / EPRI	CIBE Pgm
UP	W-D-13	GSD	HRU	1 Summer kW	1.00	1.40	9845	\$2,837	\$92	U of F R&D	U of F R&D / EPRI	CIBE Pgm
UP	W-D-13	GSLD	HRU	1 Summer kW	1.00	1.40	9845	\$2,837	\$92	U of F R&D	U of F R&D / EPRI	CIBE Pgm
UP	C-D-18	GS	Convection Oven	1 Summer kW	1.00	1.84	13285	\$2,321	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-18	GSD	Convection Oven	1 Summer kW	1.00	1.84	13285	\$2,321	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-18	GSLD	Convection Oven	1 Summer kW	1.00	1.84	13285	\$2,321	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-19	GS	Energy Eff. Electric Fryer	1 Summer kW	1.00	2.14	16494	\$1,332	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-19	GSD	Energy Eff. Electric Fryer	1 Summer kW	1.00	2.14	16494	\$1,333	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-19	GSLD	Energy Eff. Electric Fryer	1 Summer kW	1.00	2.14	16494	\$1,333	\$92	SRC Study	SRC Study	CIBE Pgm
UP	FPLM-1	GS	Motors	1 Summer kW	1.00	1.00	2905	\$955	\$705	Motors Pgm	SRC Study	Motors Program
UP	FPLM-1	GSD	Motors	1 Summer kW	1.00	1.00	2905	\$955	\$705	Motors Pgm	SRC Study	Motors Program
UP	FPLM-1	GSLD	Motors	1 Summer kW	1.00	1.00	2905	\$955	\$705	Motors Pgm	SRC Study	Motors Program
UP	OPBC	GSD	Off Peak Battery Charging / Bus Custom Incentive	1 Summer kW	1.00	0.00	0	\$760	\$19	Bus Cust Incent Pgm	Bus Cust Incent Pgm	Bus Cust Incent Pgm
UP	OPBC	GSLD	Off Peak Battery Charging / Bus Custom Incentive	1 Summer kW	1.00	0.99	6112	\$1,454	\$6	Bus Cust Incent Pgm	Bus Cust Incent Pgm	Bus Cust Incent Pgm
UP	FPLEV1	GS	ERV Strip Heat No Bypass	1 Summer kW	1.00	3.16	988	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV2	GSD	ERV Strip Heat No Bypass	1 Summer kW	1.00	3.16	988	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV3	GSLD	ERV Strip Heat No Bypass	1 Summer kW	1.00	3.16	988	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV4	GS	ERV Strip Heat Act Bypass	1 Summer kW	1.00	3.16	1399	\$871	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV5	GSD	ERV Strip Heat Act Bypass	1 Summer kW	1.00	3.16	1399	\$871	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV6	GSLD	ERV Strip Heat Act Bypass	1 Summer kW	1.00	3.16	1399	\$871	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV7	GS	ERV No Heat No Bypass	1 Summer kW	1.00	0.00	758	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX

Measure Impacts and Costs

Commercial/Industrial New Construction (con't)

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kwh	Participant Cost	Admin Cost
UP	FPLEV1	GSD	ERV No Heat No Bypass	1 Summer kW	1.00	0.00	758	\$769	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV2	GSLD	ERV No Heat No Bypass	1 Summer kW	1.00	0.00	758	\$769	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV10	GS	ERV No Heat Act Bypass	1 Summer kW	1.00	0.00	1169	\$871	\$43	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV11	GSD	ERV No Heat Act Bypass	1 Summer kW	1.00	0.00	1169	\$871	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV12	GSLD	ERV No Heat Act Bypass	1 Summer kW	1.00	0.00	1169	\$871	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	CILM	GS	Commercial/Industrial Load Management	1 Summer kW	1.00	0.00	1	\$0	\$0	End-Use Eval	NA	Bus. On Call Pgm
UP	CILM	GSD	Commercial/Industrial Load Management	1 Summer kW	1.00	0.00	1	\$0	\$0	End-Use Eval	NA	Bus. On Call Pgm
UP	CILM	GSLD	Commercial/Industrial Load Management	1 Summer kW	1.00	1.00	13	\$0	\$0	CDR Pgm	NA	CDR Pgm
UP	FPLGD1	GS	Gas Dessicant	1 Summer kW	1.00	1.71	2648	\$6,460	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGD2	GSD	Gas Dessicant	1 Summer kW	1.00	0.04	674	\$4,582	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLCD3	GSLD	Gas Dessicant	1 Summer kW	1.00	0.24	1599	\$1,437	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC1	GSD	Gas - Air Source Chiller	1 Summer kW	1.00	0.06	2480	\$890	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC2	GSLD	Gas - Air Source Chiller	1 Summer kW	1.00	0.00	2723	\$603	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC3	GSD	Gas - Water Source Chiller	1 Summer kW	1.00	0.30	2938	\$998	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC4	GSLD	Gas - Water Source Chiller	1 Summer kW	1.00	0.00	3060	\$664	\$29	Gas R&D	Gas R&D	Gas R&D

Measure Impacts and Costs

Commercial/Industrial CUE

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kwh	Participant Cost	Admin Cost
CUE	SC-D-8	GSD	3 Speed Motor for Cooling Tower	1 Summer kW	0.00	0.00	1027	\$268	\$705	SRC Study	SRC Study	Motors Program
CUE	SC-D-8	GSLD	3 Speed Motor for Cooling Tower	1 Summer kW	0.00	0.00	1027	\$268	\$705	SRC Study	SRC Study	Motors Program
CUE	SC-D-9	GSD	Speed Control for Cooling Tower	1 Summer kW	0.00	0.00	1284	\$605	\$31	SRC Study	SRC Study	HVAC Pgm - Chiller
CUE	SC-D-9	GSLD	Speed Control for Cooling Tower	1 Summer kW	0.00	0.00	1284	\$605	\$31	SRC Study	SRC Study	HVAC Pgm - Chiller
CUE	SC-D-18'19	GS	Roof Insulation Code +	1 Summer kW	1.00	1.60	2213	\$2,960	\$369	End-Use Eval	CIBE Pgm	CIBE Pgm
CUE	SC-D-18'19	GSD	Roof Insulation Code +	1 Summer kW	1.00	1.63	2185	\$2,960	\$369	End-Use Eval	CIBE Pgm	CIBE Pgm
CUE	SC-D-18'19	GSLD	Roof Insulation Code +	1 Summer kW	1.00	1.32	2122	\$2,960	\$369	End-Use Eval	CIBE Pgm	CIBE Pgm
CUE	SC-D-20	GSD	Wall Insulation - Chiller	1 Summer kW	1.00	0.59	4047	\$54,895	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-20	GSLD	Wall Insulation - Chiller	1 Summer kW	1.00	0.59	4041	\$49,037	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-21	GS	Wall Insulation - DX AC	1 Summer kW	1.00	0.37	1371	\$18,222	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-21	GSD	Wall Insulation - DX AC	1 Summer kW	1.00	0.37	1861	\$16,326	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-21	GSLD	Wall Insulation - DX AC	1 Summer kW	1.00	0.37	1863	\$14,398	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-22'23	GS	Window Film	1 Summer kW	1.00	-0.84	4099	\$1,540	\$92	End-Use Eval	CIBE Pgm	CIBE Pgm
CUE	SC-D-22'23	GSD	Window Film	1 Summer kW	1.00	-0.93	4371	\$1,155	\$92	End-Use Eval	CIBE Pgm	CIBE Pgm
CUE	SC-D-22'23	GSLD	Window Film	1 Summer kW	1.00	-0.04	4119	\$1,155	\$92	End-Use Eval	CIBE Pgm	CIBE Pgm
CUE	SC-D-24	GSD	Spectrally Selective Glass - Chiller	1 Summer kW	1.00	0.13	2825	\$5,429	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-24	GSLD	Spectrally Selective Glass - Chiller	1 Summer kW	1.00	0.13	2826	\$5,430	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-25	GS	Spectrally Selective Glass - DX AC	1 Summer kW	1.00	0.11	2154	\$3,704	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-25	GSD	Spectrally Selective Glass - DX AC	1 Summer kW	1.00	0.11	2908	\$4,161	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	SC-D-25	GSLD	Spectrally Selective Glass - DX AC	1 Summer kW	1.00	0.11	2908	\$4,623	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	FL-HPN	GS	Fluorescent High Performance New Construction	1 Summer kW	1.00	0.65	3582	\$125	\$44	End-Use Eval	CI Lighting Pgm	CI Lighting Pgm
CUE	FL-HPN	GSD	Fluorescent High Performance New Construction	1 Summer kW	1.00	0.64	5024	\$125	\$44	End-Use Eval	CI Lighting Pgm	CI Lighting Pgm
CUE	FL-HPN	GSLD	Fluorescent High Performance New Construction	1 Summer kW	1.00	0.67	5030	\$125	\$44	End-Use Eval	CI Lighting Pgm	CI Lighting Pgm
CUE	R-D-1	GS	Multiplex: Air-Cooled/No Subcooling	1 Summer kW	1.00	0.87	10264	\$1,730	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-1	GSD	Multiplex: Air-Cooled/No Subcooling	1 Summer kW	1.00	0.89	10556	\$1,730	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-1	GSLD	Multiplex: Air-Cooled/No Subcooling	1 Summer kW	1.00	0.92	11441	\$1,739	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-2	GS	Multiplex: Air-Cooled/Ambient Subcooling	1 Summer kW	1.00	0.88	11134	\$2,035	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-2	GSD	Multiplex: Air-Cooled/Ambient Subcooling	1 Summer kW	1.00	0.88	11134	\$2,035	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-2	GSLD	Multiplex: Air-Cooled/Ambient Subcooling	1 Summer kW	1.00	0.88	11134	\$2,035	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-3	GS	Multiplex: Air-Cooled/Mechanical Subcooling	1 Summer kW	1.00	0.88	11566	\$2,193	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-3	GSD	Multiplex: Air-Cooled/Mechanical Subcooling	1 Summer kW	1.00	0.88	11566	\$2,193	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-3	GSLD	Multiplex: Air-Cooled/Mechanical Subcooling	1 Summer kW	1.00	0.88	11566	\$2,193	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-4	GS	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	1 Summer kW	1.00	0.89	12377	\$2,608	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-4	GSD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	1 Summer kW	1.00	0.89	12377	\$2,608	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-4	GSLD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	1 Summer kW	1.00	0.89	12377	\$2,608	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-5	GS	Multiplex: Air-Cooled/External Liquid Suction HX	1 Summer kW	1.00	0.88	7685	\$1,471	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-5	GSD	Multiplex: Air-Cooled/External Liquid Suction HX	1 Summer kW	1.00	0.88	7685	\$1,471	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-5	GSLD	Multiplex: Air-Cooled/External Liquid Suction HX	1 Summer kW	1.00	0.88	7685	\$1,471	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-6	GS	Open - Drive Refrigeration System (ASD)	1 Summer kW	1.00	3.41	30368	\$12,045	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-6	GSD	Open - Drive Refrigeration System (ASD)	1 Summer kW	1.00	3.58	31978	\$12,098	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-6	GSLD	Open - Drive Refrigeration System (ASD)	1 Summer kW	1.00	3.17	26402	\$12,098	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-7	GS	Anti - Condensate Heater Controls	1 Summer kW	1.00	0.89	8070	\$3,874	\$92	SRC Study	SRC Study	CIBE Pgm

Measure Impacts and Costs

Commercial/Industrial CUE (con't)

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kwh	Participant Cost	Admin Cost
CUE	R-D-7	GSD	Anti - Condensate Heater Controls	1 Summer kW	1.00	0.89	8070	\$49,840	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-7	GSLD	Anti - Condensate Heater Controls	1 Summer kW	1.00	0.89	8070	\$107,462	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-8	GS	High R-Value Glass Doors	1 Summer kW	1.00	0.89	8225	\$472	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-8	GSD	High R-Value Glass Doors	1 Summer kW	1.00	0.89	8225	\$472	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-8	GSLD	High R-Value Glass Doors	1 Summer kW	1.00	0.89	8225	\$472	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-9	GS	Refrigeration Energy Mgt System	1 Summer kW	1.00	0.87	16137	\$2,387	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-9	GSD	Refrigeration Energy Mgt System	1 Summer kW	1.00	0.87	16123	\$15,275	\$92	SRC Study	SRC Study	CIBE Pgm
CUE	R-D-9	GSLD	Refrigeration Energy Mgt System	1 Summer kW	1.00	0.87	16125	\$167,307	\$92	SRC Study	SRC Study	CIBE Pgm

Measure Impacts and Costs

Commercial/Industrial Existing Construction

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kWh	Participant Cost	Admin Cost
UP	SC-D-1/2	GSD	High Eff. Chiller	1 Summer kW	1.00	0.03	4300	\$930	\$46	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - Chiller
UP	SC-D-1/2	GSLD	High Eff. Chiller	1 Summer kW	1.00	0.03	4305	\$930	\$46	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - Chiller
UP	SC-D-3	GS	Hi Efficiency DX AC	1 Summer kW	1.00	0.00	3334	\$930	\$43	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - DX
UP	SC-D-3	GSD	Hi Efficiency DX AC	1 Summer kW	1.00	0.00	3690	\$930	\$64	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - DX
UP	SC-D-3	GSLD	Hi Efficiency DX AC	1 Summer kW	1.00	0.00	3702	\$1,842	\$64	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - DX
UP	SC-D-4	GS	Hi Eff. Room AC	1 Summer kW	1.00	0.00	2165	\$1,108	\$43	SRC Study	HVAC Pgm - DX	HVAC Pgm - DX
UP	SC-D-4	GSD	Hi Eff. Room AC	1 Summer kW	1.00	0.00	2165	\$1,108	\$43	SRC Study	HVAC Pgm - DX	HVAC Pgm - DX
UP	SC-D-4	GSLD	Hi Eff. Room AC	1 Summer kW	1.00	0.00	2165	\$1,108	\$43	SRC Study	HVAC Pgm - DX	HVAC Pgm - DX
UP	SC-D-5	GSD	Cool Storage	1 Summer kW	1.00	0.23	-304	\$515	\$65	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - TES
UP	SC-D-5	GSLD	Cool Storage	1 Summer kW	1.00	0.23	-254	\$515	\$65	End-Use Eval	Manufctr/Vendor Poll	HVAC Pgm - TES
UP	SC-D-6	GS	Heat Pipe DX AC	1 Summer kW	1.00	-0.04	-3595	\$4,783	\$103	FSEC Dehumid R&D	FSEC Dehumid R&D	HVAC Pgm - TES
UP	SC-D-6	GSD	Heat Pipe DX AC	1 Summer kW	1.00	-0.04	-3595	\$4,783	\$103	FSEC Dehumid R&D	FSEC Dehumid R&D	HVAC Pgm - TES
UP	SC-D-6	GSLD	Heat Pipe DX AC	1 Summer kW	1.00	-0.04	-3595	\$4,783	\$103	FSEC Dehumid R&D	FSEC Dehumid R&D	HVAC Pgm - TES
UP	SC-D-8	GSD	3 Speed Motor for Cooling Tower	1 Summer kW	0.00	0.00	1027	\$268	\$705	SRC Study	SRC Study	Motors Program
UP	SC-D-8	GSLD	3 Speed Motor for Cooling Tower	1 Summer kW	0.00	0.00	1027	\$268	\$705	SRC Study	SRC Study	Motors Program
UP	SC-D-10	GSD	AC Maintenance Chiller	1 Summer kW	1.00	0.00	3121	\$7,332	\$31	SRC Study	SRC Study	HVAC Pgm - Chiller
UP	SC-D-10	GSLD	AC Maintenance Chiller	1 Summer kW	1.00	0.00	3121	\$7,332	\$31	SRC Study	SRC Study	HVAC Pgm - Chiller
UP	SC-D-11	GS	AC Maintenance DX AC	1 Summer kW	1.00	0.00	1842	\$4,967	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-11	GSD	AC Maintenance DX AC	1 Summer kW	1.00	0.00	1842	\$4,967	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-11	GSLD	AC Maintenance DX AC	1 Summer kW	1.00	0.00	1842	\$4,967	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-12	GSD	HVAC Air Duct/Water Pipe Insul Chiller	1 Summer kW	1.00	0.00	59200	\$6,135	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-12	GSLD	HVAC Air Duct/Water Pipe Insul Chiller	1 Summer kW	1.00	0.00	59200	\$6,135	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-13	GS	HVAC Air Duct/Water Pipe Insul DX AC	1 Summer kW	1.00	0.00	2032	\$2,886	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-13	GSD	HVAC Air Duct/Water Pipe Insul DX AC	1 Summer kW	1.00	0.00	2032	\$2,886	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-13	GSLD	HVAC Air Duct/Water Pipe Insul DX AC	1 Summer kW	1.00	0.00	2032	\$2,886	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	SC-D-18/19	GS	Roof Insulation	1 Summer kW	1.00	1.60	2213	\$740	\$138	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	SC-D-18/19	GSD	Roof Insulation	1 Summer kW	1.00	1.63	2185	\$740	\$138	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	SC-D-18/19	GSLD	Roof Insulation	1 Summer kW	1.00	1.32	2122	\$740	\$138	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	SC-D-22/23	GS	Window Film	1 Summer kW	1.00	-0.84	4099	\$1,540	\$92	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	SC-D-22/23	GSD	Window Film	1 Summer kW	1.00	-0.93	4371	\$1,155	\$92	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	SC-D-22/23	GSLD	Window Film	1 Summer kW	1.00	-0.04	4119	\$1,155	\$92	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	V-D-1	GS	Leak Free Ducts DX AC	1 Summer kW	1.00	0.05	2054	\$721	\$43	HVAC Pgm	HVAC Pgm - DX	HVAC Pgm - DX
UP	V-D-1	GSD	Leak Free Ducts DX AC	1 Summer kW	1.00	0.05	2054	\$721	\$43	HVAC Pgm	HVAC Pgm - DX	HVAC Pgm - DX
UP	V-D-1	GSLD	Leak Free Ducts DX AC	1 Summer kW	1.00	0.05	2054	\$721	\$43	HVAC Pgm	HVAC Pgm - DX	HVAC Pgm - DX
UP	V-D-8	GSD	High Eff. Motors Chiller	1 Summer kW	1.00	0.69	5163	\$892	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-8	GSLD	High Eff. Motors Chiller	1 Summer kW	1.00	0.69	5163	\$892	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-9	GS	High Eff. Motors DX AC	1 Summer kW	1.00	1.00	5895	\$1,332	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-9	GSD	High Eff. Motors DX AC	1 Summer kW	1.00	1.00	5870	\$1,001	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-9	GSLD	High Eff. Motors DX AC	1 Summer kW	1.00	1.00	5869	\$666	\$705	SRC Study	SRC Study	Motors Program
UP	V-D-10	GSD	Sep Makeup Air / Exhaust Hoods Chiller	1 Summer kW	1.00	0.42	4474	\$2,751	\$31	SRC Study	SRC Study	HVAC Pgm - Chiller
UP	V-D-10	GSLD	Sep Makeup Air / Exhaust Hoods Chiller	1 Summer kW	1.00	0.42	4474	\$2,751	\$31	SRC Study	SRC Study	HVAC Pgm - Chiller
UP	V-D-11	GS	Sep Makeup Air / Exhaust Hoods DX AC	1 Summer kW	1.00	0.14	2467	\$1,818	\$43	SRC Study	SRC Study	HVAC Pgm - DX

Measure Impacts and Costs

Commercial/Industrial Existing Construction (con't)

Type	Measure	GSD	Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kwh	Participant Cost	Admin Cost
UP	V-D-11	GSD	Sep Makeup Air / ExhaustHoods DX AC	1 Summer kW	1.00	0.14	2467	\$1,818	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	V-D-11	GSLD	Sep Makeup Air / ExhaustHoods DX AC	1 Summer kW	1.00	0.14	2467	\$1,818	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	FL-HP	GS	Fluorescent High Permanence	1 Summer kW	1.00	0.65	3582	\$1,160	\$67	End-Use Eval	CI Lighting Pgm	CI Lighting Pgm
UP	FL-HP	GSD	Fluorescent High Permanence	1 Summer kW	1.00	0.64	5024	\$1,160	\$67	End-Use Eval	CI Lighting Pgm	CI Lighting Pgm
UP	FL-HP	GSLD	Fluorescent High Permanence	1 Summer kW	1.00	0.67	5030	\$1,160	\$67	End-Use Eval	CI Lighting Pgm	CI Lighting Pgm
UP	R-D-1	GS	Multiplex: Air-Cooled/No Subcooling	1 Summer kW	1.00	0.87	10264	\$1,730	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-1	GSD	Multiplex: Air-Cooled/No Subcooling	1 Summer kW	1.00	0.89	10556	\$1,730	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-1	GSLD	Multiplex: Air-Cooled/No Subcooling	1 Summer kW	1.00	0.92	11441	\$1,739	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-2	GS	Multiplex: Air-Cooled/Ambient Subcooling	1 Summer kW	1.00	0.88	11134	\$2,035	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-2	GSD	Multiplex: Air-Cooled/Ambient Subcooling	1 Summer kW	1.00	0.88	11134	\$2,035	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-2	GSLD	Multiplex: Air-Cooled/Ambient Subcooling	1 Summer kW	1.00	0.88	11134	\$2,035	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-3	GS	Multiplex: Air-Cooled/Mechanical Subcooling	1 Summer kW	1.00	0.88	11566	\$2,193	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-3	GSD	Multiplex: Air-Cooled/Mechanical Subcooling	1 Summer kW	1.00	0.88	11566	\$2,193	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-3	GSLD	Multiplex: Air-Cooled/Mechanical Subcooling	1 Summer kW	1.00	0.88	11566	\$2,193	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-4	GS	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	1 Summer kW	1.00	0.89	12377	\$2,608	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-4	GSD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	1 Summer kW	1.00	0.89	12377	\$2,608	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-4	GSLD	Multiplex: Air-Cooled/Ambient & Mech. Subcooling	1 Summer kW	1.00	0.89	12377	\$2,608	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-5	GS	Multiplex: Air-Cooled/External Liquid Suction HX	1 Summer kW	1.00	0.88	7685	\$1,471	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-5	GSD	Multiplex: Air-Cooled/External Liquid Suction HX	1 Summer kW	1.00	0.88	7685	\$1,471	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-5	GSLD	Multiplex: Air-Cooled/External Liquid Suction HX	1 Summer kW	1.00	0.88	7685	\$1,471	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-6	GS	Open - Drive Refrigeration System (ASD)	1 Summer kW	1.00	3.41	30368	\$12,045	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-6	GSD	Open - Drive Refrigeration System (ASD)	1 Summer kW	1.00	3.58	31978	\$12,098	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-6	GSLD	Open - Drive Refrigeration System (ASD)	1 Summer kW	1.00	3.17	26402	\$12,098	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-7	GS	Anti - Condensate Heater Controls	1 Summer kW	1.00	0.89	8070	\$3,874	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-7	GSD	Anti - Condensate Heater Controls	1 Summer kW	1.00	0.89	8070	\$49,840	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-7	GSLD	Anti - Condensate Heater Controls	1 Summer kW	1.00	0.89	8070	\$107,462	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-8	GS	High R-Value Glass Doors	1 Summer kW	1.00	0.89	8225	\$472	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-8	GSD	High R-Value Glass Doors	1 Summer kW	1.00	0.89	8225	\$472	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-8	GSLD	High R-Value Glass Doors	1 Summer kW	1.00	0.89	8225	\$472	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-9	GS	Refrigeration Energy Mgt System	1 Summer kW	1.00	0.87	16137	\$2,387	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-9	GSD	Refrigeration Energy Mgt System	1 Summer kW	1.00	0.87	16123	\$15,275	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-9	GSLD	Refrigeration Energy Mgt System	1 Summer kW	1.00	0.87	16125	\$167,307	\$92	SRC Study	SRC Study	CIBE Pgm
UP	R-D-10	GS	Dual Path AC	1 Summer kW	1.00	0.75	-9192	\$7,611	\$103	FSEC Dehumid R&D	FSEC Dehumid R&D	HVAC Pgm - TES
UP	R-D-10	GSD	Dual Path AC	1 Summer kW	1.00	0.75	-9192	\$7,611	\$103	FSEC Dehumid R&D	FSEC Dehumid R&D	HVAC Pgm - TES
UP	R-D-10	GSLD	Dual Path AC	1 Summer kW	1.00	0.75	-9192	\$7,611	\$103	FSEC Dehumid R&D	FSEC Dehumid R&D	HVAC Pgm - TES
UP	W-D-11	GS	Heat Pump Water Heater	1 Summer kW	1.00	0.77	7896	\$1,838	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-11	GSD	Heat Pump Water Heater	1 Summer kW	1.00	1.08	12450	\$4,064	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-11	GSLD	Heat Pump Water Heater	1 Summer kW	1.00	1.08	12450	\$4,064	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-12	GS	Solar Water Heating	1 Summer kW	1.00	0.04	4317	\$7,031	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-12	GSD	Solar Water Heating	1 Summer kW	1.00	0.04	4317	\$7,031	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-12	GSLD	Solar Water Heating	1 Summer kW	1.00	0.04	4317	\$7,031	\$92	SRC Study	SRC Study	CIBE Pgm
UP	W-D-13	GS	HRU	1 Summer kW	1.00	0.98	6284	\$2,837	\$92	U of F R&D	U of F R&D / EPRI	CIBE Pgm



Measure Impacts and Costs

Commercial/Industrial Existing Construction (con't)

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kwh	Participant Cost	Admin Cost
UP	W-D-13	GSD	HRU	1 Summer kW	1.00	1.40	9845	\$2,837	\$92	U of F R&D	U of F R&D / EPRI	CIBE Pgm
UP	W-D-13	GSLD	HRU	1 Summer kW	1.00	1.40	9845	\$2,837	\$92	U of F R&D	U of F R&D / EPRI	CIBE Pgm
UP	W-D-14	GS	DWH Heater Insulation	1 Summer kW	0.00	0.00	19	\$32	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-14	GSD	DWH Heater Insulation	1 Summer kW	0.00	0.00	192	\$52	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-14	GSLD	DWH Heater Insulation	1 Summer kW	0.00	0.00	192	\$52	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-15	GS	DWH Heat Trap	1 Summer kW	1.00	1.66	165178	\$2,183	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-15	GSD	DWH Heat Trap	1 Summer kW	1.00	1.66	165178	\$2,183	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-15	GSLD	DWH Heat Trap	1 Summer kW	1.00	1.66	165178	\$2,183	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-16	GS	Low Flow/Variable Flow Shower Head	1 Summer kW	1.00	0.37	4934	\$32	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-16	GSD	Low Flow/Variable Flow Shower Head	1 Summer kW	1.00	0.37	4934	\$32	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-16	GSLD	Low Flow/Variable Flow Shower Head	1 Summer kW	1.00	0.37	4934	\$32	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-17	GS	DWH Recirculation pump	1 Summer kW	0.00	0.00	284	\$5	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-17	GSD	DWH Recirculation pump	1 Summer kW	0.00	0.00	284	\$5	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	W-D-17	GSLD	DWH Recirculation pump	1 Summer kW	0.00	0.00	284	\$5	\$43	SRC Study	SRC Study	HVAC Pgm - DX
UP	C-D-18	GS	Convection Oven	1 Summer kW	1.00	1.84	13285	\$2,321	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-18	GSD	Convection Oven	1 Summer kW	1.00	1.84	13285	\$2,321	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-18	GSLD	Convection Oven	1 Summer kW	1.00	1.84	13285	\$2,321	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-19	GS	Energy Eff. Electric Fryer	1 Summer kW	1.00	2.14	16494	\$1,332	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-19	GSD	Energy Eff. Electric Fryer	1 Summer kW	1.00	2.14	16494	\$1,333	\$92	SRC Study	SRC Study	CIBE Pgm
UP	C-D-19	GSLD	Energy Eff. Electric Fryer	1 Summer kW	1.00	2.14	16494	\$1,333	\$92	SRC Study	SRC Study	CIBE Pgm
UP	FPLM-1	GS	Motors	1 Summer kW	1.00	1.00	2905	\$955	\$705	Motors Pgm	SRC Study	Motors Program
UP	FPLM-1	GSD	Motors	1 Summer kW	1.00	1.00	2905	\$955	\$705	Motors Pgm	SRC Study	Motors Program
UP	FPLM-1	GSLD	Motors	1 Summer kW	1.00	1.00	2905	\$955	\$705	Motors Pgm	SRC Study	Motors Program
UP	OPBC	GSD	Off Peak Battery Charging / Bus Custom Incentive	1 Summer kW	1.00	1.00	0	\$760	\$19	Bus Cust Incent Pgm	Bus Cust Incent Pgm	Bus Cust Incent Pgm
UP	OPBC	GSLD	Off Peak Battery Charging / Bus Custom Incentive	1 Summer kW	1.00	0.99	6112	\$1,454	\$6	Bus Cust Incent Pgm	Bus Cust Incent Pgm	Bus Cust Incent Pgm
UP	FPLC11	GS	CIBE Ceiling Insulation	1 Summer kW	1.00	1.29	1893	\$661	\$138	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	FPLC12	GSD	CIBE Ceiling Insulation	1 Summer kW	1.00	0.54	1993	\$661	\$138	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	FPLC13	GSLD	CIBE Ceiling Insulation	1 Summer kW	1.00	1.60	1820	\$661	\$138	End-Use Eval	CIBE Pgm	CIBE Pgm
UP	FPLRR1	GS	CIBE Reflective Roof	1 Summer kW	1.00	0.00	1833	\$1,110	\$120	FSEC - DX	CIBE Pgm	CIBE Pgm
UP	FPLRR2	GSD	CIBE Reflective Roof	1 Summer kW	1.00	0.00	1953	\$1,110	\$120	FSEC-Air Cl Chlr	CIBE Pgm	CIBE Pgm
UP	FPLRR3	GSLD	CIBE Reflective Roof	1 Summer kW	1.00	0.00	1968	\$1,110	\$120	FSEC-Wtr Chlr	CIBE Pgm	CIBE Pgm
UP	FPLEV1	GS	ERV Strip Heat No Bypass	1 Summer kW	1.00	3.16	988	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV2	GSD	ERV Strip Heat No Bypass	1 Summer kW	1.00	3.16	988	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV3	GSLD	ERV Strip Heat No Bypass	1 Summer kW	1.00	3.16	988	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV4	GS	ERV Strip Heat Act Bypass	1 Summer kW	1.00	3.16	1399	\$871	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV5	GSD	ERV Strip Heat Act Bypass	1 Summer kW	1.00	3.16	1399	\$871	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV6	GSLD	ERV Strip Heat Act Bypass	1 Summer kW	1.00	3.16	1399	\$871	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV7	GS	ERV No Heat No Bypass	1 Summer kW	1.00	0.00	758	\$769	\$66	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV8	GSD	ERV No Heat No Bypass	1 Summer kW	1.00	0.00	758	\$769	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV9	GSLD	ERV No Heat No Bypass	1 Summer kW	1.00	0.00	758	\$769	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV10	GS	ERV No Heat Act Bypass	1 Summer kW	1.00	0.00	1169	\$871	\$43	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV11	GSD	ERV No Heat Act Bypass	1 Summer kW	1.00	0.00	1169	\$871	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX
UP	FPLEV12	GSLD	ERV No Heat Act Bypass	1 Summer kW	1.00	0.00	1169	\$871	\$44	U of F R&D	Manufctr/Vendor Poll	HVAC Pgm - Chl/DX

Measure Impacts and Costs

Commercial/Industrial Existing Construction (con't)

Type	Measure		Description	Participant	Summer kW	Winter kW	kWh	Part Cost *	Admin / Part *	Data Sources		
										kw & kWh	Participant Cost	Admin Cost
UP	CILM	GS	Commercial/Industrial Load Management	1 Summer kW	1.00	0.00	1	\$0	\$0	End-Use Eval	NA	Bus. On Call Pgm
UP	CILM	GSD	Commercial/Industrial Load Management	1 Summer kW	1.00	0.00	1	\$0	\$0	End-Use Eval	NA	Bus. On Call Pgm
UP	CILM	GSLD	Commercial/Industrial Load Management	1 Summer kW	1.00	1.00	13	\$0	\$0	CDR Pgm	NA	CDR Pgm
UP	FPLGD1	GS	Gas Dessicant	1 Summer kW	1.00	1.71	2648	\$6,460	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGD2	GSD	Gas Dessicant	1 Summer kW	1.00	0.04	674	\$4,582	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLCD3	GSLD	Gas Dessicant	1 Summer kW	1.00	0.24	1599	\$1,437	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC1	GSD	Gas - Air Source Chiller	1 Summer kW	1.00	0.06	2480	\$890	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC2	GSLD	Gas - Air Source Chiller	1 Summer kW	1.00	0.00	2723	\$603	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC3	GSD	Gas - Water Source Chiller	1 Summer kW	1.00	0.30	2938	\$998	\$29	Gas R&D	Gas R&D	Gas R&D
UP	FPLGC4	GSLD	Gas - Water Source Chiller	1 Summer kW	1.00	0.00	3060	\$664	\$29	Gas R&D	Gas R&D	Gas R&D

\* Capital cost only - excludes O&M