

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 080407-EG  
FLORIDA POWER & LIGHT COMPANY**

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

**DIRECT TESTIMONY & EXHIBITS OF:**

**JOHN R. HANEY**

DOCUMENT NUMBER-DATE

05404 JUN-18

FPSC-COMMISSION CLERK

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5                   **JUNE 1, 2009**

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

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

10 **Q.    By whom are you employed and in what capacity?**

11 A.    I am employed by Florida Power & Light Company (FPL) as Director,  
12           Demand Side Management.

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

14 A.    I am responsible for the development and product management of Demand  
15           Side Management (DSM) programs for FPL's residential and business  
16           customers. This includes the development, implementation, on-going  
17           management, measurement and verification of DSM programs offered to  
18           FPL's customers.

19 **Q.    Please state your educational background.**

20 A.    I received a Bachelor of Science in Civil Engineering from Mississippi  
21           State University in 1981.

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1 **Q. Please provide your employment history.**

2 A. I was hired by FPL in 1981 in the Marketing department to perform  
3 residential and commercial/industrial (C/I) energy audits. In addition to  
4 working with home and business owners, I had the opportunity to work  
5 with builders to help them implement energy efficiency in new  
6 construction. I also worked with FPL's participating independent  
7 contractors to improve their participation in FPL's DSM programs. I was  
8 then given the opportunity to move into a staff position within the  
9 Marketing department as a program manager of FPL's DSM programs. My  
10 responsibilities grew to managing the team responsible for residential  
11 programs.

12

13 In 1996, I joined FPL Services to manage the implementation of energy  
14 efficiency measures for large government and institutional customers. I  
15 started as a project development engineer and was ultimately promoted to  
16 General Manager of FPL Services. I served in that capacity until 2002,  
17 when I became Director of Marketing for FPL. In 2008, I became FPL's  
18 Director of DSM.

19 **Q. Are you sponsoring any exhibits in this case?**

20 A. Yes. I am sponsoring Exhibits JRH-1 through JRH-18, which are attached  
21 to my direct testimony. Each exhibit is identified below:

22 Exhibit JRH-1 FPL's Industry Leading DSM Performance,  
23 DOE/EIA 2007 Data

1	Exhibit JRH-2	FPL's Contribution to National DSM, DOE/EIA
2		2007 Data
3	Exhibit JRH-3	FPL's DSM Performance Among Large Utilities
4	Exhibit JRH-4	FPL's Current DSM Programs
5	Exhibit JRH-5	FPL's DSM Achievements Through 2008
6	Exhibit JRH-6	Low-Income Participants in FPL's DSM Programs
7	Exhibit JRH-7	FPL's Low-Income Customer DSM Initiatives
8	Exhibit JRH-8	FPL's DSM Goals Experience 2005-2008
9	Exhibit JRH-9	FPL's DSM Goals Experience Over Time
10	Exhibit JRH-10	Collaborative Process Roadmap to Determining
11		Goals
12	Exhibit JRH-11	Collaborative Sources Used to Develop the List of
13		Measures
14	Exhibit JRH-12	Detailed List of Measures Entering the Technical
15		Potential Step
16	Exhibit JRH-13	Comparison of Recent Technical Potential Results
17	Exhibit JRH-14	Estimates of FPL's Achievable Potential
18	Exhibit JRH-15	FPL's Proposed DSM Goals 2010 -- 2019
19	Exhibit JRH-16	Comparison of FPL's Proposed Goals and
20		Achievable Potential
21	Exhibit JRH-17	Comparison of FPL's Current and Proposed Goals
22	Exhibit JRH-18	Measures Screening

1 FPL's Technical Potential Study, Commission Document No. 03143-09, is  
2 part of Staff's composite exhibit.

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

4 A. The purpose of my testimony is threefold: to describe FPL's historical  
5 DSM performance, to explain the process followed in the development of  
6 FPL's proposed DSM goals, and to outline FPL's proposed DSM goals.

7 **Q. Please summarize your testimony.**

8 A. FPL is the industry leader in DSM. For nearly three decades, FPL's  
9 success has been enabled by a constructive regulatory structure that has  
10 supported utilities in the implementation of DSM programs that help  
11 customers manage their energy use without promoting DSM that results in  
12 higher rates than supply-side options.

13  
14 In developing its proposed DSM goals for the 2010-2019 period, FPL has  
15 gone beyond the requirements of the Florida Energy Efficiency and  
16 Conservation Act (FEECA) by also working within a collaborative of  
17 FEECA utilities and environmental groups. The collaborative hired a  
18 recognized leader in DSM analysis, Itron, Inc. (Itron), in an effort to bring  
19 consistency of analysis and process to this DSM Goals proceeding.

20  
21 FPL utilized the results from Itron's analysis to develop goals for the period  
22 2010-2019. These goals are based on FPL's projected resource needs for  
23 the period and the achievable potential estimates and maximum annual

1           adoptions developed by Itron. Multiple scenarios were analyzed, and goals  
2           were proposed based on the level of DSM that minimizes the rate impact on  
3           FPL's customers. This is consistent with the long and successful history of  
4           DSM in Florida.

5

6

## I. FPL'S HISTORICAL DSM PERFORMANCE

7

8   **Q.    Please provide an overview of FPL's history of implementing DSM.**

9    A.    FPL began offering DSM programs in the late 1970s, prior to the Florida  
10       Legislature's adoption of FEECA in 1980. Since then, FPL has maintained  
11       a constant commitment to DSM, along with Florida's policy makers and  
12       regulators. FPL has developed a wide array of cost-effective energy  
13       efficiency programs that lead the nation in reducing the demand for  
14       electricity. In addition to energy efficiency programs, FPL operates the  
15       second largest load management program in the nation. FPL's On Call  
16       program, established in 1987, is the largest residential direct load control  
17       program in the United States. Over 770,000 households, nearly one in five  
18       customers served by FPL, participate in this program. FPL's Residential Air  
19       Conditioning program has helped 1.1 million customers, more than one in  
20       four households FPL serves, to make their homes' largest energy user more  
21       efficient.

1 As described in greater detail in the testimony of FPL witness Sim, FPL has  
2 made DSM an integral part of its resource planning process. One of the  
3 advantages of DSM is the ability to quickly ramp up or down as the  
4 resource need dictates. In response to the unexpectedly high 2005 summer  
5 peak, FPL greatly increased the level of DSM on its system. The market  
6 conditions dictated a quick reaction, and FPL and its customers responded.  
7 FPL's load forecast and unmet resource needs have diminished, and FPL's  
8 proposed DSM goals reflect that diminished resource need.

9 **Q. On what basis do you claim FPL to be the industry leader in DSM**  
10 **performance?**

11 A. The U.S. Department of Energy (DOE) reports on the effectiveness of  
12 utility DSM efforts through its Energy Information Administration (EIA).  
13 The EIA reports both energy efficiency and load management achievement.  
14 Based on the latest EIA comparative data, which is for the year 2007, out of  
15 more than 3,000 reporting utilities, FPL is nationally ranked #1 in  
16 cumulative demand reduction from DSM, defined as energy efficiency and  
17 load management combined. FPL is also nationally ranked #1 and #2 in  
18 cumulative demand reduction from energy efficiency and load  
19 management, respectively. To put this in perspective, if FPL's cumulative  
20 avoided MW from DSM were a "virtual utility," it would be Florida's third  
21 largest utility. FPL is also nationally ranked #4 in cumulative energy  
22 reduction from energy efficiency. FPL's DOE/EIA rankings are shown on  
23 Exhibit JRH-1.

1 FPL's successful DSM performance is not simply due to its size. As shown  
2 on Exhibit JRH-2, although FPL has only 2% of total U.S. peak demand,  
3 FPL provides 12% of the total energy efficiency and 7% of the total load  
4 management in the United States. Exhibit JRH-3 shows that within the  
5 comparison group of 88 utilities with greater than or equal to 3,000 MW  
6 capacity, FPL is in the top decile of MW reduction as a percent of peak  
7 demand and in the top quartile of MWh reduction as a percent of sales. So,  
8 compared to the industry, FPL has been aggressive and successful in  
9 capturing cost-effective DSM for the benefit of its customers.

10 **Q. To what does FPL attribute its success as a provider of energy**  
11 **efficiency and load management programs?**

12 A. The reasons for FPL's success are two-fold. First, the Florida Public  
13 Service Commission ("Commission" or "FPSC") has adopted a  
14 constructive regulatory environment for DSM implementation. Second,  
15 FPL carefully manages and administers its DSM programs.

16 **Q. Please explain how a constructive regulatory environment has fostered**  
17 **FPL's success in implementation of DSM.**

18 A. Policy makers and regulators in Florida, including the Commission, have  
19 enacted and administered FEECA in a way that has encouraged FPL's and  
20 Florida's industry-leading DSM efforts, while at the same time avoiding  
21 DSM-related rate increases relative to supply-side options. The  
22 Commission has approved goals for the FEECA utilities and the programs  
23 necessary to meet those goals, and it has allowed timely cost recovery



1 through the Energy Conservation Cost Recovery Clause (ECCR) for all  
2 prudently-incurred program costs related to implementation of  
3 Commission-approved DSM programs. The Commission has also  
4 approved research and development programs and projects and allowed  
5 timely cost recovery for these initiatives. Further, before approving the  
6 construction of new electrical power plants in Florida, the Commission has  
7 ensured that the unit for which approval is being requested could not have  
8 been avoided or deferred by implementation of cost-effective DSM. The  
9 Commission has also made policy decisions that have avoided cross-  
10 subsidization of participating customers by non-participating customers by  
11 choosing the most appropriate DSM cost-effectiveness tests, i.e., Rate  
12 Impact Measure (RIM) and Participant-based DSM rather than Total  
13 Resource Cost (TRC) based DSM.

14 **Q. Please describe FPL's management and administration of DSM**  
15 **programs.**

16 A. FPL's effective management and administration of its DSM programs can  
17 be described in four parts. First, consumer education through energy audits  
18 provides the foundation for FPL's DSM strategy. Audits help customers to  
19 determine which conservation practices and measures are beneficial to their  
20 situation. FPL's customers have responded enthusiastically. On the average  
21 business day, more than 600 FPL customers take advantage of FPL's  
22 energy audits. Since FPL began offering audits in 1981, over 2.7 million  
23 customers have participated in an on-line audit, a phone-based audit, or an

1 on-site audit. Audits serve two important functions. They provide an  
2 essential basis for educating customers on FPL's approved DSM programs.  
3 Audits also go beyond FPL's approved programs and identify all measures  
4 that make economic sense to the customers. While audits focus on existing  
5 buildings, FPL also extends education to the new construction community  
6 through its BuildSmart program, which helps builders meet and exceed the  
7 requirements of Florida's Energy Efficiency Code for Building  
8 Construction.

9  
10 Second, FPL has developed and implemented a robust set of cost-effective  
11 DSM programs to help customers take action on audit recommendations.  
12 Today, FPL offers programs covering most major residential and  
13 commercial end-uses. FPL's current DSM programs are summarized in  
14 Exhibit JRH-4.

15  
16 Third, ongoing conservation research and development investigates the cost  
17 and feasibility of the next-generation of energy-efficient technology,  
18 leading to new or enhanced cost-effective DSM programs. Since 1995,  
19 FPL's Conservation Research and Development program has completed 22  
20 technology evaluations. Eight of those evaluations have resulted in new  
21 DSM programs or the addition of measures to existing programs.

1 Fourth, FPL has successfully used DSM to cost-effectively avoid new  
2 power plant construction. Since the inception of its DSM programs through  
3 the end of 2008, FPL has achieved, at the generator, 4,109 MW of summer  
4 peak demand reduction, 2,983 MW of winter peak demand reduction, and  
5 46,646 GWh of energy savings. Including the impacts for the reserve  
6 margin, this amount of peak demand reduction eliminated the need for the  
7 equivalent of 12 power plants of 400 MW capacity each, or 33 typical 150  
8 MW combustion turbine units. FPL's performance is summarized in  
9 Exhibit JRH-5. Significantly, FPL has achieved this without penalizing  
10 customers who are non-participants in its DSM programs. FPL has been  
11 able to avoid penalizing non-participating customers by offering only DSM  
12 programs that keep rates lower than they otherwise would have been if the  
13 avoided power plants had been built.

14 **Q. Has FPL undertaken efforts to assure that low-income customers**  
15 **derive value from FPL's DSM offerings?**

16 **A.** Yes. The primary means of assuring that low-income customers secure the  
17 benefits of DSM is to advance programs that are cost-effective under both  
18 the RIM and Participant tests for DSM cost-effectiveness, which are  
19 described in detail in the testimony of FPL witness Sim. That way, if low-  
20 income customers participate, it is clear the program is cost-effective to  
21 them because they have decided that the energy savings they expect to  
22 achieve from participating in the program are worth any up-front  
23 investment. However, if they choose not to participate or cannot afford to

1           participate, then the programs they help pay for through the ECCR clause  
2           are still cost-effective to them because their rates are still lower than they  
3           otherwise would have been if the avoided power plants had been built. In  
4           addition, FPL has developed and marketed DSM offerings to low-income  
5           customers through targeted initiatives, as described in Exhibits JRH-6 and  
6           JRH-7.

7   **Q.   Has FPL been successful in attracting low-income customers to**  
8   **participate in DSM?**

9   A.   Yes. In March 2009, FPL engaged The Futures Company (a Yankelovich  
10       Group Company) to develop a profile of its low-income customers and to  
11       conduct an analysis of the participation level of current low-income  
12       customers and all others in DSM programs. Based on the study, which is  
13       summarized in Exhibit JRH-6, FPL determined that for three of its four  
14       major program areas, FPL has essentially the same or greater participation  
15       for low-income customers as it does for other customers. The exception to  
16       this trend is for the Residential HVAC program, which is most likely  
17       explained by two factors: (1) low-income customers are less likely to own  
18       their residences and are more likely to be renters, and (2) landlords may not  
19       be willing to pay the higher up-front cost of efficient HVAC systems  
20       beyond the customer incentives.

1 **Q. To what does FPL attribute its success in attracting low-income**  
2 **customers to participate in DSM programs?**

3 A. Several initiatives have contributed to this success, including efforts to  
4 reach out to low-income customers through targeted offerings of  
5 Commission-approved DSM programs. FPL often works in cooperation  
6 with organizations like The Salvation Army, the Governor's Front Porch  
7 Florida Initiative, Habitat for Humanity and the Association of Community  
8 Organizations for Reform Now (ACORN). Exhibit JRH-7 provides  
9 examples of FPL's efforts to target low-income customers for program  
10 participation.

11 **Q. Has FPL experienced success in meeting its DSM goals?**

12 A. Yes. FPL has been very successful in meeting the goals set by the  
13 Commission. As shown in Exhibit JRH-8, as of 2008, FPL has met and  
14 exceeded the cumulative summer MW, winter MW and energy goals for  
15 both the Residential and C/I market segments. (Unless otherwise noted, all  
16 MW or MWh's in my testimony are at the meter.) Exhibit JRH-9 shows  
17 FPL's DSM performance in consistently meeting or exceeding the  
18 Commission-established goals.

19 **Q. Does FPL's consistent success in meeting its DSM goals suggest that the**  
20 **goals FPL has been proposing have been too modest?**

21 A. No. FPL's success in meeting its DSM goals is indicative of a utility which  
22 is serious and intentional in its pursuit of cost-effective DSM that benefits  
23 all of its customers. It has not been easy for FPL to achieve its DSM goals.

1 This achievement has required a dedication of resources and the  
2 development of a means to keep up with new technologies and to identify  
3 cost-effective measures and program designs, so that FPL customers have  
4 programs that are current and effective. FPL is justifiably proud to be the  
5 industry leader in DSM performance.

6

7 **II. COLLABORATIVE APPROACH TO GOALS-SETTING**

8

9 **Q. What was the first step in FPL's development of its proposed 2010-**  
10 **2019 DSM goals?**

11 A. FPL's 2010-2019 DSM goals were developed after forming and leveraging  
12 the knowledge of a collaborative group composed of the FEECA utilities  
13 and interested environmental organizations (National Resource Defense  
14 Council (NRDC) and Southern Alliance for Clean Energy (SACE)). This  
15 group is known as the Collaborative. To facilitate the analysis, the  
16 Collaborative hired Itron, a nationally recognized energy analysis  
17 consulting firm.

18 **Q. Please describe the process followed by the Collaborative to develop the**  
19 **DSM Goals.**

20 A. Once formed, the Collaborative agreed upon the process to be followed in  
21 developing the individual technical potential studies. Subsequently, the  
22 members of the Collaborative agreed upon a joint effort in developing the  
23 achievable potential studies.

1 The Collaborative, through Itron, conducted an assessment of the technical  
2 potential for energy and peak demand savings from energy efficiency,  
3 demand response, and customer-scale renewable energy in the utilities'  
4 respective service territories.

5  
6 Each Collaborative member and Itron contributed to the exhaustive  
7 development of the comprehensive measure list to be considered for the  
8 technical potential study and in establishing the process for developing the  
9 achievable potential. Each measure was reviewed and discussed in detail  
10 before being classified as "final" for the study. The Collaborative  
11 established the screening criteria for each measure. The requirement was  
12 that the measure had to be an existing technology and currently available in  
13 the marketplace and for which Florida-specific pricing data was available.  
14 Third party measurement and evaluation verification to substantiate its cost  
15 and savings claims was preferred. Thus, non-commercialized "emerging"  
16 technologies were excluded. It should be noted that, FPL tracks and  
17 evaluates such technologies on an on-going basis in its Conservation  
18 Research and Development program. A detailed procedure of measure  
19 evaluation is described in Section III of this testimony. As for the process,  
20 the Collaborative discussed the roadmap that would be employed to  
21 determine the goals. Within these discussions many ideas were brought  
22 forward, culminating in the final process shown in Exhibit JRH-10.

1 Since the initiation of this study, Itron and all Collaborative members met  
2 regularly to manage the project and to share the rigors of completing the  
3 evaluation. The non-utility members provided input throughout the  
4 process, including development of the consultant selection weights,  
5 evaluation of bidders, and contribution to the statement of work for the  
6 selected consultant. They also suggested additional measures for  
7 evaluation. Together, non-utility members represented 1/8 of the  
8 Collaborative, a vote equal to the voting share for each utility member.

9  
10 At the time of the drafting of this testimony, NRDC and SACE were  
11 negotiating to change the status of their participation in the Collaborative's  
12 assessment of achievable potential.

13  
14 **III. METHODOLOGY FOR SELECTING MEASURES FOR**  
15 **EVALUATION**

16  
17 **Q. Please describe for the Commission the process followed in identifying**  
18 **the DSM measures to be analyzed in the development of DSM goals.**

19 A. The objective of this step in the development of DSM Goals is to create a  
20 comprehensive list of measures for evaluation, along with each measure's  
21 potential demand and energy impacts and its participant cost. The  
22 collective experience of the Collaborative served this task well, with each



1 member providing depth and expertise in building up a comprehensive list  
2 of potential measures for study.

3

4 The Collaborative used various sources to develop the list of measures and  
5 supporting data, including utility-specific measurement and verification  
6 data, utility measure research data, the Florida Solar Energy Center, Itron  
7 data, the California Database for Energy Efficient Resources (DEER),  
8 National Renewable Energy Laboratory (NREL), the Electric Power  
9 Research Institute (EPRI), and local equipment distributors for pricing  
10 information. A complete list of data sources is included in Exhibit JRH-11.

11

12 By August 2008, the Collaborative had developed a measure list it deemed  
13 “exhaustive.” Next, Collaborative members independently evaluated each  
14 measure’s applicability to Florida’s climate zones, availability for purchase,  
15 third-party provided demand impacts and energy savings, life, and cost.  
16 This independent exercise prepared the members to confirm each measure  
17 for inclusion in the final list for evaluation.

18

19 Measures were confirmed during a series of conference calls, each  
20 dedicated to a major market segment (Residential, Commercial and  
21 Industrial). During the calls, every individual measure was evaluated,  
22 discussed and agreed on for rejection or retention for evaluation. If there  
23 was an objection to a measure’s retention, the objecting party was required

1 to make the case for the rejection of the measure. Conversely, if there was  
2 an objection to a measure's rejection, the objecting party was required to  
3 make the case for retention of the measure. As a result of these conference  
4 calls, several individual FEECA utilities provided measure data from  
5 internal research and development (R&D), and SACE and NRDC provided  
6 research briefs for selected measures.

7  
8 The measure selection process yielded a comprehensive list of 267 unique  
9 measures, including 67 residential measures, 78 commercial measures, and  
10 122 industrial measures. (These unique measures expand to over 2,300  
11 measures when building types are considered.) Importantly, the final  
12 measure list included 25 "new" measures in the residential sector and 33  
13 "new" measures in the commercial sector. New measures are those that  
14 Itron had not previously analyzed in past studies. Itron conducted an initial  
15 assessment of data availability and measure-specific modeling issues  
16 associated with "new" measures. For those "new" measures, the FEECA  
17 utilities and SACE/ and NRDC provided measure data from internal R&D,  
18 and SACE and NRDC provided research briefs. A detailed list of measures  
19 entering the technical potential step of the DSM Goals development process  
20 is provided in Exhibit JRH-12.

21 **Q. Were natural gas measures included in the list for analysis?**

22 **A.** *No. However, in accordance with FPSC Rule 25-17.0021, F.A.C. regarding*  
23 *Goals for Electric Utilities, FPL evaluated four natural gas measures:*

1 Commercial Gas Direct Expansion (DX), Residential High Efficiency Gas  
2 Water Heater, Residential Demand Water Heater and Residential Heat  
3 Pump Water Heater.

4 **Q. Were demand-side renewable measures included in the list for**  
5 **analysis?**

6 A. Yes. Three renewable measures were included in the final list for  
7 evaluation: solar water heating, photovoltaic powered pool pumps and  
8 grid-tied photovoltaic systems. The Collaborative agreed that grid-tied  
9 photovoltaic systems were better classified as demand side generation  
10 rather than a conservation measure, and so required a separate and distinct  
11 analytic approach. That analysis appears in Section VI of this testimony.  
12 Solar water heating and photovoltaic powered pool pumps were retained in  
13 the list of measures.

14  
15 **IV. METHODOLOGY FOR DEVELOPING TECHNICAL POTENTIAL**

16  
17 **Q. Please define what you mean by technical potential.**

18 A. The objective of the technical potential step in the DSM Goals development  
19 process is to identify the theoretical limit to reducing electric peak demand  
20 (MW) and energy (GWh). It should be understood that technical potential  
21 is a theoretical construct. It imagines what could happen if every measure  
22 was installed everywhere it would fit, regardless of cost or customer  
23 acceptance. Technical potential also ignores real-world constraints such as

1 product availability, contractor/vendor capacity, cost-effectiveness, and  
2 customer preferences. Simply put, technical potential in no way reflects the  
3 energy efficiency potential that is achievable through real-world voluntary  
4 utility programs. The calculation of technical potential involves two broad  
5 steps: first, the establishment of applicable end-use baselines for each  
6 measure for the goals period, and second, the allocation of energy and  
7 demand savings to each individual measure.

8 **Q. How was the technical potential calculated?**

9 A. Total technical potential is the sum of the technical potential of individual  
10 end-use measures in all major market segments (Residential, Commercial,  
11 and Industrial) and all building types within those segments.

12 **Q. What was the methodology utilized in determining the technical  
13 potential of DSM for FPL?**

14 A. A detailed discussion of Itron's technical potential methodology is available  
15 in the Technical Potential for Electric Energy and Peak Demand Savings in  
16 Florida Power & Light, Dated March 12, 2009 Commission document  
17 03143-09, which is part of Staff's composite exhibit,...

18 **Q. What were the key economic input data that was employed in the  
19 development of technical potential?**

20 A. Some of the key economic inputs required in this study were current and  
21 forecasted retail electricity rates, customer discount rates, and inflation  
22 rates. For retail electricity rates, FPL submitted current average retail  
23 electricity rates for residential, commercial, and industrial customers in

1           dollars per kWh terms, as well as 30-plus year forecasts of those retail rates.  
2           For all sectors, Itron used a customer discount rate of 15% per year and a  
3           general inflation rate of 2% per year.

4   **Q.    What were the results of FPL's energy efficiency technical potential**  
5           **study?**

6    A.    The total theoretical energy efficiency technical potential for electric energy  
7           savings in FPL's service territory for the period 2010 through 2019 is  
8           estimated to be approximately 31,849 GWh, or 34% of current baseline  
9           annual electricity consumption. The total energy efficiency technical  
10          potential for summer peak demand savings is estimated to be approximately  
11          8,000 MW, or 43% of current baseline summer system peak demand. The  
12          total energy efficiency technical potential for winter peak demand savings  
13          is estimated to be approximately 4,784 MW, or 28% of current baseline  
14          winter system peak demand. Residential energy efficiency technical  
15          potential accounts for well over half of total energy efficiency technical  
16          potential for electric energy savings (GWh) and more than two thirds of  
17          total energy efficiency technical potential for summer and winter peak  
18          demand savings (MW) in FPL's territory.

19  
20          A comparison of FPL's energy efficiency technical potential results with  
21          recently published energy efficiency technical potential results for other  
22          major utilities suggests that Itron's study was rigorous. Exhibit JRH-13

1 illustrates a comparison of recent energy efficiency technical potential  
2 results.

3 **Q. Did FPL provide an adequate assessment of the full technical potential**  
4 **of all available demand-side efficiency measures, including demand-**  
5 **side renewable energy systems?**

6 A. Yes. This is addressed in Sections III and IV of my testimony, the  
7 Technical Potential for Electric Energy and Peak Demand Savings in  
8 Florida Power & Light, Dated March 12, 2009 Commission document  
9 03143-09, which is part of Staff's composite exhibit, and the direct  
10 testimony of Itron witness Rufo.

11

## 12 **V. METHODOLOGY FOR DEVELOPING ACHIEVABLE POTENTIAL**

13

14 **Q. Please explain the process FPL employed for moving from DSM**  
15 **technical potential to DSM achievable potential.**

16 A. As explained by FPL witness Sim, FPL took the technical potential data  
17 provided by Itron and performed preliminary cost-effectiveness screening  
18 of the measures in the technical potential using enhanced versions of the  
19 RIM and TRC tests, hereafter referred to as the E-RIM and E-TRC. This  
20 screening included the economic impact of environmental compliance costs  
21 for specific emissions including sulfur dioxide (SO<sub>2</sub>), nitrogen oxides  
22 (NO<sub>x</sub>), and carbon dioxide (CO<sub>2</sub>). This screening was performed using the

1 E-RIM, E-TRC and Participant test. This dataset was identified as FPL's  
2 economic potential.

3  
4 For those measures included in FPL's economic potential, more refined  
5 cost-effectiveness analyses were performed. For RIM measures, incentives  
6 to customers under three scenarios and administrative costs were included.  
7 For TRC measures in FPL's economic potential, program administrative  
8 costs were added. The groups of measures passing the final cost-  
9 effectiveness runs by FPL were then forwarded for Itron to assess in the  
10 DSM ASSYST model to calculate achievable potential.

11 **Q. Why has FPL applied the not less than two-year payback criterion in**  
12 **developing its maximum incentives for cost-effectiveness screening?**

13 A. FPL has followed this approach for at least fifteen years because it believes  
14 this approach is the best, most analytically sound means of avoiding free-  
15 riders as required by FPSC rule. The Collaborative also agreed on the use of  
16 the two-year payback to minimize free-ridership for consistency across the  
17 Collaborative.

18  
19 "Free-riders" are people who would have installed the measure without any  
20 utility incentive. FPL is required to limit free-riders when proposing DSM  
21 goals. The logic underlying the two-year payback criterion is simple and  
22 compelling. FPL and its customers, through ECCR recovery of program  
23 costs, should not be paying incentives to customers who have a sufficient

1 economic incentive to implement DSM on their own. The assumption  
2 underlying the two-year payback criterion is that a reasonable customer will  
3 adopt DSM if the DSM measure provides them a payback on incremental  
4 costs in terms of lower utility bills or bill savings within two years or less of  
5 adoption of the measure.

6  
7 FPL's customers ultimately pay for FPL's DSM program costs, including  
8 customer incentives, through the ECCR clause. FPL's customers should  
9 only have to pay customer incentives necessary to encourage additional  
10 customer adoption of DSM measures. When a customer has a sufficient  
11 incentive to implement a DSM measure – a cost-effective incentive that  
12 results in a two-year payback - the remaining FPL customers should not  
13 have to pay a higher incentive. A two-year payback is a sufficient  
14 economic incentive for customers to implement DSM. Paying a higher  
15 incentive to encourage a customer to do what the customer already has a  
16 sufficient incentive to do does not make economic sense for FPL's general  
17 body of customers. They should not be asked to subsidize other customers'  
18 bill savings with an incentive in such circumstances.

19 **Q. Has FPL's use of the minimum two-year payback criterion been**  
20 **tested?**

21 A. Yes. FPL's approach has been tested analytically through research. In  
22 addition, it was contested by the Legal Environmental Assistance  
23 Foundation (LEAF) in FPL's 1994 DSM goals proceeding. In its final



1 order, the Commission explicitly noted that LEAF had challenged FPL's  
2 use of the two-year payback criterion, and the Commission proceeded to  
3 approve DSM goals that were developed using the minimum two-year  
4 payback criterion.

5 **Q. Has FPL refined its minimum two-year payback criterion in the cost-**  
6 **effectiveness screening performed in this case?**

7 A. Yes. Instead of a simple two-year payback criterion, the Collaborative  
8 agreed to run three achievable potential scenarios. One scenario used the  
9 two-year payback criterion in establishing maximum incentives. Another  
10 scenario used the lesser of a minimum two-year payback incentive or an  
11 incentive that was 33% of a measure's incremental cost. A third scenario  
12 used the lesser of a minimum two-year payback incentive or an incentive  
13 that was 50% of a measure's incremental cost.

14 **Q. What was the total achievable potential for FPL?**

15 A. The six estimates of FPL's total achievable potential are based on Itron's  
16 maximum annual customer adoption rates and are shown in Exhibit JRH-  
17 14. The RIM achievable potential estimates range from 446.0 MW to 887.6  
18 MW for summer demand, from 211.5 MW to 344.5 MW for winter  
19 demand, and from 553.6 GWh to 1,700.3 GWh for energy. The TRC  
20 achievable potential estimates range from 455.0 MW to 1,072.7 MW for  
21 summer demand, from 214.2 MW to 482.3 MW for winter demand, and  
22 from 635.2 GWh to 2,177.0 GWh for energy.

1           **VI. ANALYSIS OF SOLAR PHOTOVOLTAIC (PV) SYSTEMS**

2  
3   **Q.    Please summarize the development of FPL's technical potential for PV.**

4    A.    The assessment of PV technical potential covered PV installed in the  
5           commercial/industrial and residential sectors. The analytic methodology  
6           consisted of first estimating total roof area suitable for siting PV systems  
7           and then translating this roof area into estimates of annual electricity  
8           generation and power output coincident with the electric system summer  
9           and winter peaks. For commercial/industrial buildings, the total roof area  
10          also included an estimate of parking lot areas over which parking shade  
11          structures might hold PV systems. More detail regarding this process and  
12          the logic of the model are provided by Itron witness Rufo in his testimony.

13   **Q.    Did PV systems pass the Commission-approved cost-effectiveness tests?**

14    A.    Every PV system failed the Participant test. Therefore, they were not  
15          screened under the E-RIM or E-TRC tests. FPL has not traditionally  
16          offered DSM programs designed to incent measures that are not cost-  
17          effective to its customers.

18   **Q.    Did FPL consider PV technologies in a smaller, demand-side  
19          generation scale (less than 10 kW)?**

20    A.    Yes. FPL looked at the cost-effectiveness of these smaller sized  
21          installations, which may be considered for residential and C/I applications,  
22          but, unfortunately, they also failed the Participant test.

1 **Q. After Itron’s and FPL’s internal analysis of PV technologies, what is**  
2 **the estimated achievable potential for demand side PV applications?**

3 A. FPL estimates that the achievable potential for these applications is zero  
4 “0”.

5

6 **VII. ANALYSIS OF HIGH THERMAL EFFICIENCY**

7 **COGENERATION**

8

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

10 A. The two primary screening factors that should be evaluated with high  
11 efficiency cogeneration are the steam requirements of the facility and a  
12 readily available fuel source. In FPL’s service territory, there are relatively  
13 few known applications where the most effective thermal loads, steam and  
14 hot water are large enough and of ample duration to make the high thermal  
15 efficiency cogeneration option viable.

16 **Q. What has been FPL’s experience in regard to high thermal efficiency**  
17 **cogeneration in its service territory?**

18 A. FPL currently has under contract two facilities, Cedar Bay and Indiantown  
19 Cogeneration, providing firm energy and capacity that use high thermal  
20 efficiency cogeneration, representing approximately 580 MW of firm  
21 generating capability. Both facilities are fueled by coal. FPL also has four  
22 additional cogeneration projects in its service territory, with an installed  
23 generating capacity of approximately 168 MW that sell their electric output

1 to FPL on an as-available basis and/or use the electric output of the  
2 cogeneration facility to offset their electric consumption. These facilities  
3 typically use biomass or natural gas for fuel and steam in the production of  
4 sugar, paper products, and hot water.

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

7 A. High thermal efficiency cogeneration must be evaluated as a supply-side  
8 alternative on a case-by-case basis. From time to time, there are C/I  
9 customers who have considered high thermal efficiency cogeneration as an  
10 alternative. Many of these customers utilized FPL's assistance to evaluate  
11 the various cogeneration alternatives. FPL performs specific evaluations,  
12 but these site-specific, case-by-case evaluations do not lend themselves to  
13 the goals-setting process. In addition, FPL has completed demonstration  
14 projects utilizing fuel cells and micro turbines to understand the costs and  
15 operating characteristics of these emerging combined heat and power  
16 technologies. Both technologies were found to have reliability issues, so  
17 FPL did not develop programs addressing them. Given FPL's ongoing  
18 customer assessments of cogeneration, FPL identifies no high thermal  
19 efficiency measures for analysis and reflects no value for this end-use in the  
20 development of its overall DSM goals.

1 **VIII. DETERMINATION OF FPL'S DSM GOALS**

2

3 **Q. Once FPL received the projected achievable potential values for each**  
4 **measure, how were these projections utilized to develop the four DSM**  
5 **portfolios?**

6 A. After the achievable potential work was completed, FPL developed the list  
7 of passing measures for E-RIM and another list of passing measures for E-  
8 TRC. Itron then provided FPL with the corresponding ten-year projection  
9 of maximum annual signups, related system demand (MW), and energy  
10 savings (GWh) for each measure based on the measure's final incentive  
11 level. As FPL witness Sim explains, both of these lists were analyzed  
12 utilizing linear programming (LP) to develop E-RIM and E-TRC optimized  
13 DSM portfolios for meeting the projected system need and/or utilizing all  
14 DSM "achievable potential". The portfolios balanced the timing of the  
15 needed solution with practical constraints regarding program  
16 implementation and ramp up and ramp down rates to achieve the lowest  
17 present value DSM costs associated with the cost-effectiveness test in  
18 question.

19 **Q. How were the practical constraints developed?**

20 A. As was described earlier in this testimony, FPL has over 30 years of  
21 experience with DSM Program marketing and enrollment. FPL's DSM  
22 program managers also conducted a review of recent trends in program  
23 signups to estimate the upper and lower limits for future signups.

1           Ultimately, FPL decided to take all load control achievable potential and  
2           levelized both load control and energy efficiency for purposes of program  
3           continuity.

4   **Q.   FPL received three different scenarios of achievable potential from**  
5           **Itron for each of the two cost-effectiveness tests. Which set of data did**  
6           **FPL utilize in its analyses?**

7   A.   FPL based its analyses on the two-year payback scenario, which represents  
8           the largest projection of DSM for both cost-effectiveness tests. This  
9           scenario is consistent with the Commission's previously approved means of  
10          addressing free-ridership. It was also the only scenario that provided  
11          enough DSM achievable potential to meet FPL's resource needs.

12 **Q.   What are FPL's proposed DSM goals?**

13 A.   FPL's proposed DSM goals are set forth on Exhibit JRH-15. Exhibit JRH-  
14          16 provides a comparison of FPL's DSM goals with FPL's DSM RIM and  
15          Participant based Achievable Potential.

16 **Q.   Are there additional MW and GWh reductions captured by federal**  
17          **standards?**

18 A.   Yes. There are an additional 895 MW and approximately 8,900 GWh of  
19          energy efficiency savings due to increased codes and standards included in  
20          FPL's load forecast. Until the recent adoption of these standards, these  
21          potential savings would have been available for acquisition in FPL's DSM  
22          programs. So, in comparing FPL's historic DSM goals with its proposed

1 goals, it is important to remember these savings will continue to be  
2 achieved, and FPL's goals are over and above these assumed savings.

3 **Q How do FPL's proposed DSM goals for 2010 through 2019 compare to**  
4 **FPL's currently approved DSM goals?**

5 A In absolute numbers, they are slightly below the levels of currently  
6 approved DSM goals, but when the effect of recently adopted federal  
7 energy efficiency standards are added, total demand and energy efficiency  
8 gains on FPL's system over the 2010 through 2019 period will far exceed  
9 the level of FPL's goals for the 2005 through 2014 period. Total demand  
10 savings will be almost twice as large and total energy savings will be nine  
11 times as large.

12  
13 The 2005 through 2014 cumulative Summer MW and Total GWh goals are  
14 802 MW and 1,059 GWh, respectively. FPL's proposed DSM goals for the  
15 period of 2010 through 2019 are 607 MW and 878 GWh, respectively.  
16 However, there are an additional 895 MW and 8,900 GWh of energy  
17 efficiency gains during the 2010 through 2019 period due to new energy  
18 efficiency standards that has been accounted for in FPL's load forecast.  
19 Thus, total DSM and energy efficiency gains from new energy efficiency  
20 standards on FPL's system during the period 2010 through 2019 should be  
21 1,502 MW and 9,778 GWh. That is the appropriate comparison to FPL's  
22 currently approved DSM goals.

1           The 2005 through 2014 cumulative Summer MW and Total GWh goals are  
2           802 MW and 1,059 GWh, respectively. FPL's proposed DSM goals for the  
3           period of 2010 through 2019 are 607 MW and 878 GWh, respectively.  
4           However, there are an additional 895 MW and 8,900 GWh of energy  
5           efficiency gains during the 2010 through 2019 period due to new energy  
6           efficiency standards that have been accounted for in FPL's load forecast.  
7           These energy efficiency savings that were available to the 2005 thru 2014  
8           goals period are not available for utility DSM programs to address in the  
9           2010-2019 goals period as a result of the new energy mandates. While that  
10          potential has been lost for the DSM goals and programs, it will nonetheless  
11          be achieved on FPL's system. Thus, total DSM and energy efficiency gains  
12          from new energy efficiency standards on FPL's system during the period  
13          2010 through 2019 should be 1,502 MW and 9,778 GWh. That is the  
14          appropriate comparison to FPL's currently approved DSM goals.

15  
16          Exhibit JRH-17 provides a comparison of FPL's currently approved goals  
17          for the period 2010 through 2014 with FPL's proposed goals for the period  
18          2010 through 2019 and the MW and GWh savings that are now captured by  
19          federal energy efficiency standards. It shows that although FPL's proposed  
20          goals are lower than current goals for the 2010 through 2014 period, when  
21          the MW and GWh savings to be captured from federal standards are  
22          reflected, the total demand reduction and energy efficiency on FPL's  
23          system for the period 2010 through 2019 is higher than current DSM Goals.



1 **Q. What other factors contribute to slightly lower DSM Goals for the 2010**  
2 **through 2019 period compared to the 2005 through 2014 period?**

3 A. In addition to the significant lost DSM potential due to new energy  
4 efficiency standards, there are several other factors at work that result in  
5 smaller DSM goals. First, FPL has experienced a slowdown in customer  
6 and sales growth since 2006 and FPL's forecast indicates that this  
7 contraction in total energy sales will continue in the near term. This lowers  
8 total DSM potential, particularly in new construction. Second, current  
9 economic conditions will act as a barrier to DSM adoption. Third, FPL has  
10 a mature DSM program, and saturation rates for FPL are higher than for  
11 other utilities without such a successful history. All of these factors suggest  
12 that FPL's DSM goals might be smaller than currently approved goals.  
13 But, I want to re-emphasize, with the new federal efficiency standards, total  
14 demand and energy efficiency improvements on FPL's system during the  
15 2010 through 2019 period will result in almost twice the level of demand  
16 reduction assumed in FPL's current goals and nine times the level of energy  
17 consumption assumed in FPL's current goals.

18 **Q. Does the portfolio of measures utilized for the development of the**  
19 **proposed DSM Goals represent the expected measures that will be**  
20 **included in the DSM Plan to meet the goals?**

21 A. Not completely. FPL's DSM Plan will reflect a slight difference in the mix  
22 of measures to achieve the goals. This reflects the difference between the

1 modeling of the average impact across all customers versus the impacts at  
2 an individual measure installation level.

3  
4 The methodology utilized by Itron for FPL and the Collaborative meets all  
5 of the requirements of the DSM Goals Rule, including the development of a  
6 broad range of measures and accounting for measure interactions at an  
7 aggregate level. The technical potential and achievable potential results of  
8 the model represent a statistical construct of the expected aggregated  
9 demand (MW) and energy (GWh) impacts.

10  
11 For DSM Plan development, which will take place within 90 days of the  
12 goals being set by the Commission, FPL will utilize the measures identified  
13 by the Collaborative with “unadjusted” demand and energy impacts and  
14 which pass the cost-effectiveness screening for E-RIM and E-TRC. The  
15 passing E-RIM and E-TRC portfolios will then be analyzed utilizing FPL’s  
16 linear programming model and other models to develop revised  
17 corresponding portfolios.

18  
19 The primary difference between the two methodologies revolves around  
20 the effect that the stacking order has on the individual measure’s energy  
21 reduction, demand reduction and ultimately cost-effectiveness for the  
22 participant and all customers. As was described in the technical potential  
23 section of my testimony, in the goals development methodology all

1 measures were ranked by relative cost-effectiveness and each subsequent  
2 measure was allocated a prorated opportunity at demand and energy  
3 savings. This methodology results in a reduced impact for measures ranked  
4 lower on the list. By utilizing each measure's un-stacked values, the cost-  
5 effectiveness calculations will reflect the value of an individual purchase  
6 decision without dilution. This represents the full value of demand and  
7 energy savings to the customer and the system on a single installation basis.

8 **Q. Should the Commission establish incentives to promote both customer-**  
9 **owned and utility-owned energy efficiency and demand-side renewable**  
10 **energy systems?**

11 A. House Bill 7135 encourages the Commission to consider "the need for  
12 incentives to promote both customer-owned and utility owned energy  
13 efficiency and demand-side renewable energy systems". Appropriate  
14 consideration of incentives, based on the goals that are established in this  
15 proceeding, could occur in the plan phase of this docket or otherwise in a  
16 subsequent proceeding.

17 **Q. What cost-effectiveness test or tests should the Commission use to set**  
18 **goals?**

19 A. As developed more fully by FPL witnesses Sim and Dean, DSM goals  
20 should be based only upon measures that pass both the E-RIM and  
21 Participant tests.

1 **Q. Should the Commission establish separate goals for demand-side**  
2 **renewable energy systems?**

3 A. No. the technical potential and achievable potential for demand-side  
4 renewable energy systems are adequately addressed in FPL's proposed  
5 goals.

6 **Q. Should the Commission establish additional goals for efficiency**  
7 **improvements in generation, transmission, and distribution?**

8 A. Not in this proceeding. If such additional goals are desired, they should be  
9 considered in a subsequent proceeding.

10 **Q. Should the Commission establish separate goals for residential and**  
11 **commercial/industrial customer participation in utility energy audit**  
12 **programs?**

13 A. FPL does not believe that such goals are necessary, but FPL would not  
14 oppose reasonably achievable energy audit goals.

15 **Q. Which DSM measures passed the various levels of economic screening**  
16 **and were used in FPL's proposed DSM goals?**

17 A. This is shown on Exhibit JRH-18.

18

19 **IX. CONCLUSIONS**

20

21 **Q. What conclusions do you draw regarding FPL's proposed DSM goals?**

22 A. FPL went beyond the requirements of FEECA and participated in a  
23 Collaborative. The Collaborative used a reputable consultant, Itron, with

1 prior experience in an attempt to provide consistency in methodology, data  
2 collection and assumptions. The consultant developed DSM technical and  
3 achievable potential estimates using a sound analytical process. FPL  
4 assessed its full technical DSM potential in developing its DSM goals. FPL  
5 appropriately integrated its DSM achievable potential into its planning  
6 process to develop its proposed goals.

7  
8 FPL's proposed DSM goals are customer sensitive in that (a) they employ a  
9 two-year minimum payback, (b) they avoid asking customers to acquire  
10 more DSM resources than are needed to meet FPL's planning needs, and  
11 (c) they are E-RIM and Participant tests based. FPL's proposed goals  
12 represent FPL's reasonably achievable, cost-effective DSM potential during  
13 the period 2010 through 2019.

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

15 **A. Yes, it does.**

<b>FPL is #1 in cumulative demand reduction (MW) from DSM, defined as energy efficiency and load management combined</b>		
<b>Rank</b>	<b>Utility</b>	<b>Cumulative Demand Reduction (MW)</b>
1	<b>Florida Power &amp; Light</b>	<b>3,595</b>
2	Southern California Edison	3,401
3	Pacific Gas & Electric	2,517
4	Northern States Power	1,977
5	Progress Energy Florida	1,802
6	Alabama Power	1,478
7	Wisconsin Electric Power	1,154
8	Commonwealth Edison	1,134
9	Progress Energy Carolinas	949
10	Duke Energy	675

<b>If FPL's cumulative demand reduction from DSM were a "virtual utility," it would be Florida's 3rd largest utility</b>		
<b>Rank</b>	<b>Utility</b>	<b>Summer Peak MW</b>
1	Florida Power & Light	21,962
2	Progress Energy Florida	10,355
3	<b>FPL Cumulative DSM (Generator Equivalent)</b>	<b>4,724<sup>1</sup></b>
4	Tampa Electric (TECO)	4,123
5	Seminole Electric Co-Op	3,793
6	JEA	2,897
7	Gulf Power	2,634
8	Orlando Utilities Commission	1,085
9	Withlacoochee River Electric Co-Op	879
10	Lee County Electric Co-Op	774

<b>FPL is #1 in cumulative demand reduction (MW) from energy efficiency</b>		
<b>Rank</b>	<b>Utility</b>	<b>Summer Peak MW</b>
1	<b>Florida Power &amp; Light</b>	<b>2,077</b>
2	Southern California Edison	1,802
3	Pacific Gas & Electric	1,480
4	Northern States Power	1,054
5	Wisconsin Electric Power	674
6	Progress Energy Florida	652
7	Progress Energy Carolinas	630
8	Tennessee Valley Authority (TVA)	493
9	Connecticut Light & Power	469
10	PacifiCorp	393

<sup>1</sup> After accounting for 9.5% line loss and 20% reserve margin factors.

**FPL is #2 in cumulative demand reduction  
(MW) from load management**

Rank	Utility	Cumulative Load Management MW
1	Southern California Edison	1,599
<b>2</b>	<b>Florida Power &amp; Light</b>	<b>1,518</b>
3	Alabama Power	1,425
4	Progress Energy Florida	1,150
5	Commonwealth Edison	1,134
6	Pacific Gas & Electric	1,037
7	Northern States Power	923
8	Nebraska Public Power District	814
9	Duke Energy	675
10	Arkansas Electric Co-Op	567

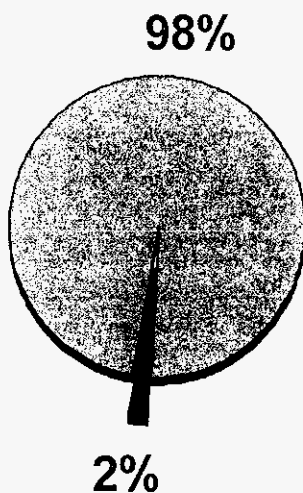
**FPL is #4 in cumulative energy reduction  
(MWh) from energy efficiency**

Rank	Utility	Cumulative Energy Efficiency MWh
1	Southern California Edison	9,613,063
2	Pacific Gas & Electric	8,523,069
3	Northern States Power	4,298,362
<b>4</b>	<b>Florida Power &amp; Light</b>	<b>3,975,851</b>
5	Connecticut Light & Power	2,424,378
6	Massachusetts Electric	2,246,977
7	PacifiCorp	2,073,555
8	Puget Sound Energy	1,943,716
9	Potomac Electric Power	1,789,608
10	Interstate Power and Light	1,405,042

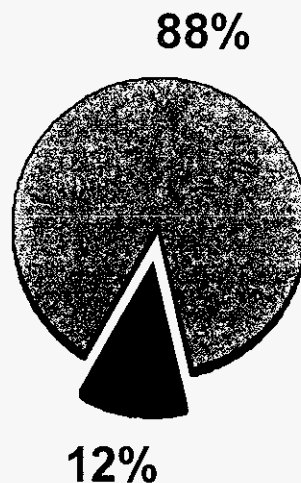
## FPL's Contribution to National DSM

*FPL contributes more than its proportionate share of DSM relative to peak demand*

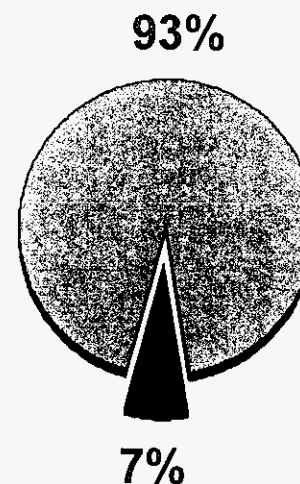
U.S. Peak Demand



U.S. Energy Efficiency



U.S. Load Management



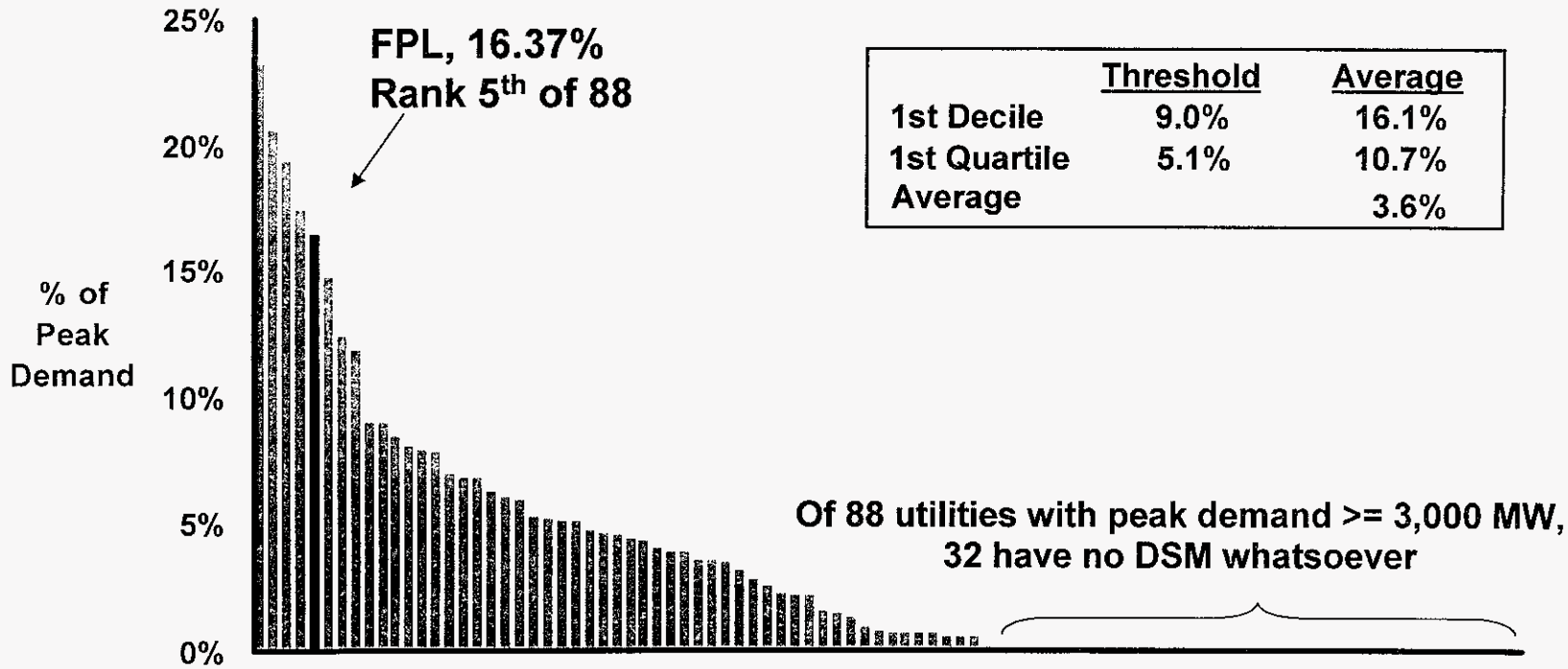
■ FPL    ■ Remaining U.S.

Docket No. 080407 - EG  
FPL's Contribution to National  
DSM, DOE/EIA 2007 Data  
Exhibit JRH-2, Page 1 of 1



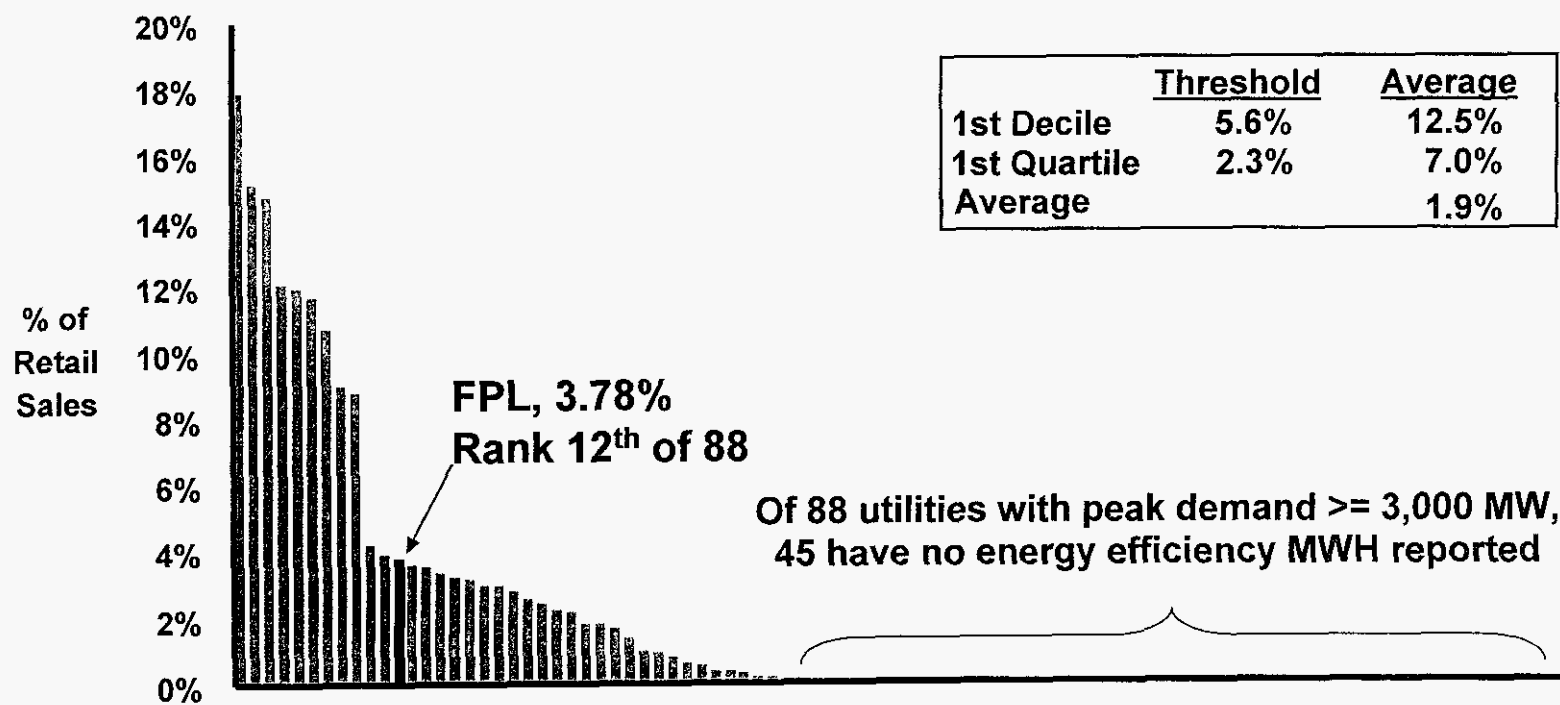
# FPL's DSM Performance Among Large Utilities

## *Comparison of DSM as a Percentage of Peak Demand*



## FPL's DSM Performance Among Large Utilities

*A Comparison of Energy Efficiency as Percentage of Retail Sales*



FPL's Current DSM Programs	
1	<b>Residential Conservation Service</b> An energy audit program designed to assist residential customers in making their homes more energy efficient through the installation of conservation measures and the implementation of conservation practices.
2	<b>Residential Building Envelope Program</b> A program designed to encourage qualified customers to install energy-efficient building envelope measures that cost-effectively reduce FPL's coincident peak air conditioning load and customer energy consumption.
3	<b>Residential Load Management Program ("On Call")</b> A program designed to offer voluntary load control to residential customers.
4	<b>Duct System Testing and Repair Program</b> A program designed to identify air conditioning duct system leaks and have qualified contractors repair those leaks.
5	<b>Residential Air Conditioning Program</b> A program designed to provide financial incentives for residential customers to purchase a more efficient unit when replacing an existing air conditioning system.
6	<b>BuildSmart Program</b> The objective of this program is to encourage the design and construction of energy-efficient homes that cost effectively reduces FPL's coincident peak load and customer energy consumption.
7	<b>Low-Income Weatherization Program</b> This program employed a combination of energy audits and incentives to encourage Low-Income housing administrators to perform tune-ups of Heating and Ventilation Air Conditioning (HVAC) systems and install reduced air infiltration energy efficiency measures.
8	<b>Business On Call Program</b> This program is designed to offer voluntary load control of central air conditioning to GS and GSD customers.
9	<b>Cogeneration and Small Power Production</b> A program intended to facilitate the installation of cogeneration and small power production facilities.
10	<b>Business Efficient Lighting</b> A program designed to encourage the installation of energy efficient lighting measures in business facilities.
11	<b>Commercial / Industrial Load Control</b> A program designed to reduce coincident peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand or capacity shortages.
12	<b>Commercial Demand Reduction</b> A program designed to reduce coincident peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand or capacity shortages.
13	<b>Business Energy Evaluation</b> This program is designed to provide evaluations of business customers' existing and proposed facilities and encourage energy efficiency by identifying DSM opportunities and providing recommendations to the customer.
14	<b>Business Heating, Ventilating and Air Conditioning Program</b> A program designed to reduce the current and future growth of coincident peak demand and energy consumption of business customers by increasing the use of high efficiency heating, ventilating and air conditioning (HVAC) systems.

FPL's Current DSM Programs	
15	<p><b>Business Custom Incentive</b></p> <p>A program designed to assist FPL's business customers to achieve electric demand and energy savings that are cost-effective to all FPL customers. FPL will provide incentives to qualifying customers who purchase, install and successfully operate cost-effective energy efficiency measures not covered by other FPL programs.</p>
16	<p><b>Business Building Envelope Program</b></p> <p>A program designed to encourage eligible business customers to increase the efficiency of the qualifying portion of their building's envelope, in order to reduce HVAC energy consumption and demand.</p>
17	<p><b>Business Water Heating</b></p> <p>A program designed to encourage eligible business customers to install qualifying Heat Recovery Units (HRU) or Heat Pump Water Heater (HPWH) equipment.</p>
18	<p><b>Business Refrigeration Program</b></p> <p>A program designed to encourage eligible business customers to install energy-saving equipment to reduce or eliminate the use of electric heating elements needed to prevent condensation on display case doors and to defrost freezer doors.</p>
19	<p><b>Conservation Research &amp; Development Program</b></p> <p>A program designed to evaluate emerging conservation technologies to determine which are worthy of further evaluation as candidates for program development.</p>

Source

2008 ECCR True-up, Schedule CT-6

<b>FPL Cumulative 1981 - 2008 Reduction (At the Generator)</b>			
<b>Total Reduction</b>	<b>Summer MW</b>	<b>Winter MW</b>	<b>Energy *GWh</b>
C/I Conservation	799	375	20,558
Residential Conservation	1,576	1,051	25,787
On Call	974	881	198
C/I Load Control	509	509	97
CDR	167	167	5
Business On Call	84	-	0
<b>Total</b>	<b>4,109</b>	<b>2,983</b>	<b>46,646</b>
+20% reserve	4,931		
400 MW plants avoided	12		
150 MW combustion turbines avoided	33		
RCS Surveys	2,578,683		
BEE Surveys	129,158		
<b>Total Energy Surveys</b>	<b>2,707,841</b>		

\*GWh's: Expired measures are excluded from above.

<b>Market Segment Summary</b>			
	<b>Summer MW</b>	<b>Winter MW</b>	<b>Energy *GWh</b>
C/I Conservation	799	375	20,558
C/I Load Control	760	676	103
<b>Total C/I</b>	<b>1,559</b>	<b>1,051</b>	<b>20,661</b>
Residential Conservation	1,576	1,051	25,787
Residential Load Control	974	881	198
<b>Total Residential</b>	<b>2,550</b>	<b>1,932</b>	<b>25,985</b>
<b>Total Residential and C/I</b>	<b>4,109</b>	<b>2,983</b>	<b>46,646</b>

In March 2009, FPL engaged The Futures Company (a Yankelovich Group Company) to develop a profile of its Low-Income customers and to conduct an analysis of the participation level of current Low-Income and all-others in DSM programs. As a baseline, the analysis determined that Low-Income customers represented 20% of FPL's residential customers. The purpose of this analysis was to understand the participation rate of Low-Income customers in FPL's DSM offerings and the participation rate of other customers.

FPL DSM Program	Participation Rate of FPL's Low-Income Customers	Participation Rate of All Other FPL Customers
<b>Residential Building Envelope Program</b>	29%	20%
<b>Residential Duct Repair Program</b>	27%	20%
<b>Residential On Call Program</b>	18%	20%
<b>Residential HVAC Program</b>	9%	20%

For three of its four major program areas, FPL has essentially the same or greater participation for Low-Income customers as it does for other customers. The exception to this trend is for the Residential HVAC program, which is most likely explained by two factors: (i) Low-Income customers are less likely to own their residences and more likely to be renters. (ii) Landlords may not be willing to pay the higher up front cost of efficient HVAC systems beyond the customer incentives. Given these two factors, the 9% participation rate is reasonably successful.

FPL's success in attracting low-income customers to its DSM programs are the result of several outreach initiatives, often in cooperation with organizations like The Salvation Army, the Governor's Front Porch Florida Initiative, Habitat for Humanity and the Association of Community Organizations for Reform Now (ACORN). FPL's initiatives include:

<b>FPL Low-Income Initiatives</b>	
<b>Targeting DSM Programs to Rental Properties</b>	Because low-income customers are more likely to be renters, FPL's efforts to target and encourage landlords and property managers to make apartment complexes more efficient by repair leaking A/C ducts and adding insulation have resulted in many low-income customers benefiting from these programs.
<b>Low-Income Weatherization Program</b>	Since 2005, this Commission-approved DSM program has provided incentives for the installation of weather-stripping, HVAC maintenance and room A/C replacement to 1,505 customers. It also supports Federal funded Weatherization Assistance Program (WAP) incentive programs for low-income energy efficiency installations for weatherization improvements.
<b>The FPL Low-Income Initiative</b>	Since 2007, FPL ASSIST agencies, including the Salvation Army, have referred 417 customers to FPL's low-income initiative. Referral customers have received pledges for payment assistance, including LIHEAP. Participants receive an energy audit with an emphasis on education and smart energy habits. Half of the participants have been referred by ACORN.
<b>Low-Income Education Seminars</b>	Since 2007, FPL has conducted 18 seminars for 531 low-income customers in Miami-Dade and Broward Counties. Seminar participants receive information on how to take advantage of FPL DSM programs, options for managing utility deposits, sources of payment assistance and four free compact fluorescent (CFL) light bulbs.
<b>FPL BuildSmart for Humanity</b>	Since 2005, the FPL Foundation has funded energy efficiency upgrades to 600 Habitat for Humanity homes. In partnership with local Habitat for Humanity organizations, FPL's Commission approved BuildSmart program certifies the new homes to be at least 10% more energy efficient than required by Florida building code. FPL employees also volunteer to help build these homes, working alongside the future homeowner.
<b>FPL Home Energy Makeover</b>	Since 2006, FPL Home Energy Makeovers have provided free energy efficiency home improvements to 238 low-income households throughout our service territory. Working with local agencies, including the Governor's Front Porch Florida Initiative, FPL employees and participating DSM contractors team-up with local volunteers to perform Energy Makeovers on up to 50 low-income homes in a single day. Participants may receive all Commission approved residential DSM programs as well as additional measures funded by the FPL Foundation, at no charge.

**Residential and Commercial/Industrial**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh 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
2005	36.3	38.8	-6%	92.5	74.0	25%	184.2	121.8	51%
2006	110.8	79.3	40%	219.8	141.7	55%	383.9	216.8	77%
2007	233.5	122.5	91%	384.2	211.9	81%	593.6	306.0	94%
2008	312.7	170.6	83%	519.3	287.2	81%	753.9	401.1	88%
2009		221.5			365.9			501.2	
2010		275.2			447.9			606.1	
2011		330.9			532.1			714.3	
2012		388.5			618.8			825.8	
2013		448.1			707.9			940.5	
2014		512.4			801.7			1,058.6	

The Winter Peak, Summer Peak and Energy Reductions represent the Residential and Commercial/Industrial combined DSM effort.

**Residential**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh 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
2005	21.4	26.0	-18%	49.8	47.8	4%	91.6	90.3	1%
2006	62.5	55.6	12%	118.5	91.9	29%	191.2	166.0	15%
2007	104.3	89.2	17%	171.0	140.6	22%	247.5	246.9	0%
2008	136.1	127.3	7%	238.7	194.6	23%	351.0	333.3	5%
2009		168.0			252.1			424.1	
2010		211.3			313.2			519.5	
2011		256.3			377.1			617.9	
2012		303.3			443.6			719.3	
2013		352.0			512.8			823.7	
2014		405.1			586.9			931.0	

**Commercial/Industrial**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh 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
2005	14.9	12.8	16%	42.7	26.3	62%	92.6	31.5	194%
2006	48.3	23.7	104%	101.3	49.8	103%	192.7	50.8	279%
2007	129.2	33.3	288%	213.2	71.3	199%	348.1	59.1	486%
2008	176.7	43.2	309%	280.6	92.6	203%	402.9	67.8	494%
2009		53.5			113.8			77.0	
2010		63.9			134.6			86.5	
2011		74.4			155.1			96.4	
2012		85.1			175.2			106.5	
2013		96.1			195.1			116.9	
2014		107.3			214.9			127.6	

**FLORIDA POWER & LIGHT COMPANY**  
 Comparison of Achieved kW and kWh Reductions  
 with Annual Target Included in Public Service Commission Approved Goals - November 30, 2004  
 December 31, 2008



**Residential and Commercial/Industrial**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh 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	421.8	300.2	40%	605.0	410.4	47%	964.0	637.7	51%
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	

The Winter Peak, Summer Peak and Energy Reductions represent the Residential and Commercial/Industrial combined DSM effort.

**Residential**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh 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	273.6	230.1	19%	338.9	256.6	32%	526.2	448.9	17%
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	

**Commercial/Industrial**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh 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	148.2	70.1	111%	266.1	153.8	73%	437.8	188.8	132%
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	

**Residential**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh Energy Reduction		
	Cumulative Total	Cumulative Commission Approved	%	Cumulative Total	Cumulative Commission Approved	%	Cumulative Total	Cumulative Commission Approved	%
	Achieved	Goal	Variance	Achieved	Goal	Variance	Achieved	Goal	Variance
1994	101	77	31%	107	88	22%	102	66	55%
1995	191	157	22%	206	181	14%	213	150	42%
1996	285	236	21%	333	272	23%	396	239	65%
1997	411	315	30%	483	362	34%	623	337	85%
1998	502	394	27%	607	455	33%	774	453	71%
1999	608	468	30%	710	543	31%	931	568	64%
2000		542			631			684	
2001		617			719			799	
2002		691			807			914	
2003		765			895			1,030	

**Commercial/Industrial**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh Energy Reduction		
	Cumulative Total	Cumulative Commission Approved	%	Cumulative Total	Cumulative Commission Approved	%	Cumulative Total	Cumulative Commission Approved	%
	Achieved	Goal	Variance	Achieved	Goal	Variance	Achieved	Goal	Variance
1994	17	9	91%	44	23	90%	144	67	114%
1995	100	69	44%	165	111	48%	352	139	154%
1996	156	93	68%	271	167	63%	690	212	225%
1997	174	114	53%	325	223	46%	816	292	179%
1998	206	136	51%	385	285	35%	915	383	139%
1999	208	158	32%	411	353	17%	992	473	110%
2000		180			420			563	
2001		202			487			652	
2002		223			554			742	
2003		245			622			832	

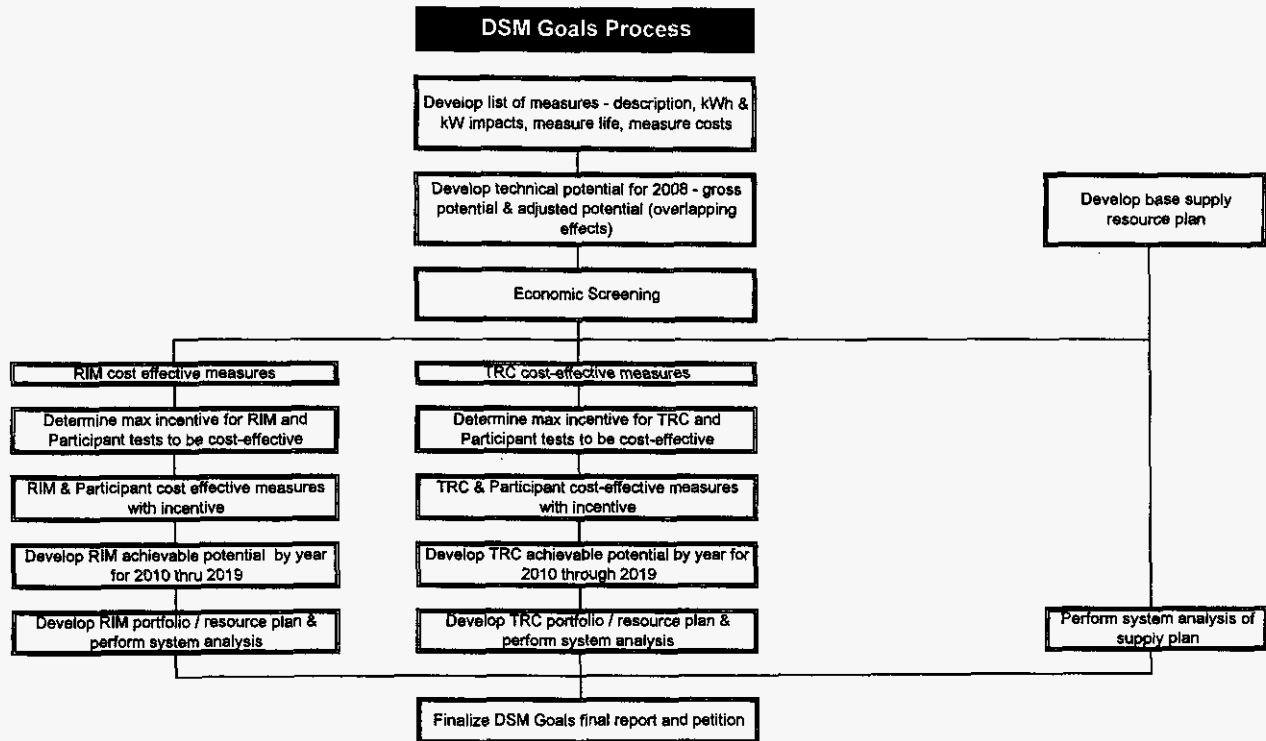
Variance Explanation:

**Residential** - FPL continued to exceed its residential target in 1999 as a result of higher than expected participation and SEER level installs in the Residential Air Conditioning program, resulting in demand and energy savings exceeding the planned weighted average savings.

**Commercial/Industrial** - The commercial/industrial programs variance percentage still continues to reflect an overall overachievement even though the C/I Load Control program kW additions for 1999 were reduced by 29 MWs from the loss of Ameristeel as an FPL customer in January 1999.

**Residential and Commercial/Industrial**

Year	Winter Peak MW Reduction			Summer Peak MW Reduction			GWh Energy Reduction		
	Cumulative Total	Cumulative Commission Approved	%	Cumulative Total	Cumulative Commission Approved	%	Cumulative Total	Cumulative Commission Approved	%
	Achieved	Goal	Variance	Achieved	Goal	Variance	Achieved	Goal	Variance
1994	118	86	37%	151	111	36%	246	133	85%
1995	290	226	28%	371	292	27%	565	289	96%
1996	440	329	34%	605	439	38%	1,085	451	141%
1997	585	429	36%	808	585	38%	1,439	629	129%
1998	708	530	34%	992	740	34%	1,688	836	102%
1999	818	626	30%	1,122	896	25%	1,922	1,041	85%
2000		722			1,051			1,247	
2001		819			1,206			1,451	
2002		914			1,361			1,656	
2003		1,010			1,517			1,862	



## Collaborative Sources Used to Develop the List of Measures

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**Residential Measures**

Measure  
number

**Residential Energy Efficiency**

- 1 14 SEER Split-System Air Conditioner
- 2 15 SEER Split-System Air Conditioner
- 3 17 SEER Split-System Air Conditioner
- 4 19 SEER Split-System Air Conditioner
- 5 14 SEER Split-System Heat Pump
- 6 15 SEER Split-System Heat Pump
- 7 17 SEER Split-System Heat Pump
- 8 13 EER Geothermal Heat Pump
- 9 HVAC Proper Sizing
- 10 Attic Venting
- 11 Sealed Attic w/Sprayed Foam Insulated Roof Deck
- 12 A/C Maintenance (Outdoor Coil Cleaning)
- 13 A/C Maintenance (Indoor Coil Cleaning)
- 14 Proper Refrigerant Charging and Air Flow
- 15 Electronically Commutated Motors (ECM) on an Air Handler Unit
- 16 Duct Repair
- 17 Reflective Roof
- 18 Radiant Barrier
- 19 Window Film
- 20 Window Tinting
- 21 Default Window With Sunscreen
- 22 Single Pane Clear Windows to Double Pane Low-E Windows
- 23 Double Pane Clear Windows to Double Pane Low-E Windows
- 24 Ceiling R-0 to R-19 Insulation
- 25 Ceiling R-19 to R-38 Insulation
- 26 Wall 2x4 R-0 to Blow-In R-13 Insulation
- 27 Weather Strip/Caulk w/Blower Door
- 28 HE Room Air Conditioner - EER 11
- 29 HE Room Air Conditioner - EER 12
- 30 CFL (18-Watt integral ballast)
- 31 Premium T8, Electronic Ballast
- 32 Photocell/timeclock
- 33 HE Refrigerator - Energy Star version of above
- 34 HE Freezer
- 35 Heat Pump Water Heater (EF=2.9)
- 36 HE Water Heater (EF=0.93)
- 37 Solar Water Heat
- 38 A/C Heat Recovery Units
- 39 Low Flow Showerhead
- 40 Pipe Wrap
- 41 Faucet Aerators
- 42 Water Heater Blanket

- 43 Water Heater Temperature Check and Adjustment
- 44 Water Heater Timeclock
- 45 Heat Trap
- 46 Energy Star CW CEE Tier 1 (MEF=1.8)
- 47 Energy Star CW CEE Tier 2 (MEF=2.0)
- 48 Energy Star CW CEE Tier 3 (MEF=2.2)
- 49 High Efficiency CD (EF=3.01 w/moisture sensor)
- 50 Energy Star DW (EF=0.68)
- 51 Two Speed Pool Pump (1.5 hp)
- 52 High Efficiency One Speed Pool Pump (1.5 hp)
- 53 Variable-Speed Pool Pump (<1 hp)
- 54 PV-Powered Pool Pumps
- 55 Energy Star TV
- 56 Energy Star TV
- 57 Energy Star Set-Top Box
- 58 Energy Star DVD Player
- 59 Energy Star VCR
- 60 Energy Star Desktop PC
- 61 Energy Star Laptop PC
  
- Residential Demand Response**
- 62 Switch - Cycling Program
- 63 Switch - Shedding Program
- 64 Smart Thermostats
- 65 In home display with peak threshold warning system and pre-set control strategies
- 66 On-Off Switching via low-power wireless communication technology
  
- Residential Photovoltaic (PV)**
- 67 Rooftop solar PV

**Commercial Measures**

- | Measure number | <b>Commercial Energy Efficiency</b> |
|----------------|-------------------------------------|
| 68             | Premium T8, Electronic Ballast      |
| 69             | Premium T8, EB, Reflector           |
| 70             | Occupancy Sensor                    |
| 71             | Continuous Dimming                  |
| 72             | Lighting Control Tuneup             |
| 73             | CFL Screw-in 18W                    |
| 74             | CFL Hardwired, Modular 18W          |
| 75             | PSMH, 250W, magnetic ballast        |
| 76             | PSMH, 250 W, electronic ballast     |
| 77             | High Bay T5                         |
| 78             | LED Exit Sign                       |
| 79             | High Pressure Sodium 250W Lamp      |

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Detailed List of Measures  
Entering the Technical Potential Step  
Exhibit JRH-12, Page 3 of 7

80	Outdoor Lighting Controls (Photocell/Timeclock)
81	Centrifugal Chiller, 0.51 kW/ton, 500 tons
82	High Efficiency Chiller Motors
83	EMS - Chiller
84	Chiller Tune Up/Diagnostics
85	VSD for Chiller Pumps and Towers
86	EMS Optimization
87	Aerosole Duct Sealing
88	Duct/Pipe Insulation
89	Window Film (Standard)
90	Ceiling Insulation
91	Roof Insulation
92	Cool Roof
93	Thermal Energy Storage (TES)
94	DX Packaged System, EER=10.9, 10 tons
95	Hybrid Dessicant-DX System (Trane CDQ)
96	Geothermal Heat Pump, EER=13, 10 tons
97	DX Tune Up/ Advanced Diagnostics
98	DX Coil Cleaning
99	Optimize Controls
100	Packaged HP System, EER=10.9, 10 tons
101	Geothermal Heat Pump, EER=13, 10 tons
102	HE PTAC, EER=9.6, 1 ton
103	Occupancy Sensor (hotels)
104	High Efficiency Fan Motor, 15hp, 1800rpm, 92.4%
105	Variable Speed Drive Control
106	Air Handler Optimization
107	Electronically Commutated Motors (ECM) on an Air Handler Unit
108	Demand Control Ventilation (DCV)
109	Energy Recovery Ventilation (ERV)
110	Separate Makeup Air / Exhaust Hoods AC
111	High-efficiency fan motors
112	Strip curtains for walk-ins
113	Night covers for display cases
114	Evaporator fan controller for MT walk-ins
115	Efficient compressor motor
116	Compressor VSD retrofit
117	Floating head pressure controls
118	Refrigeration Commissioning
119	Demand Hot Gas Defrost
120	Demand Defrost Electric
121	Anti-sweat (humidistat) controls
122	High R-Value Glass Doors
123	Multiplex Compressor System
124	Oversized Air Cooled Condenser
125	Freezer-Cooler Replacement Gaskets
126	LED Display Lighting

- 127 High Efficiency Water Heater (electric)
- 128 Heat Pump Water Heater (air source)
- 129 Solar Water Heater
- 130 Demand controlled circulating systems
- 131 Heat Recovery Unit
- 132 Heat Trap
- 133 Hot Water Pipe Insulation
- 134 PC Manual Power Management Enabling
- 135 PC Network Power Management Enabling
- 136 Energy Star or Better CRT Monitor
- 137 CRT Monitor Power Management Enabling
- 138 Energy Star or Better LCD Monitor
- 139 LCD Monitor Power Management Enabling
- 140 Energy Star or Better Copier
- 141 Copier Power Management Enabling
- 142 Printer Power Management Enabling
- 143 Convection Oven
- 144 Efficient Fryer
- 145 Vending Misers (cooled machines only)

#### Industrial Measures

##### Industrial Energy Efficiency

- 146 Compressed Air-O&M
- 147 Compressed Air - Controls
- 148 Compressed Air - System Optimization
- 149 Compressed Air- Sizing
- 150 Comp Air - Replace 1-5 HP motor
- 151 Comp Air - ASD (1-5 hp)
- 152 Comp Air - Motor practices-1 (1-5 HP)
- 153 Comp Air - Replace 6-100 HP motor
- 154 Comp Air - ASD (6-100 hp)
- 155 Comp Air - Motor practices-1 (6-100 HP)
- 156 Comp Air - Replace 100+ HP motor
- 157 Comp Air - ASD (100+ hp)
- 158 Comp Air - Motor practices-1 (100+ HP)
- 159 Power recovery
- 160 Refinery Controls
- 161 Fans - O&M
- 162 Fans - Controls
- 163 Fans - System Optimization
- 164 Fans- Improve components
- 165 Fans - Replace 1-5 HP motor
- 166 Fans - ASD (1-5 hp)
- 167 Fans - Motor practices-1 (1-5 HP)
- 168 Fans - Replace 6-100 HP motor
- 169 Fans - ASD (6-100 hp)

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Detailed List of Measures  
Entering the Technical Potential Step  
Exhibit JRH-12, Page 5 of 7

170	Fans - Motor practices-1 (6-100 HP)
171	Fans - Replace 100+ HP motor
172	Fans - ASD (100+ hp)
173	Fans - Motor practices-1 (100+ HP)
174	Optimize drying process
175	Pumps - O&M
176	Pumps - Controls
177	Pumps - System Optimization
178	Pumps - Sizing
179	Pumps - Replace 1-5 HP motor
180	Pumps - ASD (1-5 hp)
181	Pumps - Motor practices-1 (1-5 HP)
182	Pumps - Replace 6-100 HP motor
183	Pumps - ASD (6-100 hp)
184	Pumps - Motor practices-1 (6-100 HP)
185	Pumps - Replace 100+ HP motor
186	Pumps - ASD (100+ hp)
187	Pumps - Motor practices-1 (100+ HP)
188	Low Pressure Nozzle
189	Micro Watering System
190	Pump Retrofit - Irrigation
191	Bakery - Process (Mixing) - O&M
192	O&M/drives spinning machines
193	Air conveying systems
194	Replace V-Belts
195	Drives - EE motor
196	Gap Forming papermachine
197	High Consistency forming
198	Optimization control PM
199	Efficient practices printing press
200	Efficient Printing press (fewer cylinders)
201	Light cylinders
202	Efficient drives
203	Clean Room - Controls
204	Clean Room - New Designs
205	Drives - Process Controls (batch + site)
206	Process Drives - ASD
207	O&M - Extruders/Injection Moulding
208	Extruders/injection Moulding-multipump
209	Direct drive Extruders
210	Injection Moulding - Impulse Cooling
211	Injection Moulding - Direct drive
212	Efficient grinding
213	Process control
214	Process optimization
215	Drives - Process Control
216	Efficient drives - rolling



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Detailed List of Measures  
Entering the Technical Potential Step  
Exhibit JRH-12, Page 6 of 7

217	Drives - Optimization process (M&T)
218	Drives - Scheduling
219	Machinery
220	Efficient Machinery
221	Bakery - Process
222	Drying (UV/IR)
223	Heat Pumps - Drying
224	Top-heating (glass)
225	Efficient electric melting
226	Intelligent extruder (DOE)
227	Near Net Shape Casting
228	Heating - Process Control
229	Efficient Curing ovens
230	Heating - Optimization process (M&T)
231	Heating - Scheduling
232	Efficient Refrigeration - Operations
233	Optimization Refrigeration
234	Other Process Controls (batch + site)
235	Efficient desalter
236	New transformers welding
237	Efficient processes (welding, etc.)
238	Process control
239	Centrifugal Chiller, 0.51 kW/ton, 500 tons
240	High Efficiency Chiller Motors
241	EMS - Chiller
242	Chiller Tune Up/Diagnostics
243	VSD for Chiller Pumps and Towers
244	EMS Optimization - Chiller
245	Aerosole Duct Sealing - Chiller
246	Duct/Pipe Insulation - Chiller
247	Window Film (Standard) - Chiller
248	Roof Insulation - Chiller
249	Cool Roof - Chiller
250	Thermal Energy Storage (TES) - Chiller
251	DX Packaged System, EER=10.9, 10 tons
252	Hybrid Dessicant-DX System (Trane CDQ)
253	Geothermal Heat Pump, EER=13, 10 tons
254	DX Tune Up/ Advanced Diagnostics
255	DX Coil Cleaning
256	Optimize Controls
257	Premium T8, Electronic Ballast
258	CFL Hardwired, Modular 18W
259	CFL Screw-in 18W
260	High Bay T5
261	Occupancy Sensor
262	Replace V-belts
263	Membranes for wastewater

**Commercial/Industrial Demand Response**

- 264 Automated control strategies
- 265 Direct load control system

**Commercial Photovoltaic (PV)**

- 266 Rooftop solar PV
- 267 PV Mounted on Commercial Parking Lot Shade Structures

Comparison of Recent Technical Potential Results (Electric, Energy Efficiency)									
Study	FPL	Florida FECCA Utilities	Rhode Island	Georgia Power	Vermont	North Carolina	Oregon	California	Average
Year conducted	2009	2009	2008	2007	2007	2006	2003	2003	
Fuel	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric	
Residential	38%	39%	34.0%	33%	40%	40%	28%	-	
Commercial	31%	31%	27.0%	33%	40%	32%	32%	-	
Industrial	18%	18%	14.0%	26%	21%	22%	25%	-	
<b>Total Technical Potential</b>	<b>34%</b>	<b>34%</b>	<b>30%</b>	<b>31%</b>	<b>38%</b>	<b>33%</b>	<b>31%</b>	<b>18%</b>	<b>31%</b>
Consultant	Itron, KEMA	Itron, KEMA	KEMA	Nexant	GDS	GDS	Ecotope, ACEEE	ACEEE	

**Estimates of FPL Total Achievable Potential <sup>1</sup>  
 2010 to 2019 (at the Meter)**

<b>Residential Summer MW</b>	<b>RIM</b>	<b>TRC</b>	<b>Detailed on</b>
2-year payback	296.2	474.0	JRH-14, page 2
2-year payback, 50% <sup>2</sup>	244.2	248.6	JRH-14, page 2
2-year payback, 33% <sup>3</sup>	205.3	209.4	JRH-14, page 2
<b>Residential Winter MW</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	198.3	356.0	JRH-14, page 2
2-year payback, 50%	154.4	158.6	JRH-14, page 2
2-year payback, 33%	132.8	138.0	JRH-14, page 2
<b>Residential GWh</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	354.6	790.3	JRH-14, page 2
2-year payback, 50%	258.7	330.3	JRH-14, page 2
2-year payback, 33%	183.2	241.7	JRH-14, page 2
<b>C/I Summer MW</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	591.4	598.7	JRH-14, page 3
2-year payback, 50%	272.3	288.9	JRH-14, page 3
2-year payback, 33%	240.7	245.7	JRH-14, page 3
<b>C/I Winter MW</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	146.2	126.3	JRH-14, page 3
2-year payback, 50%	87.2	84.0	JRH-14, page 3
2-year payback, 33%	78.7	76.1	JRH-14, page 3
<b>C/I GWh</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	1,345.6	1,386.7	JRH-14, page 3
2-year payback, 50%	525.7	623.2	JRH-14, page 3
2-year payback, 33%	370.3	393.5	JRH-14, page 3
<b>Total Summer MW</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	887.6	1,072.7	
2-year payback, 50%	516.5	537.4	
2-year payback, 33%	446.0	455.0	
<b>Total Winter MW</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	344.5	482.3	
2-year payback, 50%	241.7	242.6	
2-year payback, 33%	211.5	214.1	
<b>Total GWh</b>			
	<b>RIM</b>	<b>TRC</b>	
2-year payback	1,700.3	2,177.0	
2-year payback, 50%	784.4	953.4	
2-year payback, 33%	553.5	635.2	

<sup>1</sup> Achievable Potential numbers shown above for FPL were not utilized in FPL's analysis. FPL used the maximum annual potential sign-up values from Itron, which are higher than the Achievable Potential values shown above.

<sup>2</sup> Notation used throughout the exhibit refers to an incentive established at the lesser of a minimum of 2-year payback or 50% of the incremental cost of the measure.

<sup>3</sup> Notation used throughout the exhibit refers to an incentive established at the lesser of a minimum of 2-year payback or 33% of the incremental cost of the measure.

**Estimates of FPL's Total Achievable Potential 2010 to 2019 (at the Generator)**

**Residential - Existing**

	GWh					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	5.70	8.06	11.02	7.16	9.74	27.09
2011	16.52	23.35	31.95	20.65	28.13	79.25
2012	32.03	45.31	61.96	39.91	54.50	153.96
2013	51.82	73.34	100.12	64.40	88.11	247.53
2014	75.39	106.52	145.11	93.55	128.14	354.31
2015	99.27	140.05	189.97	124.06	169.78	453.78
2016	121.69	171.56	231.73	152.94	209.35	542.95
2017	142.73	201.17	270.57	180.24	246.93	622.68
2018	162.45	228.95	306.66	206.04	282.60	693.83
2019	180.93	255.00	340.14	230.41	316.45	757.21

	Summer MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	14.68	15.89	17.50	14.75	15.88	24.53
2011	31.70	35.20	39.90	31.88	35.16	60.64
2012	50.87	57.68	66.77	51.17	57.57	107.12
2013	72.01	83.05	97.66	72.40	82.82	162.19
2014	94.89	110.91	131.97	95.37	110.60	223.10
2015	117.98	139.00	166.25	118.95	139.17	280.22
2016	140.41	166.14	198.98	141.89	166.90	332.30
2017	162.21	192.37	230.26	164.22	193.82	379.76
2018	183.41	217.73	260.18	185.97	219.97	423.02
2019	204.04	242.28	288.80	207.16	245.39	462.51

	Winter MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	11.59	12.24	13.67	11.70	12.28	20.43
2011	23.79	25.71	29.85	24.12	25.80	49.81
2012	36.57	40.32	48.33	37.20	40.50	87.08
2013	49.90	55.99	68.83	50.90	56.27	130.52
2014	63.73	72.61	91.07	65.15	73.04	177.79
2015	77.80	89.55	113.43	79.77	90.37	220.73
2016	91.71	106.14	134.86	94.22	107.42	258.86
2017	105.47	122.40	155.43	108.52	124.19	292.62
2018	119.08	138.34	175.20	122.68	140.70	322.43
2019	132.56	153.98	194.21	136.68	156.95	348.72

**Residential - New**

	GWh					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	0.17	0.26	0.88	0.74	0.90	1.97
2011	0.44	0.67	2.29	1.90	2.31	5.12
2012	0.72	1.10	3.88	3.18	3.88	8.70
2013	0.91	1.41	5.02	4.09	4.99	11.30
2014	1.10	1.71	6.21	5.02	6.13	14.00
2015	1.31	2.04	7.53	6.04	7.38	17.02
2016	1.54	2.42	9.13	7.27	8.88	20.70
2017	1.79	2.83	10.87	8.58	10.50	24.71
2018	2.07	3.30	12.92	10.11	12.38	29.44
2019	2.28	3.65	14.48	11.26	13.80	33.07

	Summer MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	0.09	0.14	0.45	0.15	0.21	0.67
2011	0.23	0.35	1.16	0.39	0.55	1.75
2012	0.38	0.58	1.97	0.65	0.91	2.99
2013	0.48	0.74	2.55	0.83	1.17	3.89
2014	0.58	0.90	3.16	1.02	1.43	4.82
2015	0.69	1.08	3.83	1.22	1.71	5.88
2016	0.82	1.28	4.65	1.46	2.05	7.17
2017	0.95	1.50	5.54	1.71	2.42	8.58
2018	1.10	1.74	6.58	2.01	2.84	10.24
2019	1.21	1.93	7.38	2.23	3.16	11.52

	Winter MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	0.01	0.03	0.24	0.09	0.11	0.42
2011	0.04	0.08	0.63	0.22	0.28	1.09
2012	0.06	0.13	1.06	0.37	0.47	1.86
2013	0.08	0.17	1.38	0.48	0.60	2.43
2014	0.09	0.20	1.71	0.59	0.74	3.02
2015	0.11	0.24	2.08	0.71	0.89	3.68
2016	0.13	0.29	2.54	0.86	1.07	4.50
2017	0.15	0.33	3.03	1.01	1.26	5.39
2018	0.17	0.39	3.61	1.19	1.48	6.44
2019	0.19	0.43	4.06	1.33	1.65	7.26

**Estimates of FPL's Total Achievable Potential 2010 to 2019 (at the Generator)**

**Commercial - Existing**

	GWh					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	16.49	25.94	138.14	15.52	24.39	82.47
2011	43.44	68.19	357.76	41.56	65.27	227.88
2012	77.29	120.94	596.97	75.04	117.91	413.16
2013	114.90	178.96	806.78	113.15	177.79	610.57
2014	154.18	238.92	966.67	153.90	241.79	796.07
2015	193.72	298.41	1080.23	195.86	307.44	954.40
2016	232.74	356.19	1158.83	238.01	373.05	1077.56
2017	270.68	412.07	1216.16	279.73	438.31	1169.83
2018	307.72	465.25	1262.16	321.19	502.26	1241.49
2019	343.44	515.34	1300.86	361.90	564.15	1297.37

	Summer MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	20.42	21.99	59.92	20.38	21.79	42.33
2011	42.26	46.44	145.59	42.23	46.07	104.21
2012	65.16	72.71	238.69	65.24	72.34	179.44
2013	88.80	100.18	324.03	89.12	100.07	259.90
2014	112.93	128.38	394.43	113.62	128.84	337.79
2015	137.33	156.95	449.91	138.53	158.28	407.74
2016	161.91	185.64	492.94	163.71	188.14	465.90
2017	186.54	214.26	527.28	189.06	218.20	512.56
2018	211.17	242.64	556.60	214.50	248.26	551.37
2019	235.70	270.68	582.68	239.92	278.17	583.89

	Winter MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	6.80	7.20	11.93	6.66	6.92	8.05
2011	14.09	15.16	27.76	13.73	14.45	17.81
2012	21.75	23.66	45.66	21.11	22.43	29.23
2013	29.66	32.52	63.98	28.70	30.73	42.17
2014	37.72	41.59	81.55	36.44	39.26	56.32
2015	45.87	50.75	97.74	44.26	47.93	71.19
2016	54.04	59.91	112.07	52.11	56.67	85.92
2017	62.20	69.04	124.53	59.96	65.46	99.70
2018	70.32	78.08	135.65	67.81	74.25	112.50
2019	78.39	86.99	145.76	75.63	83.01	124.14

**Commercial - New**

	GWh					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	0.92	0.53	1.30	1.09	1.67	2.25
2011	2.36	1.26	3.46	2.77	4.46	6.21
2012	4.41	2.20	6.68	5.18	8.67	12.38
2013	6.09	2.91	9.39	7.16	12.23	17.68
2014	8.72	3.96	13.73	10.25	17.94	26.28
2015	11.45	4.99	18.29	13.46	23.95	35.42
2016	14.68	6.17	23.77	17.26	31.18	46.48
2017	18.29	7.45	29.93	21.50	39.33	58.99
2018	22.63	8.94	37.39	26.61	49.21	74.22
2019	26.90	10.37	44.78	31.63	59.00	89.37

	Summer MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	0.17	0.09	0.25	0.20	0.30	0.38
2011	0.44	0.21	0.66	0.50	0.81	1.04
2012	0.82	0.37	1.29	0.94	1.57	2.06
2013	1.13	0.48	1.81	1.29	2.21	2.94
2014	1.62	0.65	2.65	1.85	3.25	4.37
2015	2.13	0.82	3.54	2.43	4.34	5.87
2016	2.73	1.00	4.60	3.12	5.66	7.70
2017	3.40	1.20	5.80	3.89	7.14	9.76
2018	4.21	1.43	7.25	4.82	8.93	12.27
2019	5.01	1.65	8.69	5.73	10.71	14.76

	Winter MW					
	RIM L	RIM M	RIM H	TRCL	TRCM	TRCH
2010	0.01	0.01	0.01	0.02	0.03	0.05
2011	0.03	0.02	0.04	0.05	0.07	0.14
2012	0.06	0.04	0.07	0.08	0.14	0.29
2013	0.08	0.06	0.10	0.12	0.20	0.42
2014	0.11	0.08	0.14	0.17	0.29	0.62
2015	0.15	0.11	0.18	0.22	0.39	0.84
2016	0.19	0.14	0.24	0.28	0.51	1.11
2017	0.24	0.17	0.30	0.35	0.64	1.42
2018	0.29	0.21	0.37	0.43	0.80	1.79
2019	0.35	0.25	0.44	0.51	0.96	2.16

Summer MW at the Meter						
Year	Residential		Commercial		Total	
	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
2010	26.6	26.6	33.4	33.4	60.0	60.0
2011	26.6	53.2	33.4	66.8	60.0	120.0
2012	26.3	79.5	33.7	100.5	60.0	180.0
2013	26.2	105.7	33.8	134.3	60.0	240.0
2014	26.2	131.9	33.8	168.1	60.0	300.0
2015	26.2	158.1	33.8	201.9	60.0	360.0
2016	26.2	184.3	34.3	236.2	60.5	420.5
2017	26.2	210.5	34.7	270.9	60.9	481.4
2018	26.2	236.7	35.8	306.7	62.0	543.4
2019	26.6	263.3	36.6	343.3	63.2	606.6

Winter MW at the Meter						
Year	Residential		Commercial		Total	
	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
2010	24.6	24.6	8.5	8.5	33.1	33.1
2011	24.6	49.2	8.5	17.0	33.1	66.2
2012	24.7	73.9	8.5	25.5	33.2	99.4
2013	24.7	98.6	8.6	34.1	33.3	132.7
2014	24.7	123.3	8.9	43.0	33.6	166.3
2015	24.7	148.0	9.0	52.0	33.7	200.0
2016	24.7	172.7	9.2	61.2	33.9	233.9
2017	24.7	197.4	9.6	70.8	34.3	268.2
2018	24.7	222.1	10.1	80.9	34.8	303.0
2019	24.6	246.7	10.2	91.1	34.8	337.8

Energy (GWh) at the Meter						
Year	Residential		Commercial		Total	
	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
2010	33.1	33.1	41.0	41.0	74.1	74.1
2011	33.1	66.2	41.4	82.4	74.5	148.6
2012	32.8	99.0	44.2	126.6	76.9	225.5
2013	32.7	131.7	45.3	171.8	78.0	303.5
2014	32.7	164.4	53.9	225.7	86.6	390.1
2015	32.7	197.1	54.6	280.3	87.3	477.4
2016	32.7	229.8	59.8	340.1	92.5	569.9
2017	32.7	262.5	63.3	403.4	96.0	665.9
2018	32.7	295.2	71.2	474.6	103.9	769.8
2019	33.1	328.3	75.4	549.9	108.4	878.2

**TOTAL**

Year	Winter MW		Summer MW		Energy GWh	
	Cumulative Achievable Potential	Cumulative Proposed Goal	Cumulative Achievable Potential	Cumulative Proposed Goal	Cumulative Achievable Potential	Cumulative Proposed Goal
2010	25.9	33.1	78.1	60.0	151.3	74.1
2011	58.3	66.2	187.3	120.0	395.5	148.6
2012	95.1	99.4	308.7	180.0	669.5	225.5
2013	134.3	132.7	426.1	240.0	921.3	303.5
2014	174.5	166.3	532.2	300.0	1,131.7	390.1
2015	213.4	200.0	623.5	360.0	1,296.0	477.4
2016	249.7	233.9	701.2	420.5	1,423.5	569.9
2017	283.3	268.2	768.9	481.4	1,527.5	665.9
2018	314.8	303.0	830.6	543.4	1,619.1	769.8
2019	344.5	337.8	887.6	606.6	1,700.3	878.2

**RESIDENTIAL**

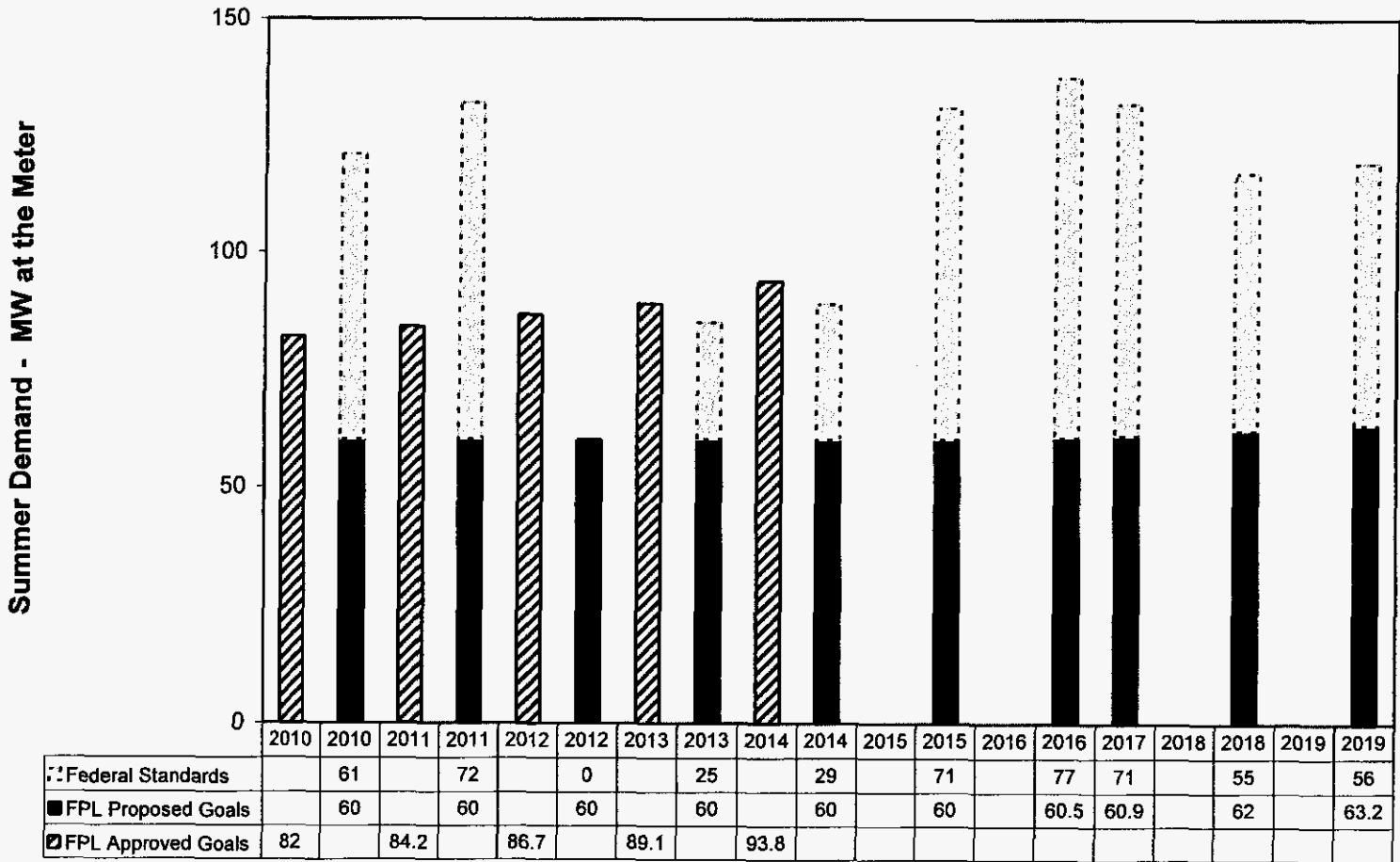
Year	Winter MW		Summer MW		Energy GWh	
	Cumulative Achievable Potential	Cumulative Proposed Goal	Cumulative Achievable Potential	Cumulative Proposed Goal	Cumulative Achievable Potential	Cumulative Proposed Goal
2010	13.9	24.6	18.0	26.6	11.9	33.1
2011	30.5	49.2	41.1	53.2	34.2	66.2
2012	49.4	73.9	68.7	79.5	65.8	99.0
2013	70.2	98.6	100.2	105.7	105.1	131.7
2014	92.8	123.3	135.1	131.9	151.3	164.4
2015	115.5	148.0	170.1	158.1	197.5	197.1
2016	137.4	172.7	203.6	184.3	240.9	229.8
2017	158.5	197.4	235.8	210.5	281.4	262.5
2018	178.8	222.1	266.8	236.7	319.6	295.2
2019	198.3	246.7	296.2	263.3	354.6	328.3

**COMMERCIAL / INDUSTRIAL**

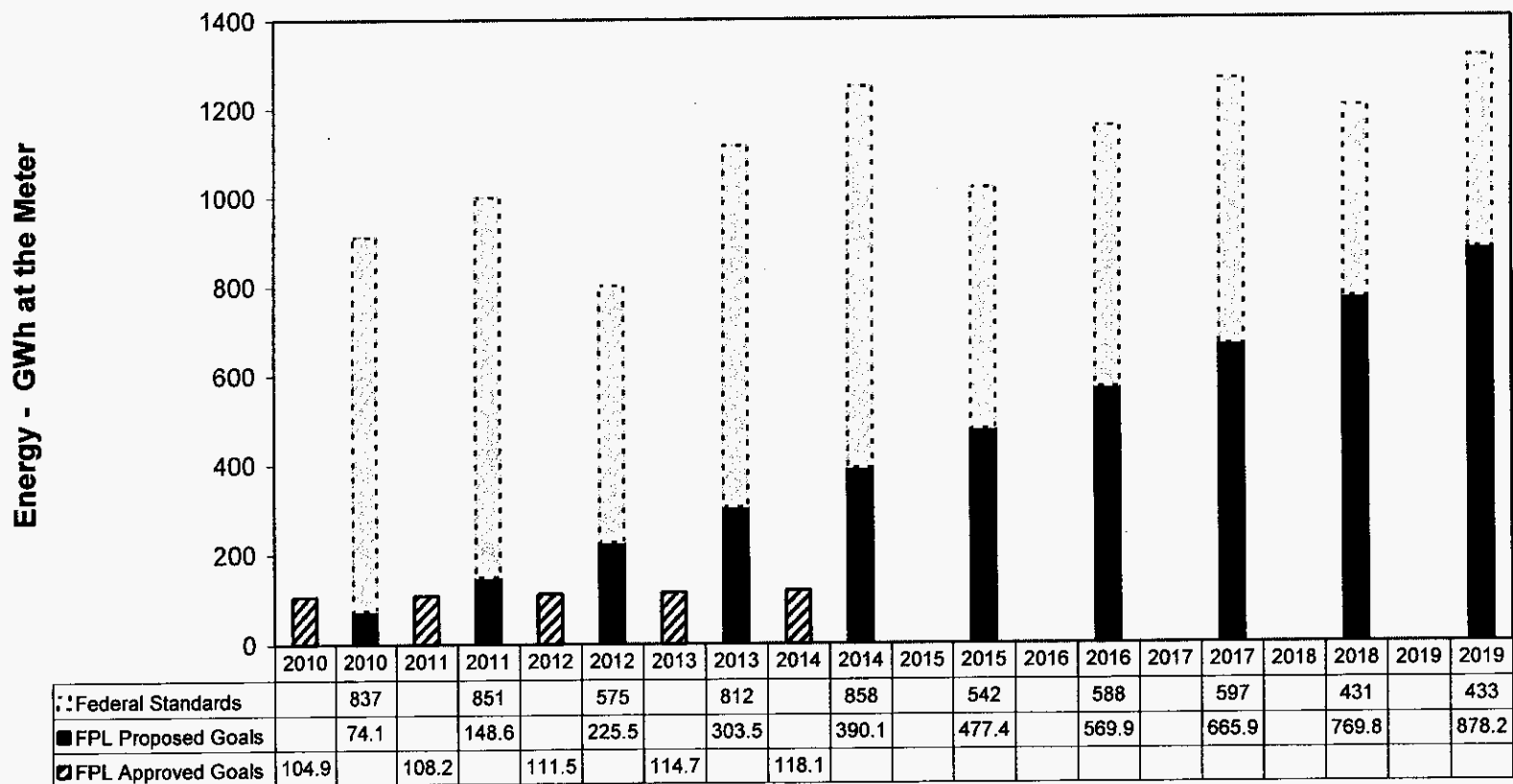
Year	Winter MW		Summer MW		Energy GWh	
	Cumulative Achievable Potential	Cumulative Proposed Goal	Cumulative Achievable Potential	Cumulative Proposed Goal	Cumulative Achievable Potential	Cumulative Proposed Goal
2010	11.9	8.5	60.2	33.4	139.4	41.0
2011	27.8	17.0	146.3	66.8	361.2	82.4
2012	45.7	25.5	240.0	100.5	603.6	126.6
2013	64.1	34.1	325.8	134.3	816.2	171.8
2014	81.7	43.0	397.1	168.1	980.4	225.7
2015	97.9	52.0	453.4	201.9	1,098.5	280.3
2016	112.3	61.2	497.5	236.2	1,182.6	340.1
2017	124.8	70.8	533.1	270.9	1,246.1	403.4
2018	136.0	80.9	563.8	306.7	1,299.6	474.6
2019	146.2	91.1	591.4	343.3	1,345.6	549.9



# Comparison of FPL's Current and Proposed Goals



# Comparison of FPL's Current and Proposed Goals



844 Starting Measures		665 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
1	Premium T8, Electronic Ballast	Y		Y		
2	Premium T8, EB, Reflector	Y		Y		
3	Occupancy Sensor	Y	Y			Y
4	Continuous Dimming	Y				
5	Lighting Control Tune-up	Y		Y		
6	ROB Premium T8, 1EB	Y		Y		
7	ROB Premium T8, EB, Reflector	Y		Y		
8	Occupancy Sensor	Y				
9	Lighting Control Tune-up	Y		Y		
10	CFL Screw-In 18W	Y		Y		
11	CFL Hardwired, Modular 18W	Y		Y		
12	PSMH, 250W, magnetic ballast	Y		Y		
13	High Bay T5	Y		Y		
14	LED Exit Sign	Y	Y	Y	Y	Y
15	High Pressure Sodium 250W Lamp	Y				
16	Outdoor Lighting Controls Merc Vpr (Photocell/Timeclock)	Y		Y		
17	Outdoor Lighting Controls HID (Photocell/Timeclock)	Y	Y		Y	Y
18	Centrifugal Chiller, 0.51 kW/ton, 500 tons	Y	Y	Y	Y	Y
19	GSD-GSLD Gas Chiller	Y		Y		
20	High Efficiency Chiller Motors	Y	Y	Y	Y	Y
21	Chiller - EMS	Y	Y	Y	Y	Y
22	Chiller - Tune Up/Diagnostics	Y	Y	Y	Y	Y
23	Chiller - VSD for Pumps and Towers	Y		Y		
24	Chiller - EMS Optimization	Y	Y	Y	Y	Y
25	Chiller - Aerosole Duct Sealing	Y		Y		
26	Chiller -Duct/Pipe Insulation	Y				
27	Chiller - Window Film (Standard)	Y	Y	Y	Y	Y
28	Chiller - Ceiling Insulation	Y	Y	Y	Y	Y
29	Chiller - Roof Insulation	Y	Y	Y	Y	Y
30	Chiller - Cool Roof	Y				
31	GSD-GSLD Thermal Energy Storage	Y		Y		
32	DX Packaged System, EER=10.9, 10 tons	Y	Y	Y	Y	Y
33	Hybrid Dessicant-DX System (Trane CDQ)	Y		Y	Y	Y
34	Geothermal Heat Pump, EER=13, 10 tons	Y				
35	DX Tune Up/ Advanced Diagnostics	Y	Y	Y	Y	Y
36	DX - Coil Cleaning	Y		Y		
37	DX - Optimize Controls	Y	Y	Y	Y	Y
38	DX - Aerosole Duct Sealing	Y		Y		
39	DX - Duct / Pipe Insulation	Y				
40	DX -Window Film (Standard)	Y	Y	Y	Y	Y
41	DX -Ceiling Insulation	Y	Y	Y	Y	Y
42	DX - Roof Insulation	Y	Y	Y	Y	Y
43	DX - Cool Roof	Y	Y	Y	Y	Y
44	Packaged HP System, EER=10.9, 10 tons	Y				
45	Geothermal Heat Pump, EER=13, 10 tons	Y	Y	Y		Y
46	HP- Aerosole Duct Sealing	Y		Y		
47	HP- Duct/Pipe Insulation	Y				
48	HP-Window Film (Standard)	Y	Y	Y	Y	Y
49	HP-Ceiling Insulation	Y	Y	Y	Y	Y
50	HP-Roof Insulation	Y	Y	Y	Y	Y
51	Cool Roof - DX	Y	Y	Y	Y	Y
52	HE PTAC, EER=9.8, 1 ton	Y	Y	Y	Y	Y
53	Occupancy Sensor (hotels)	Y	Y	Y	Y	Y
54	High Efficiency Fan Motor, 15hp, 1800rpm, 92.4%	Y	Y	Y	Y	Y
55	Variable Speed Drive Control	Y	Y	Y	Y	Y
56	Air Handler Optimization	Y	Y	Y	Y	Y
57	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y	Y	Y	Y	Y
58	Demand Control Ventilation (DCV)	Y				
59	Energy Recovery Ventilation (ERV)	Y				
60	Separate Makeup Air / Exhaust Hoods AC	Y		Y		
61	High-Efficiency Fan Motors	Y	Y	Y	Y	
62	Strip Curtains for Walk-ins	Y				
63	Night Covers for Display Cases	Y		Y		
64	Evaporator Fan Controller for MT Walk-ins	Y	Y		Y	
65	Efficient Compressor Motor	Y		Y		
66	Compressor VSD Retrofit	Y	Y	Y	Y	Y
67	Floating Head Pressure Controls	Y				
68	Refrigeration Commissioning	Y		Y		
69	Demand Hot Gas Defrost	Y		Y		
70	Demand Defrost Electric	Y		Y		
71	Anti-sweat (Humidistat) Controls	Y		Y		
72	High R-Value Glass Doors	Y	Y	Y	Y	Y
73	Multiplex Compressor System	Y				
74	Oversized Air Cooled Condenser	Y	Y	Y	Y	Y
75	Freezer-Cooler Replacement Gaskets	Y		Y		
76	LED Display Lighting	Y				
77	High Efficiency Water Heater (Electric)	Y	Y	Y	Y	Y
78	Heat Pump Water Heater (Air Source)	Y	Y	Y	Y	Y
79	Demand Controlled Circulating Systems	Y				
80	Heat Recovery Unit	Y				
81	Heat Trap	Y		Y		
82	Hot Water Pipe Insulation	Y				
83	PC Manual Power Management Enabling	Y		Y		
84	PC Network Power Management Enabling	Y		Y		
85	Energy Star or Better Monitor	Y		Y		

844 Starting Measures		665 Passing RfM Economic Potential	279 Passing RfM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
86	Monitor Power Management Enabling	Y		Y		
87	Energy Star or Better Monitor	Y		Y		
88	Monitor Power Management Enabling	Y				
89	Energy Star or Better Copier	Y		Y		
90	Copier Power Management Enabling	Y	Y	Y	Y	Y
91	Printer Power Management Enabling	Y		Y		
92	Restaurant - Convection Oven	Y				
93	Restaurant - Efficient Fryer	Y				
94	Vending Misers (Cooled Machines Only)	Y		Y		
95	GSD-GSLD PV	Y				
96	GSD-GSLD Demand Response	Y	Y	Y	Y	Y
97	Premium T8, Electronic Ballast	Y		Y		
98	Premium T8, EB, Reflector	Y		Y		
99	Occupancy Sensor	Y	Y			Y
100	Continuous Dimming	Y				
101	Lighting Control Tune-up	Y		Y		
102	ROB Premium T8, 1EB	Y		Y		
103	ROB Premium T8, EB, Reflector	Y		Y		
104	Occupancy Sensor	Y	Y			Y
105	Lighting Control Tune-up	Y		Y		
106	CFL Screw-in 18W	Y		Y		
107	CFL Hardwired, Modular 18W	Y		Y		
108	PSMH, 250W, Magnetic Ballast	Y		Y		
109	High Bay T5	Y		Y		
110	LED Exit Sign	Y	Y	Y	Y	Y
111	High Pressure Sodium 250W Lamp	Y				
112	Outdoor Lighting Controls Merc Vpr (Photocell/Timedclock)	Y		Y		
113	Outdoor Lighting Controls HID (Photocell/Timedclock)	Y	Y	Y	Y	Y
114	Centrifugal Chiller, 0.51 kW/ton, 500 tons	Y	Y	Y	Y	Y
115	High Efficiency Chiller Motors	Y	Y	Y	Y	Y
116	Chiller - EMS	Y	Y	Y	Y	Y
117	Chiller - Tune-Up/Diagnostics	Y	Y	Y	Y	Y
118	Chiller - VSD for Pumps and Towers	Y		Y		
119	Chiller - EMS Optimization	Y	Y	Y	Y	Y
120	Chiller - Aerosole Duct Sealing	Y		Y		
121	Chiller -Duct/Pipe Insulation	Y		Y		
122	Chiller - Window Film (Standard)	Y	Y	Y		Y
123	Chiller - Ceiling Insulation	Y		Y	Y	Y
124	Chiller - Roof Insulation	Y	Y	Y	Y	Y
125	Chiller - Cool Roof	Y		Y		
126	DX Packaged System, EER=10.9, 10 tons	Y	Y	Y	Y	Y
127	Hybrid Dessicant-DX System (Trane CDQ)	Y		Y	Y	Y
128	Geothermal Heat Pump, EER=13, 10 tons	Y		Y		
129	DX Tune Up/ Advanced Diagnostics	Y	Y	Y	Y	Y
130	DX - Coil Cleaning	Y		Y		
131	DX - Optimize Controls	Y	Y	Y	Y	Y
132	DX - Aerosole Duct Sealing	Y		Y		
133	DX - Duct / Pipe Insulation	Y		Y		
134	DX -Window Film (Standard)	Y	Y	Y	Y	Y
135	DX -Ceiling Insulation	Y	Y	Y	Y	Y
136	DX - Roof Insulation	Y	Y	Y	Y	Y
137	DX - Cool Roof	Y	Y	Y	Y	Y
138	Packaged HP System, EER=10.9, 10 tons	Y		Y		
139	Geothermal Heat Pump, EER=13, 10 tons	Y	Y	Y		Y
140	HP- Aerosole Duct Sealing	Y		Y		
141	HP- Duct/Pipe Insulation	Y		Y		
142	HP-Window Film (Standard)	Y	Y	Y	Y	Y
143	HP-Ceiling Insulation	Y	Y	Y	Y	Y
144	HP-Roof Insulation	Y	Y	Y	Y	Y
145	Cool Roof - DX	Y		Y	Y	Y
146	HE PTAC, EER=9.6, 1 ton	Y	Y	Y	Y	Y
147	Occupancy Sensor (hotels)	Y	Y	Y	Y	Y
148	High Efficiency Fan Motor, 15hp, 1800rpm, 82.4%	Y	Y	Y	Y	Y
149	Variable Speed Drive Control	Y	Y	Y	Y	Y
150	Air Handler Optimization	Y	Y	Y	Y	Y
151	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y	Y	Y	Y	Y
152	Demand Control Ventilation (DCV)	Y				
153	Energy Recovery Ventilation (ERV)	Y				
154	Separate Makeup Air / Exhaust Hoods AC	Y		Y		
155	High-Efficiency Fan Motors	Y	Y	Y	Y	Y
156	Strip Curtains for Walk-ins	Y		Y		
157	Night Covers for Display Cases	Y		Y		
158	Evaporator Fan Controller for MT Walk-ins	Y	Y	Y	Y	Y
159	Efficient Compressor Motor	Y		Y		
160	Compressor VSD retrofit	Y		Y	Y	Y
161	Floating Head Pressure Controls	Y		Y		
162	Refrigeration Commissioning	Y		Y		
163	Demand Hot Gas Defrost	Y		Y		
164	Demand Defrost Electric	Y		Y		
165	Anti-Sweat (Humidistat) Controls	Y		Y		
166	High R-Value Glass Doors	Y	Y	Y	Y	Y
167	Multiplex Compressor System	Y		Y	Y	Y
168	Oversized Air Cooled Condenser	Y	Y	Y	Y	Y
169	Freezer-Cooler Replacement Gaskets	Y		Y		
170	LED Display Lighting	Y	Y	Y		

844 Starting Measures		666 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
171	High Efficiency Water Heater (electric)	Y	Y	Y	Y	Y
172	Heat Pump Water Heater (air source)	Y	Y	Y	Y	Y
173	Demand Controlled Circulating Systems	Y				
174	Heat Recovery Unit	Y				
175	Heat Trap	Y		Y		
176	Hot Water Pipe Insulation	Y				
177	PC Manual Power Management Enabling	Y		Y		
178	PC Network Power Management Enabling	Y		Y		
179	Energy Star or Better Monitor	Y		Y		
180	Monitor Power Management Enabling	Y		Y		
181	Energy Star or Better Monitor	Y		Y		
182	Monitor Power Management Enabling	Y				
183	Energy Star or Better Copier	Y		Y		
184	Copier Power Management Enabling	Y	Y	Y	Y	Y
185	Printer Power Management Enabling	Y		Y		
186	Restaurant - Convection Oven	Y				
187	Restaurant - Efficient Fryer	Y				
188	Vending Meters (cooled machines only)	Y		Y		
189	Premium T8, Electronic Ballast			Y		
190	Premium T8, EB, Reflector			Y		
191	Occupancy Sensor					
192	Continuous Dimming					
193	Lighting Control Tune-up			Y		
194	ROB Premium T8, 1EB			Y		
195	ROB Premium T8, EB, Reflector			Y		
196	Occupancy Sensor					
197	Lighting Control Tune-up			Y		
198	CFL Screw-in 18W			Y		
199	CFL Hardwired, Modular 18W			Y		
200	PSMH, 250W, Magnetic Ballast			Y		
201	High Bay T5			Y		
202	LED Exit Sign			Y		
203	High Pressure Sodium 250W Lamp					
204	Outdoor Lighting Controls Merc Vpr (PhotoCell/TimedClock)			Y		
205	Outdoor Lighting Controls HID (PhotoCell/TimedClock)				Y	
206	Centrifugal Chiller, 0.51 kW/ton, 500 tons	Y		Y		
207	High Efficiency Chiller Motors	Y		Y	Y	
208	Chiller - EMS			Y	Y	
209	Chiller - Tune Up/Diagnostics	Y	Y	Y	Y	Y
210	Chiller - VSD for Pumps and Towers			Y		
211	Chiller - EMS Optimization			Y		
212	Chiller - Aerosole Duct Sealing	Y		Y		
213	Chiller -Duct/Pipe Insulation	Y				
214	Chiller - Window Film (Standard)	Y		Y	Y	
215	Chiller - Ceiling Insulation	Y	Y	Y	Y	Y
216	Chiller - Roof insulation	Y	Y	Y	Y	Y
217	Chiller - Cool Roof	Y				
218	GS Thermal Energy Storage	Y		Y		
219	DX Packaged System, EER=10.8, 10 tons			Y	Y	
220	Hybrid Desiccant-DX System (Trane CDQ)			Y	Y	
221	Geothermal Heat Pump, EER=13, 10 tons					
222	DX Tune Up/ Advanced Diagnostics	Y	Y	Y	Y	Y
223	DX - Coil Cleaning	Y		Y		
224	DX - Optimize Controls			Y		
225	DX - Aerosole Duct Sealing	Y		Y		
226	DX - Duct / Pipe insulation	Y				
227	DX -Window Film (Standard)			Y	Y	
228	DX -Ceiling Insulation	Y	Y	Y	Y	Y
229	DX - Roof Insulation	Y	Y	Y	Y	Y
230	DX - Cool Roof	Y	Y	Y	Y	Y
231	Packaged HP System, EER=10.8, 10 tons	Y				
232	Geothermal Heat Pump, EER=13, 10 tons	Y	Y	Y	Y	Y
233	HP- Aerosole Duct Sealing	Y		Y		
234	HP- Duct/Pipe Insulation	Y				
235	HP-Window Film (Standard)			Y	Y	
236	HP-Ceiling Insulation	Y	Y	Y	Y	Y
237	HP-Roof Insulation	Y	Y	Y	Y	Y
238	Cool Roof - DX	Y	Y	Y	Y	Y
239	HE PTAC, EER=9.6, 1 ton			Y	Y	
240	Occupancy Sensor (hotels)			Y	Y	
241	High Efficiency Fan Motor, 15hp, 1800rpm, 82.4%			Y	Y	
242	Variable Speed Drive Control			Y	Y	
243	Air Handler Optimization			Y	Y	
244	GS Solar Water Heater					
245	Electronically Commutated Motors (ECM) on an Air Handler Unit			Y	Y	
246	Demand Control Ventilation (DCV)	Y				
247	Energy Recovery Ventilation (ERV)	Y				
248	Separate Makeup Air / Exhaust Hoods AC			Y		
249	High-Efficiency Fan Motors			Y	Y	
250	Strip Curtains for Walk-Ins			Y		
251	Night Covers for Display Cases			Y		
252	Evaporator Fan Controller for MT Walk-Ins			Y	Y	
253	Efficient Compressor Motor			Y		
254	Compressor VSD Retrofit			Y	Y	
255	Floating Head Pressure Controls			Y		

844 Starting Measures		665 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
256	Refrigeration Commissioning			Y		
257	Demand Hot Gas Defrost			Y		
258	Demand Defrost Electric			Y		
259	Anti-Sweat (Humidistat) Controls			Y		
260	High R-Value Glass Doors			Y	Y	
261	Multiplex Compressor System			Y	Y	
262	Oversized Air Cooled Condenser			Y	Y	
263	Freezer-Cooler Replacement Gaskets			Y		
264	LED Display Lighting			Y		
265	High Efficiency Water Heater (electric)			Y	Y	
266	Heat Pump Water Heater (air source)			Y	Y	
267	Demand Controlled Circulating Systems					
268	Heat Recovery Unit					
269	Heat Trap			Y		
270	Hot Water Pipe Insulation					
271	PC Manual Power Management Enabling			Y		
272	PC Network Power Management Enabling			Y		
273	Energy Star or Better Monitor			Y		
274	Monitor Power Management Enabling			Y		
275	Energy Star or Better Monitor			Y		
276	Monitor Power Management Enabling			Y		
277	Energy Star or Better Copier			Y		
278	Copier Power Management Enabling			Y		
279	Printer Power Management Enabling			Y		
280	Restaurant - Convection Oven					
281	Restaurant - Efficient Fryer					
282	Vending Misers (cooled machines only)			Y		
283	GS PV					
284	Curtainable	Y	Y	Y	Y	Y
285	GS Business on Call	Y	Y	Y	Y	Y
286	GSD Demand Response	Y	Y	Y	Y	Y
287	Compressed Air-O&M	Y		Y		
288	Compressed Air - Controls	Y	Y	Y	Y	Y
289	Compressed Air - System Optimization	Y		Y		
290	Compressed Air- Sizing	Y		Y		
291	Comp Air - Replace 1-5 HP motor	Y				
292	Comp Air - ASD (1-5 hp)	Y				
293	Comp Air - Motor practices-1 (1-5 HP)	Y	Y	Y	Y	Y
294	Comp Air - Replace 6-100 HP motor	Y				
295	Comp Air - ASD (6-100 hp)	Y		Y		
296	Comp Air - Motor practices-1 (6-100 HP)	Y	Y	Y	Y	Y
297	Comp Air - Replace 100+ HP motor	Y	Y	Y	Y	Y
298	Comp Air - ASD (100+ hp)	Y		Y		
299	Comp Air - Motor practices-1 (100+ HP)	Y	Y	Y	Y	Y
300	Power recovery	Y	Y	Y	Y	Y
301	Refinery Controls	Y	Y	Y	Y	Y
302	Fans - O&M	Y		Y		
303	Fans - Controls	Y	Y	Y	Y	Y
304	Fans - System Optimization	Y	Y	Y	Y	Y
305	Fans- Improve components	Y		Y		
306	Fans - Replace 1-5 HP motor	Y				
307	Fans - ASD (1-5 hp)	Y				
308	Fans - Motor practices-1 (1-5 HP)	Y	Y	Y	Y	Y
309	Fans - Replace 6-100 HP motor	Y				
310	Fans - ASD (6-100 hp)	Y		Y		
311	Fans - Motor practices-1 (6-100 HP)	Y	Y	Y	Y	Y
312	Fans - Replace 100+ HP motor	Y	Y	Y	Y	Y
313	Fans - ASD (100+ hp)	Y		Y		
314	Fans - Motor Practices-1 (100+ HP)	Y		Y		
315	Optimize Drying Process	Y	Y	Y	Y	Y
316	Power Recovery	Y	Y	Y	Y	Y
317	Refinery Controls	Y	Y	Y	Y	Y
318	Pumps - O&M	Y		Y		
319	Pumps - Controls	Y		Y		
320	Pumps - System Optimization	Y	Y	Y	Y	Y
321	Pumps - Sizing	Y		Y		
322	Pumps - Replace 1-5 HP motor	Y				
323	Pumps - ASD (1-5 hp)	Y				
324	Pumps - Motor Practices-1 (1-5 HP)	Y	Y	Y	Y	Y
325	Pumps - Replace 6-100 HP motor	Y				
326	Pumps - ASD (6-100 hp)	Y		Y		
327	Pumps - Motor Practices-1 (6-100 HP)	Y	Y	Y	Y	Y
328	Pumps - Replace 100+ HP motor	Y	Y	Y	Y	Y
329	Pumps - ASD (100+ hp)	Y		Y		
330	Pumps - Motor Practices-1 (100+ HP)	Y	Y	Y	Y	Y
331	Power Recovery	Y	Y	Y	Y	Y
332	Refinery Controls	Y	Y	Y	Y	Y
333	Bakery - Process (Mixing) - O&M	Y		Y		
334	O&M/drives Spinning Machines	Y		Y		
335	Air Conveying Systems	Y		Y		
336	Replace V-Belts	Y		Y		
337	Drives - EE motor	Y		Y		
338	Gap Forming Papermachine	Y		Y		
339	High Consistency Forming	Y		Y		
340	Optimization Control PM	Y	Y	Y	Y	Y

844 Starting Measures		665 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
341	Efficient Practices Printing Press	Y		Y		
342	Efficient Printing Press (Fewer Cylinders)	Y	Y	Y	Y	Y
343	Light Cylinders	Y	Y	Y	Y	Y
344	Efficient Drives	Y		Y		
345	Clean Room - Controls	Y	Y	Y	Y	Y
346	Clean Room - New Designs	Y	Y	Y	Y	Y
347	Drives - Process Controls (batch + site)	Y	Y	Y	Y	Y
348	Process Drives - ASD	Y	Y	Y	Y	Y
349	O&M - Extruders/Injection Moulding	Y		Y		
350	Extruders/Injection Moulding-Multipump	Y	Y	Y	Y	Y
351	Direct Drive Extruders	Y	Y	Y	Y	Y
352	Injection Moulding - Impulse Cooling	Y	Y	Y	Y	Y
353	Injection Moulding - Direct Drive	Y	Y	Y	Y	Y
354	Efficient Grinding	Y	Y	Y	Y	Y
355	Process Control	Y		Y		
356	Process Optimization	Y	Y	Y	Y	Y
357	Drives - Process Control	Y	Y	Y	Y	Y
358	Efficient Drives - Rolling	Y		Y		
359	Drives - Optimization Process (M&T)	Y		Y		
360	Drives - Scheduling	Y	Y	Y	Y	Y
361	Machinery	Y		Y		
362	Efficient Machinery	Y	Y	Y	Y	Y
363	Bakery - Process	Y		Y		
364	Drying (UV/IR)	Y	Y	Y	Y	Y
365	Heat Pumps - Drying	Y	Y	Y	Y	Y
366	Top-heating (Glass)	Y		Y		
367	Efficient Electric Melting	Y	Y	Y	Y	Y
368	Intelligent Extruder (DOE)	Y		Y		
369	Near Net Shape Casting	Y		Y		
370	Heating - Process Control	Y	Y	Y	Y	Y
371	Efficient Curing ovens	Y	Y	Y	Y	Y
372	Heating - Optimization Process (M&T)	Y		Y		
373	Heating - Scheduling	Y	Y	Y	Y	Y
374	Efficient Refrigeration - Operations	Y		Y		
375	Optimization Refrigeration	Y	Y	Y	Y	Y
376	Other Process Controls (batch + site)	Y		Y		
377	Efficient Desalter	Y	Y	Y	Y	Y
378	New Transformers Welding	Y		Y		
379	Efficient Processes (Welding, etc.)	Y	Y	Y	Y	Y
380	Process Control	Y	Y	Y	Y	Y
381	Power Recovery	Y	Y	Y	Y	Y
382	Refinery Controls	Y		Y		
383	Centrifugal Chiller, 0.51 kW/ton, 500 tons	Y	Y	Y	Y	Y
384	High Efficiency Chiller Motors	Y	Y	Y	Y	Y
385	Chiller - EMS	Y	Y	Y	Y	Y
386	Chiller - Tune Up/Diagnostics	Y	Y	Y	Y	Y
387	Chiller VSD - for Pumps and Towers	Y	Y	Y	Y	Y
388	Chiller - EMS Optimization	Y	Y	Y	Y	Y
389	Chiller - Aerosole Duct Sealing	Y		Y		
390	Chiller - Duct/Pipe Insulation	Y		Y		
391	Chiller -Window Film (Standard)	Y	Y	Y	Y	Y
392	Chiller - Roof Insulation	Y	Y	Y	Y	Y
393	Chiller -Cool Roof	Y		Y		
394	DX Packaged System, EER=10.9, 10 tons	Y	Y	Y	Y	Y
395	Hybrid Dessicant-DX System (Trane CDQ)	Y		Y		
396	Geothermal Heat Pump, EER=13, 10 tons	Y		Y		
397	DX Tune Up/ Advanced Diagnostics	Y	Y	Y	Y	Y
398	DX Coil Cleaning	Y		Y		
399	DX -Optimize Controls	Y		Y		
400	DX -Aerosole Duct Sealing	Y		Y		
401	DX - Duct/Pipe Insulation	Y		Y		
402	DX -Window Film (Standard)	Y	Y	Y	Y	Y
403	DX -Roof Insulation	Y	Y	Y	Y	Y
404	DX - Cool Roof	Y	Y	Y	Y	Y
405	Premium T8, Electronic Ballast	Y		Y		
406	CFL Hardwired, Modular 18W	Y		Y		
407	CFL Screw-in 18W	Y		Y		
408	High Bay T5	Y		Y		
409	Occupancy Sensor	Y	Y	Y	Y	Y
410	Replace V-belts	Y		Y		
411	Membranes for Wastewater	Y	Y	Y	Y	Y
412	Compressed Air-O&M	Y		Y		
413	Compressed Air - Controls	Y	Y	Y	Y	Y
414	Compressed Air - System Optimization	Y		Y		
415	Compressed Air - Sizing	Y		Y		
416	Comp Air - Replace 1-5 HP motor	Y		Y		
417	Comp Air - ASD (1-5 hp)	Y		Y		
418	Comp Air - Motor Practices-1 (1-5 HP)	Y	Y	Y	Y	Y
419	Comp Air - Replace 6-100 HP Motor	Y		Y		
420	Comp Air - ASD (6-100 hp)	Y		Y		
421	Comp Air - Motor Practices-1 (6-100 HP)	Y	Y	Y	Y	Y
422	Comp Air - Replace 100+ HP motor	Y	Y	Y	Y	Y
423	Comp Air - ASD (100+ hp)	Y		Y		
424	Comp Air - Motor Practices-1 (100+ HP)	Y	Y	Y	Y	Y
425	Power Recovery	Y	Y	Y	Y	Y

844 Starting Measures		665 Passing RIM Economic Potential	278 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
426	Refinery Controls	Y	Y	Y	Y	Y
427	Fans - O&M	Y		Y		
428	Fans - Controls	Y	Y	Y	Y	Y
429	Fans - System Optimization	Y	Y	Y	Y	Y
430	Fans - Improve Components	Y		Y		
431	Fans - Replace 1-5 HP motor	Y				
432	Fans - ASD (1-5 hp)	Y				
433	Fans - Motor Practices-1 (1-5 HP)	Y	Y	Y	Y	Y
434	Fans - Replace 6-100 HP motor	Y				
435	Fans - ASD (6-100 hp)	Y		Y		
436	Fans - Motor Practices-1 (6-100 HP)	Y	Y	Y	Y	Y
437	Fans - Replace 100+ HP motor	Y	Y	Y	Y	Y
438	Fans - ASD (100+ hp)	Y		Y		
439	Fans - Motor Practices-1 (100+ HP)	Y		Y		
440	Optimize Drying Process	Y	Y	Y	Y	Y
441	Power Recovery	Y	Y	Y	Y	Y
442	Refinery Controls	Y		Y		
443	Pumps - O&M	Y		Y		
444	Pumps - Controls	Y		Y		
445	Pumps - System Optimization	Y	Y	Y	Y	Y
446	Pumps - Sizing	Y		Y		
447	Pumps - Replace 1-5 HP motor	Y				
448	Pumps - ASD (1-5 hp)	Y				
449	Pumps - Motor Practices-1 (1-5 HP)	Y	Y	Y	Y	Y
450	Pumps - Replace 6-100 HP Motor	Y				
451	Pumps - ASD (6-100 hp)	Y		Y		
452	Pumps - Motor Practices-1 (6-100 HP)	Y	Y	Y	Y	Y
453	Pumps - Replace 100+ HP motor	Y	Y	Y	Y	Y
454	Pumps - ASD (100+ hp)	Y		Y		
455	Pumps - Motor Practices-1 (100+ HP)	Y	Y	Y	Y	Y
456	Power Recovery	Y	Y	Y	Y	Y
457	Refinery Controls	Y	Y	Y	Y	Y
458	Bakery - Process (Mixing) - O&M	Y		Y		
459	O&M/drives Spinning Machines	Y		Y		
460	Air Conveying Systems	Y		Y		
461	Replace V-Belts	Y		Y		
462	Drives - EE motor	Y		Y		
463	Gap Forming Papermachine	Y		Y		
464	High Consistency Forming	Y		Y		
465	Optimization Control PM	Y	Y	Y	Y	Y
466	Efficient Practices Printing Press	Y		Y		
467	Efficient Printing Press (fewer cylinders)	Y	Y	Y	Y	Y
468	Light Cylinders	Y	Y	Y	Y	Y
469	Efficient Drives	Y		Y		
470	Clean Room - Controls	Y	Y	Y	Y	Y
471	Clean Room - New Designs	Y	Y	Y	Y	Y
472	Drives - Process Controls (batch + site)	Y	Y	Y	Y	Y
473	Process Drives - ASD	Y	Y	Y	Y	Y
474	O&M - Extruders/Injection Moulding	Y		Y		
475	Extruders/Injection Moulding-Multipump	Y	Y	Y	Y	Y
476	Direct Drive Extruders	Y	Y	Y	Y	Y
477	Injection Moulding - Impulse Cooling	Y	Y	Y	Y	Y
478	Injection Moulding - Direct drive	Y	Y	Y	Y	Y
479	Efficient Grinding	Y	Y	Y	Y	Y
480	Process Control	Y		Y		
481	Process Optimization	Y	Y	Y	Y	Y
482	Drives - Process Control	Y	Y	Y	Y	Y
483	Efficient Drives - Rolling	Y		Y		
484	Drives - Optimization Process (M&T)	Y		Y		
485	Drives - Scheduling	Y	Y	Y	Y	Y
486	Machinery	Y		Y		
487	Efficient Machinery	Y	Y	Y	Y	Y
488	Bakery - Process	Y		Y		
489	Drying (UV/IR)	Y	Y	Y	Y	Y
490	Heat Pumps - Drying	Y	Y	Y	Y	Y
491	Top-Heating (glass)	Y		Y		
492	Efficient Electric Melting	Y	Y	Y	Y	Y
493	Intelligent Extruder (DOE)	Y	Y	Y	Y	Y
494	Near Net Shape Casting	Y		Y		
495	Heating - Process Control	Y	Y	Y	Y	Y
496	Efficient Curing ovens	Y	Y	Y	Y	Y
497	Heating - Optimization Process (M&T)	Y		Y		
498	Heating - Scheduling	Y	Y	Y	Y	Y
499	Efficient Refrigeration - Operations	Y		Y		
500	Optimization Refrigeration	Y	Y	Y	Y	Y
501	Other Process Controls (batch + site)	Y	Y	Y	Y	Y
502	Efficient Desalter	Y	Y	Y	Y	Y
503	New Transformers Welding	Y		Y		
504	Efficient Processes (Welding, etc.)	Y	Y	Y	Y	Y
505	Process Control	Y	Y	Y	Y	Y
506	Power Recovery	Y	Y	Y	Y	Y
507	Refinery Controls	Y		Y		
508	Centrifugal Chiller, 0.51 kW/ton, 500 tons	Y	Y	Y	Y	Y
509	High Efficiency Chiller Motors	Y	Y	Y	Y	Y
510	Chiller - EMS	Y	Y	Y	Y	Y



844 Starting Measures		665 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	305 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
511	Chiller- Tune Up/Diagnostics	Y	Y	Y	Y	Y
512	Chiller VSD - for Pumps and Towers	Y	Y	Y	Y	Y
513	Chiller - EMS Optimization	Y	Y	Y	Y	Y
514	Chiller - Aerosole Duct Sealing	Y		Y		
515	Chiller - Duct/Pipe Insulation	Y		Y		
516	Chiller -Window Film (Standard)	Y	Y	Y	Y	Y
517	Chiller - Roof Insulation	Y	Y	Y	Y	Y
518	Chiller -Cool Roof	Y		Y		
519	DX Packaged System, EER=10.9, 10 tons	Y	Y	Y	Y	Y
520	Hybrid Desiccant-DX System (Trane CDQ)	Y	Y	Y	Y	Y
521	Geothermal Heat Pump, EER=13, 10 tons	Y		Y		
522	DX Tune Up/ Advanced Diagnostics	Y	Y	Y	Y	Y
523	DX Coil Cleaning	Y		Y		
524	DX -Optimize Controls	Y		Y		
525	DX -Aerosole Duct Sealing	Y		Y		
526	DX - Duct/Pipe Insulation	Y		Y		
527	DX -Window Film (Standard)	Y	Y	Y	Y	Y
528	DX -Roof Insulation	Y	Y	Y	Y	Y
529	DX - Cool Roof	Y		Y	Y	Y
530	Premium T8, Electronic Ballast	Y		Y		
531	CFL Hardwired, Modular 18W	Y		Y		
532	CFL Screw-in 18W	Y		Y		
533	High Bay T5	Y		Y		
534	Occupancy Sensor	Y	Y	Y	Y	Y
535	Replace V-belts	Y		Y		
536	Membranes for Wastewater	Y	Y	Y	Y	Y
537	Lighting 15% More Efficient Design	Y		Y		
538	Lighting 25% More Efficient Design	Y	Y	Y	Y	Y
539	Cooling & Ventilation 10% More Efficient Design	Y		Y		
540	Cooling & Ventilation 30% More Efficient Design	Y	Y	Y	Y	Y
541	Lighting 15% More Efficient Design	Y		Y		
542	Lighting 25% More Efficient Design	Y		Y	Y	
543	Cooling & Ventilation 10% More Efficient Design	Y		Y		
544	Cooling & Ventilation 30% More Efficient Design	Y		Y	Y	
545	Lighting 15% More Efficient Design	Y		Y		
546	Lighting 25% More Efficient Design	Y		Y	Y	
547	Cooling & Ventilation 10% More Efficient Design	Y		Y		
548	Cooling & Ventilation 30% More Efficient Design	Y	Y	Y	Y	Y
549	Lighting 15% More Efficient Design	Y		Y		
550	Lighting 25% More Efficient Design	Y		Y		
551	Cooling & Ventilation 10% More Efficient Design	Y		Y		
552	Cooling & Ventilation 30% More Efficient Design	Y		Y		
553	Lighting 15% More Efficient Design	Y		Y		
554	Lighting 25% More Efficient Design	Y		Y		
555	Cooling & Ventilation 10% More Efficient Design	Y		Y		
556	Cooling & Ventilation 30% More Efficient Design	Y	Y	Y	Y	Y
557	Lighting 15% More Efficient Design	Y		Y		
558	Lighting 25% More Efficient Design	Y		Y		
559	Cooling & Ventilation 10% More Efficient Design	Y		Y		
560	Cooling & Ventilation 30% More Efficient Design	Y		Y		
561	Refrigeration 10% More Efficient Design	Y	Y	Y	Y	Y
562	Refrigeration 20% More Efficient Design	Y	Y	Y	Y	Y
563	Lighting 15% More Efficient Design	Y	Y	Y	Y	Y
564	Lighting 25% More Efficient Design	Y	Y	Y	Y	Y
565	Cooling & Ventilation 10% More Efficient Design	Y		Y		
566	Cooling & Ventilation 30% More Efficient Design	Y	Y	Y	Y	Y
567	Lighting 15% More Efficient Design	Y		Y	Y	Y
568	Lighting 25% More Efficient Design	Y		Y	Y	Y
569	Cooling & Ventilation 10% More Efficient Design	Y	Y	Y	Y	Y
570	Cooling & Ventilation 30% More Efficient Design	Y	Y	Y	Y	Y
571	Lighting 15% More Efficient Design	Y		Y		
572	Lighting 25% More Efficient Design	Y	Y	Y	Y	Y
573	Cooling & Ventilation 10% More Efficient Design	Y		Y		
574	Cooling & Ventilation 30% More Efficient Design	Y		Y		
575	Lighting 15% More Efficient Design	Y		Y		
576	Lighting 25% More Efficient Design	Y		Y		
577	Cooling & Ventilation 10% More Efficient Design	Y		Y		
578	Cooling & Ventilation 30% More Efficient Design	Y		Y		
579	Lighting 15% More Efficient Design	Y	Y	Y	Y	Y
580	Lighting 25% More Efficient Design	Y	Y	Y	Y	Y
581	Cooling & Ventilation 10% More Efficient Design	Y		Y		
582	Cooling & Ventilation 30% More Efficient Design	Y		Y		
583	14 SEER Split-System Air Conditioner	Y		Y		
584	15 SEER Split-System Air Conditioner	Y		Y		
585	17 SEER Split-System Air Conditioner	Y		Y		
586	19 SEER Split-System Air Conditioner	Y		Y		
587	14 SEER Split-System Heat Pump	Y		Y		
588	15 SEER Split-System Heat Pump	Y		Y		
589	17 SEER Split-System Heat Pump	Y		Y		
590	AC Proper Sizing	Y		Y		
591	Sealed Attic w/Sprayed Foam Insulated Roof Deck - SS AC	Y		Y		
592	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Y		Y		
593	AC Maintenance (Indoor Coil Cleaning) - SS AC	Y		Y		
594	Proper Refrigerant Charging and Air Flow - SS AC	Y	Y	Y	Y	Y
595	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y	Y	Y	Y	Y

644 Starting Measures		666 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	306 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
596	Duct Repair - SS AC	Y				
597	Reflective Roof - SS AC	Y	Y	Y	Y	Y
598	Radiant Barrier - SS AC	Y				
599	Window Film - SS AC	Y		Y		
600	Window Tinting - SS AC	Y		Y		
601	Default Window With Sunscreen - SS AC	Y		Y		
602	Single Pane Clear Windows to Dbl Pane Low-E Windows - SS AC	Y	Y	Y	Y	Y
603	Ceiling R-0 to R-19 Insulation - SS AC	Y				
604	Ceiling R-19 to R-38 Insulation - SS AC	Y				
605	Wall 2x4 R-0 to Blow-In R-13 Insulation - SS AC	Y				
606	Weather Strip/Caulk w/Blower Door - SS AC	Y				
607	14 SEER Split-System Heat Pump	Y				
608	15 SEER Split-System Heat Pump	Y				
609	17 SEER Split-System Heat Pump	Y				
610	HVAC Proper Sizing - SS HP	Y		Y		
611	Sealed Attics	Y				
612	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Y		Y		
613	AC Maintenance (Indoor Coil Cleaning) - SS HP	Y				
614	Proper Refrigerant Charging and Air Flow	Y	Y	Y	Y	Y
615	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y		Y		
616	Duct Repair - SS HP	Y				
617	Reflective Roof - SS HP	Y	Y	Y	Y	Y
618	Radiant Barrier - SS HP	Y				
619	Window Film - SS HP	Y		Y		
620	Window Tinting - SS HP	Y		Y		
621	Default Window With Sunscreen - SS HP	Y		Y		
622	Single Pane Clear Windows to Dbl Pane Low-E Windows - SS HP	Y	Y	Y	Y	Y
623	Ceiling R-0 to R-19 Insulation - SS HP	Y				
624	Ceiling R-19 to R-38 Insulation - SS HP	Y				
625	Wall 2x4 R-0 to Blow-In R-13 Insulation - SS HP	Y				
626	Weather Strip/Caulk w/Blower Door - SS HP	Y				
627	HE Room Air Conditioner - EER 11	Y	Y	Y	Y	Y
628	HE Room Air Conditioner - EER 12	Y				
629	Reflective Roof - Room AC	Y	Y	Y	Y	Y
630	Window Film - Room AC	Y		Y		
631	Window Tinting - Room AC	Y		Y	Y	
632	Default Window With Sunscreen - Room AC	Y		Y	Y	
633	Single Pane Clear Windows to Dbl Pane Low-E Windows - Room AC	Y	Y	Y	Y	Y
634	Ceiling R-0 to R-19 Insulation - Room AC	Y				
635	Ceiling R-19 to R-38 Insulation - Room AC	Y				
636	Wall 2x4 R-0 to Blow-In R-13 Insulation - Room AC	Y				
637	Weather Strip/Caulk w/Blower Door - Room AC	Y				
638	CFL (18-Watt integral ballast), 0.5 hr/day			Y		
639	CFL (18-Watt integral ballast), 2.5 hr/day			Y		
640	CFL (18-Watt integral ballast), 6.0 hr/day			Y		
641	ROB 2L4T8, 1EB - Indoor			Y		
642	ROB 2L4T8, 1EB - Outdoor			Y		
643	RET 2L4T8, 1EB - Indoor			Y		
644	RET 2L4T8, 1EB - Outdoor			Y		
645	HE Refrigerator - Energy Star version of above				Y	
646	HE Freezer			Y		
647	Heat Pump Water Heater (EF=2.9)					
648	AC Heat Recovery Units	Y				
649	Low Flow Showerhead			Y		
650	Pipe Wrap					
651	Faucet Aerators			Y		
652	Water Heater Blanket			Y		
653	Water Heater Temperature Check and Adjustment			Y		
654	Water Heater Timerclock					
655	Heat Trap			Y		
656	Energy Star CW CEE Tier 2 (MEF=2.0)			Y		
657	Energy Star CW CEE Tier 3 (MEF=2.2)					
658	High Efficiency CD (EF=3.01 w/moisture sensor)					
659	Energy Star DW (EF=0.68)					
660	Energy Star TV			Y		
661	Energy Star Large Screen TV			Y		
662	Energy Star Set-Top Box			Y		
663	Energy Star DVD Player			Y		
664	Energy Star VCR			Y		
665	Energy Star Desktop PC			Y		
666	Energy Star Laptop PC			Y		
667	14 SEER Split-System Air Conditioner	Y				
668	15 SEER Split-System Air Conditioner	Y				
669	17 SEER Split-System Air Conditioner	Y				
670	19 SEER Split-System Air Conditioner	Y				
671	14 SEER Split-System Heat Pump	Y				
672	15 SEER Split-System Heat Pump	Y				
673	17 SEER Split-System Heat Pump	Y				
674	AC Proper Sizing	Y		Y		
675	Sealed Attic w/Sprayed Foam Insulated Roof Deck - SS AC	Y				
676	A/C Maintenance (Outdoor Coil Cleaning) - SS A/C	Y		Y		
677	A/C Maintenance (Indoor Coil Cleaning) - SS A/C	Y		Y		
678	Proper Refrigerant Charging and Air Flow - SS AC	Y	Y	Y	Y	Y
679	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y	Y	Y	Y	Y
680	Duct Repair - SS AC	Y	Y			Y

844 Starting Measures		665 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	306 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
681	Reflective Roof - SS AC	Y	Y	Y	Y	Y
682	Radiant Barrier - SS AC	Y				
683	Window Film - SS AC	Y		Y		
684	Window Tinting - SS AC	Y	Y	Y	Y	Y
685	Default Window With Sunscreen - SS AC	Y	Y	Y	Y	Y
686	Single Pane Clear Windows to Dbl Pane Low-E Windows - SS AC	Y	Y	Y	Y	Y
687	Ceiling R-0 to R-19 Insulation - SS AC	Y				
688	Ceiling R-19 to R-38 Insulation - SS AC	Y				
689	Wall 2x4 R-0 to Blow-In R-13 Insulation - SS AC	Y				
690	Weather Strip/Caulk w/Blower Door - SS AC	Y				
691	14 SEER Split-System Heat Pump	Y				
692	15 SEER Split-System Heat Pump	Y				
693	17 SEER Split-System Heat Pump	Y				
694	HVAC Proper Sizing - SS HP	Y		Y		
695	Sealed Attics	Y				
696	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Y		Y		
697	AC Maintenance (Indoor Coil Cleaning) - SS HP	Y		Y		
698	Proper Refrigerant Charging and Air Flow	Y	Y	Y	Y	Y
699	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y		Y		
700	Duct Repair - SS HP	Y				
701	Reflective Roof - SS HP	Y	Y	Y	Y	Y
702	Radiant Barrier - SS HP	Y				
703	Window Film - SS HP	Y		Y		
704	Window Tinting - SS HP	Y	Y	Y	Y	Y
705	Default Window With Sunscreen - SS HP	Y	Y	Y	Y	Y
706	Single Pane Clear Windows to Dbl Pane Low-E Windows - SS HP	Y	Y	Y	Y	Y
707	Ceiling R-0 to R-19 Insulation - SS HP	Y				
708	Ceiling R-19 to R-38 Insulation - SS HP	Y				
709	Wall 2x4 R-0 to Blow-In R-13 Insulation - SS HP	Y				
710	Weather Strip/Caulk w/Blower Door - SS HP	Y				
711	HE Room Air Conditioner - EER 11	Y	Y	Y	Y	Y
712	HE Room Air Conditioner - EER 12	Y				
713	Reflective Roof - Room AC	Y	Y	Y	Y	Y
714	Window Film - Room AC	Y				
715	Window Tinting - Room AC	Y		Y	Y	
716	Default Window With Sunscreen - Room AC	Y		Y		
717	Single Pane Clear Windows to Dbl Pane Low-E Windows - Room AC	Y				
718	Ceiling R-0 to R-19 Insulation - Room AC	Y				
719	Ceiling R-19 to R-38 Insulation - Room AC	Y				
720	Wall 2x4 R-0 to Blow-In R-13 Insulation - Room AC	Y				
721	Weather Strip/Caulk w/Blower Door - Room AC	Y				
722	CFL (18-Watt integral ballast), 0.5 hr/day			Y		
723	CFL (18-Watt integral ballast), 2.5 hr/day			Y		
724	CFL (18-Watt integral ballast), 6.0 hr/day			Y		
725	ROB 2L4T8, 1EB - Indoor			Y		
726	ROB 2L4T8, 1EB - Outdoor			Y		
727	RET 2L4T8, 1EB - Indoor			Y		
728	RET 2L4T8, 1EB - Indoor			Y		
729	HE Refrigerator - Energy Star Version of Above			Y	Y	
730	HE Freezer			Y		
731	Heat Pump Water Heater (EF=2.9)					
732	AC Heat Recovery Units	Y				
733	Low Flow Showerhead			Y		
734	Pipe Wrap					
735	Faucet Aerators			Y		
736	Water Heater Blanket			Y		
737	Water Heater Temperature Check and Adjustment			Y		
738	Water Heater Timedlock					
739	Heat Trap			Y		
740	Energy Star CW CEE Tier 2 (MEF=2.0)			Y		
741	Energy Star CW CEE Tier 3 (MEF=2.2)					
742	High Efficiency CD (EF=3.01 w/moisture sensor)					
743	Energy Star DW (EF=0.68)					
744	Energy Star TV			Y		
745	Energy Star Large Screen TV			Y		
746	Energy Star Set-Top Box			Y		
747	Energy Star DVD Player			Y		
748	Energy Star VCR			Y		
749	Energy Star Desktop PC			Y		
750	Energy Star Laptop PC			Y		
751	14 SEER Split-System Air Conditioner - 13SSAC	Y	Y			Y
752	15 SEER Split-System Air Conditioner - 13SSAC	Y				
753	17 SEER Split-System Air Conditioner - 13SSAC	Y				
754	19 SEER Split-System Air Conditioner - 13SSAC	Y				
755	14 SEER Split-System Heat Pump - 13SSAC	Y				
756	15 SEER Split-System Heat Pump - 13SSAC	Y				
757	17 SEER Split-System Heat Pump - 13SSAC	Y				
758	AC Proper Sizing	Y		Y		
759	Sealed Attic w/Sprayed Foam Insulated Roof Deck - SS AC	Y				
760	AC Maintenance (Outdoor Coil Cleaning) - SS AC	Y		Y		
761	AC Maintenance (Indoor Coil Cleaning) - SS AC	Y		Y		
762	Proper Refrigerant Charging and Air Flow - SS AC	Y		Y		
763	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y	Y	Y	Y	Y
764	Duct Repair - SS AC	Y	Y	Y	Y	Y
765	Reflective Roof - SS AC	Y	Y	Y	Y	Y

844 Starting Measures		665 Passing RIM Economic Potential	279 Passing RIM Achievable Potential	641 Passing TRC Economic Potential	306 Passing TRC Achievable Potential	267 Used for Goals
MEASURE DESCRIPTION						
766	Radiant Barrier - SS AC	Y				
767	Window Film - SS AC	Y				
768	Window Tinting - SS AC	Y		Y	Y	
769	Default Window With Sunscreen - SS AC	Y	Y	Y	Y	
770	Single Pane Clear Windows to Dbl Pane Low-E Windows - SS AC	Y	Y	Y		Y
771	Ceiling R-0 to R-19 Insulation - SS AC	Y				
772	Ceiling R-19 to R-38 Insulation - SS AC	Y				
773	Wall 2x4 R-0 to Blow-In R-13 Insulation - SS AC	Y				
774	Weather Strip/Caulk w/Blower Door - SS AC	Y				
775	14 SEER Split-System Heat Pump- SS HP	Y				
776	15 SEER Split-System Heat Pump- SS HP	Y				
777	17 SEER Split-System Heat Pump- SS HP	Y				
778	HVAC Proper Sizing - SS HP	Y		Y		
779	Sealed Attics	Y				
780	AC Maintenance (Outdoor Coil Cleaning) - SS HP	Y		Y		
781	AC Maintenance (Indoor Coil Cleaning) - SS HP	Y		Y		
782	Proper Refrigerant Charging and Air Flow	Y		Y		
783	Electronically Commutated Motors (ECM) on an Air Handler Unit	Y		Y		
784	Duct Repair - SS HP	Y	Y	Y	Y	Y
785	Reflective Roof- SS HP	Y	Y	Y	Y	Y
786	Radiant Barrier - SS HP	Y				
787	Window Film - SS HP	Y				
788	Window Tinting - SS HP	Y		Y	Y	
789	Default Window With Sunscreen - SS HP	Y	Y	Y	Y	
790	Single Pane Clear Windows to Dbl Pane Low-E Windows - SS HP	Y	Y	Y		Y
791	Ceiling R-0 to R-19 Insulation - SS HP	Y				
792	Ceiling R-19 to R-38 Insulation - SS HP	Y				
793	Wall 2x4 R-0 to Blow-In R-13 Insulation - SS HP	Y				
794	Weather Strip/Caulk w/Blower Door - SS HP	Y				
795	HE Room Air Conditioner - EER 11	Y	Y	Y	Y	Y
796	HE Room Air Conditioner - EER 12	Y				
797	Reflective Roof - Room AC	Y				
798	Window Film- Room AC	Y				
799	Window Tinting - Room AC	Y				
800	Default Window With Sunscreen - Room AC	Y		Y		
801	Single Pane Clear Windows to Dbl Pane Low-E Windows - Room AC	Y				
802	Ceiling R-0 to R-19 Insulation- Room AC	Y				
803	Ceiling R-19 to R-38 Insulation- Room AC	Y				
804	Wall 2x4 R-0 to Blow-In R-13 Insulation- Room AC	Y				
805	Weather Strip/Caulk w/Blower Door - Room AC	Y				
806	CFL (18-Watt integral ballast), 0.5 hr/day			Y		
807	CFL (18-Watt integral ballast), 2.5 hr/day			Y		
808	CFL (18-Watt integral ballast), 8.0 hr/day			Y		
809	ROB 2L4T8, 1EB - Indoor			Y		
810	ROB 2L4T8, 1EB - Outdoor			Y		
811	RET 2L4T8, 1EB - Indoor			Y		
812	RET 2L4T8, 1EB - Outdoor			Y		
813	HE Refrigerator - Energy Star Version of Above				Y	
814	HE Freezer			Y		
815	Heat Pump Water Heater (EF=2.9)					
816	Res Solar Water Heater					
817	AC Heat Recovery Units	Y				
818	Low Flow Showerhead			Y		
819	Pipe Wrap			Y		
820	Faucet Aerators			Y		
821	Water Heater Blanket			Y		
822	Water Heater Temperature Check and Adjustment			Y		
823	Water Heater Timerclock			Y		
824	Heat Trap			Y		
825	Res Gas Heat Pump			Y	Y	
826	Res Gas Water Heater			Y	Y	
827	Res Demand Water Heater			Y	Y	
828	Energy Star CW CEE Tier 2 (MEF=2.0)			Y		
829	Energy Star CW CEE Tier 3 (MEF=2.2)			Y		
830	High Efficiency CD (EF=3.01 w/moisture sensor)			Y		
831	Energy Star DW (EF=0.88)			Y		
832	Two Speed Pool Pump (1.5 hp)	Y		Y		
833	High Efficiency One Speed Pool Pump (1.5 hp)	Y		Y		
834	Variable-Speed Pool Pump (<1 hp)	Y		Y	Y	
835	PV-Powered Pool Pumps	Y				
836	Energy Star TV			Y		
837	Energy Star Large Screen TV			Y		
838	Energy Star Set-Top Box			Y		
839	Res PV					
840	Energy Star DVD Player			Y		
841	Energy Star VCR			Y		
842	Res Demand Response	Y	Y	Y	Y	Y
843	Energy Star Desktop PC			Y		
844	Energy Star Laptop PC			Y		