

**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**

**REBUTTAL TESTIMONY & EXHIBIT OF:**

**JOHN R. HANEY**

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5                   **JULY 30, 2009**

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

8   A.    My name is John R Haney. My business address is Florida Power & Light  
9        Company, 9250 West Flagler Street, Miami, Florida, 33174.

10 **Q.    Have you previously submitted direct testimony in this proceeding?**

11 A.    Yes.

12 **Q.    What is the purpose of your rebuttal testimony?**

13 A.    The purpose of my rebuttal testimony is to respond to certain aspects of the direct  
14        testimony filed by Witnesses Richard Spellman and Caroline Guidry (I will  
15        generally refer to their testimony as the "GDS" testimony). I will also address  
16        various aspects of testimony filed by Witnesses Steinhurst, Mosenthal and Wilson  
17        on behalf of the Natural Resources Defense Council (NRDC) and the Southern  
18        Alliance for Clean Energy (SACE) (collectively "NRDC-SACE").

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

20 A.    Yes. I am sponsoring Exhibit JRH-19, FPL's Responses to Staff's Third Set of  
21        Interrogatories, Nos. 13 and 14, which is attached to my rebuttal testimony.

1 **Q. How is your rebuttal testimony structured?**

2 A. My rebuttal testimony is divided into two parts. In the first part of my testimony I  
3 will be responding to the testimony from GDS. This part of my testimony  
4 appears on pages 2 through 13. In the second part of my testimony I will be  
5 discussing testimony from NRDC-SACE. This part of my testimony appears on  
6 pages 14 through 23.

7

8 **PART A: REBUTTAL TESTIMONY ADDRESSING GDS**

9

10 **Q. Please provide an overview of your rebuttal to the issues raised by GDS.**

11 A. In this first part of my rebuttal testimony I have organized my comments  
12 regarding GDS's testimony into the following seven categories for discussion:

13

- 14 I. GDS's allegation regarding exclusion of measures in Technical  
15 Potential;
- 16 II. GDS's uneven allegations regarding the two-year payback criterion;
- 17 III. GDS's incorrect assumption regarding FPL's program performance;
- 18 IV. GDS's incorrect characterization of FPL's DSM program achievements;
- 19 V. GDS's misinterpretation of proper FEECA compliance;
- 20 VI. GDS's unsupported and analytically unsound goals recommendation; and
- 21 VII. Summary

1 **I. GDS's Allegation Regarding Exclusion of Measures in Technical Potential**

2

3 **Q. Please respond to GDS's assertion on page 22, lines 15-16 that "the Technical**  
4 **Potential Studies exclude many important energy efficiency measures".**

5 A. Section III of my direct testimony describes the comprehensive and exhaustive  
6 evaluation of measures performed by the Collaborative, including NRDC-SACE,  
7 as part of the Technical Potential Study effort. As indicated in my direct  
8 testimony, and the corresponding Exhibit JRH-11, the Collaborative's evaluation  
9 of measures used a deep set of resources as well as the experience of the  
10 collective group. The measure selection process yielded a comprehensive list of  
11 267 unique measures, including 67 residential measures, 78 commercial  
12 measures, and 122 industrial measures. (These unique measures expand to over  
13 2,300 measures when building types are considered.) Importantly, the final  
14 measure list included 25 "new" measures in the residential sector and 33 "new"  
15 measures in the commercial sector. New measures are those that Itron had not  
16 previously analyzed in past studies. It is important to note that any measure  
17 included or excluded was done so based on sound, reasoned criteria established to  
18 ensure the integrity of the study, as described in my direct testimony on page 14,  
19 lines 10-16. Therefore, included measures were those measures utilizing existing  
20 technology and currently available in the marketplace and for which Florida-  
21 specific pricing data was available. Measures were excluded due to lack of  
22 reliable and readily available cost, savings, or baseline data to support a robust  
23 analysis of potential; and/or evidence that the incremental energy savings

1 associated with particular measures overlapped and were being captured by other  
2 measures in the analysis.

3

4 GDS's assertion that "many" measures were excluded is inaccurate. To my  
5 knowledge, only a small number of measures were determined to be inappropriate  
6 for further evaluation by the Collaborative due to their lack of availability in  
7 Florida or a lack of specific cost, savings, or baseline data .

8 **Q. Were the measures identified by GDS on page 25, line 20 through page 26,**  
9 **line 1, and page 27, lines 1-12, addressed by the Collaborative?**

10 A. Yes. In fact, a detailed explanation of each measure is found in FPL's response to  
11 Staff's Third Set of Interrogatories questions 13 and 14, provided as Exhibit JRH  
12 – 19. As demonstrated therein, there was a sound and reasoned Collaborative  
13 determination made that these measures would be inappropriate for inclusion in  
14 the Technical Potential studies.

15

16 It is important to also note that GDS has incorrectly identified measures as  
17 "excluded" which were in fact included within the Technical Potential. GDS  
18 presents a list of commercial measures in Table 2 of GDS's testimony, and  
19 indicates that these measures should have been included. However, several of the  
20 measures listed – such as Vending Miser, Zero Energy Doors, Door Heater  
21 Controls, Scroll Compressors, and Floating Head Pressure Controls - are indeed  
22 included in the Technical Potential Study measure lists in Appendix B of FPL's  
23 Technical Potential report. Had GDS reviewed the information rigorously

1 compiled and provided in discovery, they would have noted the inclusion of these  
2 measures. As mentioned above, other measures were excluded due to the sound,  
3 reasoned factors identified by the Collaborative and were also explained in FPL's  
4 responses to interrogatories noted above.

5

## 6 **II. GDS's Uneven Allegations Regarding the Two-Year Payback Criterion**

7

8 **Q. GDS indicates on page 28, line 9 that a two-year minimum payback**  
9 **requirement is not necessary for all customer sectors. Do you agree?**

10 A. No, in fact the DSM Goals Rule explicitly requires that free ridership must be  
11 addressed in the goal setting process. FAC 25-17.0021 (3) states: "Each utility's  
12 projection shall reflect consideration of overlapping measures, rebound effects,  
13 *free riders*, interactions with building codes and appliance efficiency standards,  
14 and the utility's latest monitoring and evaluation of conservation programs and  
15 measures." The rule also requires all market segments – residential and  
16 commercial/industrial – to be addressed in establishing goals projections. It is  
17 helpful to note that on page 32, lines 4-5, GDS agrees with the Collaborative that  
18 the two-year payback screen is a legitimate method to address free ridership with  
19 respect to large commercial or industrial customers; it is only its application to  
20 residential and small commercial customers that GDS disputes.

1 **Q. What is FPL's basis for using the two-year payback criteria to address free**  
2 **ridership?**

3 A. FPL uses a two-year payback criterion to address free ridership because it is  
4 supported by years of consistent Commission precedent as described in Witness  
5 Dean's rebuttal testimony; because it is an accepted industry method for  
6 minimizing free riders; and because it was agreed within the Collaborative to be a  
7 reasonable manner to address free riders. The criterion is also included within  
8 FPL's Commission-approved Business Custom Incentive program.

9 **Q. Did the Collaborative discuss and agree to use the two-year payback**  
10 **criterion to establish proposed goals?**

11 A. Yes. All members of the Collaborative agreed to use the two-year payback  
12 criterion.

13 **Q. Please explain how the Collaborative made the decision to apply the two-year**  
14 **payback criterion.**

15 A. A conference call was held with all members of the Collaborative to discuss the  
16 appropriate methodology to address the free rider requirement of the  
17 Commission's rule. Members from each of the FEECA utilities and Mr. Wilson  
18 on behalf of NRDC-SACE participated in that conference call. The Collaborative  
19 agreed, without exception, that the two-year payback would be used to address  
20 free ridership.

21  
22 In reaching the decision, the Collaborative considered the history of Florida's  
23 DSM goal proceedings and current literature. It was noted that the two-year

1           payback criterion had been agreed to previously by the Commission. Essentially,  
2           the Collaborative agreed that when an individual recovers the incremental cost of  
3           a measure through energy savings in two-years or less, an additional utility  
4           incentive funded by its general body of customers is unnecessary.

5   **Q.   Was the use of the two-year payback criterion carried forward in the**  
6   **Achievable Potential analysis?**

7   A.   Yes, after the unanimous decision was made by the Collaborative, NRDC-SACE  
8           asked the FEECA utilities to consider alternative Achievable Potential scenarios  
9           where not only the two-year payback criterion was used, but also where the two-  
10          year payback criterion was used in conjunction with a fixed percentage of a  
11          measure's incremental cost. The Collaborative agreed to test two alternative  
12          criteria 1) the lesser of a two-year payback or a 33% incentive and 2) the lesser of  
13          a two-year payback or a 50% incentive.

14   **Q.   Did the two-year payback criteria in any way preclude evaluation of the full**  
15   **technical potential as suggested by GDS in their testimony on page 29, line 19**  
16   **through page 30, line 3?**

17   A.   No, it did not. The two-year payback criterion was applied to measures after all  
18          measures were evaluated and the Technical Potential Study was completed.

1           **III. GDS's Incorrect Assumption Regarding FPL's Program Performance**

2

3   **Q.    GDS states that market penetration projections developed for the 10-year**  
4           **planning period are conservative and do not adequately reflect aggressive**  
5           **marketing and successful program implementation plans. Please respond to**  
6           **this statement.**

7    A.    As described in Witness Rufo's rebuttal testimony, the marketing assumptions  
8           used in the projections were based on aggressive scenarios, with the  
9           understanding that existing FPL programs are clearly supported by aggressive  
10          marketing plans which FPL has a history of implementing successfully. FPL's  
11          marketing and program implementation strategies are very robust and have led to  
12          continued, successful program results as evidenced by FPL's historic program  
13          participation since program inception:

14

- 15           ● More than 2.7 million residential and business customers have participated in
- 16           FPL's energy survey programs
- 17           ● More than 1 million high efficiency air conditioners have been installed for
- 18           FPL customers
- 19           ● FPL has provided 800,000 of its customers with building retrofit
- 20           improvements (ceiling and roof insulation, reflective roofs, efficient lighting,
- 21           window measures) to improve the energy efficiency of their home or
- 22           workplace
- 23           ● FPL's residential load control program is the largest in the U.S. with over
- 24           three-quarters of a million participants. FPL's business load management
- 25           programs have over 20,000 participants.

1           ● More than 450,000 air conditioning duct tests have been conducted and leaks  
2           repaired.

3   **Q. How have these impressive results been attained?**

4   A. FPL's tactical marketing plans are aggressive in their reach and diverse in their  
5   scope, extending to all customer markets. FPL promotes DSM programs through  
6   the energy surveys performed for residential and business customers and also  
7   participates in home shows and energy fairs throughout its service territory. As  
8   explained in my direct testimony, beginning on page 10, line 14 and within  
9   Exhibit JRH-7, FPL also conducts multiple campaigns to reach low income  
10   customers. In addition, FPL participates in key trade shows to reach business  
11   markets and contractors that serve as a channel for promoting FPL's programs to  
12   residential customers. FPL promotes its programs continuously through its web  
13   site. A key feature of the FPL web site is the highly successful Online Home  
14   Energy Survey, from which more than 50,000 customers benefited in the past  
15   two-years alone. FPL also promotes its programs through its bill communications,  
16   which reach all 4.5 million customers. In addition, FPL is conducting an  
17   aggressive radio and television advertising campaign to promote its home energy  
18   surveys. This campaign, which is currently underway, is designed to reach 90  
19   percent of our targeted customers multiple times, during the time of year when  
20   bills are highest and customers can benefit the most. In summary, FPL wishes to  
21   emphasize that FPL markets its DSM programs aggressively to all of our  
22   customers, and this is evidenced by our program participation results.

1 **IV. GDS's Incorrect Characterization of FPL's DSM Program Achievements**

2

3 **Q. Do you believe that GDS accurately characterizes FPL's DSM achievements**  
4 **in their testimony on page 12, line 1 through page 15, line 21?**

5 A. No. GDS uses selective data that does not accurately represent FPL's leadership  
6 in DSM achievement. First, their rankings are based on only a subset of true  
7 DSM achievement – incremental savings. In the case of demand reduction  
8 achievement, they selectively use only a subset the demand reduction capability  
9 associated with FPL's load management programs and completely disregard the  
10 extensive demand reduction achieved through FPL's energy efficiency programs.  
11 For energy consumption savings, they selectively use only incremental, or most  
12 recent year savings, disregarding the true and continuing savings that FPL  
13 receives from measures installed in prior years as a result of its aggressive DSM  
14 program implementation. In gauging DSM achievement, it is important to  
15 consider demand reduction capabilities resulting from all active participants in  
16 load management programs and demand reduction and energy savings from  
17 energy efficiency measures not only associated with customers that participated in  
18 the most recent year but also those measures that were installed in prior years and  
19 continue to provide efficiency-related demand and energy savings through the  
20 measure's life. It is also important to consider the absolute level of savings  
21 achieved as this absolute value represents the true results of long-standing DSM  
22 efforts. The cumulative, absolute demand reduction and energy savings, compared  
23 across a relevant peer group of utilities, provides the most meaningful

1 representation of a utility's long standing DSM effort and the benefits still being  
2 enjoyed today by its customers. My direct testimony, page 6, line 9 through page  
3 7, line 9 and Exhibit JRH-3 provide an accurate representation of FPL's  
4 achievements in cumulative, absolute terms and accurately represents FPL's  
5 leadership in DSM achievement.

## 6 7 **V. GDS's Misinterpretation of FEECA Compliance**

8  
9 **Q. Do you agree with GDS's assertion on page 33, lines 22-24 that "these studies**  
10 **fall short of the requirements of the FEECA statute"?**

11 **A.** In regards to the studies performed on behalf of FPL, I completely disagree with  
12 GDS's assertion. As explained throughout my direct testimony and summarized  
13 in my direct testimony on page 35, line 22 through page 36, line 6, FPL went  
14 beyond the requirements of FEECA. My direct and rebuttal testimony, along with  
15 the direct and rebuttal testimony of Witnesses Sim, Dean, and Rufo, address all  
16 material issues raised by GDS and evidence that FPL met the requirements of  
17 FEECA. Moreover, as explained by witnesses Sim and Dean, it is GDS's  
18 proposal which disregards and fails to comply with the totality of FEECA. FPL  
19 went beyond the requirements of FEECA by participating in the Collaborative,  
20 bringing consistency in methodology and assumptions to the analyses.

1           **VI. GDS’s Unsupported and Analytically Unsound Goals Recommendation**

2

3   **Q. Do you agree with GDS’s proposed goals for FPL as represented in Exhibit**  
4   **RFS-20, page 1 of 7?**

5   A. No, I do not agree with GDS’s proposed goals. GDS made a series of arbitrary  
6   adjustments that do not reflect the analytical rigor necessary to provide meaningful  
7   results, such as that performed by the Collaborative collectively and the FEECA  
8   utilities individually over the course of the last year. Table 6, on page 66, states that  
9   ratios used in calculations were “calculated using TRC/E-TRC maximum  
10   Achievable Potential as identified in utility specific testimony and exhibits”. FPL  
11   did not complete any studies labeled as “Maximum Achievable Potential” so it is  
12   uncertain how these ratios were developed for FPL. GDS also made several  
13   adjustments – such as adding back in measures eliminated for valid reasons – that  
14   breach the integrity of the full technical, economic and achievable potential  
15   analyses and the portfolio development process. GDS’s arbitrary and incorrect  
16   methodology renders their proposed goals meaningless.

17

18                                           **VII. Summary**

19

20   **Q. Please summarize your rebuttal testimony regarding GDS’s testimony.**

21   A. GDS’s testimony appears to be based on a cursory review of the information that  
22   has been presented in this proceeding, an uneven application of the Commission’s  
23   DSM rule, and a misapplication of the FEECA – all of which culminate in a

1 baseless DSM goals proposal. GDS alleges that FPL excluded measures from the  
2 Technical potential study that would have an impact on the results. FPL and the  
3 Collaborative developed and agreed upon evaluation criteria and openly vetted  
4 measures for inclusion. In fact, many of the measures identified by GDS as  
5 excluded were actually included in the study.

6  
7 GDS raises a conflicting argument on the two-year payback criteria. They agree  
8 that the two-year payback is an appropriate tool for limiting free ridership in  
9 utility DSM programs and agree with the Collaborative that application in the  
10 commercial and industrial markets is appropriate, but they do not believe that the  
11 two-year payback criteria is appropriate for small commercial and residential  
12 customers. However, they do not offer an alternative. While convenient, this is  
13 not appropriate under the DSM Goals Rule. Free ridership must be addressed  
14 across all market segments.

15  
16 GDS asserts that because of the omissions of programs and the application of the  
17 two-year payback that the analysis that was performed by FPL and Collaborative  
18 does not meet the requirements of FEECA. But in actuality, FPL's analysis was  
19 designed to meet the requirement of FEECA and the DSM Goals Rule. A  
20 Collaborative was formed for the purpose of ensuring that rigorous analysis was  
21 performed across the FEECA utilities to determine DSM goals. This year of  
22 analysis and effort is in stark contrast to the arbitrary and unsupported goals set  
23 forth by GDS.

1           **PART B: REBUTTAL TESTIMONY ADDRESSING NRDC-SACE**

2

3   **Q.    Please provide an overview of this portion of your rebuttal testimony that**  
4           **addresses issues raised by the NRDC-SACE testimony.**

5    A.    In this second part of my rebuttal testimony I have organized my comments  
6           regarding NRDC-SACE’s testimony into the following five categories for  
7           discussion:

8           I.    NRDC-SACE’s repudiation of their decisions as part of the  
9           Collaborative

10          II.   NRDC-SACE’s criticism of including program costs in analysis

11          III.  NRDC-SACE’s misunderstanding of load control program benefits

12          IV.  NRDC-SACE’s lack of understanding of FPL’s DSM program  
13           initiatives

14          V.    Summary

15

16           **I. NRDC-SACE’s Repudiation of their Decisions as Part of the Collaborative**

17

18   **Q.    In his testimony Witness Wilson suggested there were two shortcomings to**  
19           **the Collaborative’s Technical Potential Study: (a) an omission of several end**  
20           **use sectors, and (b) an omission of several measures. Please address Witness**  
21           **Wilson’s testimony on these alleged shortcomings.**

22    A.    I am both surprised and disappointed that Witness Wilson would offer such  
23           testimony, since he and his organizations fully participated in the Collaborative’s

1 development of the scope of the Technical Potential Study and agreed to the  
2 measures included and the scope of the Study. I choose not to believe that neither  
3 NRDC-SACE nor Witness Wilson agreed to a study scope they knew to be  
4 incorrect or infirm. So, I am setting aside my disappointment and addressing Mr.  
5 Wilson's somewhat confusing and entirely revisionist testimony on the Technical  
6 Potential Study.

7 **Q. Why do you find Witness Wilson's testimony on the Technical Potential**  
8 **Study confusing?**

9 A. It appears to me that he is trying to hedge in his testimony. He acknowledges that  
10 (a) the study was done "in a professional and thorough manner," page 26, line 7  
11 (b) the collaboration was "generally productive," page 26, line 8, and (c)  
12 communications within the collaborative "were effective for the most part" On  
13 page 26, line 8-9. He states on page 30, line 13 that the omission of several end-  
14 use sectors from the study due to a lack of sufficient information was "a  
15 reasonable decision." He also states on page 30, line 19 that "we were generally  
16 satisfied with the decisions to include or exclude measures from the Technical  
17 Potential Study."

18  
19 Despite these quite constructive observations which praise decisions in which he  
20 participated and agreed, Mr. Wilson goes on to suggest that (a) the  
21 Collaborative's reasonable decision to omit four sectors because of lack of data  
22 was a "shortcoming," and (b) that he now believes there were four measures  
23 omitted that met the Collaborative's criteria. I find this testimony confusing in

1 that Mr. Wilson generally praises the study in one breath and then in the next  
2 breath spends paragraphs detailing “shortcomings” of the very same study he  
3 praised.

4 **Q. Why do you characterize Witness Wilson’s testimony on the Technical  
5 Potential Study as revisionist?**

6 A. As Witness Wilson acknowledges in his testimony, he was SACE’s representative  
7 in the Collaborative and at times spoke for both NRDC-SACE. What I find  
8 revisionist in his testimony is his apparent ability to criticize his own decision  
9 making and work product. The scope of the Technical Potential Study and which  
10 end uses to analyze because of sufficient data were issues collectively addressed  
11 by the Collaborative. All parties to the Collaborative, including NRDC-SACE,  
12 agreed on which end use sectors should be included and which should be  
13 excluded. To offer criticism after the fact of this decision without acknowledging  
14 his own role in the decision making is, at best, revisionist.

15  
16 Similarly, the measures identified for inclusion were the product of a  
17 collaborative process. The final measures were vetted through that process and  
18 then sent to all the members of the Collaborative for final review. Neither  
19 NRDC-SACE nor their representatives took issue with the final list of measures.  
20 To attack the “exclusion” of four measures after the fact that neither NRDC-  
21 SACE raised in the development of the final list of measures is also revisionist.

1 The simple facts are: NRDC-SACE agreed to the scope of the Technical potential  
2 Study, the end use sectors included, the end use sectors excluded, the measures  
3 included and the final list of measures. To suggest months later in testimony that  
4 the Study has shortcomings due to omissions is being less than fully disclosive  
5 and completely fails to acknowledge their own participation in the decision-  
6 making they now attack.

7

8 Knowing their involvement in the Collaborative, the Technical Potential study,  
9 the choice of end use sectors analyzed and the measures chosen for analysis, I do  
10 not find Mr. Wilson's after-the-fact criticisms credible, and neither should the  
11 Commission. Mr. Rufo addresses why the scope of the Technical Potential Study,  
12 the choice of the end use sectors analyzed and the measures analyzed were  
13 analytically appropriate given the data available.

14 **Q. On page 16, lines 11-23, Witness Mosenthal argues that the two-year**  
15 **payback criterion used by the FEECA utilities to address free riders is**  
16 **“inconsistent with the FEECA statutes,” and on page 54, lines 6-7, Witness**  
17 **Steinhurst argues that the FEECA utilities’ use of the two-year payback is an**  
18 **“arbitrary and pointless” policy. Please respond.**

19 **A.** I disagree with a number of the criticisms offered by these witnesses on the two-  
20 year payback criterion, but a fundamental misconception and erroneous  
21 impression shared by both needs to be corrected. The decision to employ a two-  
22 year payback criterion as a means of addressing free-ridership was a decision of  
23 the Collaborative, not just a decision by the FEECA utilities. It was a decision in

1           which NRDC-SACE participated, and the impression left by their witnesses that it  
2           was a decision of the FEECA utilities and not the Collaborative is inaccurate.

3   **Q.   Why did the Collaborative address free riders when determining the**  
4           **achievable potential for DSM in the State of Florida and for individual**  
5           **Florida utilities?**

6   A.   As described in my rebuttal to GDS's testimony, the Commission's DSM Goals  
7           Rule, which is conspicuously unreferenced in the testimony of any of the NRDC-  
8           SACE witnesses, requires the consideration of free riders in the goal-setting  
9           process. Given this rule requirement, one cannot, as suggested by Witness  
10          Mosenthal, use program design to address free riders. They have to be addressed  
11          in DSM goals setting. Program design comes later in the process.

12 **Q.   Was the two-year payback criterion applied to the process for any reason**  
13          **other than addressing free ridership?**

14 A.   No. In all the after the fact criticism of the two-year payback criterion by the  
15          SACE and NRDC witnesses, it has gone unobserved that each of the FEECA  
16          utilities had a choice of Achievable Potential scenarios, and each of the FEECA  
17          utilities, including FPL, chose the scenario which yielded the highest resulting  
18          measure of Achievable Potential. This alone shows that the use of the two-year  
19          payback was an intent to address free-ridership rather than an attempt to reduce  
20          the measure of Achievable Potential.

1 Q. So, despite all of Witnesses Mosenthal's and Steinhurst's criticisms of the  
2 two-year payback, it is your testimony that the two-year payback as a means  
3 to address free riders was agreed to by NRDC-SACE?

4 A. Yes.

5

6 **II. NRDC-SACE's criticism of including program costs in analysis**

7

8 Q. Mr. Mosenthal criticizes the Achievable Potential analysis for including  
9 program administrative costs as a cost in the DSM screening employed.  
10 Please respond.

11 A. The easiest way to look at this is to confront the basic question of whether  
12 program administrative costs should be considered at all. Such costs clearly exist.  
13 Few, if any, measures can be delivered without incurring program administrative  
14 costs. So, the only question when assessing cost-effectiveness is, "should these  
15 known costs be ignored or recognized?" FPL and Itron concluded that they  
16 should be recognized. Witness Mosenthal suggests they should be ignored in  
17 setting goals, because we are not yet in program design. I agree we are not yet  
18 designing programs, but some assumption must be made about a known cost other  
19 than such costs are assumed to be zero. FPL chose its best measures of these  
20 known and real costs.

21

22 The sources for administrative costs were an analysis of FPL's program budgets  
23 and filed costs. The determination of the costs were determined in two ways: 1) if

1 the measure to be analyzed was to become an additional measure under an  
2 existing program (i.e. Residential SEER 14 A/C would fall under FPL's existing  
3 Residential HVAC Program) the existing administrative cost of the program was  
4 used as the administrative cost for the measure. This was the case for most  
5 Residential and Commercial measures and all Industrial measures (i.e. our  
6 Business Custom Incentive Program); 2) if the measure is not currently covered  
7 under one of FPL's current programs, the mean administrative cost of FPL's  
8 programs was utilized.

9  
10 **III. NRDC-SACE's Misunderstanding of Load Control Program Benefits**

11  
12 **Q. Is Witness Mosenthal correct when he says on page 27 lines 1-3 that**  
13 **participants do not receive benefits from participating in a load control**  
14 **program?**

15 **A.** No, participants receive two benefits from participation in a load control program.  
16 First they receive the benefit of a cost effective reduction in the capacity required  
17 on FPL's system. This is a benefit they share with all other customers. Secondly,  
18 they receive a financial incentive to participate on a load control program.  
19 Despite Witness Mosenthal's mistaken impression, as Witness Sim explains in his  
20 rebuttal, any such incentive, whether in the form of a customer incentive or a  
21 recurring rate reduction, was recognized in FPL's assessment of cost-  
22 effectiveness under the participant test.

1 **Q. Is Witness Mosenthal correct when he says on page 27 lines 6-10 that**  
2 **participants in load control invest money to install and operate load control**  
3 **equipment?**

4 **A. No, participating customers do not pay to install and maintain their load control**  
5 **equipment. They have no out of pocket cost required to participate on FPL's load**  
6 **control programs. These costs are incurred by the utility. They are then**  
7 **capitalized and a return of and on those costs are recovered from all customers**  
8 **who pay the Energy Conservation Cost Recovery (ECCR) charges. All customers**  
9 **pay because such installations are cost-effective to all customers.**

10

11 **IV. NRDC-SACE's Lack of Understanding of FPL's DSM Program**

12 **Initiatives**

13

14 **Q. Please address Witness Steinhurst's observation at pages 51 and 52 of his**  
15 **testimony that the FEECA utilities' testimony showed a lack of sensitivity to**  
16 **the requirement that energy efficiency programs be designed and**  
17 **implemented to ensure that hard-to-reach customers' needs are met.**

18 **A. This observation is as unfair as it is undocumented. Witness Steinhurst points to**  
19 **no specific reference in any specific testimony that evidences such a lack of**  
20 **sensitivity by any FEECA utility. Certainly FPL is not indifferent to the needs of**  
21 **its low-income or hard-to-reach customers. FPL not only has special DSM**  
22 **programs to meet their needs, but also has other initiatives to assist in the delivery**  
23 **of all its DSM programs to these customers. This was covered in some detail in**

1 my direct testimony, which Witness Steinhurst appears to have overlooked.  
2 Indeed, FPL has been particularly successful in reaching low-income customers  
3 with its DSM programs.

4  
5 The real lack of sensitivity to the needs of low-income and hard-to-reach  
6 customers is on the part of the NRDC-SACE, whose witnesses advocate the use  
7 of the TRC test rather than the RIM test. They know this will increase rates for  
8 all customers relative to what they would be if the RIM test were used. They  
9 know that higher rates will result in higher bills for not only non-participants, but  
10 also for participants whose reduced usage does not sufficiently offset their higher  
11 rates. They willingly advocate such results because their acknowledged goal is to  
12 reduce air emissions. I think this hidden tax to reduce air emissions is particularly  
13 insensitive to low-income and hard-to-reach customers.

#### 14 15 **V. Summary**

16  
17 **Q. Please summarize your rebuttal to NRDC-SACE's testimony.**

18 **A.** As a member of the Collaborative, I am disappointed in NRDC-SACE's multiple  
19 attempts to distance themselves from decisions in which they participated and  
20 concurred as part of the Collaborative. NRDC-SACE participated in the  
21 Collaborative. NRDC-SACE participated in and *agreed to* the Collaborative's  
22 decisions regarding the identification and final determination of measures to be  
23 analyzed. NRDC-SACE participated in and *agreed to* the scope of the Technical

1 Potential Study and the end use sectors to be analyzed. NRDC-SACE  
2 participated in and *agreed to* the Collaborative's decision to employ the two-year  
3 payback as a screening tool to address free riders. NRDC-SACE's decision to  
4 offer testimony attacking the Technical Potential Study when they agreed to the  
5 Study's scope and underlying measures is, at best, misleading to the Commission.  
6 Similarly, NRDC-SACE's decision to file testimony attacking the very two-year  
7 payback criterion to which they agreed to is also misleading.

8 **Q. Does this conclude your rebuttal testimony?**

9 A. Yes.

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**Q.**

Please explain why the following energy efficiency measures were excluded from the Energy Efficiency Technical Potential Study. As part of this response, please provide an estimated kWh and kW savings potential for each measure based on the Florida market.

Residential Sector:

- A. Smart Strips/Phantom Load Switch
- B. Second refrigerator turn-in
- C. Light Emitting Diode (LED) lighting
- D. Programmable thermostats
- E. Second freezer turn-in
- F. Zero-energy homes
- G. T-5 lighting
- H. Daylighting/Solar tubes
- I. Dimmable CFLs
- J. LED Holiday Lighting

**A.**

In general, the residential efficiency measures listed below were excluded from the technical potential study due to either: 1) a lack of reliable and readily available cost, savings, or baseline data to support a robust analysis of potential; and/or 2) evidence that the incremental energy savings associated with particular measures overlapped and were being captured by other measures in the analysis. Below, we provide explanations specific to each of the measures listed below.

Note that since these measures were not assessed as part of the study, kWh and kW savings potential estimates for those measures in Florida were never produced and are thus not available.

Residential Sector:

A. Smart Strips/Phantom Load Switch

Smart Strips save energy by reducing or eliminating standby power losses from home electronics that draw power in "off" mode. The Energy Star home electronics measures considered in the study are specifically designed to capture those same savings (i.e., reduction or elimination of standby power losses) using power management technology in the end-use device itself, rather than at the plug.

Note that Itron also explored including Green Plugs as a measure in the study but determined that this technology is currently upstream OEM technology, applicable only to DC-powered portable electronics and that currently there are no products commercially available with embedded Green Plug technology.

B. Second refrigerator turn-in

Second refrigerator early retirement was not included as a measure in this study because the evaluation literature indicates that this measure often has very high levels of free ridership. We note, for example, that the long-term saturation of second refrigerators in states with many years of refrigerator retirement programs, such as California, shows little, if any, reduction.

C. Light Emitting Diode (LED) lighting

LEDs were not included in the study because this lighting technology currently delivers less energy savings per fixture compared to CFLs (30-50% for LEDs compared to 60-75% for CFLs) and costs approximately 10 times as much as a CFL (~\$30/lamp for LEDs compared to \$2-3/lamp for CFLs). In this respect, the technical potential of LEDs is largely subsumed in the technical potential of CFLs given that the applicability of these technologies to residential lighting applications is similar.

D. Programmable thermostats

This measure was excluded for two reasons. First, ex-post evaluations of energy savings are inconclusive regarding whether material savings result from this measure. Second, evaluation studies indicate very high levels of free ridership because programmable thermostats are standard practice.

E. Second freezer turn-in

Second freezer early retirement was not included as a measure in this study because the evaluation literature indicates that this measure often has very high levels of free ridership.

#### F. Zero-energy homes

Zero-energy homes are bundles of energy efficiency measures and distributed generation technologies, typically consisting of high levels of insulation, reflective roof surfaces, high-efficiency end-use equipment, solar thermal water heating, and rooftop solar photovoltaic (PV) arrays for generating electricity to displace power from the utility grid. Each of these components of zero-energy homes was included as individual measures in the technical potential study.

#### G. T-5 lighting

T-5 lighting was not included in the study primarily because this technology exhibits very similar energy savings characteristics as the T-8 measure that was included in the study, i.e., the luminous efficacy (lumens per watt) of T-5 lamps is similar to that of T-8 lamps. In this respect, the technical potential of T-5 lamps is subsumed in that of T-8 lamps.

#### H. Daylighting/Solar tubes

Residential daylighting was not included in the study due a lack of reliable costs and savings data and reliable estimates of the interactions between increased solar gains from this measure with residential HVAC loads.

#### I. Dimmable CFLs

Since the luminous efficacy of dimmable CFLs is the same or lower than that of non-dimmable CFLs, the technical potential of dimmable CFLs is subsumed in the technical of non-dimmable CFLs to the extent that the applicability of dimmable and non-dimmable CFLs overlap significantly. Additionally, the reliability and performance of dimmable-CFLs is currently poor compared to non-dimmable CFLs, which adds significant uncertainty to estimating the costs and savings of current dimmable CFL products.

#### J. LED Holiday Lighting

LED Holiday Lighting was excluded from the study primarily due to a lack of reliable baseline data on holiday lighting saturation, unit consumption, and usage patterns in Florida. In addition, this is likely a relatively small measure in terms of aggregate savings.

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**Q.**

Please explain why the following energy efficiency measures were excluded from the Energy Efficiency Technical Potential Study. As part of this response, please provide an estimated kWh and kW savings potential for each measure based on the Florida market.

Commercial Sector:

- A. Programmable Thermostat
- B. Energy Efficiency "Smart" Power Strip for PC/Monitor/Printer
- C. Energy Star Compliant Single-Door Refrigerator
- D. Vending Miser for Non-Refrigerated Machines
- E. Specialty Lighting
- F. Integrated Building Design
- G. Energy Efficient Windows
- H. High Efficiency Steamer
- I. High Efficiency Holding Cabinet
- J. Induction Cook-tops
- K. Refrigeration Economizer
- L. Commercial Reach-In Cooler
- M. Commercial Reach-In Freezer
- N. Commercial Ice-Maker
- O. Zero-Energy Doors – Coolers
- P. Zero-Energy Doors – Freezers
- Q. Door Heater Controls
- R. Discus Compressor
- S. Scroll Compressor
- T. Floating Heat Pressure Control
- U. Pools – pumps, temperature controls, etc.
- V. High Efficiency Hot Tubs/Spas

**A.**

As described by Itron: In general, the commercial efficiency measures listed below were excluded from the technical potential study due to either: 1) a lack of reliable and readily available cost, savings, or baseline data to support a robust analysis of potential; and/or 2) evidence that the incremental energy savings associated with particular measures overlapped and were being captured by other measures in the analysis. Below, we provide explanations specific to each of the measures listed below.

Note that several measures listed below were indeed included in the technical potential study.

For the measures that were not included in the study, kWh and kW savings potential estimates for those measures in Florida were never produced and are thus not available.

#### Commercial Sector:

##### A. Programmable Thermostat

This measure was excluded for two reasons. First, ex-post evaluations of energy savings are inconclusive regarding whether material savings result from this measure. Second, evaluation studies indicate very high levels of free ridership because programmable thermostats are standard practice.

##### B. Energy Efficiency "Smart" Power Strip for PC/Monitor/Printer

Smart Strips save energy by reducing or eliminating standby power losses from office equipment that draw power in "off" mode. The Energy Star office equipment measures considered in the study are specifically designed to capture those same savings (i.e., reduction or elimination of standby power losses) using power management technology in the end-use device itself, rather than at the plug.

##### C. Energy Star Compliant Single-Door Refrigerator

This measure was not included in the study for two main reasons. First, the commercial refrigeration measures assessed by Itron (see measures 501-517 in Appendix B of each FEECA utility's technical potential report), focused on measures applicable to remote refrigeration systems, which are the primary type of refrigeration systems used in grocery stores. Second, Itron expects that the 2010 EPACK standards for self-contained, single-door refrigerators will adopt minimum efficiency levels approximating current Energy Star compliant performance levels. This expected change to the baseline for self-contained, single-door commercial refrigerators would result in very little incremental savings, if any, from units compliant with the current Energy Star product specification.

##### D. Vending Miser for Non-Refrigerated Machines

This measure is included in the study. See measure 901 ("Vending Misers") in Appendix B of each FEECA utility's technical potential report.

##### E. Specialty Lighting

This does not appear to be a specific energy efficiency measure per se. Note that the technical potential study included efficiency measures applicable to the following commercial lighting types: general service indoor lighting, high-bay indoor lighting, and outdoor lighting.

#### F. Integrated Building Design

Integrated building design measures were included in the achievable potential analysis for commercial new construction, as indicated in the response to Interrogatory No. 12.

#### G. Energy Efficient Windows

Advanced windows were not included as a measure in the existing construction analysis primarily because the stock turnover rate for replacement windows in existing commercial buildings is very slow, such that this measure does not represent a significant energy savings opportunity in existing commercial construction. Indeed, FPL has offered incentives for efficient window replacements in commercial buildings as part of its building envelope program for the past ten years and has experienced zero participation. Note that advanced windows are implicitly included in the integrated design "packages" analyzed in commercial new construction.

#### H. High Efficiency Steamer

This measure was excluded for two main reasons. First, commercial electric cooking accounts for a very small share of total electricity sales and peak demand from commercial customers in Florida (approximately 2% - see Figures 3-13 to 3-15 in each FEECA utility's technical potential report). Given the limited time and resources available for this study, Itron focused first and foremost on the largest end uses and the respective efficiency measures applicable to those end uses. Second, in Itron's judgment, there is still a high level of uncertainty regarding both the costs and savings associated with commercial cooking measures, which severely limits the reliability of related estimates of technical potential and cost-effectiveness.

#### I. High Efficiency Holding Cabinet

This measure was excluded for two main reasons. First, commercial electric cooking accounts for a very small share of total electricity sales and peak demand from commercial customers in Florida (approximately 2% - see Figures 3-13 to 3-15 in each FEECA utility's technical potential report). Given the limited time and resources available for this study, Itron focused first and foremost on the largest end uses and the respective efficiency measures applicable to those end uses. Second, in Itron's judgment, there is still a high level of uncertainty regarding both the costs and savings associated with commercial cooking measures, which severely limits the reliability of related estimates of technical potential and cost-effectiveness.

#### J. Induction Cook-tops

This measure was excluded for three main reasons. First, commercial electric cooking accounts for a very small share of total electricity sales and peak demand from commercial customers in Florida (approximately 2% - see Figures 3-13 to 3-15 in each FEECA utility's technical potential report). Given the limited time and resources available for this study, Itron focused first and foremost on the largest end uses and the respective efficiency measures applicable to those end uses. Second, in Itron's judgment, there is still a high level of uncertainty regarding both the costs and savings associated with commercial cooking measures, which severely limits the reliability of related estimates of technical potential and cost-effectiveness. Third, this particular commercial cooking technology has historically had very high incremental costs.

#### K. Refrigeration Economizer

Refrigeration economizers (bringing in outside air to provide free cooling for large, walk-in coolers or freezers) were not included in the study due to the limited feasibility of this measure in the Florida climate. Specifically, refrigeration economizers require outside air temperatures to be at or lower than the desired temperature inside walk-in coolers and freezers for a significant period of time in order to derive energy savings benefits. Florida's warm climate, even during the winter season, severely limits the number of hours where refrigeration economizers can be effective energy savings strategies. Additionally, the ambient humidity levels of outside air in Florida pose a significant barrier to the use of outside air economizers as an efficiency measure due to the additional energy required to remove moisture from any outside air brought into conditioned spaces.

#### L. Commercial Reach-In Cooler

This does not appear to be a specific energy efficiency measure *per se*. Note that the commercial refrigeration measures assessed by Itron (see measures 501-517 in Appendix B of each FEECA utility's technical potential report), focused on measures applicable to remote refrigeration systems. In grocery store settings, these remote refrigeration systems serve many different kinds of refrigerated spaces (e.g., walk-in coolers, display cases, etc.) including reach-in coolers.

#### M. Commercial Reach-In Freezer

This does not appear to be a specific energy efficiency measure *per se*. Note that the commercial refrigeration measures assessed by Itron (see measures 501-517 in Appendix B of each FEECA utility's technical potential report), focused on measures applicable to remote refrigeration systems. In grocery store settings, these remote refrigeration systems serve many different kinds of refrigerated spaces (e.g., walk-in coolers, display cases, etc.) including reach-in freezers.

N. Commercial Ice-Maker

This does not appear to be a specific energy efficiency measure *per se*.

O. Zero-Energy Doors – Coolers

This measure is included in the study. See measure 513 (“High R Value Glass Doors”) in Appendix B of each FEECA utility’s technical potential report.

P. Zero-Energy Doors – Freezers

This measure is included in the study. See measure 513 (“High R Value Glass Doors”) in Appendix B of each FEECA utility’s technical potential report.

Q. Door Heater Controls

This measure is included in the study. See measures 511 (“Anti-sweat Controls”) in Appendix B of each FEECA utility’s technical potential report.

R. Discus Compressor

This measure is a form of high efficiency compressors for refrigeration systems. High efficiency compressors for commercial refrigeration systems are included in the study (see measure 505 in Appendix B in each FEECA utility’s technical potential report).

S. Scroll Compressor

This measure is a form of high efficiency compressors for refrigeration systems. High efficiency compressors for commercial refrigeration systems are included in the study (see measure 505 in Appendix B in each FEECA utility’s technical potential report).

T. Floating Head Pressure Control

This measure is included in the study. See measure 507 (“Floating Head Pressure Controls”) in Appendix B of each FEECA utility’s technical potential report.

U. Pools – pumps, temperature controls, etc.

This measure was not included in the study due to a lack of data required to reasonably characterize separate baselines for energy consumption and peak demand associated with swimming pools in commercial facilities. Specifically, the 1996 commercial end-use survey conducted by Regional Economic Research for FPL did not develop or estimate end-use saturations, equipment densities, full load equivalent operating hours, or connected loads for commercial swimming pools, and other independent baseline estimates for this commercial end use were not readily available at the time of the study.

## V. High Efficiency Hot Tubs/Spas

This measure was not included in the study due to a lack of data required to reasonably characterize separate baselines for energy consumption and peak demand associated with hot tubs and spas in commercial facilities. Specifically, the 1996 commercial end-use survey conducted by Regional Economic Research for FPL did not develop or estimate end-use saturations, equipment densities, full load equivalent operating hours, or connected loads for commercial hot tubs and spas, and other independent baseline estimates for this commercial end use were not readily available at the time of the study.