BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of

PETITION FOR APPROVAL OF NUMERIC CONSERVATION GOALS BY FLORIDA POWER & LIGHT COMPANY. — DOCKET NO. 040029-EG

PETITION FOR APPROVAL OF MODIFICATIONS TO BUILDSMART PROGRAM BY FLORIDA POWER & LIGHT COMPANY. — DOCKET NO. 040660-EG

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VOLUME 1

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PROCEEDINGS:	HEARING
BEFORE:	COMMISSIONER J. TERRY DEASON COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER LISA POLAK EDGAR
DATE:	Monday, October 10, 2005
TIME:	Commenced at 9:30 a.m. Concluded at 4:10 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR Official FPSC Hearings Reporter (850) 413-6732

APPEARANCES:

NATALIE F. SMITH, ESQUIRE and PATRICK M. BRYAN, ESQUIRE, Florida Power & Light Company, 700 Universe Blvd., Juno Beach, Florida 33408-0420, appearing on behalf of Florida Power & Light Company.

WILLIAM J. TAIT, JR., ESQUIRE, 1061 Windwood Way, Tallahassee, Florida 32311, appearing on behalf of Calcs-Plus.

MARTHA BROWN, ESQUIRE, and ADRIENNE VINING, FPSC General Counsel's Office, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, appearing on behalf of the Florida Public Service Commission Staff.

I N D E X

WITNESSES

EXHIBITS

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2	(Description in Exhibit 1)	6	33
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14	Home buyer and home builder key needs	92	130
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P R O C E E D I N G S

COMMISSIONER DEASON: Call the hearing to order. Could I have the notice read, please.

MS. BROWN: By notice issued September 7th, 2005, this time and place was set for an administrative hearing in Docket Number 040029-EG, petition for approval of numeric conversation goals by Florida Power and Light Company, and Docket Number 040660-EG, petition for approval of modifications to BuildSmart Program by Florida Power and Light Company. The purpose of the hearing is set out in the notice.

COMMISSIONER DEASON: Okay. Thank you.

Take appearances.

MS. SMITH: Good morning, Commissioners. Natalie Smith and Patrick Bryan at the address noted in the prehearing order appearing on behalf of Florida Power and Light Company.

MR. TAIT: William J. Tait, Junior, attorney for the Petitioners, appearing on their behalf.

MS. VINING: Adrienne Vining and Martha Carter Brown, appearing on behalf of the Commission.

COMMISSIONER DEASON: Very good.

And, Ms. Brown, we have some preliminary matters?

MS. BROWN: Adrienne has some exhibits and testimony to present to you. We have no other preliminary matters that I'm aware of.

COMMISSIONER DEASON: Do the parties have anything

before we start addressing testimony and exhibits?

MS. SMITH: No, sir.

MR. TAIT: No, sir.

COMMISSIONER DEASON: Please proceed.

MS. VINING: Staff would ask that the Comprehensive Exhibit List be identified as Hearing Exhibit 1. It has been distributed to all the parties, and all the Commissioners should have a copy as well.

COMMISSIONER DEASON: The Comprehensive Exhibit List will be identified as Exhibit 1.

(Exhibit 1 marked for identification.)

MS. VINING: And we would also ask that the exhibits enumerated on that list be identified with the numbers on that list.

COMMISSIONER DEASON: And that will be Exhibits 2 through 12, is that correct?

MS. VINING: Correct.

COMMISSIONER DEASON: Okay. Show then that Exhibits 2 through 12 as identified in Exhibit 1 will be so numbered.

(Exhibits 2 through 12 marked for identification.)

MS. VINING: And we would also like to note at this time that the testimony of Neil Moyer, Rick Dixon and Ken Fonorow have been stipulated and can be entered into the record as though read.

COMMISSIONER DEASON: Okay. Let's go ahead and

address that at this time then. Are there prefiled exhibits to these pieces of testimony?

MS. VINING: Yes, there are. Exhibit 11 as identified in the Comprehensive Exhibit List is an exhibit for Neil Moyer, and Exhibit 12 is an exhibit for Rick Dixon. Ken Fonorow did not have any exhibits.

COMMISSIONER DEASON: Okay. Is there any objection to the insertion of the testimony of Witnesses Moyer, Dixon and Fonorow into the record?

MR. BRYAN: No, sir.

MR. TAIT: No, sir.

COMMISSIONER DEASON: Show then that the testimony for those witnesses will be inserted into the record, and that the accompanying, Exhibits 11 and 12, are also entered into the record.

MS. VINING: Thank you.

(Exhibits 11 and 12 admitted into evidence.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

CALCS PLUS

TESTIMONY OF NEIL MOYER

DOCKET NOS. 040029-EG, 040660-EG

AUGUST 12, 2005

1. Please **state your name, current position and address.**

Neil Moyer, Research Engineer

Florida Solar Energy Center

1679 Clearlake Rd

Cocoa, FL 32922

2. **Please provide us your educational background and any special credentials or training that you have received relevant to your testimony in this case.**

Please see attached resume in Exhibit I

3. **Please provide us with your past and present professional association memberships and positions you have held in those associations.**

Please see attached resume in Exhibit I.

4. **Please provide us with a brief statement of your background and experience in the areas of building science, standards of building practice and programs involving residential energy efficiency and conservation.**

Please see attached resume in Exhibit I.

5. **Please provide us with a brief statement of activities in which you have initiated, supported, and/or managed the establishment and adoption of standards in the areas of residential building construction practices.**

None

6. **Have you conducted any research concerning the practice of diagnostic testing of duct systems using methodology referred to as "Pressure Pan" testing? Please describe your research activities and the general results of the research.**

No

7. **Have you ever co-authored and manuals or publications concerning the use of Pressure Pans in diagnostic testing of duct systems?**

Yes

8. **Please list the titles and who funded the work?**

Cummings, J., J. Tooley, N. Moyer, "DUCT DOCTORING: DIAGNOSIS AND REPAIR OF DUCT SYSTEM LEAKS. (DRAFT) 01-93", Florida Solar Energy Center, Rpt: FSEC-GP-48-92, Jun. 01, 1993

Tooley, J., N.Moyer, "The DUCT HANDBOOK – a Practical Field Guide and Reference", Building Science Corporation, 1994

Cummings J., Withers, Jr. C., Fairey, P., Guiney, W., Moyer, N., "CLASS 1 – FLORIDA ENERGY GAUGE CERTIFIED ENERGY RATER TRAINING MANUAL", Florida Solar Energy Center, July 1, 1998

9. **Can the Pressure Pan method be used to quantify duct system leakage, in terms of total leakage and out leakage?**

No

If yes, is there a direct conversion, via a mathematical equation, to quantify duct leakage in the system?

No

10. Please describe, in layman's terms, the basic advantages and disadvantages and limitations of using a Pressure Pan to quantify duct leakage.

The pressure pan was developed as a diagnostic tool to assist in locating duct leaks to the outside.

Advantages:

a. The procedure is relatively fast and requires only the use of a blower door capable of (de)pressurizing a building to 50 pascals of pressure with respect to outside.

b. It will indicate a general location of the leak(s) and give an indication of its severity.

Disadvantages:

- All of the duct system leakage must be outside of the building pressure boundary; that is if there is leakage to within the building's pressure boundary, then the leakage to outside may be masked (not seen or not seen as needed to be sealed).
- The test tends to exaggerate the leakage between the duct system and the grills and registers.
- Pressure pans do not measure leakage rates.

- Pressure pan readings are sometimes hard to interpret. For example, if two registers or grills are close together, the pressure reading will be low. If the zone containing the duct work is affected by the pressurization of the blower door, then the readings will tend to be low.
- For best results, the house must be (de)pressurized to 50 pascals – leakier or larger houses may require multiple fans to accomplish this.

11. In general, will testing with a pressure pan locate and quantify the leakage from:

a. A supply register inadvertently covered by drywall?

No

b. A hole in the ductwork greater than 5 feet from the register covered by the register?

Maybe

c. Any leakage involved with an air handler assembly and associated plenums located in the garage or attic?

Maybe

d. Supply or return junction boxes and components more than 5 ft away from the Pressure Pan connection?

Assuming that you are referring to leakage at those points – maybe

e. A return disconnect located in a conditioned space?

No

12. Please explain the term Qn as it relates to duct leakage.

Qn is normalized duct leakage. It is the leakage (airflow) measured using a duct tester when the duct system is (de)pressurized to 25 pascals divided by the conditioned floor area. It may represent total duct leakage or outside leakage, depending on the type of duct test completed. It is not the leakage created by the operation of the air handler fan – it is only a test method to determine the normalized leakage rate for the duct system.

13. What does Qn=.05 mean in layman's terms?

It means that for every 100 square feet of conditioned floor area, there is 5 CFM25 of duct leakage (or about 1 square inch of hole in duct per 100 square feet of conditioned floor area. Also, it means that the system is relatively tight.

14. How is Qn determined using accepted duct testing methods?

The total house duct leakage (airflow) at 25 pascals in cfm is divided by the total conditioned floor area.

15. How is Qn determined by using the Pressure Pan method?

It cannot be.

16. Have you performed research on the leakage of air handlers in unconditioned spaces?

No

If so, please describe? On average, what is the leakage of an air handler using standard installation procedures in Qn terms? No research performed

17. **Have you appeared before any state policy-making bodies concerning the use of the Pressure Pan in determining duct leakage?**

Yes

18. **If yes, please describe what governing bodies, the date(s) of your appearances and the purpose of your testimony?**

FLORIDA BUILDING COMMISSION Energy TAC

July 1, 2002

Purpose was to describe residential duct system testing and pressure pan testing.

What was the result on the issue on which you testified?

DCA02-DEC-173 Petitioner asked for clarification of section 13-610.1.A.1 as to who is a "State approved performance tester"?

Ann Stanton, DCA staff, briefly described the Building Energy Rating System (BERS) for members who may not have known about the program. Geyslaer and Bailey declared some type of contractual relationship to the petitioner, the Florida Power & Light Co.

ACTION: After considerable discussion, Glenn moved that only Class 1 BERS raters may serve as a "State approved performance tester" under section 13-610.1.A.1. The motion was approved unanimously.

DCA02-DEC-175 Petitioner asked for clarification of section 13-610.1.A.1.of the code to answer the question: "What is a total duct system?"

ACTION: On a motion from Glenn, the TAC voted 5 – 3 that section 13-610.1.A.1 of the code means that total duct system leakage means ALL duct leakage to unconditioned space.

DCA02-DEC-174 Petitioner asked for clarification of section 13-610.1.A.1 of the code to answer the question: "What is performance testing?"

ACTION: On a motion from Crum, the TAC voted 5 – 2 that performance testing as per section 13-610.1.A.1 shall be in accordance with the criteria in Chapter 4 Duct System Airtightness Test, of the Class 1 – Florida Energy Gauge Certified Rater training Manual, Version 1.3, July 1, 1998, excepting section 4.3.

19. **Were associates of Florida Power and Light present at the meeting(s) you attended?**

Yes

20. **Is the Pressure Pan protocol accepted by Florida as a viable method to quantify duct leakage fro the State Energy Code or the State BER's system?**

No

21. **To the best of your knowledge, is the Pressure Pan methodology for quantifying duct leakage accepted as a viable method anywhere else in the country?**

No

If so, where? nowhere

21. **Does that conclude your testimony? yes**

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

CALCS PLUS

TESTIMONY OF RICHARD W. DIXON

DOCKET NOS. 040029-EG, 040660-EG

AUGUST 12, 2005

1. Please state your name, current position and address.

Richard W. Dixon

Government Analyst II

Florida Building Commission

Department of Community Affairs

2555 Shumard Oak Boulevard

Tallahassee, Fl 32399-2100

2. Please provide us your educational background and any special credentials or training that you have received relevant to your testimony in this case.

BS Engineering, University of Florida, 1973

Managed Research and Development Project to develop the second edition of the Florida Energy Code. Administrator of Building Codes and Standards Office responsible for Building Energy Efficiency Rating System Program.

3. Please provide us with your past and present professional association memberships and positions you have held in those associations.

American Society of Heating, Refrigeration and Air Conditioning Engineers, Associate Member

Building Officials Association of Florida, Associate Member

4. Please provide us with a brief statement of your background and experience in the areas of building science, standards of building practice and programs involving residential energy efficiency and conservation.

Research and Test Engineer, Research Project Manager, University of Florida, Solar Energy and Energy Conversion Laboratories, 1973-1985, responsible for building products and systems energy efficiency evaluation and conservation research.

Florida Energy Code Program Manager, Florida Department of Community Affairs, 1985-1990. Program Administrator at the time the law establishing the Building Energy Efficiency Rating System was enacted and implemented by the Department of Community Affairs.

5. Please provide us with a brief statement of activities in which you have initiated, supported, and managed the establishment and adoption of standards in the areas of residential building construction practices.

Managed the project contracted by the Department of Community Affairs with the University of Florida to develop the second edition of the Florida Energy Code.

Managed the Department of Community Affairs, Florida Energy Code Program during implementation of the second edition of the Code.

Administrator of the Building Codes and Standards Office during implementation of the Building Energy Efficiency Rating System.

6. How does the Florida Building Code measure and regulate residential building energy efficiencies in Florida?

The Florida Building Code incorporates the Florida Energy Efficiency Code for Building Construction which establishes minimum performance standards for

residential and commercial buildings. The Code establishes an energy use target by incorporating a standard set of building component efficiencies and the specific building design into an energy use simulation program. The target energy use is then compared to simulated energy use for the exact building design to determine compliance. If the actual/"as built" building energy use estimated by the simulation program is equal to or less than the energy use for the building with "standard" features/components it will meet the energy target and comply with the Code.

7. Are you familiar with other jurisdictions' efforts to measure and regulate residential building practices and, if so, can you summarize their various approaches?

Some states such as California use a similar "performance" based compliance approach. National model building codes, adopted by most states, utilize both a performance compliance approach similar to Florida and California where the building features can vary from the minimum efficiencies used to estimate total building energy use so long as the overall estimated building energy use meets the performance target and a prescriptive compliance approach where minimum efficiencies must be met for individual building components.

8. Are there national standards for the development of systems for rating the energy efficiency of buildings? If so, describe and indicate where the standards may be found.

Systems were being developed 15 years ago when I was more directly involved in this area. I would defer to others currently expert in this field.

9. How do you believe any residential program purporting to increase residential building energy efficiencies should be measured and monitored?

The effectiveness would be best measured via analysis of actual building energy consumption data correlated to building size, location and climate factors.

10. What is a building energy efficiency rating under Florida Law?

An energy efficiency rating under Chapter 553, Part VIII, Florida Statutes is a statewide uniform means of analyzing and comparing the relative energy efficiency of buildings.

11. Please give us a brief description of your involvement in the development and implementation of the Florida Building Energy Efficiency Rating Law, Florida Statute Chapter 553, Part VIII, Sections 553.90 et seq. and Florida Administrative Code Rule Chapter 9B-60.

I participated in the development of statutory language based on model language used in other states and in the lobbying for passage of the bill.

I was administrator of the office and supervised the program planning manager and staff who worked on the implementation of the system through administrative rule.

12. Are there any categories of ratings? If so, please describe them and the services required to produce each of them.

Yes, there are three categories or classes of ratings. These classes are determined by the nature of the data that are used in the development of the rating and are conducted in accordance with the Florida Department of Community Affairs' Rule 9B-60.

Class 3 ratings are developed based solely on the information provided in construction documents and are considered "projected ratings based on plans" because the properties have not yet been constructed.

Class 2 ratings are developed based on inspection of the actual building, where the energy characteristics of the building are inspected and confirmed.

Class 1 ratings are developed based on inspection of the energy characteristics of the actual building plus the results of specific tests that are performed on the building to measure its air tightness and duct system integrity.

Therefore, class 1 and class 2 ratings are "confirmed" ratings.

13. Is there any difference, other than filing and registering, between the process of developing and completing a code compliance form and a Class 3 rating? If so, describe the similarities and differences.

The technical differences are relatively small because the Law requires that Florida's rating system be compatible with state building codes. The Law also requires that Florida be compatible with national rating system standards. Nonetheless, there are small differences because the "baseline" building used in Florida's code is not always exactly consistent with the HERS Reference home, which, like Florida's code baseline, is the national standard used for comparison in rating systems. BERS ratings also consider the relative efficiencies of lighting and appliances, while the Code considers only heating, cooling and water heating equipment for residential buildings.

14. Is there any relationship between an e-ratio developed in the process of code compliance work and a BERS score developed in the process of a Class 3 rating? If so, explain.

There is no direct relationship; however, the same software is used to provide energy use calculations for both. The code baseline homes that are distributed as examples

in the software have the following HERS Scores

- North Florida Baseline = 82.5
- Central Florida Baseline = 83.0
- South Florida Baseline = 82.9

15. Has the Department taken any positions or issued any letters or opinions on enforcing their uniform system for rating the energy efficiency of buildings? If so, please attach a copy of any statement or letter.

Official Department opinions must be promulgated through declaratory statement. There are none on this system to my knowledge. There is an internal letter from a staff attorney to a program staff member found in our files.

16. The Department has periodically reviewed both its building code and its rules relating to regulation of rating systems. What was your role in these activities?

I was the office administrator and supervisor of the program manager during the period of most rating system rule amendments and code changes. I have been director to the Florida Building Commission for the past 5 years.

17. Are you aware of any minimum charges required to be charged for BERS Audits, If so, what are the minimum charges for each classification? If, yes, to the best of your knowledge, are there exceptions for charging these minimums by individuals/businesses in State statutes or rules?

Section 553.995, *Florida Statutes*, specifies that the Florida Department of Community Affairs shall set by rule the appropriate charges for raters to charge for

energy ratings, not to exceed the actual costs. Rule 9B-60 specifies the following fees:

Class 3 rating: $25 above charges for providing the rating or no more than the cost of conducting the rating.

Class 2 rating: $75 above charges for providing the rating or no more than the cost of conducting the rating.

Class 1 rating: $125 above charges for providing the rating or no more than the cost of conducting the rating

18. What are the accepted duct testing method(s) recognized by Florida, other state, national and international standards?

Rule Chapter 9B-60 recognizes Appendices B and C of BSR/ASHRAE Standard 152-2004, "Method of Test for Determining the Design and Seasonal Efficiencies of Residential Thermal Distribution Systems." This standard is recognized by the American National Standards Institute (ANSI).

19. What is the difference between the testing protocols? Which is more accurate and why?

I would defer to the experts in the field of duct testing for comparisons of test protocols.

20. Was Pressure Pan testing ever accepted by the State? If, yes, then is it still accepted as a valid testing protocol? If no, then why not?

Yes, in the past, pressure pan testing was accepted by the state as a "threshold" test for the determination of acceptable duct leakage. As of the most recent change to rule 9B-60 and to national standards, it is no longer an accepted test

protocol for duct leakage under that rule. The promulgation of a national consensus standard (ASHRAE/ANSI Standard 152-2004) accredited by the American National Standards Institute (ANSI), first published in 2004 provides the standard protocol for the measurement of duct leakage.

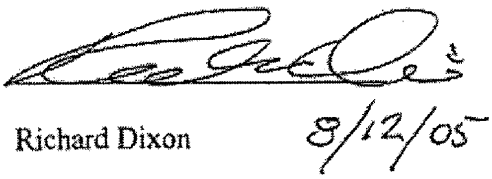
21. Did you provide any recommendation to the Florida Public Service Commission when it adopted Rule 25-17.003(4)(a), F.A.C., as amended on 7/14/1996? If so, what was your recommendation and reasons therefore? Please provide a copy of any written statement or letter that you submitted.

Our records indicate that as a result of the Conservations Goals docket a staff working group of Florida Public Service Commission staff and Florida Department of Community Affairs staff was formed to assess what contribution the state thermal building codes could make in meeting additional demand and energy goals above those efforts of the utility sponsored efficiency programs. One conclusion/recommendation of the workgroup of which I was a member was that the Florida Building Energy Rating system should replace the individual ratings used pursuant to the Five Star Rating programs required by FPSC Rule 25-17.0555. I also co-signed a letter to Commission Chairperson, Susan Clark emphasizing this recommendation. See attachment.

22. Does this conclude your testimony?

Yes.

I have prepared the above pre-filed testimony consisting of ____ pages and swear under penalty of perjury that it is true to the best of my knowledge.



Richard Dixon 8/12/05

Sworn to and subscribed before me this

_____ day of _____ 2005.

_____

Notary Public

State of Florida

My Commission expires:_____

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

CALCS PLUS

TESTIMONY OF KEN FONOROW

DOCKET NOS. 040029-EG, 040660-EG

AUGUST 12, 2005

1. **Please state your name, current position and address.**

Kenneth D. Fonorow, President - Florida H.E.R.O., Inc.

15220 NW 5 Ave, Newberry, FL 32669

2. **Please provide us your educational background and any special credentials or training that you have received relevant to your testimony in this case.**

Nationally Certified HERS Rater Trainer

Nationally Certified HERS Rater

State of Florida Certified Class I, II and III Residential Rater

Masters Program for Building Science, Advanced Energy

Radon Resistant Residential Construction, National Environmental Health Association

Creating Healthy and Efficient Green Building Environments, University of Florida

Understanding Duct Leakage Test Methods, DOE

Healthy House Builder Training, American Lung Association

3. **Please provide us with your past and present professional association memberships and positions you have held in those associations.**

NAHB Research Center, Member - Whole House and Process Redesign Road Mapping for the 21rst Century Task Force

North Central Florida Builders Association - Member, past FHBA Associate State Director, past member Board of Directors

City of Gainesville - Past Vice Chairman and member of the Gainesville Energy Advisory Committee

RESNET - Chair, Advanced Rater Certification Task Force, Member - National Trainers, Providers and Raters Committee, Building Specialist Certification Task Force, Training and Education Committee and Sampling Standards Task Force, National Conference Presenter.

Santa Fe Community College - Member, Building Construction Technology Advisory Committee, Continuing education instructor.

FGBC - (Florida Green Building Coalition) - Member, Board of Directors, Building Committee, Certifying Agent

EBBA - (Energy Efficient Building Association) - Member, National Conference presenter.

Habitat for Humanity International - Member Green Team and Green Team Technical Advisory Committee.

American Lung Association, Florida Chapter - Consultant on Healthy Home Builders Guide

NERA - (National Energy Raters Association) - Past President, Member Board of Directors.

Cross Creek Initiative - Vice President, Past President and Co-founder

ACI - (Affordable Comfort Institute) - National conference presenter

4. **Please provide us with a brief statement of your background and experience in the areas of building science, standards of building practice and programs involving residential energy efficiency and conservation and any awards you've received.**

I have been involved in building science and energy conservation for over 25 years as energy analyst, consultant and problem solver. I am experienced in residential mechanical systems design and installation. My background includes pioneering work in the development of software for energy auditing, blower-door technology and "Green" construction codes.

Personal Awards include:

2005 - RESNET "Market Transformation Leadership Award."

2002-5 - EPA Energy Star Homes Program "Outstanding Achievement Award"

1999 - EPA Energy Star Homes Program "Ally of the Year"

State of Florida "Rater of the Year" - every year that this award was presented.

Awards received by projects that I have consulted on, performance tested and certified include:

The Fechtel Company

2000-2003 SEBC Grand Aurora Energy Efficiency Award and

SEBC Grand Aurora Water-Wise Award

Tampa, Florida

The Dye Companies

2004 SEBC New Southern Home, Orlando

2003 SEBC New Southern Home, Reunion

Winter Park, Florida

All America Homes

2003 NAHB Energy Value Housing Award, Silver Award Winner

2002 SEBC Grand Aurora Award for Energy Efficiency

Gainesville, Florida

Atlantic Design & Construction

2001 EPA Energy Star Small Builder of the Year

Gainesville, Florida

HKW Enterprises, Inc.

2001 NAHB Energy Value Housing Award, Gold Award Winner

Builder Leadership Award, FSEC 1999, 2000 and 2001

Gainesville, Florida

Union Street Station, McGurn Investment Group

2001 NHBA Energy Value Housing Award, Silver Award Winner

Gainesville, Florida

Jennings Development Group, Inc.

First EPA Energy Star Affordable Apartment Complex in Nation

2000 SEBC Aurora Award for Energy Efficient Multi Housing

Gainesville, Florida

Bosshardt Realty

2000 EPA Energy Star Award for Special Recognition

Gainesville, Florida

Town of Tioga

2000 NAHB and Professional Builder Magazine's Gold Award for

"Best In American Living Smart Growth Community"

Newberry, Florida

Lakeland Habitat for Humanity

2000 Walt Disney Foundation Grand Award for Environmental Stewardship

Lakeland, Florida

City of Gainesville's Cedar Grove II

First affordable neo-traditional Energy Star Community in the U.S.

2000 HUD Best Practices Award

Gainesville, Florida

Gainesville Regional Utilities

1998 EPA Energy Star Utility of the Year

Gainesville, Florida

Melinda Koken Builders

1997 First EPA Energy Star Renovated Home in Nation

Gainesville, Florida

Other clients include:

First Off-Grid Home in U.S. to sell carbon credits on the International Carbon Bank & Exchange

Bronson, Florida

The Evans Group, Nationally Renowned Architectural/Design firm

Orlando, Florida

Top of the World, First Energy Star Retirement Community in Florida

Ocala, Florida

Custom 16,000 sq. ft. home powered by the largest privately owned PV system in U.S.

Macon, Georgia

Southface Energy Institute, Atlanta, Georgia

5. **Please describe Gainesville Regional Utilities ("GRU") involvement with the federal Energy Star Homes® program.**

GRU joined this program in 1997 and helped sponsor a public seminar. They helped to publicize and promote this program through print media, TV ads and "bill stuffers" for several years.

6. **Does GRU provide any rating or other services to builders of residential units in its territory? Do you, if so, what services?**

After conducting an economic analysis of their costs to provide rating services, they determined that it would be more cost effective to allow the private sector to provide this service. In addition to the Federally required "Energy Audits", they will assist in the development of load calculations and energy related code compliance forms. Their staff is available to answer consumer questions.

7. **Have you reviewed the attached table (appendix A) reflecting the penetration rate of Energy Star Homes® in the various areas of Florida and does it generally agree with your perception of the activities within GRU territory?**

Yes

8. **How many ratings have you done in the past five years? Past year?**

5 years - 1,250 homes

Past year - 250 homes

9. What methods do you use to test for, and correct, duct leakage?

After a visual inspection I perform a cfm25 test, both total and to out. If a significant deficiency is found, a pressure pan is used as a diagnostic tool to identify the portion(s) of the duct system that has significant duct leakage. In conjunction with the mechanical contractor, theatrical fog is introduced into the duct system to make the leaks visible to the technician, who can then repair the system.

10. Have you used the pressure pan methodology to test for duct leakage? If yes, explain when. If you don't currently use, explain why.

Years ago, I used the pressure pan methodology to test for duct leakage. As the industry became aware of the shortcomings of this test methodology I eliminated it from my testing protocols. This methodology is simply not appropriate to use to determine the leakage rate of a duct system.

11. **Are you familiar with the FPL BuildSmart program? If yes, explain in what way you have become familiar and any experiences you have had with the program.**

I am only peripherally aware of this program as they do not provide electricity in the region I work in. I do know that their practice of providing this service for free has resulted in the virtual elimination of private Rating firms in their service territory.

12. **Does this conclude your testimony?**

Yes.

COMMISSIONER DEASON: Staff, are there any other exhibits we need to enter at this time, or we will take those in due course?

MS. VINING: I think we would take those in due course. None that we are aware of at this time need to be entered in.

COMMISSIONER DEASON: Can we go ahead and enter Exhibit 1? Is there any objection to Exhibit 1, which is just the list of exhibits?

MS. VINING: That can be entered into the record now, yes.

MS. SMITH: No objection.

COMMISSIONER DEASON: Hearing no objection, show then that Exhibit 1 is entered into the record.

MS. VINING: And we would also ask that Exhibit 2 be entered into the record at this time, too. That is Staff's Composite Exhibit, which we believe has been stipulated by all the parties for entrance into the record.

COMMISSIONER DEASON: Okay. Composite Exhibit 2, which consists of discovery responses and an annual report. Any objection to Exhibit 2?

MS. SMITH: No, sir.

MR. TAIT: No.

COMMISSIONER DEASON: Hearing no objection then, show that Exhibit 2 is admitted into the record.

(Exhibit 1 and 2 admitted into the record.)

COMMISSIONER DEASON: Does that conclude staff's preliminary matters?

MS. VINING: Yes.

COMMISSIONER DEASON: I believe that we have set aside five minutes for opening statements, is that correct?

MS. SMITH: Yes, sir.

COMMISSIONER DEASON: I guess I need some guidance. We are here on Mr. Tait's objection, for lack of a better term. Should he go first, or should FPL go first in this case, staff, or does it matter?

MS. BROWN: I don't think it really matters. We had assumed that FPL would go forward because they have the overall burden to prove.

COMMISSIONER DEASON: Very well. We will go in that order, then.

Mr. Tait, that is okay with you, I take it?

MR. TAIT: That's fine with me, Commissioner.

MS. SMITH: Good morning, Commissioners. I am Natalie Futch -- Natalie Smith, I apologize, appearing on behalf of Florida Power and Light Company. This is a case about the competitive economic interests of entities that perform energy ratings for a profit. These interests are beyond the scope of a proceeding before the Commission. In June of 2004, FPL petitioned for modifications to BuildSmart,

its residential new construction conservation program. The modifications are designed to increase the market penetration of the program. The modifications were approved in a proposed agency action order that was protested by Calcs Plus, a private energy rating firm, and its principals, Mr. Stroer and Mr. Klongerbo.

The raters seek to protect and advance their competitive economic interests. This is not the first time the Commission has faced this issue. In 2000, Mr. Stroer and Mr. Klongerbo appeared before the Commission on behalf of a group called the National Energy Raters Association. Their complaint was that FPL and Progress Energy Florida were violating the Commission rule that requires utilities to charge for a building energy rating system audit, known as a BERS audit. They argued the utilities were taking work away from independent raters because they alleged that the inspection process followed for certifying homes in the utility's residential conservation programs was the equivalent of a free rating.

Addressing the Commission at the July 9th, 2002, agenda conference, Mr. Stroer said he had, quote, "Substantial evidence that the utility is coming in and taking work away from independent raters and putting the squash on free enterprise," end quote. Acting on motions to dismiss by FPL and Progress, the Commission dismissed the raters complaint on

grounds that the economic injury to the association was not within the zone of interest to be protected by a proceeding before the Commission.

As in 2002, Calcs Plus' initial protest of the 2004 PAA order approving program modifications included no allegations by the raters of substantial interests as utility customers. However, with the assistance of counsel, Calcs Plus amended its protest and refiled, this time alleging that they have customer interests in the cost-effectiveness of the program. Later, the raters filed a substantially similar partial protest of the PAA order approving FPL's demand-side management plan, challenging both the modified BuildSmart program and the residential conservation service program, which is the program that FPL offers in order to comply with the statutory and rule requirement that it offer residential energy audits.

Though peppered with allegations of customer interest, the raters competitive interest in the proceeding are clear from the protest petitions. For example, their petition alleged concern about, quote, "Undue and/or unreasonable prejudice or disadvantage in their chosen business and profession," end quote. And, quote, "Damage to nonmonopolistic public and private sector efforts to provide competitive services in the area of energy efficient residences."

When FPL served extensive discovery on Calcs Plus in

an attempt to better understand the allegations in their protest petitions, the following response was frequently provided. I'm quoting here. "The answer to this is the purpose of the protest, involves continued legal and factual research, and will be the subject of much testimony following discovery and prefiled evidence." However, any customer interest in BuildSmart and the RCS program are all but absent from the petitioners' prefiled testimony.

For example, Calcs Plus has presented no testimony to refute FPL's cost-effectiveness analysis for BuildSmart. Rather, they have suggested that the Commission use this limited proceeding dealing with two residential conservation programs of only one utility to adopt a new test for cost-effectiveness. This suggestion should be rejected. The cost-effectiveness methodologies approved by the Commission are well thought out and tested. They should not be changed or supplemented without the benefit of a generic proceeding that would apply to all conservation programs of all investor-owned utilities.

In addition, Calcs Plus has presented no testimony refuting that the modified program is designed to cost-effectively reduce weather-sensitive peak demand and meet FPL's Commission-approved DSM goals for the 2005 to 2014 time frame. Instead, Calcs Plus self-servingly asserts that a BERS rating performed by a third party entity such as Calcs Plus is

essential to program success. This is simply wrong and should be rejected.

FPL's proposed modifications are designed to cost-effectively increase participation in the program to bring about overall increases in energy efficiency in its service area. Requiring a BERS rating would only add unnecessary costs that could potentially destroy the program's cost-effectiveness. The proposed modifications to BuildSmart have been eagerly anticipated by both builders and other private raters beside Calcs Plus. FPL intends to work with raters in a collaborative effort to make overall energy efficiency gains even beyond the BuildSmart program offering.

Finally, Calcs Plus devotes considerable attention to whether FPL is using the appropriate methodology for testing air conditioning duct leakage. Ignoring the fact that the pressure pan methodology used by FPL is a widely accepted diagnostic tool that is appropriate for BuildSmart program purposes. Their unwarranted attention to the pressure pan duct testing methodology ignores or obscures the fact that the duct test is only one of numerous requirements that must be met in order to achieve BuildSmart certification.

In sum, Calcs Plus' protest of modifications to the BuildSmart and Residential Conservation Service Program is another unsubstantiated attempt to advance their competitive interests and should be rejected. For the reasons described in

the prefiled testimony of Witnesses Haywood and Sim, the Commission should approve the modified BuildSmart Program and the Residential Conservation Service Program to enable FPL to meet its Commission approved demand-side management goals for the 2005 to 2014 time frame.

Thank you.

COMMISSIONER DEASON: Thank you.

Mr. Tait.

MR. TAIT: My name is Jim Tait. I have to apologize in advance that this is the first hearing of this nature that I have been participating in, so if I make some mistakes I hope you will correct me, or I have requested the other attorneys to correct me as I go along.

Basically, the genesis of this case comes from the Commission actions beginning at the beginning of FEECA, which was in 1985. In 1983 to '85, both the Florida Energy Building Code was adopted as well as FEECA in response to the energy crisis at that time, and we have had 20 years of experience with it.

When it was adopted, special consideration was truly given by this Commission under I guess what you would call the Cresse Rule in that the Commission did not really authorize any new residential construction programs. They wanted to observe and see how the new emerging Florida Energy Code would handle residential programs, and so the Commission really did not

approve as part of a FEECA cost-recovery effort new construction programs.

This was changed in the 1993 to '95 time period at the urging of both the Florida Energy Office, the utilities themselves, environmental groups, and others to say that there was a role that could be played by utilities in effectively and efficiently improving energy efficiency in new residential buildings.

That was predicated, though, on the fact that it was in recognition that the Florida Energy Code was a very modern code, it is performance based, it was very effective and had substantially increased energy efficiency in Florida residences during its time from its inception, but that there were additional kind of products and measures, best practices that could take energy efficiency in homes beyond the existing code. And, basically, as explained by the code primary staff person at that time and over time is that the code basically looks to products and measures and best practices that are inculcated by 50 to 70 percent of the builders in Florida before it goes in as a minimum code.

In other words, you ratchet up the bottom, the worst of people building houses in Florida towards the new code, and it is reviewed every three years. It really does not offer or push to introduce new products and measures and services into residential building practices in Florida, and that there was a

role that could be played by utilities at that time. Part of that flowed from a study done back in '93 to '95 by Florida Power and Light, which was a landmark study done of building practices, and also underlied and provided the basis for Florida Power and Light's offering of the BuildSmart program on a pilot basis in selected counties in '95, and then ultimately in 1997 receiving permission from the Commission to expand it statewide to their entire territory throughout the state.

It was, though, predicated on the fact that energy efficiency in the homes that participated in BuildSmart, the builders who were building those homes, would improve the energy efficiency by at least 10 percent which was their bronze medallion level, 20 percent by their silver medallion level, and 30 percent by their gold medallion level as a market differentiation that the builders could then use in the marketplace to say this home is built to better than the Florida minimum building standards, and introduce these new products, new measures, and new ways of building homes, of best practices into the environment, and hopefully get it adopted broadly enough to where then that practice could then be adopted by the building code to require all builders to adopt those practices and keep pushing forward energy efficiency in homes.

Florida Power and Light's opening argument is correct in that this case was initially based, similar to the 2002

case, on the fact that Florida Power and Light's action in this area did affect the private competitive marketplace. We perceive this service to be relatively unregulated service although certainly it has to meet the criteria and regulations of the Florida Energy Efficiency Code, but it is not part of the so-called regulatory compact the exchange of a certain designated territory and all the customers in that territory for electric service under Chapter 366 that you enforce, but, rather, a relatively unregulated service offered in the competitive marketplace where there are other competitive service providers. That was an initial part of the protest.

In addition to that, both Mr. Stroer and Mr. Klongerbo are residential customers of Florida Power and Light, as well as their corporation, Calcs Plus, is a commercial customer. They raised a series of issues as a consumer and as a ratepayer that they were being required to provide financing for Florida Power and Light's entry into this service area. And so they raised a series of questions about the reasonableness and prudentness of some of the cost factors. They raised a series of questions about the modifications to the program as modified as whether or not it does provide a cost-effective way of providing those, and that their costs that are borne by the ratepayers are prudent and reasonable.

We will go through, you know, the very testing methodology. They have raised basic questions about whether or

not the Florida Power and Light program as it currently exists in some categories, which is not modified and certainly as modified fail to meet the standards of adequate monitoring and adequate performance as required by the Florida Public Service Commission under its criteria.

We do look at the cost-effectiveness test and show that the results of the cost-effectiveness test have been changed since the earlier current program, by dramatically increasing the participant benefit or cost reduction to the benefit of the participant, and increasing the cost to the ratepayer. And we question both the reasonableness and prudence of that, although we certainly do stipulate that they do met the RIM, TRC, and participant tests. But we challenge the underlying factors that are involved in that, and why they have chosen to increase this cost on the ratepayers.

As you will see through the testimony of the six witnesses that we have presented, three of which are in the record, three of which will be here today, we believe that we can show that the program, as modified and designed to proceed, fails to meet the Commission standards that it has placed on these programs, and that the Commission should continue to recognize this as a very special program, as well as the Residential Conservation Services Program, where they spend slightly more than four and a half million dollars in advertising costs, which advertises them as a key leader in the

market as far as energy efficiency and providing information to consumers in Florida. Thank you.

COMMISSIONER DEASON: Thank you.

Staff, I assume you have no opening statement?

MS. BROWN: That's correct, Commissioner.

COMMISSIONER DEASON: Okay. I believe we can swear in witnesses at this point?

MS. BROWN: Yes.

COMMISSIONER DEASON: All witnesses that are present, please stand and raise your right hand.

(Witnesses sworn collectively.)

COMMISSIONER DEASON: FPL, you may call your first witness.

MS. SMITH: We would ask that Dan Haywood be called.

DANIEL J. HAYWOOD

was called as a witness on behalf of Florida Power and Light Company, and having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. SMITH:

Q Would you please state your name and business address?

A Yes. My name is Daniel J. Haywood. My business address is 700 Universe Boulevard, Juno Beach, Florida.

Q By whom are you employed and in what capacity?

A I am employed by Florida Power and Light as a lead

business specialist.

Q Have you prepared and caused to be filed 26 pages of prefiled direct testimony in this proceeding?

A Yes, I have.

Q Do you have any changes or revisions to your direct testimony?

A No, I do not.

Q If I asked you the same questions contained in your prefiled direct testimony, would your answers be the same?

A Yes.

MS. SMITH: I would ask that Mr. Haywood's prefiled direct testimony be inserted into the record as though read.

COMMISSIONER DEASON: Without objection it shall be so inserted.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF DANIEL J. HAYWOOD

DOCKET NOS. 040029-EG, 040660-EG

JULY 15, 2005

Q. Please state your name and business address.

A. My name is Daniel J. Haywood and my business address is: 700 Universe Boulevard, Juno Beach, Florida 33408.

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

A. I am employed by Florida Power & Light Company (FPL) as a Lead Business Specialist in the Marketing Department.

Q. What are your responsibilities and duties related to the development of FPL's Residential New Construction program ("BuildSmart®" or the "Program")?

A. I am responsible for the redesign of the BuildSmart® Program. This includes identification and analysis of customer needs, and development of program enhancements to meet demand side management (DSM) objectives and customer needs. I am also responsible for implementation of approved program modifications.

Q. Please describe your education and professional experience.

A. I received a Bachelor of Science Degree in Electrical Engineering from Florida Atlantic University in 1992. I received my Masters Degree in

Business Administration from the University of Florida in 2004. I am a licensed Professional Engineer in the State of Florida. I was hired by FPL in 1984 in the Customer Service Department and have worked in positions of increasing responsibility in the areas of Customer Service, Power Systems Design and Operations, Product Development and Marketing.

Q. What is the purpose of your direct testimony?

A. The primary purpose of my testimony is to describe BuildSmart and the proposed Program modifications. BuildSmart, which targets energy efficiency measures in new residential construction, is proposed as part of FPL's DSM plan designed to meet FPL's Commission-approved goals for the period 2005-2014. I will address the ways in which BuildSmart, as modified, is designed to advance the policy objectives of the Florida Energy Efficiency and Conservation Act (FEECA) and satisfy applicable Florida Public Service Commission (PSC or Commission) rules. In addition, I will demonstrate that the redesigned BuildSmart program is directly monitorable and yields measurable results. Also, I will describe how FPL developed the inputs used to determine the cost-effectiveness of BuildSmart, as modified, using the cost-effectiveness methodologies required by Florida Administrative Code (FAC) Rule 25-17.008 and the planning assumptions from FPL's 2005-2014 planning process. Dr. Sim's testimony will address the cost-effectiveness analysis.

My testimony also addresses FPL's Residential Conservation Service Program (RCS). I discuss the fact that, pursuant to FAC Rule 25-17.003, FPL is required to offer residential energy audits, which FPL delivers through RCS.

Q. Are you sponsoring an exhibit in this case?

A. Yes, it consists of the following documents:

Document No. DJH-1, Homebuyer and Homebuilder Key Needs;

Document No. DJH-2, Summary Comparison of Program Components and Features;

Document No. DJH-3, Projected Demand and Energy Savings;

Document No. DJH-4, Projected Participation (RCS Program).

CURRENT DESIGN OF BUILDSMART PROGRAM

Q. What is the objective of BuildSmart?

A. BuildSmart is designed to promote the construction of energy-efficient homes that cost-effectively reduce FPL's coincident peak load and customer energy consumption.

Q. How is the Program currently designed?

A. Currently, BuildSmart is targeted to the residential, new construction, single family, detached dwelling market. FPL performs plan reviews and conducts home inspections during the construction process and provides certification of completed homes that successfully meet Program standards.

Based on tiered criteria, FPL charges fees to homebuilders for plan inspection and certification. FPL charges different fees per home, depending upon the

calculated level of energy performance (e-Ratio) achieved. Lower fees are charged to homes with higher energy performance i.e. less projected energy consumption than a baseline home, and homes that have an e-Ratio at least 30% more efficient than the baseline have no fee. FPL certifies three different levels of BuildSmart homes: Bronze homes are homes that achieve an e-Ratio that is between 10 and 19% more efficient than a baseline home under the Florida Energy Efficiency Code. Silver homes are homes that achieve an e-Ratio that is between 20 and 29% more efficient than a baseline home Florida Energy Efficiency Code. Gold homes are homes that achieve an e-Ratio of 30% or greater more efficient than a baseline home under the Florida Energy Efficiency Code.

FPL also has three different BuildSmart service offerings: a Basic Service Offering that includes an initial and final inspection; a Premium Service Offering that includes an additional midpoint inspection; and a Permit Service Offering where FPL performs energy performance calculations for builders that elect not to participate in certification.

Q. What tools does FPL employ to determine energy performance levels?

A. The current recognized tool is Energy Gauge®, which produces a performance metric called the e-Ratio. The Florida Energy Efficiency Code requires a home to achieve a passing score, represented as an e-Ratio of 1 or less. E-Ratio scores below 1 reflect improvements in the home's energy performance beyond the Code's minimum requirements. Under the Program

as currently designed, to be certified as a Bronze home requires an e-Ratio of .9 - .81; Silver homes have an e-Ratio of .8 - .71; Gold homes have an e-Ratio of .7 or less.

Q. How does the existing BuildSmart program interact with the Department of Energy's (DOE's) and Environmental Protection Agency's (EPA's) ENERGY STAR® Program and other new home construction programs?

A. FPL uses BuildSmart to advocate and promote both ENERGY STAR® and the Florida Green Building Coalition's (FGBC's) green building standards, and facilitates builders' involvement in both of these programs. FPL supports and encourages builders to achieve increased levels of energy efficiency through key BuildSmart activities including builder education, energy performance analyses and recommendations, and energy efficient measure installation.

Q. Has the DOE's and EPA's ENERGY STAR® Program recognized FPL's efforts?

A. Yes, in 2004 FPL received the ENERGY STAR® Outstanding Achievement Award for BuildSmart. This award recognized FPL's measurable commitment to ENERGY STAR®, which has resulted in increased builder awareness and participation in the ENERGY STAR® program.

Q. Why is there a need for Program modification?

A. Florida continues to maintain a significant share of the national residential new home construction market. BuildSmart has had moderate success in capturing its expected market potential since its system-wide launch in

October 1997. FPL has undertaken numerous marketing activities and process improvements to enhance the existing Program. FPL performed a situational analysis to identify ways to further increase program participation.

The situational analysis was a comprehensive review all aspects of the Program including internal structure, costs, marketing, kW and kWh impacts, and market participants. The goal was to understand the complete end to end home construction/buying process to better understand where and how a program like BuildSmart can add value. That analysis revealed that the Program performs well relative to most homebuyers' needs but not as well in meeting builders' key needs.

Q. Who are the target audiences for BuildSmart?

A. The target audiences are builders and homebuyers, each of whom have different needs. Sometimes, these needs conflict. Document DJH-1 lists primary needs of builders and homebuyers based on research and feedback from builders, homebuyers and experienced BuildSmart representatives.

Q. Which target audience, homebuyers or homebuilders, is more critical to the success of the Program?

A. FPL's in-market experience suggests that of these two important target audiences, the builders have the greatest impact on the success or failure of the Program because of their influential role in the home buying decision process.

Q. Are there nuances associated with the builder target audience?

A. Yes. Within the builder community, there are two distinct types of builders: production and custom. Production builders build large volumes of relatively standardized homes. To achieve suitable profit margins, production builders attempt to minimize modifications to house plans to maximize production efficiency and to achieve volume purchase discounts. Although production builders represent a minority of total builders in FPL's service territory, the homes they construct represent a significant share – estimated at more than 50% of the new construction market in FPL's service territory.

Custom builders tend to build smaller volumes of high-end homes. Their customers tend to be less sensitive to price and more inclined to modify house plans. As a result, custom builders are more flexible than production builders in modifying house plans, including a wide range of custom options (including energy efficiency measures). In regard to price/cost sensitivity, custom homebuyers tend to be less price sensitive than production homebuyers. Correspondingly, custom homebuilders are less cost sensitive than production homebuilders.

Q. In which target audience(s) has BuildSmart enjoyed the most success?

A. To date, BuildSmart has achieved the most success among custom builders and homebuyers. While the per-home energy efficiency gains among such builders and buyers can be significant, given the current design of BuildSmart, FPL is missing the opportunity to significantly penetrate the production

housing market. The production housing market includes not only single-family detached homes, but also single family attached homes such as town homes and villas.

Q. What recommendations were developed from the situational analysis?

A. Based upon FPL's situational analysis relative to homebuilders and homebuyers, recommendations were developed to optimize the program features and specifications to meet the critical needs of builders, both custom and production, while enhancing features valued by homebuyers. These recommendations have resulted in a number of proposed changes to BuildSmart addressed below. FPL believes that with these Program changes, it can continue to offer a cost-effective residential new construction Program that will achieve far greater levels of participation and demand and energy savings.

PROPOSED PROGRAM MODIFICATIONS

Q. What modifications to BuildSmart does FPL propose?

A. FPL proposes a number of modifications to BuildSmart to better meet builder requirements and increase Program participation. In summary format, described in greater detail below, FPL proposes to:

- Introduce a prescriptive approach that simplifies energy efficiency options and allows production builders to make large volume, discounted purchases that do not trigger housing plan modifications.

- Modify the existing flexible approach to eliminate the Gold, Silver and Bronze levels. Under the revised Program, the prescriptive approach is targeted to achieve an e-Ratio below .9 and under the modified flexible approach, an e-Ratio must be .8 or below.
- Offer only the Basic Service level.
- Eliminate Program participation fees, specifically as these fees currently apply to Bronze and Silver level homes. Gold Homes currently incur no fees.
- Add single-family attached dwellings to the Program.
- Provide builder incentives for qualifying BuildSmart homes that also achieve ENERGY STAR® certification by meeting the requirements of the DOE's and EPA's ENERGY STAR® Program.

Q. Please describe the proposed prescriptive approach.

A. The prescriptive approach is designed to address large volume (production) builders' needs for simple and consistent participation requirements. With simplified participation requirements, production builders can engage in volume discount purchasing for energy efficiency measures and minimize the time and effort needed to review plans and qualify for BuildSmart certification. Document DJH-2 illustrates this approach, along with the proposed, revised Flexible approach, in more detail and in comparison to the existing Program approach.

Q. What modifications to the flexible approach does FPL propose?

A. FPL proposes to modify the flexible approach participation requirements. FPL will eliminate the Bronze, Silver and Gold BuildSmart certification levels. Instead of having certification levels, FPL will change the energy performance ratio for the flexible approach to achieve an e-Ratio minimum of 20% better than the corresponding baseline home as defined by the Florida Energy Efficiency Code.

Q. What is the purpose of the proposed changes to the flexible approach?

A. These changes are designed to address builders' and homebuyers' dissatisfaction with the use of levels in distinguishing BuildSmart-certified homes. Our situational analysis revealed that builders find these levels to be very difficult to explain to prospective homebuyers, and this issue leads to homebuyer confusion. Much of the current custom home participation in the existing Program achieves at least 20% efficiency improvement as determined using the Florida Energy Efficiency Code.

Q. What modifications does FPL propose relative to service levels?

A. FPL proposes to eliminate Premium Service and Permit Only service levels. As currently designed, the program has three service levels: basic, premium and permit only. The premium level incorporates a midpoint inspection not provided in the basic service, and the permit only service provides e-Ratio calculations without certification. Since the provision of the permit only service does not guarantee the required demand and energy impacts, FPL believes this service can be provided by third parties. The service levels other

than the basic service have received very little interest and do not warrant continued inclusion in the program.

Q. Why does FPL propose to eliminate Program participation fees?

A. During interviews with decision makers from major production builder firms, FPL uncovered that program participation fees were viewed as a major impediment to builder participation. Builders, and especially the large volume production builders that are necessary for the program to achieve scale economies, voiced their objections to paying per-home participation fees in addition to the investments they must make to achieve e-Ratio levels necessary for participation in the BuildSmart program. These builders believe that the cost increases associated with the home upgrades necessary to be a BuildSmart participant represent the "cost of entry." In effect, program participation fees act as a deterrent to production builder participation, which limits the BuildSmart Program's ability to fully tap this large market.

Q. Why does FPL propose that single-family attached dwellings should be added to the Program?

A. FPL proposes that single-family attached dwellings be permitted to participate in the Program because cost-effectiveness analyses revealed that single-family attached dwellings can be cost-effectively included in the Program depending on their configuration. Our analysis indicates that production builders frequently develop entire communities that include a mix of single family detached and single family attached dwellings. We learned that these builders

believe that both types of dwellings must be certified as BuildSmart to avoid homebuyers' perception that the attached dwellings are inferior.

Q. How does the proposed redesigned BuildSmart Program interact with the DOE's and EPA's ENERGY STAR® Program and other new home construction programs?

A. FPL will continue to advocate and promote the FGBC's green building standards through BuildSmart. Through increased promotional activities, FPL will enhance the Program's support of ENERGY STAR®. As ENERGY STAR® participation criteria is modified, BuildSmart representatives will also educate local builders on these changes and provide recommendations for how builders may achieve ENERGY STAR® certification under any revised criteria. All of these activities will further facilitate builders' involvement in ENERGY STAR® and FGBC's Green Building certification.

Q. How will FPL's proposed Program modifications promote ENERGY STAR® certification?

A. Builder incentives, such as cooperative advertising incentives of up to $50 per home, will be available to builders for qualifying BuildSmart homes that also achieve certification through DOE's and EPA's ENERGY STAR® program. Additionally, eliminating BuildSmart participation fees and providing incentives to builders further strengthens BuildSmart's ability to partner with private raters – who will charge an additional fee for their rating services – thereby creating a complement of services to those builders seeking ENERGY

STAR® certification, and creating a collaborative approach that strengthens both BuildSmart's and the raters' value proposition to these builders.

DESCRIPTION OF PROGRAM ADMINISTRATION

Q. How will BuildSmart, as redesigned, be administered?

A. As redesigned, BuildSmart will be available to all new, residential single-family homes, whether detached or attached, in FPL's service territory, whether built by a residential builder or an owner-builder. The new home must have whole-house electric air-conditioning to qualify. Each participating residential builder must enter into a BuildSmart Program Agreement with FPL. An owner-builder must enter into a BuildSmart Program Single Home Agreement with FPL. To be eligible for BuildSmart certification, builders must comply with all national, state and local codes and ordinances, as well as Program Standards discussed below.

Q. How does a home become BuildSmart certified?

A. The BuildSmart Program offers two certification tracks: a flexible measure approach and a prescriptive measure approach. Both approaches begin with a review of house plans. Both approaches are subject to post-construction inspections, as determined by FPL, to verify energy-efficiency measures have been incorporated. However, there are significant differences in each certification approach.

Q. Describe the two certification approaches: flexible measure and prescriptive measure approach.

A. Each approach is targeted at a specific market's needs. The Prescriptive approach is targeted at meeting the needs of the production builder/homebuyer market and will include measures related to HVAC, ductwork and insulation. Under the prescriptive approach, to receive BuildSmart certification, a home must include specific prescriptive energy efficiency measures targeted to achieve an e-Ratio value at least 10% better than a baseline home as prescribed by the Florida Energy Efficiency Code. Under this approach, builders must submit to FPL plans or specifications that FPL can use to validate that the installed measures meet BuildSmart prescriptive requirements.

The Flexible approach is targeted at the custom builder/homebuyer market and will allow any combination of measures necessary to achieve an e-Ratio value at least 20% better than a baseline home as prescribed by the Florida Energy Efficiency Code.

Q. How will FPL ensure the energy efficiency measures are implemented?

A. FPL reserves the right to perform a series of inspections on each BuildSmart home to verify that energy-efficiency upgrades are incorporated as submitted. For each inspected home, FPL will verify that all energy measures specified have been installed and to determine whether any changes were made to the home that will affect the calculated e-Ratio value of the home. In addition, an

air conditioning duct test may be performed to determine the level of tightness of the air ducts. Following this inspection, FPL will recalculate the e-Ratio if needed, and then certify the home. A certificate is then issued for the qualifying homes and provided to the builder or homeowner. FPL will determine whether the requirements of the BuildSmart Program are met.

Q. How will FPL promote the redesigned BuildSmart Program?

A. FPL plans to make residential customers aware of this Program through appropriate advertising and promotional channels. For example, the Program may be promoted through participating builders, community developments and new homebuyer workshops. FPL will also promote the Program by participating in workshops targeted at educating building professionals about energy efficiency, such as the continuing education workshops provided through the Florida Energy Extension Service of the University of Florida. Additionally, upon potential approval of proposed modifications, FPL will continue to promote the Program through its formal partnership with Habitat for Humanity®, through which FPL assists local Habitat for Humanity organizations in incorporating BuildSmart-specified energy efficiency measures into new Habitat for Humanity® homes.

PROGRAM COST-EFFECTIVENESS INPUTS

Q. How were energy and demand impacts for the revised BuildSmart Program developed?

A. Energy and demand impacts for BuildSmart were developed using estimation techniques based on extensive engineering modeling incorporating end use monitoring data.

Engineering modeling of prototypical BuildSmart homes was based on multiple data collection and analyses efforts, including end-use metered studies, program pilot findings, third party analyses and study findings, state-prescribed software-based analyses, and Florida Building Code reviews.

In developing gross energy and demand impacts, FPL investigated the relationship between e-Ratio values and the calibrated summer demand, winter demand and energy impacts.

Additional analyses were performed using the energy and demand impact table data. Estimation techniques were used to provide energy and demand impacts for homes following the prescriptive approach and the flexible approach.

Q. What assumptions were used to generate expected energy and demand impacts for the prescriptive approach?

A. Historic BuildSmart participation data was used to define the proportion of total homes attributed to each climate zone and expected e-Ratio values. This data was then matched to the energy and demand impact table data described

above to forecast weighted impacts of homes participating in the prescriptive approach.

Q. What assumptions were used to generate expected energy and demand impacts for the flexible approach?

A. Historic BuildSmart participation data was used to define the proportion of total homes attributed to each climate zone and expected e-Ratio values. This data was then matched to the energy and demand impact table data described above to forecast weighted impacts of homes participating in the flexible approach.

Q. How were the participation estimates for BuildSmart developed?

A. Achievable potential (participation) forecasts considered market factors such as residential homebuilding trends, builder characteristics and expected builder response to the two participation approaches – prescriptive and flexible – included in the new Program design. Additional insights, particularly in the area of expected builder response, were gained through extensive discussions with participating and prospective builders, to gain a deep understanding of the residential homebuilding planning, sales and construction process and the key stages of this process that will impact the adoption of the BuildSmart Program for new homes and communities. Builder feedback indicated that the proposed changes would have a positive influence on the adoption of BuildSmart criteria within new homes and communities under design should the Program changes be approved.

Participation forecasts were then developed based on the following factors:

- Single-family detached and single-family attached residential new construction unit forecasts.
- Projected builder participation by builder type (custom/production) and projected home participation by builder type, which also considered the Program approach – prescriptive or flexible – likely to be used by each type of builder, and builder enrollment factors, such as lead time for new community design, permitting and build.

These participation forecasts, by program component (prescriptive or flexible) and home type (single family attached or single family detached) were applied to calculated energy and demand impacts to forecast overall program participation energy and demand impacts.

These estimates reflect increasing market penetration resulting from the positive influence of the proposed Program changes and particularly from production builders enrolling in the prescriptive approach. The situational analysis of the BuildSmart Program revealed that although production builders represent a minority of the total residential new construction builders in FPL's service territory, they construct a majority of new homes and provide an opportunity to significantly increase participation in the BuildSmart Program.

Q. What is the projected participation and savings in the redesigned Program?

A. The projected participation in this Program as well as the projected demand and energy savings for a typical installation are shown in Document DJH-3.

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

Q. What are the estimated participant costs for the Program?

A. Total weighted participant costs are calculated to be $724 per home.

Q. How were participant costs for BuildSmart derived?

A. Participant costs were derived from BuildSmart program experience and validated against outputs from the state-approved energy analysis tool, Energy Gauge®.

Q. What are the expected Program administrative costs?

A. $400 per home.

Q. How were Program administrative costs derived?

A. Program administrative costs were based on actual historical costs from BuildSmart. Forecasted Program costs were estimated based on an analysis of current program cost elements and their applicability in the redesigned program. In addition, cost elements were identified for new activities under the proposed program and overall program administrative costs were developed based on modeling of the activities associated with the redesigned program, and the resource impacts driven by forecasted builder and home participation.

Q. How were benefit calculations for the Program derived?

A. Benefit calculations are based on the planning assumptions from FPL's 2005-2014 planning process, as discussed in Dr. Sim's testimony.

Q. How did FPL determine the BuildSmart Program, as redesigned, is cost-effective?

A. FPL determined the Program, as redesigned, is cost-effective using the cost-effectiveness methodologies required by FAC Rule 25-17.008 and the planning assumptions from FPL's 2005-2014 planning process. As discussed in greater detail in Dr. Sim's testimony, these analyses show the following benefit-cost ratios: 1.77 Participant, 1.05 RIM, and 1.10 TRC for the BuildSmart Program.

Q. Is BuildSmart directly monitorable and does it yield measurable results?

A. Yes. The feasibility and cost-effectiveness of a residential new construction program were first examined in detail in the mid 1990's using a 400 home metered study called the New Home Construction Research Project. FPL filed a final report for that study on June 1, 1995. Included in this final report were the results of the extensive end-use monitoring and engineering evaluation effort and a detailed pilot program market analysis. The results from these research efforts were used to develop a detailed engineering model for the BuildSmart program. The model is built around a minimum code (baseline) home load profile and profiles for each BuildSmart efficiency level in each of three climate zones.

The impacts predicted by the robust engineering model developed during the initial study were validated by a smaller metered study conducted in 1999. Since that time, the impacts in the BuildSmart model have been reviewed and/or adjusted several times. Revisions were made as changes have occurred in both the Florida Energy Efficiency Code and in the EnergyGauge® software. EnergyGauge® is used to certify that Florida homes meet minimum code requirements or the higher BuildSmart standards. The FPL BuildSmart model was used to develop demand and energy impacts for the proposed redesigned BuildSmart Program.. FPL believes the demand and energy impacts estimated by the BuildSmart model will be valid until there are substantial changes in construction practices or new technology applications emerge.

With the BuildSmart redesign, FPL is planning to increase program participation substantially, through the introduction of a prescriptive option for identifying the upgrades needed to qualify for BuildSmart certification. As the program grows, the larger savings will justify the increased evaluation planned over the next five years. This may include all three techniques of engineering modeling, billing analysis and possibly a new metered end-use study.

Program participation and efficiency upgrades will be tracked in a BuildSmart database. FPL will monitor the program's actual results on a continual basis

and re-evaluate the forecasted participation levels and the energy and demand impact data, as necessary, over time.

Q. Is BuildSmart designed to meet FPL's Commission-approved goals for the period 2005-2014?

A. Yes. The redesigned Program as described here is was a key component of FPL's goals for the period 2005-2014 that were approved by the Commission in Docket No. 040029-EG.

Q. Does BuildSmart satisfy FEECA and applicable Commission rules?

A. Yes. The redesigned BuildSmart Program is cost-effective, directly monitorable and will yield measurable results.

Q. Will FPL file Program Standards with the Commission?

A. Yes. FPL will file Program Standards for this Program. The FPL BuildSmart Program Standards will detail all applicable measures and Program requirements. The Program Standards will be subject to periodic review and may change over time based on factors including, but not limited to, technological advances, operational needs, program results, application assumptions, state energy code revisions or energy performance evaluation tool improvements.

Q. In summary, does FPL expect the redesigned BuildSmart Program will be successful in encouraging energy efficient new home construction?

A. Yes. As discussed above, BuildSmart is designed to promote the construction of energy-efficient homes that cost-effectively reduce FPL's coincident peak load and customer energy consumption. FPL will accomplish the Program

objectives by conducting outreach efforts to builders and homebuyers, and promoting the benefits of installing highly energy efficient measures in new homes. Employing energy performance calculation tools, FPL will review house plans and provide recommendations to improve energy performance under the Florida Energy Efficiency Code. FPL will also perform post-construction inspections to validate the installation of planned energy efficient measures in new homes. Qualifying homes that pass inspection will be certified by FPL as BuildSmart homes. Additionally, FPL will provide builder incentives for qualifying BuildSmart homes that also achieve ENERGY STAR® certification by meeting the requirements of the DOE's and EPA's ENERGY STAR® Program. These efforts are expected to significantly increase the energy efficiency of the new home construction market.

RESIDENTIAL CONSERVATION SERVICE PROGRAM

Q. What is the Residential Conservation Service Program?

A. The Residential Conservation Service (RCS) Program is an existing program which FPL intends to continue offering to its residential customers. The RCS Program has been an integral component of FPL's DSM efforts since the 1980s.

FPL offers its residential energy audits through the RCS Program. The program provides a walk- through energy audit, a computer-generated Class A audit and a customer-assisted energy audit. Procedures for conducting these

audits have been approved by the Commission. The walk-through energy audits and the computerized Class A audits are conducted by an FPL representative in order to inform residential customers of cost-effective conservation measures and practices that are suitable for the customer's home. The walk-through, computerized and customer-assisted energy audits provide an energy analysis directly to the customer based on the customer's responses to an energy survey. The customer-assisted audits are offered to those customers who prefer not to have an FPL representative visit their home. For these customers, a telephone, internet or mail-in audit may be offered.

In addition to providing conservation information, the RCS Program also serves as the vehicle for introducing customers to residential conservation incentive programs, featuring incentive payments for qualified customers to help them overcome the initial cost of implementing conservation measures.

Q. How is the RCS Program administered?

A. During the RCS Program audit, the auditor discusses a variety of potential conservation measures with the customer. In addition, if the customer is eligible for participating in any, or all, of the residential conservation programs featuring incentive payments, the customer receives a Watt-$aver certificate(s), which can be used by the customer as a partial payment for the cost of the conservation measure with the participating contractors. Upon request, FPL's representative also provides a list of participating contractors from which the customer can choose. The number of audits which FPL will conduct in the future is related to the number of projected participants for the

residential conservation programs featuring incentive payments as well as customers' requests for evaluations of their overall energy conservation opportunities.

Q. What is the projected participation and savings from the RCS Program?

A. The projected participation in this Program is shown in Document DJH-4. FPL does not project demand or energy savings associated with the performance of a home energy audit. Demand and energy savings attributable to the implementation of measures identified during the performance of a residential home energy audit will be reported through their respective programs. It should be pointed out that FPL recommends measures and practices beyond FPL's programs, and there should be additional savings associated with these measures, although FPL does not quantify or report these savings.

Q. Why does FPL not quantify or report demand or energy savings associated with the RCS Program?

A. Section 366.82(5) and FAC Rule 25-17.003 require FPL to offer a variety of residential audits, including a walk-through audit and computer-assisted audit. Both of these types of audits are included in this Program and meet the detailed requirements of the FAC.

Q. Does the RCS Program comply with FAC Rule 25-17.003?

A. Yes. The RCS Program auditors meet the minimum auditor qualifications outlined in FAC Rule 25-17.003(5). Such certification, along with a list of

auditors performing energy audits, is on file with the PSC and updated annually. At least twice annually, FPL updates its pricing and climate data to ensure that the estimates of energy cost savings and costs for conservation measures are based on typical and up-to-date data. The auditors follow appropriate procedures for visiting residences and advising customers of applicable conservation practices. Results of computer-assisted audits include the necessary disclosures informing customers that actual installation costs may differ from the reported estimates. FPL follows the Commission guidelines for installation arrangements and post-audit inspections. FPL sends a program announcement to eligible customers every six months.

Q. Is the RCS Program cost-effective?

A. Since FPL does not project demand or energy savings from the implementation of this Program, a cost-effectiveness analysis is not applicable.

Q. Is the RCS Program directly monitorable?

A. Since FPL does not project demand or energy savings from the implementation of this program, separate monitoring and evaluation is not necessary for the RCS Program. Savings achieved through other programs will be monitored and evaluated in those programs.

Q. Does this conclude your testimony?

A. Yes, it does.

BY MS. SMITH:

Q Mr. Haywood, are you also sponsoring exhibits to your testimony?

A Yes.

Q And are those the exhibits that have been prenumbered Exhibits 3 through 6?

A Yes.

Q Have you prepared a summary of your testimony?

A Yes.

Q Would you please provide your summary to the Commission?

A Yes. Thank you.

Good morning, Commissioners. My direct testimony addresses the proposed redesign of the BuildSmart program. FPL's BuildSmart program targets energy efficiency measures in new residential construction in order to cost-effectively reduce FPL's coincident peak load and customer energy consumption. The program has been part of FPL's overall demand-side management plan since 1997 and is designed to help FPL meet its Commission-approved DSM goals for the period 2005 to 2014.

FPL's proposed program modifications are the result of a comprehensive analysis conducted to identify ways to further increase program participation. The analysis revealed that the program performs well relative to most home buyers'

needs, but not as well in meeting builders' key needs. In particular, FPL is missing the opportunity to significantly penetrate the production housing market estimated to represent more that 50 percent of the new construction market in FPL's service territory.

FPL's BuildSmart program targets the two distinct types of home builders, production builders and customer builders. Production builders construct large volumes of relatively standardized homes, while custom builders construct smaller volumes of high end homes. To date, BuildSmart has had the most success among custom home builders which are more flexible to modifying house plans to incorporate a wide range of options, including energy efficiency measures. To increase participation among home builders, FPL proposes several modifications.

First, FPL proposes to eliminate the bronze, silver, and gold BuildSmart certification levels. Our situational analysis revealed that builders find these levels difficult to explain to prospective home buyers. Instead, the modified BuildSmart program offers two certification tracks to better meet builder requirements: A flexible measure approach and a prescriptive measure approach. The flexible approach is targeted at the custom builder or home buyer market and will allow any combination of measures necessary to achieve an energy performance value at least 20 percent better than a base

line home as prescribed by the Florida Energy Efficiency Code.

The prescriptive approach is designed to meet production builders needs for simple and consistent participation requirements. Under the prescriptive approach, to receive BuildSmart certification, the home must include specific prescriptive energy efficiency measures targeted to achieve an energy performance value at least 10 percent better than the base line home as prescribed by the Florida Code.

With simplified participation requirements, production builders can engage in volume discount purchasing for energy efficiency measures, and minimize the time needed and effort needed to review plans and qualify for BuildSmart certification. Other proposed modifications include eliminating program participation fees because our situational analysis revealed that such fees act as a deterrent to builder participation, which limited the program's ability to fully tap this large market.

In addition, FPL proposes to make builder incentives available to builders of qualifying BuildSmart homes that also achieve certification through the Department of Energy and Environmental Protection Agency's ENERGY STAR® program. FPL will accomplish the BuildSmart program objectives by conducting outreach effort to builders and home buyers. FPL expects its efforts will significantly increase the energy efficiency of the new home construction market.

My testimony also addresses FPL's Residential Conservation Service Program. Pursuant to FEECA and Rule 25-17.003, FPL is required to offer residential energy audits. FPL delivers these audits through the RCS program which has been an integral component of FPL's DMS efforts since the 1980s. The RCS program as filed within the DSM plan does not include program modifications. The Commission should approve the modified BuildSmart program and the RCS program as part of FPL's DSM plan to meet FPL's approved goals for the 2005 to 2014 time frame.

MS. SMITH: I tender the witness for cross-examination.

COMMISSIONER DEASON: Mr. Tait.

MR. TAIT: Thank you. I need to apologize slightly in advance. We had a copy problem with the copying, and hopefully it will be here shortly, the copies, but I had planned and had received agreement with the -- as we speak. Talk about timing.

We had planned and had discussed with the opposing attorneys and staff that we would like to enter -- submit the deposition of Mr. Haywood for the record, except for one aspect, which was an exhibit, which we will then proffer later. But at this time I think it would be proper to go ahead and submit the deposition for the record. I've got four copies here, one for each of you.

COMMISSIONER DEASON: Please hand those out, that will be fine.

MR. TAIT: Do you want the fourth one?

COMMISSIONER DEASON: We probably need to make sure the court reporter gets one, and I can share one with Commissioner Edgar.

MR. TAIT: No, one to the court reporter, and one to the three Commissioners. Both the staff and all the attorneys have copies of the depositions already.

COMMISSIONER DEASON: Staff has a copy?

MR. TAIT: Which is the reason we only made four of them for this hearing.

COMMISSIONER DEASON: All right.

MS. BROWN: We have it, Commissioner.

COMMISSIONER DEASON: I'll take a copy then. I thought there wasn't enough to go around. Thank you.

Let's identify this deposition as Exhibit 13.

MS. VINING: That's right.

(Exhibit 13 marked for identification.)

MR. TAIT: I move to request this be entered into the record for purposes of cross-examination.

COMMISSIONER DEASON: Is there any objection to the insertion of what has been identified as Exhibit 13 into the record?

MS. SMITH: To the extent it is just the transcript

and not the exhibits, we have no objection.

MR. TAIT: It is just the transcript, there is no exhibit on the back.

COMMISSIONER DEASON: Well, mine does have an exhibit. The copy that I have has an exhibit at the back.

MR. TAIT: That needs to be taken off.

COMMISSIONER DEASON: Okay. We will clarify then that Exhibit 13 is just the transcript of the deposition with no exhibits at this point.

MR. TAIT: Correct. The exhibit should not be on that.

COMMISSIONER DEASON: And with that understanding, then there is no objection to Exhibit 13?

MS. SMITH: No, sir.

MS. BROWN: No objection.

COMMISSIONER DEASON: Okay. Show then that Exhibit 13, which is the deposition transcript for Witness Haywood, is entered into the record.

(Exhibit 13 admitted into evidence.)

CROSS EXAMINATION

BY MR. TAIT:

Q Mr. Haywood, I would like to highlight some additional areas of education, experience, and training beyond that that you did in your deposition.

Can you describe the marketing experiences that you

have had with builders?

A Yes. The marketing experiences I have had with builders, first, it relates to my overall experience with builders, and that goes back to my power systems work several years ago where I interacted with builders on a daily basis. And I gained an understanding of, if you could call it, the construction business dynamic, and gained experience on the critical issues that builders face on a day-to-day basis. I gained kind of a base line experience through the course of my FPL power systems experience.

Within the context of the marketing department, my experience with the builder market has come through review of research that FPL has performed specifically on the builder market to gain insights into builders' decision-making, the critical needs of builders, what is important to builders, and then also direct interviews, research with builders where I participated, often one-on-one with builders, to gain their insights to hear it straight from them and to help validate my understanding that I had developed previously.

I have also spoken and met with an architect. I have spoken and met with two directors of large home builders associations, specifically to get their perspective on what is important to builders. I have spoken directly, as I mentioned, with several builders, and I have gained insights from our BuildSmart representatives who have deep experience in working

with builders. Again, all revolving around understanding the critical needs of builders and understanding the builder market in general.

Q What training and experience have you had both within Florida Power and Light and elsewhere in the technical matters involved in BuildSmart?

A I'm not sure -- I'm sorry, I'm not sure I understand technical matters. But my experience within BuildSmart, my role within BuildSmart has been as a project manager of the BuildSmart redesign. So as it relates to specific technical matters I have relied on a number of subject matter experts who are familiar with the scope of technical applications related to BuildSmart.

Q So have you ever -- for an example, have you ever performed a field test with either pressure pan or duct tester, or have you ever observed such a test?

A No, I have not performed a field test. I have observed a field test with pressure pan.

Q Have you ever calculated an energy code compliance form with or without supervision?

A No, I have not personally done that. As the team leader to gain insights into those specific types of activities, I would rely on the numerous BuildSmart representatives that we have who are trained as BERS certified raters.

Q Throughout your testimony you refer to a situational analysis of the program, and I have a series of questions I would like to ask about that. During what time frame did this analysis occur?

A The time frame was approximately -- I believe the time frame was approximately late 2002 through -- I would say through some point in 2003 was the beginning stages of that situational analysis.

Q Who conducted the analysis and who participated in it?

A I led the analysis, the situational analysis, and I would have gathered input from the BuildSmart representatives and other marketing subject matter experts initially involved with my team as well as the program management for BuildSmart.

Q So basically what you are saying is that it was all kind of an internal analysis with the people inside Florida Power and Light?

A Yes. But in the context of, if we could call it developing the situational analysis. The research I mentioned earlier was a component and input into that situational analysis.

Q So, as I recall, basically you said you talked to several builders, you talked to several high officials or officials of several building organizations. Can you describe any other external to Florida Power and Light resource or

sources that you discussed as part of your situational analysis?

A My situational analysis primarily involved gaining specific insights into the builder market and then analyzing the BuildSmart program as it related to the builder key needs and home buyer key needs. I don't recall -- besides the internal subject matter experts and the insights into the builder market, I don't recall who else might have been involved.

Q Can you state how many and exactly by name, perhaps, the builders that were contacted and were they current or past participating builders in the BuildSmart program?

A I can note the builders that I specifically spoke with, at least some of them. It included WCI Communities, it included Engle Homes, it included U.S. Homes. We also spoke with a number of smaller custom builders, but I don't recall specifically what their names were.

Q Thank you.

A Over the course of -- over the course of my work, we have also spoken with representatives from Lennar, we have spoken with representatives from DiVosta, which is affiliated with Pute Homes as well. And then through the BuildSmart representatives who work with builders on a day-to-day basis, we have spoken with Centex and Century Builders Group. There may be others.

Q Thank you, sir. Did your situational analysis identify any, what I will call, free rider possibilities? Do you understand that term?

A No, I'm not sure.

Q Free riders, as I understand, are people that would have built to higher efficiency levels without any Florida Power and Light program, without any other program?

MS. SMITH: I'm going to object to this question to the extent that he is asking for our witness to make a legal opinion. Free riders is a term that's in the Florida Administrative Code. And to the extent he is asking for a legal opinion, I will object. If you can ask it in a way that would ask for his lay opinion, or rephrase your question.

MR. TAIT: I'll rephrase my question, thank you.

BY MR. TAIT:

Q Did your situational analysis identify any aspects of your program that would affect home buyers and home builders that would already be building beyond the Florida Code minimum?

A I don't recall my specific -- I don't recall the situational analysis revealing that type of situation. What we were really looking to do was identify builders needs and understand how the BuildSmart program performs relative to those needs. I don't know if I understand the context of your question, but I believe the context of the question relates to possibly the measures, the types of measures that builders were

installing? I'm sorry.

Q Did you ask any specific questions of builders to ascertain what value they placed on your BuildSmart services?

A Yes. The context of the discussion with the builders was -- part of the situational analysis was to understand what value they saw in a program such as BuildSmart.

Q Did you ask what services they would pay for?

A I don't recall specifically asking what services they would pay for. I more often heard, particularly from the production builders, that they did not feel that -- or essentially they felt that the fee associated with BuildSmart was a barrier to their participation. They had difficulty in understanding the fee aspect of it. As we described the nature of the BuildSmart program, we would explain to them that -- of course, the obvious question from the builder would be why would FPL promote such a program to conserve energy. And we would explain to them the fact that when we can design a cost-effective program to do so, it benefits all of our customers. And they seemed to understand that.

They understood also the value that they could receive within the competitive builder marketplace through participating in a program such as BuildSmart, but they didn't understand why -- at that point they also understood that they would have to pay for measure upgrades. Clearly that was well understood by the builders that they would have to upgrade

certain measures. They would have to do something to be a BuildSmart participant. But they didn't understand, then, why they had to then go ahead and pay FPL for that service.

Q When discussing the program with builders, did you ask them if they were aware of, and I'll just list programs, and then you can say yes or no. Were they aware of ENERGY STAR® homes?

A Yes, some builders were aware of ENERGY STAR®.

Q What percentage would you say were aware of ENERGY STAR® homes?

A I don't recall.

Q How about the Florida or a National Green Building Certification Standards Program?

A Yes, specifically the Florida Green Building Standard. I don't believe I heard anyone reference the national standard. But particularly on the west coast there was -- at the time of the situational analysis, there was, I would say, initial interest, if I could characterize it that way, initial interest in green building.

Q How about Build America?

A No, Building America did not come up during the discussions.

Q Or Rebuild America?

A No, I don't recall Rebuild America.

Q How about the GoodCents Program?

A No, I don't recall builders mentioning GoodCents.

Q How about, I guess, how about BuildSmart? Or were all the builders you basically talked with participants in the BuildSmart program?

A No, not all the builders were participants of the BuildSmart program.

Q The ones that were not participants, were they aware of the BuildSmart program?

A They were when I met with them or when one of the BuildSmart representatives met with them, so I'm not sure. I'm sorry.

Q Okay. Do you recall any other programs offered by, you know, their home building organizations, be it local, state, or national, that they particularly mentioned were helpful to them?

A I don't recall them being proactive in bringing that to my attention.

Q Did the builders express any preferences in relation to or any concerns about the program operations of any of the programs listed above? In other words, the ones that I just listed. Do you recall, was there anything that they said they particularly liked or particularly did not like about those programs?

A Yes. I recall them telling me, particularly production builders, they did not like the BuildSmart fees.

That is what sticks in my head. They saw the investment in energy efficiency measures as something that potentially could be palatable, but it was very interesting with the production builders, it was just a very interesting insight because I remember specifically one meeting with one production builder procurement agent, marketing manager, and I believe another senior decision-maker was in there. And as we spoke about the fees, you could just look at his face and see him doing the math in his head and, you know, shaking his head.

I mean, they didn't think in terms of a fee being $175 per home, they thought in terms of we're talking about the next thousand homes I'm building, so you're talking about a $175,000 hit to my budget. You know, I'm interested, but maybe I'll stay on the sidelines at this point.

Q In light of that, did you discuss and have you presented to builders, or has your representative presented to builders the fact that the BuildSmart program could differentiate their market product?

MS. SMITH: I would object to that as a compound question. It also calls for speculation to the extent it is asking for the insights and thoughts of the BuildSmart representatives.

MR. TAIT: Let me work at rephrasing that.

BY MR. TAIT:

Q In discussing with the builders the value of the

BuildSmart program, did you discuss with them the value of the market differentiation that their homes would receive by being designated and certified BuildSmart?

A Yes, I did discuss that with them, and I wouldn't say that that was a one-way discussion, particularly, again -- well, actually with both the production and the custom builders, they probably taught me more than I went in there to educate them on. They clearly understand the dynamics of the builder market and their competitive position. And I learned a tremendous amount about -- there is really no-one-size-fits-all approach to working with any single builder.

Different builders, based on the way they build homes, and we tended to distinguish that production and custom, but there is even a range in there. But the types of homes -- their building approach, so to speak, production or custom, and then the nature of their clientele, and then even beyond that, the way that they like to position themselves in the marketplace.

One of our customers is a great example of this, WCI Communities, who really believes in green building and sustainability. Other builders don't see it that way. They choose to take a different approach, and they may emphasize cost. In fact, that is a lot of what production builders do, is emphasize cost. And with those types of builders, you know, they will tell you right there what their bottom line is.

Q As they emphasize cost, do they obviously -- do they differentiate or do they look to differentiating between the capital costs, the actual costs that they charge for the home and the operating costs of the home? And do any of them, to your knowledge, use that as a differentiating factor?

A To my knowledge, I could not single out a builder that I have personally met with that does that. Although it appears there is a great opportunity to work with builders on that. That is one component of the proposed modified program, that is where we see the opportunity enhancing our outreach to builders.

Q Could you describe that perhaps in more detail?

A The outreach? I'm sorry.

Q The outreach. Are you saying that you are going to propose in your new marketing to builders the fact that they can advertise that their homes cost less to operate?

A I don't believe I said that specifically. We would work to educate builders on not just the investment that they would have to, in essence, make and build into the cost of their product, but also we would work with their staff on how to communicate the benefit that results from that to their prospective home buyers.

Q Is that different than what you have done in the past?

A I don't know. I'm not completely familiar with the

day-to-day practices of the past. That would be a component of what we have done in the past. But I did recognize in the situational analysis that there was an opportunity to, in essence, ratchet up that front-end work.

Q In essence, these questions kind of are about BuildSmart as a label that a builder or a consumer can look to relying that a BuildSmart label assures a customer of a certain level of greater energy efficiency than a Florida minimum standard, am I correct?

A I'm sorry, could you repeat that?

Q Am I correct in the fact that that is, you know, establishing BuildSmart kind of as a label of an energy efficient home?

A Yes, with the qualification that I'm just not tremendously familiar with the characterization of the term label. BuildSmart certifies that a home is energy efficient to FPL BuildSmart standards, which means it is built beyond the minimum code requirements.

Q As the program was initially approved, that label would have carried with it a gold, silver, or bronze medallion standard, which as I understand, gold is 30 percent, silver is 20 percent, bronze is 10 percent better than the Florida standard minimum home. Am I correct?

A Yes, that's my understanding.

Q Was that label ever used by a builder to

differentiate their product in the marketplace?

MS. SMITH: I'm going to object. These questions are dealing with the old existing BuildSmart program, and this docket is concerning the proposed modifications. I understand that there may be some questions that arguably relate to the proposed modifications, but it seems like this particular one goes back to the old program.

MR. TAIT: Mr. Commissioner, it goes back to the old program, but it is what they are proposing to modify. I'm trying to reach exactly what their modification, you know, does do to the old program, and that what the labeling of these houses are and what changes in the characteristic of their program.

COMMISSIONER DEASON: The objection is overruled. The and witness may answer the question.

THE WITNESS: I'm sorry, could you repeat it?

MR. TAIT: Can I have the court reporter repeat it, please.

(Pending question read by reporter.)

A I don't specifically know the answer to that question.

Q In the modified program, you have proposed that a home gets labeled BuildSmart, but it really could meet two different standards. One is if it is the so-called prescriptive home, it would be 10 percent better than the

Florida minimum standard. And if it is in the so-called flexible side of the program, it would be 20 percent better than the Florida minimum standard, is that correct?

A That's correct, that the prescriptive approach is targeted to achieve 10 percent improvement over the Florida minimum code requirement, and the flexible approach is set at 20 percent improvement or greater.

Q Under the -- I'll get to this later, okay.

Who at Florida Power and Light -- you said Florida Power and Light, who was involved was basically the reps in BuildSmart. Was there anybody else involved in your situational analysis?

A I believe I mentioned the program management was involved, as well, along with marketing subject matter experts.

Q Did you review the past decade of experience, the actual results under BuildSmart, and compare them to the projections that you filed in support of the modified program?

A Yes, I did review past participation, past program costs. And just by the nature of the developmental work in developing the proposed modified program, I would have seen the comparison on participation and costs.

Q Did you review the mechanisms that were used for monitoring BuildSmart and the use of the Florida Power and Light database for improving program results and projections?

A Yes. Some of the data that would have been involved

in the situational analysis would have come out of the BuildSmart database, the database we used to store participant counts, measures, and other data associated with the program.

Q As part of your review, did you identify any errors that were reported or were identified over the past decade in the BuildSmart database?

A No, I did not personally identify errors in the database. Typically, the data review is a function of the program management supported by consultants, outside consultants that assist with that activity.

Q What specifically does the outside consultants do?

A The outside consultants review the data periodically -- the outside consultants do a number of activities, actually, and part of that requires them to review the data periodically. They review building market characteristics, they review building code changes to identify how that should or will impact -- program impacts, energy and demand impacts as well as participation. So they perform periodic analyses for the purpose of updating the program against the changes in the building market. As part of that, just inherently in doing that, they have to review the data, obviously, associated with BuildSmart.

Q Do they or program management, either one, test the validity of any of the data in the Power and Light database?

A Yes, in the sense that as a consultant would be

reviewing the data, the consultants, I would characterize them as very knowledgable about the building market characteristics. If they were to see data anomalies, the general protocol would be to report that back to the program manager for appropriate action.

Q And in your situational analysis, did you use any of that identified probing testing of that data in the database?

A Yes. I used data from the database in my situational analysis. That would have been the source of data for the participants and the characteristics of the participants in the program.

MR. TAIT: At this time I have an exhibit that I would like to use for cross-examination, if I can find it.

Let me go ahead, and they are all stapled together for 1 and 2, they will be probably consistent if I go ahead and have it distributed now. It is the last sheet.

COMMISSIONER DEASON: Mr. Tait, the document that you handed out, is it labeled home buyer and home builder key needs?

MR. TAIT: Yes, sir.

COMMISSIONER DEASON: Commissioner Edgar, I think, got the wrong page.

COMMISSIONER EDGAR: I got something different, so --

COMMISSIONER DEASON: And for purposes of the record we will identify this as Exhibit 14.

(Exhibit 14 marked for identification.)

COMMISSIONER EDGAR: Thank you.

MS. SMITH: I don't have the exhibit, either. Is this the exhibit? (Pause.)

MR. TAIT: I apologize. I hope the rest will go smoother.

BY MR. TAIT:

Q This Table 1 is taking your table, Exhibit 1 from your prefiled testimony, and expanding it.

MR. TAIT: It is marked for an exhibit, I guess?

COMMISSIONER DEASON: Yes, it is marked as Exhibit 14.

MS. SMITH: And we would ask that counsel please avoid verbalizing the text on this exhibit to preserve our objection to the exhibit's admissibility into evidence.

COMMISSIONER DEASON: I'm sorry, is the concern confidentiality?

MS. SMITH: No. The concern -- actually, I was going to save this -- but the concern is that it appears that petitioners are attempting to supplement their direct case, and the time frame is not in accordance with the time frame that was outlined in the order establishing procedure.

This Table 1, home buyer and home builder key needs, appeared in Dan Haywood's prefiled direct testimony filed on July 15th. And the Petitioners certainly had adequate time to

make these supplemental additions and file it with their testimony on August 12th in accordance with the order establishing procedure. And they have not asked for reconsideration of the order establishing procedure. So at this time I think it is, I would argue that this should not go into the record because it is an attempt to supplement their direct case without prefiling.

MR. TAIT: Mr. Chairman, my response to that is I attempted over the last several days to -- in preparing cross-examination on his direct testimony, to identify those questions that I would have about his direct testimony and what should be added to his key needs. So, I mean, I could individually -- rather than provide this table, I could then individually ask each of these individual questions, did you consider, did you consider, did you consider. I did in the deposition ask him several of these questions, not all of these, about some factors that seemed to be missing in his table of what are key needs. So this was to simplify the process and simplify the questioning.

COMMISSIONER DEASON: I'm going to overrule the objection at this time and allow the cross-examination to proceed and allow counsel the flexibility to renew the objection at a future time.

BY MR. TAIT:

Q Mr. Haywood, you have had an opportunity to look over

this table. What I have tried to do is I have put in italics the language, you know, from your table so you can identify what you had put in your table, and then I put in bold the additional language that I would ask you would these be additional key needs based on your situational analysis and research for the home builder and home buyer primary needs?

A Based on my analysis and my understanding of both builder and home buyer needs, I can't agree that all of these would be characterized as primary needs within the context of how I'm representing primary needs. Some of these needs look maybe a little too specific to be primary needs.

Q Would you so designate the ones that you feel are not primary?

A Yes, I can designate the ones that jump out at me as seeming, based on my experience, somewhat irregular within the context. Information to access better financing, I don't recognize that as a primary need of the broad home buyer market. Information on energy efficient measures employed in home, I believe that relates to the context of energy efficiency that I was speaking to above. So, again, some of this to me seems getting away from key needs and really drilling down to very specific ways to potentially deliver on key needs.

Another example, the next three could potentially relate to a primary need I identified, quality and performance

in their home. Payback of energy efficiency upgrades, again, seems like a way to deliver on potentially a component of energy efficiency. And insurance issues, I guess, based on my general understanding is that insurance issues are likely to be a concern for any home buyer.

Q How about on the home builder primary need side?

A There, again, I see a number of these items, again, as potential ways to deliver on the primary needs that I have identified. I guess what concerns me about this list, when I see something like this, my emphasis was on what is the fundamental need. And then through additional analysis within the marketing context, within the context of my job, we would do -- we often called quality functional deployment.

We would look at -- the key needs then matched up against a potentially very broad range of features and do an analysis to kind of map out how features might map against primary needs. And my experience is that's a better way to get at the primary drivers that deliver on the key needs.

When I look at this, it just looks, it looks like there are certain things here that were put in place to make a point. I don't know that this represents the type of analysis that I would perform.

Q Okay. When you reviewed in the situational analysis the marketing to your builder, participating builders, did you provide any studies, or market impacts, or market analyses of

the impact of energy efficiency on their bottom line of sales?

A Not during my situational analysis. In my situational analysis the context of those discussions were exploratory in the sense of really getting at their needs, not necessarily selling them on BuildSmart.

Q You said your situational analysis occurred in 2002/2003, did that change any of your marketing strategy to builders?

A Subsequent to the situational analysis, I have personally tried to provide advice -- our BuildSmart representatives have monthly meetings, and I don't participate. I'm not the program manager, so I do not participate in all the monthly meetings, but I do on occasion attend those meetings. And as I have learned more about the builder market, I have shared that with our BuildSmart representatives to share my learnings.

There is no reason, even though the intent of my role was to redesign the program to achieve increased overall gains in energy efficiency by reaching out to a broader market, there was no reason why, as we went along, I shouldn't share my learnings with the team and hope that the team would apply those in the work they do in working with builders.

Q In the modified program, do you plan on providing any reference or assistance to builders as to other sources of information on how to build and practice energy efficient

building practices?

A Yes, we do.

Q What specific sources would you anticipate would be recommended?

A I can note a couple. I think we will find more. Under the modified program, part of our outreach -- we are really going to be enhancing our outreach and part of that was a clear recognition of the number of stakeholders involved in making energy efficiency work in the new construction market. So we will -- we do today, but we will to a greater extent under the modified program promote and bring information to builders on programs such as green building, what we spoke about earlier. I have had numerous discussions with ENERGY STAR® about the opportunity to actively promote ENERGY STAR® through our builder relationships.

ENERGY STAR® recognizes very clearly some of the same learnings we recognize that sometimes it is hard to get the builders to move. And ENERGY STAR® is a stringent, currently a stringent criteria. And it has been not tremendously well received in the Florida builder market. So there is a tremendous educational opportunity there.

And as the local utility, ENERGY STAR® is very, I will say excited about the opportunity for us to perform more outreach on that. And we also -- our BuildSmart representatives, the majority of them are trained BERS

certified, Building Energy Rating System certified professionals.

And we have the opportunity through those BuildSmart representatives to also educate our builder market on certain applicable recommendations that would come from products produced by organizations such as Building America. So there are a number of different informational sources that we can deliver to our builder and home buyer market.

Q We discussed what kind of information you provide and what you are planning on providing to the builders. What kind of information do you provide and are you planning to provide to the consumers, the home buyers?

A The information that would be directly related to BuildSmart -- I'm sorry, the answer to that would be somewhat builder specific, so I just want to put that qualification in first. As part of working with the builders, I mentioned earlier, we clearly recognize that there is no one-size-fits-all approach to how the builder wants to communicate with their prospective home buyers. So we would foresee a range of delivery mechanisms to the home buyer.

Essentially through BuildSmart our information would be, A, focused on making the home buyer aware that they have a FPL BuildSmart certified home, and what that means. And, B, we would look to provide a range of energy savings tips. One thing we recognized was that it is not just about building the

home energy efficient. It is about, once the home buyer is in there, making sure that they understand how their practices impact the way that home operates. So we would provide information to the home buyer, energy tips if we could call it that. That would be the type of information we would provide.

Q Do you do that under your current program, it is the same basic provision that you do under your current program?

A Yes, with the qualification that under the current program, we provide -- I would call it a relatively standardized set of information. Under the modified program through increased outreach and working with the builders, we envision working with the builders hand-in-hand at an increased level. That will give us the ability to really understand how the builder positions himself to the home buyers and the appropriate way to communicate to the home buyer market. The builder sees value in that; and ultimately we believe the home buyer would see value in that, too. So we would likely see a broader range of how we approach that home buyer education.

MR. TAIT: At this time, Mr. Chairman, I would like to offer another cross-examination exhibit. I believe it would be marked 15.

COMMISSIONER DEASON: It will be so marked.

(Exhibit 15 marked for identification.)

MR. TAIT: Again, this is the same attempt to summarize a whole wealth of information that has been derived

from various sources, primarily from the original testimony of Mr. Haywood, from interrogatories, and from his deposition. He, on Table 2 of his initial testimony, provided a summary comparison of the program components and features. And so what I have attempted to do is to gather up from all of our different -- from those primary sources what seems to be the steps in the BuildSmart program as modified. That certainly involves some of the same as current program. I tried to note where it is the same as the current program, and then, of course, where the modifications are. Again, his table that he provides in his testimony is in italics, and the additions that I have made to it are in bold.

MS. SMITH: I would note that we have the same concerns with this exhibit as we did with the previous one. In addition, I would note that Mr. Tait is not a sworn witness in this proceeding, and since he is indicating that he is the person who made these changes, we won't have an opportunity to cross-examine a witness on this.

COMMISSIONER DEASON: Your objection is noted. You may proceed.

MR. TAIT: I should also further make a statement that this was prepared in consultation with my two principals, Mr. Stroer and Mr. Klongerbo, both of them can relate to that.

BY MR. TAIT:

Q Again, to give you an opportunity to look over it,

Mr. Haywood. What I'm attempting to do is something similar that I did with your deposition, and basically to summarize, what are the steps, what are the services that are provided under the BuildSmart program, and what will be included in the modified program, what will be changed from the current program to the modified program?

I would like to ask you to look over it and see if there is any areas where you think you would like to recommend a change based on your situational analysis?

COMMISSIONER DEASON: Perhaps now would be a good time to take a ten-minute recess and that may give the witness some additional time to review the rather lengthy exhibit which has just been placed in front of him. We'll take ten minutes.

(Brief recess.)

COMMISSIONER DEASON: We will go back on the record. Mr. Tait.

MR. TAIT: Thank you, Mr. Chairman.

BY MR. TAIT:

Q Mr. Haywood, I have given you what has been identified as Exhibit 15, and ask you have you had a chance to review this?

A Yes, I have reviewed it.

Q Does this fairly state the various steps in the modified program?

A I believe it fairly states a number of the steps. It

is difficult for me in a brief review to really go through it all in my mind. I think some of these steps represented maybe -- and I think you have probably tried to break it down here, subsets. And I think the other thing that kind of jumped out at me was right in the beginning, like, program marketing is represented as a step. In my mind, I just assign such a huge -- some things I mentioned earlier in my analysis, based on the marketing approach I used in our QFD analysis, certain components of the program receive a weighting because some things are more critical to program success. We call them critical to quality features.

Some components are more critical to program success than others. Some components within the context of the existing BuildSmart program were working fine. Some components were important to either builders and/or home buyers and needed some work. Other components were either detrimental or not of much value to anybody and either needed work or could potentially be eliminated. So I guess what I'm saying is when I look at this list, it is just very difficult for me to digest all of this in the context of what I feel is a more thorough analytical review that I did.

Q Are there any items on this list that you have noted that you said that you thought should be eliminated from the current program in the modified program?

A Under 9E, which you have a question mark on code

compliance submission, it's my understanding under current BuildSmart practice, you know, you show no on here. I'm just not sure why that is there, because that is my understanding, as well.

Q I guess I was confused at the time as we went through the deposition, and also whether or not Florida Power and Light provides code compliance submissions for their participating BuildSmart builders. And I guess the answer I got from you was, no, you don't contemplate doing that in the modified program. You currently haven't done it. But I think there was a time in the past when you had done it. Could you maybe describe -- like you said, did Florida Power and Light ever provide code compliance forms for the builders?

A I don't know. That would have, I believe, predated my involvement in the program. I do recall, I believe, an early version of program standards where there is a document that appears to be a code compliance form, but I don't know the context of how that was used.

Q So it would be fair to say, based on your knowledge, since your situational analysis began in 2002, Florida Power and Light has not provided code compliance support to the participating builders?

A I would say I don't know. The question is very specific to the existing program operations and, you know, my role was specifically related to the redesign. I do not recall

code compliance, that particular category being something that was included in my analysis as something that needed to be addressed.

Q In the modified program, does Florida Power and Light plan on providing any code compliance support to the builders?

A No.

Q Is there anything else in these tables that jump out at you?

A Yes. This might be too detailed. I'm not sure what the appropriate level of discussion is to have on this document. Just a couple of things that I'm trying to absorb. Under the flexible approach, you indicate same, but focus on production builders and, actually, that particular approach is a focus on custom builders. And I see this term same used throughout, and I'm not sure I'm grasping the context. If that means it is same to the column to the left, or the same as it is done today. I'm not sure what that represents.

Because when I view this under the redesign program, even where there are some components that might be the same under the context of -- the activity, I should say, might be the same under the context of the way the program would perform under the modified program, our approach will be very -- I'll say very focused on the needs of the production and custom market, and we clearly recognize that you approach those two markets in a different way. So the activity might be the same,

but the way we would go about doing that would likely be different. Not in all cases, but would be different in certain cases. And that distinction is important because our outreach is so critical to the success of this program.

We are going to be approaching a number of new builders, and we are going to be reapproaching -- we are going to be reapproaching a number of builders. While some builders we haven't spoken to before, we are going to be reapproaching -- this is kind of a tough situation. We are going to be reapproaching some builders who we may have spoken to as we -- or we would have spoken to as we got close to filing the program just to let them know that we were looking to make some improvements.

There was initial builder excitement about the improvements. Now I would characterize it more as builder fear, in the sense that they have seen this go this long. And delays to a builder -- when builders see delays in anything that smells to them as being kind of lengthy, they get a little nervous. So we have some remedial work maybe to do in the marketplace at some point in the future to reinform even builders we have spoken to in the past about BuildSmart. Whether it's the existing program or some modification to the program, we have to, in essence, reintroduce ourself. So, that gets lost in a simplified table like this, the way we are going to go about approaching these markets. Another's distinction,

and I apologize -- this was a lot of information presented, so I apologize if I'm going too far. But this is, like, explain everything all at once.

When we go to Row 8, participation with other programs, Florida Green Building Coalition isn't listed on there. We are an active supporter or member of the Florida Green Building Coalition. We support their annual events. We currently support, I believe, and I can't specify this, but we would currently support other events directly through them or through a builder who is working with them in support of green building. We look to do more of that under the modified program as we propose to scale up our outreach efforts. They are an important program. And they could be included both under the flexible or the prescriptive approach based on my understanding.

When we get -- the front end of this really relates to what I would try to simplify as outreach marketing, market education. Gaining the momentum necessary to get the builder interested enough to be willing to pay for energy efficiency upgrades and participate in a program such as BuildSmart, but also ENERGY STAR® and green building as I mentioned before gaining their interest.

We would certainly approach builders. We foresee our MO, so to speak, to be approaching builders to achieve the highest level of efficiency practical based on the value they

see in competitively positioning themselves. And so ENERGY STAR® would be an integral part of our sales effort. And the reason I point that out is because once you get past this initial review stage and energy performance, here you are making recommendations to the builder what we envision in the modified program is a collaborative approach with raters. And we have had discussions with raters on that collaborative approach.

We really see, as you get to -- I am kind of guesstimating here -- definitely as you get to ten, but maybe even a step proceeding that, us actually, with a number of builders, being in a partnership with raters and with the builders and really bringing the strength of all of us together to accomplish specifically the goals of -- we foresee that collaborative approach primarily being emphasized in ENERGY STAR® and green building.

But certainly as we get to the inspection component, we would look through BuildSmart to support our rater partners. We would look to, in essence, be an enabler to create what we believe will be greater demand for rater services. And part of that is selling, assisting the rater with selling the builder on the value add that would come through the additional activities.

As I understand the rater community, there is the rating tool generating just a score for a home, which is a

basic set of activities. You know, it is work, plenty of work, I understand that. But then as I understand the rater community, the industry is developing into a value added industry where it is not just about selling, you know, the rating. I'm not going to come in and just charge you $300 for a rating. I'm going to come in and provide you with a greater level of service focused on -- and I think you might have had this in one of your other tables, it is not just about energy efficiency.

BuildSmart has a strong emphasis on energy efficiency, but rating services can go beyond that to health, home health, home safety, home indoor air quality. I think things that you have listed on your table before. And we see, we clearly see a role for BuildSmart in partnership with raters and in partnership with builders to really create some momentum around that value proposition.

But not all builders are going to want ratings, we clearly heard that, too. Not all builders -- you have, I will call it, from my understanding, a rather large segment of builders who are focused on just building a value product. They will be a harder sale, I believe, in the short-term, if not the long-term, to get to the level of being willing to go to a rating type service. But our goal would be to work with the builder community, and our vision would be to work with the builder community and the rater community to kind of move

builders first into -- or at least for production builders, what is a significant accomplishment of what we would consider our prescriptive option, and then move them along that energy efficiency curve more towards flexible ENERGY STAR®. And as those programs evolve, evolve with them, as well.

The reason I just mentioned all of that is that it doesn't come through on here. As we get into 10, and get into certain components of 12, I can see, especially under the flexible approach, a rater collaboration occurring.

Q So you see the raters perhaps being more active in the inspection in later stages of 10, 12, around there. Does that same kind of cooperative relationship exist, or will it exist in the modified program as it relates to code calculations? In other words, as I understand it, in order to create an e-Ratio, which is what your program relies on, you have to put in the same basic data as any air conditioning contractor, rater, or builder would do to set up a code calculation compliance form?

A I will have to answer your question with I don't know. Because as I'm thinking through that step in my mind, that may proceed the decision on the builder's part to go the route of a rating. And we could never release data without the builders agreements, so I don't know the answer to that right now. I really don't.

Q Have you proposed in your existing program, and as

part of your modified program, to have the builders give you a release of that information at the time you collect it initially in order to provide, you know, the code compliance calculations and then, further, in order to do inspections?

A I would say yes, to a certain degree. And I have to really qualify this in that I don't specifically know all of the details, but part of our collaborative vision stems from a project that we are working on together now. And to the degree that I would understand the current practices, there are confidentiality issues existing that, to my knowledge, haven't been overcome yet in terms of how to share data at the code compliance stage. So I don't know. Again, I should say I don't know the answer to that because I'm not certain, based on current practice under the existing program, that those processes are nailed down yet.

Q Could you explicate, I guess, or explain what are the confidentiality problems, assuming a builder gives his permission?

MS. SMITH: I would object, to the extent he is asking for a legal opinion. He can ask for his lay opinion and I would have no objection.

BY MR. TAIT:

Q Speaking to that point, I guess I can try to rephrase it. Since Florida Power and Light will not provide code compliance support to a builder, and the builder has to hire

somebody different, and that the builder designates that person as doing his code compliance, what would be the confidentiality inhibition to Florida Power and Light sharing their base files?

A I will try to answer that by, you know, first stating I'm not sure I followed every detail of the question. I apologize for that. But if confidentiality -- first, if the builder agreed that information that we developed for the purposes of BuildSmart could be released to a designated rater partner, and if we had in effect, I will call it a formal relationship with that rater partner, I think the potential exists to share data with all of these pieces coming together. I am just not sure that that process is completely nailed down at this point.

Q To follow up on that question, when Florida Power and Light builds its initial data file on the BuildSmart home for the builder, do you release that data to the builder or does it go just into the Florida Power and Light database?

A Our current practice, to my understanding, would be to take our energy analyses and use those for internal BuildSmart purposes. I'm not aware, under current practice, that we would make it a practice of giving builder data for code compliance. That is not the intent of BuildSmart. And, you know, as I mentioned a moment ago in terms of -- I think I said using a term nail down the processes. In working with a rater partner, we would have to be sure that they understood

the context of the data we were releasing, as well, and work to understand what the needs are amongst the partners, too.

MR. TAIT: Thank you, Mr. Haywood.

Mr. Chairman, I shared during the break, at the end of the break the next exhibit that I would like to offer, Exhibit 16.

MS. SMITH: We would just note the same objection with respect to the last three pages.

MR. TAIT: Again, it is the same response. This is an attempt to pull together the interrogatory detailed information in some sort of a subset that would be expeditious for the cross-examination. I apologize, it is being a more lengthy cross-exam, but I have certainly tried to shorten it up by these exhibits. This one goes directly, again, to Table 3 of his direct testimony.

COMMISSIONER DEASON: It will be Exhibit 16.

(Exhibit 16 marked for identification.)

BY MR. TAIT:

Q Mr. Haywood, this table comes from two parts. One, of course, is your Table 3 of your direct testimony on July 15th. And then, secondly, it comes from the Interrogatory Number 38, your responses to that interrogatory to break out the participation between the prescriptive participation you project and the flexible participation program that you project. And then it takes those figures that you used in

calculating the value, the unit value in kilowatt hour, in summer kilowatts and in winter kilowatts, in each of those basic areas coming straight off of your testimony, and your answers to those interrogatories.

I would ask you to review that exhibit and see if anything seemingly looks wrong to you. I asked you a question during your deposition about the per unit savings and demand reduction and how those figures were arrived at by Florida Power and Light, and I would like to repeat that question. How were these figures arrived at by your group?

A These figures were based on what I would call a multi-step analysis. The core, or the beginning step of the analysis is related to the demand and energy impact model, which exists for BuildSmart today. So we built off the current demand and energy impacts associated with our current BuildSmart model. And the way that model works is it provides per unit values for energy and for summer and winter kW tied to a specific homes -- the area of Florida that it is located in, what is called the climate zone. The square footage of the home, because these are normalized back so that they can be scaled to square footage, and it is tied to what I would characterize as the internally calculated e-Ratio, energy performance score for the home. So that is kind of our starting point.

Based on that model, then, we were able to take past

participation, look at it in the context of expected participation, and then model impacts associated with the different types of homes we expect, whether it be production or custom. The different approaches, I'm sorry, within the new program, and then bring those values back together as a weighted value which is forecasted here over the time frame.

Q Would it be fair to say that then as you would expect intuitively, I guess, that the last page on this chart shows the unit values per participant, the unit savings, and it shows that clearly the prescriptive participation has a lower set of unit values than the flexible participation and that they both combine to reach the one that is used in the RIM analysis, weighted I'm sure on participation levels?

A Correct, as a weighted value. And this represents my projection of the two approaches, the participation in the two approaches.

Q Can you identify any, or can you recall any specific measures that created the savings in both demand and also annual energy savings in the prescriptive program? Were there any more heavily weighted than any others?

A Yes, I can recall the weighted measure air conditioning is a significant impact in both the prescriptive and flexible programs to a lesser degree than duct work and insulation would be included in that, as well.

Q Thank you, sir. Moving right along, I will try to

get finished before noon. The next one I think I will reserve for Mr. Sim.

How did you calculate participant expenditures?

A The participant expenditures were compiled based on best available data from essentially a couple of different -- actually a couple of different sources. One source was gaining builder insights. Going out to builders, identifying specific measures related to air conditioning, insulation, programmable thermostats, and so forth, and then compiling those costs and weighting those against the specific home approaches included within our estimate.

We also, I recall, ran an analysis out of the energy gauge software to kind of look at -- the state-approved energy analysis software to determine if our initial estimates seemed reasonable. And they did.

Subsequently as part of the analysis, also, we have had the opportunity over time to speak to our program managers who handle some of our specific measure programs. Again, our costs were reasonable, and ultimately that was the nature of the participant cost analysis.

Q How did you calculate the number of program participants?

A The program participants were developed based on a market potential model, if I can call it that, where we analyzed the number of builders by type of builder, custom

production existing within the new construction market. We estimated based on a number of different factors.

As we had worked through our situational analysis, we realized it is not just about signing up a builder. There are a lot of dynamics going on in there, especially with the production builders. You may get the builder to participate in one community this year, maybe next year two communities, maybe the following year three communities. So we had to factor in a number of different items based on the type of builder, the estimate of how that builder might come on board, so to speak, and then project a reasonable market share out for the forecast horizon. And also, included within that, we estimated the number of homes per builder per community, and created a model ultimately that generated those participant forecasts and tested that.

Q What do you perceive is the difference between a BuildSmart home and a rated home from a marketing viewpoint?

A I would characterize the key distinction as being that BuildSmart is a home that is built to a higher standard than code requirements. I believe a homeowner purchasing a BuildSmart home can have faith in the fact that they do have an energy efficient home by our standards. I clearly believe we can deliver on that promise. If the home buyer or the builder in developing the product to meet their specific home buyer market, if they want to -- or if they believe that it would

benefit them to go to a level of a BERS rating, the benefits achieving through a BERS rating, again, being that value add. There is potentially health, other aspects of design issues that the value added services a BERS rater might bring in that may appeal to a builder. That will deliver, ultimately the BERS rating will deliver -- I believe it's called a home energy rating score or a building energy rating guide. An actual report that by -- and this is based on my understanding, by the state-approved or the state-required methodology will generate a specific score and a specific -- using the term in its specific context right now, a specific rating for the home. That would be something the homeowner then could -- it would be a document, it would be a product that belongs to the house, so to speak. That also may enable them to get an energy efficient mortgage, qualify for the ENERGY STAR® program, or qualify for green building.

At the end of the day BuildSmart is designed to meet the objectives of FEECA. It is designed to reduce weather-sensitive peak demand and reduce customer energy consumption. We believe to meet that requirement and achieve overall gains in the marketplace, a program designed such as BuildSmart that can serve both the market that maybe right now is not ready or unwilling to go to the level of achieving a rating, but willing to implement cost-effective measures that meet FEECA objectives, we believe the design of BuildSmart is

such that it allows for those participants to be a part of BuildSmart and also serves the side of the market that at this time may be ready to achieve ratings. And we would achieve that through our collaborative partnership with raters.

MR. TAIT: Mr. Chairman, I have just one more cross-examination exhibit to go over and then we can hopefully tie this up very quickly. I would like to ask that this be identified as Number 17.

COMMISSIONER DEASON: This will be identified as Exhibit 17.

(Exhibit 17 marked for identification.)

BY MR. TAIT:

Q You have before you, Mr. Haywood, the answer that you gave to Interrogatory Number 4 from Florida Power and Light. It is just a summarization of looking at your details of the Number 4 answer as to the primary builders. I was trying to identify in my earlier questions to you, you know, who were the production builders, who were the major builders. Does this list drawn directly from, you know, your interrogatory of the high volume builders look like those are the major builders that you have that you looked at in your situational analysis?

A I haven't seen this data laid out in this exhibit before. I'm familiar with a number of the builders on here. One thing I want to point out, you note up here high volume builders. I mentioned when we were speaking about the forecast

for builder participation, if you just look at the first row, Centex Builders, what is represented here is they have had 86 homes in the program. When I speak to high volume builders, it is not necessarily just the fact that the builder overall participates.

In this context, it would be very hard to call Centex Builders a high volume builder within the context of being a BuildSmart participant. So a number of these that are represented as high volume builders in the context of just generally the number of homes they build, I might agree with that. In the context of their participation at this time, I wouldn't agree with that.

MR. TAIT: I've completed my cross-examination of this witness.

COMMISSIONER DEASON: Thank you.

Staff.

CROSS EXAMINATION

BY MS. BROWN:

Q Good afternoon, Mr. Haywood. I'm Martha Brown. I have about maybe 10 or 15 minutes worth of questions for you.

Just to clarify a few things, in the modified BuildSmart program, FPL is offering just basic service and has eliminated premium and permit-only service, correct?

A Correct. I believe you said eliminated premium and permit-only service, correct. Yes, that is what we propose.

Q And the premium service level was the only level that provided a midpoint inspection of homes in the current program, right?

A To my understanding, that's correct. That was a service associated -- that was an activity specifically associated with premium.

Q Will the elimination of this midpoint inspection reduce FPL's ability to ensure that the demand and energy savings are achieved?

A No, it will not.

Q Can you expand on the reason why it will not?

A Our energy impacts are based on the final inspection activity.

Q On Page 11 of your direct testimony -- do you have that?

A Yes.

Q You state that without the participation of production builders, FPL has been unable to achieve scale economies in its BuildSmart program. Do you see that?

A I'm sorry, just give me one moment.

Q Take your time.

A Yes. Okay, I found it.

Q Will you explain a little bit what you mean by scale economies, what types of scale economies FPL is expecting to achieve?

A Yes. It is primarily related to what would be the middle components of the program, the energy analyses component within the production builder market. We can make recommendations based on a model, and then those recommendations transfer over home after home, and we don't necessarily have to rerecommend to the customer, to the builder, you know, on every single new home what they need to do.

Also, in the inspection activities, our experience has been when you -- our limited experience has been if you can sign up a community, then when you go out to do inspections you are not driving out, you're not setting up for every single house. So you start to see some economies around kind of the energy analysis and inspection components, and then those economies, based on our modeling, give us the flexibility to, in essence, provide more outreach, more of the front-end work, building that market awareness that really needs to drive this market.

Q So it is scale economies that FPL can achieve, not what the production builders can achieve?

A That's correct, yes.

Q And these scale economies are expected to impact the cost per home of the modified program, is that correct?

A Yes. Qualified by the fact that they are expected to impact the energy analyses and inspection components of the

cost per home. Overall cost per home, we recognize that to move the market we need the opportunity to do more outreach, awareness building, and so forth. So at an overall cost per home it may not be significantly different, but our emphasis now will be not just in the middle, but on the front end to build the market.

Q So when you say outreach, you mean marketing analysis, that sort of preliminary --

A Yes. Builder education, home buyer education awareness.

Q Okay. On Page 21 of your direct testimony you state that FPL intends to perform an increased level of evaluation under the modified program, correct?

A Correct.

Q Including engineering, modeling, and billing analysis. Will these studies be used to verify FPL's expected demand and energy savings from the program?

A Correct. That would be one component of the potential use of those studies, yes.

Q And are the costs from these studies included in FPL's cost estimates used in its cost-effectiveness analysis?

A Yes, with the qualification that what we have done in our analyses is we have identified a cost category related to these types of expenses to be able to fund this type of expense. And in other studies, as well, as necessary to

maintain program operations.

Q Does FPL include estimated demand and energy savings from its Residential Conservation Service Program toward its goals? And if you are uncertain, I may be asking the wrong witness, and I can ask it of Mr. Sim if you're not certain.

A I apologize. Could you ask that question just one more time to make sure I get it straight?

Q Does FPL include estimated demand and energy savings from its Residential Conservation Service Program toward its goals?

A My understanding is currently we do not forecast energy and demand impacts for residential conservation service.

Q Do you have a copy of staff's composite exhibit, which has been marked and admitted into evidence as Exhibit 2, in front of you?

A Yes, I do.

Q Will you refer to Page 41 of that exhibit? It's the Bates stamped number at the bottom right-hand corner.

A Yes.

Q Are you familiar with this document?

A I have seen this document. Certain sheets appear familiar to me, but I'm not responsible for compiling this document.

Q Will you turn to Page 44, which is still part of this document, and see if you are familiar with that page, and if

you could describe it for us?

A I am not familiar with this specific page. I don't believe I've seen this specific page before.

Q What about Page 49? We'll try one more page. That is Page 8. This contains results through 2004 of the existing BuildSmart program. Have you seen that before?

A I have referenced this page before. I don't believe I'm familiar with everything on it, but I have seen this page before, yes.

Q Well, if you look at the table, according to it FPL had 2,032 participants in the BuildSmart program in 2004. That's in Column F. Do you see that?

A Yes.

Q And the cumulative participation in the program as of 2004 was 6,915, far short of FPL's expected cumulative participation of 15,099. Do you see that?

A Yes.

Q How do FPL's participation projections under the modified program compare to FPL's recent participation levels?

A Under the modified program the participant levels scale up, actually projected to scale up above 2000 and progressively scale beyond that significantly.

Q And you have demonstrated that in your Exhibit DJH-3, correct?

A That's correct.

Q If these expected increased participation levels do not materialize and the cost-effectiveness of the program is not as expected, would FPL file a petition to modify the program?

A I don't know specifically if that would be the only corrective action possible. You know, we would certainly have to make it cost-effective. I mean, that would be the bottom line.

Q I have just a couple of follow-up questions with respect to some of these cross-examination exhibits that Mr. Tait went through with you just to clear up some confusion on my part. Your DJH-2, which is in your direct testimony, appears to me to be a summary of major aspects of the existing and proposed BuildSmart programs, but it's not a description of specific steps to be taken in the implementation of the program, is that right?

A That's correct.

Q And one other discussion you had with Mr. Tait I'm somewhat confused about, also. There was a long discussion about code compliance and the release of confidential builder data. How does that impact the Commission's decision on whether BuildSmart, as modified, should be approved? Does it?

A I don't believe so, because the context of that discussion relates to confidentiality principles that we, as a utility, are responsible for maintaining with all of our

customer information. That was the essence of my issue.

Q Proposed Exhibit 16 that Mr. Tait questioned you about, there are several pages in that exhibit. We understand the first two. Actually, I guess we understand the first three. It is the last three, Pages 4, 5, and 6, did you create these calculations?

A There are some derivative calculations on here I did not create, percentage and so forth. I didn't create these specific sheets. I believe I provided the data represented on what would be the third page.

Q So you are not necessarily sponsoring these calculations that are included on Page 4, 5, and 6 of this exhibit, is that right?

A These are not my sheets, correct.

MS. BROWN: Thank you. We have no further questions.

COMMISSIONER DEASON: Commissioners, questions?

Redirect.

REDIRECT EXAMINATION

BY MS. SMITH:

Q Mr. Haywood, you said you have spoken with builders about the modifications to the BuildSmart program. Have they said anything to you about any delay in implementation of the modifications?

A Not recently because -- the answer to that is, yes, they did at some point, but not recently because the matter has

progressed for such a long time that it -- just from the perspective of maintaining the credibility of BuildSmart at this point, it wasn't prudent, we believe, to continue updating them on the fact that we are still working on it. That has, to some degree, eroded builder confidence in the ability of BuildSmart to make the impacts that we proposed.

Q You testified that a lot of the same outreach will be followed under the proposed program modifications as were followed under the existing program. But do you think that increased -- or if there is increased participation in the proposed program, do you think that that would increase the impact of your outreach efforts?

A The answer is yes, it will impact the -- increased participation will increase the impact of our efforts, particularly to home buyer, because we will have more home buyer participants. But even on the front end we will be performing increased outreach both to builders and within the -- if I can call it the energy efficiency marketplace, the number of stakeholders involved in it.

Q Does the BERS rating measure energy efficiency in homes?

A To the degree that the BERS rating provides a score for the home's energy efficiency, it rates a home at a specific score.

Q Does a BERS rating ensure that energy-efficient

measures are implemented in a home?

A No, not directly. A BERS rating is a value, it generates a value.

MS. SMITH: I have no further questions.

COMMISSIONER DEASON: Exhibits.

MS. SMITH: We would ask that prefiled exhibits identified as 3 through 6 be entered into the record.

COMMISSIONER DEASON: Without objection? Hearing none, show that Exhibits 3, 4, 5 and 6 are admitted.

MR. TAIT: I request that Exhibits 14 through 17 be entered into the record.

COMMISSIONER DEASON: Objections?

MS. SMITH: We are going to withdraw our objections to these exhibits. What my concern is really is that through entering these exhibits into the record that somehow they would be used to supplement the direct case, perhaps through rehabilitating the Petitioners' own witnesses. And so that is why I raised concerns about these exhibits going in. But with the discussion on the record, we have no objection to these exhibits being admitted.

COMMISSIONER DEASON: Very well. Staff, any objections?

MS. BROWN: Just so that it is clear who is sponsoring this information, that is the part that concerns me. As long as it is clear that this is not Mr. Haywood's specific

exhibits, but modified exhibits by Mr. Tait, then it is all right with me.

COMMISSIONER DEASON: I think the record is clear on that point.

MR. TAIT: Yes.

COMMISSIONER DEASON: Show then that Exhibits 14, 15, 16, and 17 are admitted.

Thank you. You may be excused.

(Exhibits 3 through 6 and 14 through 17 admitted.)

COMMISSIONER DEASON: You may call your next witness.

MS. SMITH: We would ask that Doctor Steven Sim be called.

COMMISSIONER DEASON: Let me just take a moment to make an observation. I was assured by all the parties that this hearing was going to be conducted within one day, easily within one day. So we came prepared to conduct this hearing easily in one day.

And so it may be helpful to direct your witnesses to be more concise in their answers, if possible. Obviously they need to explain fully, and I'm not asking them to not take full advantage of that opportunity. But at the same time, we are already past the noon hour, and we have done one witness, and we have a number to go. So just take that for what it is worth.

MS. SMITH: Yes, sir.

MR. BRYAN: Thank you, sir.

STEVEN R. SIM

was called as a witness on behalf of Florida Power and Light Company, and having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. SMITH:

Q Would you please state your name and business address?

A My name is Steve Sim. My business address is 9250 West Flagler Street, Miami.

Q By whom are you employed and in what capacity?

A By Florida Power and Light Company as a supervisor in the Resource Assessment and Planning Department.

Q Have you prepared and caused to be filed eight pages of prefiled direct testimony in this proceeding?

A Yes.

Q Do you have any changes or revisions to your prefiled direct testimony?

A None other than the errata sheet.

Q If I asked you the same questions contained in your prefiled direct testimony, would your answers be the same?

A Yes.

MS. SMITH: I would ask that Doctor Sim's prefiled direct testimony be inserted into the record as though read.

COMMISSIONER DEASON: It will be so inserted without

objection.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

TESTIMONY OF STEVEN R. SIM

DOCKET NOS. 040029-EG, 040660-EG

JULY 15, 2005

Q. Please state your name and business address.

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

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

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

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

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

Q. Please describe your education and professional experience.

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

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

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

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

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

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

Q. What is the purpose of your testimony?

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

Q. Are you sponsoring an exhibit in this case?

A. Yes, it consists of the following documents:

Document No. SRS-1, Cost-Effectiveness Analysis;

Q. How is your testimony structured?

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

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

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

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

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

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

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

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

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

2) FPL included the appropriate key assumptions in its analyses regarding supply options (i.e., Martin Unit No. 8, Manatee Unit No. 3, and Turkey Point Unit No. 5) to which FPL had either already committed or, due to the size (1,144 MW) and nearness of its planned in-service date (2007), incremental new DSM could not reasonably avoid or defer.

3) The initial economic or cost-effectiveness screening of DSM options was performed using the Commission's approved cost-effectiveness methodology, and an appropriate type of supply option (i.e., new combined-cycle unit capacity). This screening allowed FPL to determine optimal incentive payments and achievable market potential levels for each DSM measure that was shown to be potentially cost-effective in the cost-effectiveness screening.

4) Two long-term resource plans were developed: one without any additional DSM (the Supply Only resource plan) and one with a portfolio of DSM measures that had been shown to be individually cost-effective (the With-DSM resource plan). These two resource plans were developed using the EGEAS model and were designed to provide adequate and comparable system reliability.

5) The two resource plans were then compared on a system average levelized rate basis. The With-DSM resource plan

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

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

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

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

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

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

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

II. Cost-Effectiveness Results for the Redesigned BuildSmart Program for Analyses Conducted During Individual DSM Option Screening

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

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

RIM Test =	1.05
Participant Test =	1.77
TRC=	1.10

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

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

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

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

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

Q. Does this conclude your testimony?

A. Yes.

BY MS. SMITH:

Q Are you also sponsoring any exhibits to your testimony?

A Yes.

Q And is that the exhibit that has been prenumbered as Exhibit 7?

A Yes.

Q Have you prepared a summary of your direct testimony?

A Yes, I have.

Q Would you please provide your direct testimony summary to the Commission?

A Certainly.

Commissioners, it's a pleasure to be here again today, this time to discuss FPL's redesign BuildSmart program.

My direct testimony addressed the cost-effectiveness of the BuildSmart program. As part of its work for the 2004 DSM goals docket, FPL conducted cost-effective analyses of all individual DMS measures using the Commission's approved cost-effectiveness methodology. Then a resource plan containing a DSM portfolio consisting of all of the DSM measures that passed the individual cost-effectiveness analyses was developed and compared to a competing supply-only resource plan that contained no incremental DSM.

These two competing resource plans were then compared on a levelized system average electric rate basis, in other

words, a RIM test methodology basis using the EGEAS computer model. The resource plan containing the DSM portfolio that comprised FPL's DSM goals was found to result in a lower electric rate, thus making it the cost-effective resource plan.

My conclusion is that all of FPL's DSM programs, including the redesigned BuildSmart program that emerged from this process, were shown to be cost-effective twice; once on an individual basis, and again when combined into the DSM portfolio that comprised FPL's DSM goals. Therefore, FPL's redesigned BuildSmart program is cost-effective.

BY MS. SMITH:

Q Doctor Sim, have you prepared and caused to be filed seven pages of prefiled rebuttal testimony in this proceeding?

A Yes.

Q Do you have any changes or revisions to your prefiled rebuttal testimony?

A No.

Q Have you prepared a summary of your rebuttal testimony?

A Yes, I have.

MS. SMITH: Before you provide it, I would ask that Doctor Sim's prefiled rebuttal testimony be admitted into the record as though read.

COMMISSIONER DEASON: Without objection, it shall be so inserted.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY OF STEVEN R. SIM

DOCKET NOS. 040029-EG, 040660-EG

SEPTEMBER 9, 2005

Q. Please state your name and business address.

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

Q. Have you previously filed direct testimony in this proceeding?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to address the statement of Mr. Philip Fairey regarding his proposed approach for determining the cost-effectiveness of an energy efficiency program.

Q. Mr. Fairey's states on page 7, lines 12-14 of his testimony that the "simplest means of determining the cost effectiveness of an entity's efforts to enhance energy efficiency would be the cost of achieving the increased energy efficiency divided by the amount of energy saved. In other words, dollars expended per kwh avoided." Do you see problems with that statement?

A. Yes. There are at least three aspects of Mr. Fairey's statement that are problematic. One aspect has to do with the forum Mr. Fairey has

chosen to suggest a new DSM cost-effectiveness test. The other two problematic aspects tie to fundamental problems in the approach he proposes.

Q. What is the concern you see in regard to Mr. Fairey proposing a new approach to determining DSM cost-effectiveness in this docket?

A. Mr. Fairey is proposing a new approach as to how to judge the cost-effectiveness of demand side management (DSM) programs in general, but he is making that suggestion in a limited scope docket regarding the cost effectiveness of a single DSM program being offered by a single utility.

The topic of how best to determine the cost-effectiveness of DSM programs was exhaustively examined in the mid-1990s in the first DSM Goals docket (Docket Nos. 930548-EG, 930549-EG, 930550-EG, 930551-EG). In that docket several dozen witnesses, representing all of Florida's larger electric utilities as well as numerous other interested parties, were heard. After weighing all of this testimony, the Commission decided that a combination of the Rate Impact Measure (RIM) test and the Participant test was the most meaningful approach to evaluating the cost-effectiveness of DSM programs. Florida's utilities have since based their extensive DSM program development and implementation efforts on this decision.

The subject of how to judge the cost-effectiveness of DSM programs is a far reaching one. It simply is not an appropriate issue for a docket such as this one that deals with a protest of a single DSM program of a single utility. If Mr. Fairey wishes to raise this important issue again, then a more appropriate forum, such as a future DSM Goals docket, should be sought.

Q. You mentioned that there were two fundamental problems with the approach to judging DSM cost-effectiveness that Mr. Fairey is proposing. What are those problems?

A. These two fundamental problems are related and can be summarized as follows:

i. the proposed approach ignores fully one-half of the impacts of DSM, including the DSM impact that results in the avoidance of new generation, transmission, and distribution facilities; and,

ii. the proposed approach would result in no DSM programs being found cost-effective.

Q. Please discuss the fact that Mr. Fairey's approach ignores one-half of DSM's impacts.

A. Let's return to Mr. Fairey's summary comment regarding his proposed cost-effectiveness test: "..In other words, dollars expended per kwh avoided". This approach is a DSM program cost only approach; there

is no reference to, or calculation of, the benefits of DSM. In other words, the proposed approach addresses only half of the DSM picture.

Most importantly, the proposed approach completely ignores the potential benefits driven by the kw reduction attribute of DSM programs. The kw reduction attribute of DSM programs results in DSM's biggest potential benefit - the avoidance or deferral of new generation, transmission, and distribution facilities that would otherwise be needed.

Mr. Fairey's proposed approach would give no weight at all to a DSM program's capability to reduce a utility's demand during Summer and Winter peak hours. Assume for a moment that there are two hypothetical DSM programs, Program A and Program B, both of which achieve 100 kwh of annual energy reduction and have identical program-related costs. Now let's assume that Program A achieves 1 kw of peak load reduction and Program B achieves zero kw of peak load reduction. According to his proposed cost-effectiveness approach, these two programs would be judged to be identical in terms of "cost-effectiveness". That clearly is not the case and illustrates a fundamental flaw in his proposed approach.

Q. You mention that Mr. Fairey's approach would result in no DSM programs being found cost-effective. Please explain.

A. Recall that the primary objective of any DSM cost-effectiveness test is to determine if it is cost-effective for the utility to offer the DSM program. This means that a cost-effectiveness test is designed to reach a "go"/"no go", or "pass"/"fail", decision. In the RIM and Participant tests, this decision is reached after it is known if the DSM-related benefits exceed or match the DSM-related costs to achieve a cost-effectiveness (or benefits-to-costs) ratio of 1.0 or greater. Therefore, a benefits-to-cost ratio of 1.0 is the "pass"/"fail" criterion for these tests. Mr. Fairey does not propose a similar criterion for his approach, but by following the logic of his proposed approach this criterion is obvious.

Mr. Fairey's proposed approach, as explained above, is a DSM program "cost only" approach: the test examines DSM program-related costs in the sense of "..dollars expended per kwh avoided", or $/kwh. It would seem logical then that the higher this ratio was; i.e., the more dollars it cost to save a kwh, the less attractive a DSM program would be under the proposed approach. One can envision a hierarchy of DSM programs, some with a relatively high $/kwh value and some of with a relatively low $/kwh value.

However, since all utility-sponsored DSM programs have costs, there is a greater-than-zero cost per kwh for all DSM programs. Since the utility would incur no DSM-related costs if it chose not to offer the

program, the logical conclusion of the proposed approach is that all DSM programs are more expensive than not doing the DSM program since not doing the program has program-related costs of zero while all DSM programs will have a greater-than-zero $/kwh value. In other words, a cost of zero is the logical "pass"/"fail" criterion for the proposed approach. Consequently, no utility-sponsored DSM program would pass this criterion for the proposed approach.

Any DSM cost-effectiveness test, such as the proposed approach, in which all DSM programs fail is a flawed test. (Conversely, any proposed cost-effectiveness test in which virtually all DSM programs pass would also be a flawed test.)

Q. On page 8, lines 4 and 5, Mr. Fairey states that "I think I would require that the cost of providing the energy efficiency be less than the amortized cost of the avoided energy use". Would you comment about this statement?

A. There is simply not enough information regarding the terms he uses to ensure that one knows what types of costs of "providing the energy efficiency" would be included and what types of costs would be included in the "amortized cost of the avoided energy use". However, as discussed above, since the program-related costs of not offering the DSM program will always be less than the cost of offering the DSM program in the proposed approach – thus resulting in the DSM

program failing the proposed approach – knowing this information is really not important.

Q. Would you summarize your testimony, please?

A. Yes. This individual DSM program docket is not an appropriate forum to raise generic questions regarding how to judge DSM program cost-effectiveness. Furthermore, the approach Mr. Fairey proposes by which the cost-effectiveness of DSM programs would be judged is fundamentally flawed.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BY MS. SMITH:

Q Would you please provide your rebuttal summary to the Commission?

A Yes.

My rebuttal testimony addressed Mr. Fairey's testimony. In his testimony Mr. Fairey proposed a new approach to determine if a DSM program was cost-effective for this docket, a docket that addresses a single DSM program offered by a single utility.

The issue of how to determine if a DSM program is cost-effective is a far-reaching one that the Commission, the state's utilities, and numerous other parties have exhaustively explored in previous dockets. The resulting decision to utilize a combination of the RIM and participant test has served Florida well. This limited scope docket is not the place to raise this issue again.

Furthermore, Mr. Fairey's proposed approach has two fundamental problems. Number one, the proposed approach ignores fully one-half of the impacts of DSM. In other words, the benefits of DSM, including the kW reduction aspect of DSM programs that results in the avoidance of new generation, transmission, and distribution facilities.

Fundamental problem number two is that the proposed approach will always find that implementing DSM programs is more costly than doing no DSM, thereby resulting in no DSM

programs being found cost-effective under his approach.

My conclusions are that this individual DSM program is not an appropriate forum to raise generic questions regarding how to judge DSM program cost-effectiveness, and that Mr. Fairey's proposed approach is fundamentally flawed.

MS. SMITH: I tender the witness for cross-examination.

COMMISSIONER DEASON: Mr. Tait.

MR. TAIT: With an understanding of the attorneys, in order to shorten our time, Mr. Chairman, I have asked that his deposition be placed into the record.

COMMISSIONER DEASON: We will identify the deposition transcript as Exhibit Number 18. Is there any objection to admitting Exhibit Number 18?

MS. SMITH: No objection.

COMMISSIONER DEASON: Staff?

MS. BROWN: No objection.

COMMISSIONER DEASON: Very well. Show then that Exhibit Number 18 is admitted.

(Exhibit 18 marked for identification and admitted into the record.)

MR. TAIT: Also in the interest of time, Mr. Chairman, I will be very brief in my questions, as well.

CROSS EXAMINATION

BY MR. TAIT:

Q Mr. Sim, you did an excellent job, I thought, in the deposition explaining the three different tests. If you could just take a few moments and reiterate the same explanation.

A Okay. I will start with the participant test first because it has a different focus than the other two tests. The participant test is designed solely to determine if it would be cost-effective for a participant to participate in a DSM program. It looks at the benefits to a participant being the bill savings and any incentive payments that the utility might pay, and those are weighed against the total out-of-pocket cost of a participant; the equipment, capital, and O&M cost to gain a benefit-to-cost ratio for the participant.

The other two tests, the RIM test and the TRC test, are very much alike in terms of the benefit side of the equation. In fact, they are identical. They look at the avoided generation, capital, and O&M cost, the overall net fuel impact of a DSM program from avoiding a generating unit. And, in addition, they also take into account the avoided transmission and distribution capital and O&M costs. And, in addition, the kilowatt hour savings of the DSM program on system fuel is also calculated.

So, in summary, for the benefit side of the TRC and the RIM test, those two tests are identical. However, those two tests differ substantially on the cost side of the equation. Both tests do take into account the administrative

costs for the utility of the DSM program. But from that point on they differ. The RIM test takes into account any incentives that the utility might pay, and also takes into account any lost revenues that are incurred by the DSM program.

Neither of those two costs, the incentives or the lost revenues, are accounted for in the TRC test, but the TRC test does include, as the participant test does, the out-of-pocket cost of the participants.

MR. TAIT: Thank you, sir.

I would like to have one, kind of, composite exhibit to this, and that will be the only one I will offer as a composite cross. It consists of four parts.

Again, the source of this cross-examination exhibit is derived from two main filings by Florida Power and Light that I would like you to take recognition of, and I have attached those to the exhibit, that is the lengthy provision, which is basically their test that they ran on behalf of the Commission in 2001 when the current program was up for approval and review.

And then a document that they also provided as part of this docket, which is October 2004, and it just -- basically from that I derived the top two printed cross-examination tables that I'm providing you. And so it is just to show the source of those particular numbers that I put in the top two pages.

And, again, I would like to clearly reflect that this is my putting together, and calculations from the base data of Florida Power and Light. It is certainly not provided by Mr. Sim.

COMMISSIONER DEASON: Let's review what you have just distributed, if you will help me through it, please.

MR. TAIT: I plan on basically asking questions based on the first page, which is denominated, "Results of FPL's cost-effectiveness test on the BuildSmart program." The other pages that are underlying this exhibit are the derivation of the numbers that are on that first page. So my questions will solely go to that front page, and they come directly out of the various testimony that has been offered to this Commission in both the Docket Number 01002, and then 040029, which is this one, and they are source documents that are straight out of those.

COMMISSIONER DEASON: This will be identified as Composite Exhibit Number 19.

(Composite Exhibit 19 marked for identification.)

BY MR. TAIT:

Q Mr. Sim, during the deposition I asked you, you know, if you recalled what the test results, the RIM participation and TRC were of the current program, and you did not recall that, so I went back and pulled this data out of the 2001.

As you look over the summary page, are there any

items that you would have any objection to?

A Which page are you referring to as the summary page?

Q It says results. The printed page that says results of FPL's cost-effectiveness tests, and it is denominated as a cross-examination exhibit.

A I haven't had a chance to check the accuracy of the numbers in the column, but subject to check, I have no objection.

Q Okay. That handles a tremendous amount of my cross-examination, sir.

As you reported to me during the deposition, you took all of the calculated figures of the savings rates and the participation rates from the program offices, and you did not make any independent testing of the validity of those figures yourself, is that correct?

A That is generally correct. We take the assumptions for program sign-ups, for program impacts from the program designers, just as we take the cost inputs for the avoided power plant for the avoided transmission from various departments in the company. We perform sanity checks to make sure that all of those numbers fall within accepted and reasonable bounds. Other than that, we take them as we are provided them.

Q Did you provide any information prior to the final run of the RIM test, as reflected here, to the program office,

based on your calculations of how much -- in essence, how much money would they have available for their cost factors for their own internal administrative cost factors prior to any final RIM run?

A Are we referring to the current BuildSmart program or the redesigned BuildSmart program.

Q For the redesign?

A The answer would be yes. The initial step in the DSM goals work for all of the individual DSM measures in all of the programs was to take the kW and kWh reduction for those DSM measures, run them without any additional cost in order to weigh the benefits versus the lost revenues connected with the program to see what the net benefits were. And that, in effect, Commissioners, amounted to a bucket of dollars that the program designers then had to work with in order to figure out how to use that money for administrative cost, incentives, et cetera, in order to further design the program while keeping the program cost-effective.

Q Are you aware of what costs were included in the participant costs before you ran the final test analysis?

A Would you define the final test analysis, please.

Q The final test analysis is the one that you filed with the Public Service Commission. Let me rephrase the question.

Did you include, in running the current program back

in 2000/2001, the costs of the fees that the participant would pay to Florida Power and Light to participate in the program?

A I don't know if they were included or not included. We get costs in certain categories, administrative costs, incentives, participant costs. We don't have a category marked fees.

Q But in calculating the participant costs, would your instructions to the program office to include any fees that are assessed against a participant in order to participate in the program?

A Our instructions probably would not have included the word fees, they simply would have said include all participant out-of-pocket costs.

MR. TAIT: That completes my cross.

COMMISSIONER DEASON: Staff.

While staff is preparing, let me ask a quick question.

On the cost-effectiveness test that you have run, obviously you include capital costs as well as operating costs, you know, avoided units or avoided generation. And one of the larger components, of course, would be avoided fuel costs. What projected fuel cost did you use in your latest calculations? And if fuel costs have increased since then, would that just simply improve the cost-effectiveness of the BuildSmart program?

THE WITNESS: Commissioner, your question is in regard to the latest cost-effectiveness test of those we have been handed here today?

That test was performed in October of 2004, so we probably would have used something on the order of a late summer early fall fuel cost projection in 2004 for the latest cost-effectiveness run in front of you.

And the second part of your question was?

COMMISSIONER DEASON: If fuel costs have increased since that time, would that have the effect of making the program more cost-effective at this time, everything else being equal?

THE WITNESS: Commissioner Deason, as much as I would like to give you a simple yes or no to that, whether the cost/benefit would go up, I can't because of the following reason. Certain aspects of the test, the benefit-to-cost ratio would be improved by higher fuel cost, those namely would be the cost of the fuel not burned in the unit, and the kilowatt hour savings from the DSM program. All of those benefits would go up.

However, the flip side of avoiding a generating unit is the system has to replace that fuel from its existing units. And the replacement fuel or fuel penalty of a DSM program is also affected directly by the fuel cost, and that may also go up. So they counterbalance each other to a degree. Whether

the net impact would be an increase in cost-effectiveness or a decrease in cost-effectiveness, I don't know offhand.

COMMISSIONER DEASON: So it would depend upon the efficiency of the proposed -- the plant that is being avoided versus the efficiency of your existing generating fleet, would that be a factor? Or can you further explain the concept?

THE WITNESS: Yes, sir. You are correct, the efficiency of the unit itself. The more efficient the avoided unit would be would tend to affect the fuel that would have been burned in the unit, and would also tend to affect the replacement fuel cost or fuel penalty of the DSM program. Generally, the more efficient the unit, the lower the benefit of avoiding that unit because the fuel cost would be less. Likewise, the replacement costs or the fuel penalty would be greater because you are avoiding an even more efficient unit that have been on the system.

But it is very difficult to draw a line and say at this fuel cost your program would have been more cost-effective or less cost-effective, because the different fuels, oil, gas, primarily on our system, you would need to know which direction and in what relative proportion oil and gas costs would have gone up or gone down.

COMMISSIONER DEASON: Thank you. Staff.

MS. BROWN: Staff has no questions.

COMMISSIONER DEASON: Commissioners?

Redirect.

MS. SMITH: No redirect.

COMMISSIONER DEASON: Exhibits.

MS. SMITH: I ask that the exhibit that has been premarked as Exhibit 7 be entered into the record.

COMMISSIONER DEASON: Without objection show that Exhibit 7 is admitted.

(Exhibit 7 admitted into the record.)

MR. TAIT: I would like to request that Exhibit Number 19 marked would be admitted.

COMMISSIONER DEASON: Without objection? Hearing no objection, show that Exhibit 19 is admitted.

(Exhibit 19 admitted into the record.)

COMMISSIONER DEASON: Thank you, Doctor Sim. I guess you can be excused because you did your direct and your rebuttal.

I think I excused Mr. Haywood, but he is coming back on rebuttal.

MS. SMITH: Yes, he is.

MS. VINING: Commissioner Deason, was Exhibit 18 entered into the record, as well?

COMMISSIONER DEASON: Let me check my list. Yes, it was. We did that earlier in the process.

MS. VINING: Thank you.

COMMISSIONER DEASON: We will recess for lunch at

this time and we will reconvene at 1:45.

(Lunch recess.)

(Transcript continues in sequence with Volume 2.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

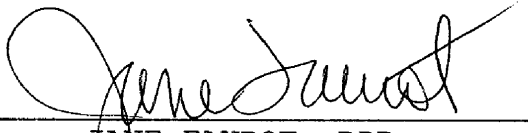
COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter Services, FPSC Division of Commission Clerk and Administrative Services, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 14th day of October, 2005.



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