BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (FLORIDA POWER & LIGHT COMPANY).	DOCKET NO. 080407-EG
COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (PROGRESS ENERGY FLORIDA, INC.).	DOCKET NO. 080408-EG
COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (TAMPA ELECTRIC COMPANY).	DOCKET NO. 080409-EG
COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (GULF POWER COMPANY).	DOCKET NO. 080410-EG
COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (FLORIDA PUBLIC UTILITIES COMPANY).	DOCKET NO. 080411-EG
COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (ORLANDO UTILITIES COMMISSION).	DOCKET NO. 080412-EG
COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS (JEA).	DOCKET NO. 080413-EG

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VOLUME 2

Pages 222 through 453

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PROCEEDINGS:	HEARING
COMMISSIONERS PARTICIPATING:	CHAIRMAN MATTHEW M. CARTER, II COMMISSIONER LISA POLAK EDGAR COMMISSIONER KATRINA J. McMURRIAN COMMISSIONER NANCY ARGENZIANO COMMISSIONER NATHAN A. SKOP
DATE:	Monday, August 10, 2009
TIME:	Commenced at 9:30 a.m. Adjourned at 5:40 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR Official FPSC Reporter (850) 413-6732
PARTICIPATING:	(As heretofore noted.)

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
17 through 34			329
139	Errata Sheet to John Haney's Deposition	270	330
140	FPL's Projected Energy Costs	272	330
141	Excerpt from 1994 DSM Docket	293	
142	Itron Final Statement of Work	296	332
143	February 5, '09 E-Mail to Collaborative	299	
144	Letter from Mr. Haney to Mr. Wilson	302	333
145	Letter from Mr. Wilson to Mr. Haney	304	333
146	SACE Feedback	307	334
147	FPSC Interrogatories 1 - 7 to FPL	311	335
148	Progress Projected Energy Cost	393	
149	Progress As-Available Prices	396	
150	(Late-filed) Capacity Calculations	406	
151	PEF Penetration Document	409	
152	Interrogatory Responses	429	
153	PEF Website Printouts	449	

PROCEEDINGS

(Transcript follows in sequence from Volume 1.)

CHAIRMAN CARTER: We are back on the record, and when we last left we had completed the exhibits for Witness Sim, Dr. Sim, as well as we were getting ready to proceed with our next witness. Call your next witness.

MS. CANO: FPL calls John Haney.

CHAIRMAN CARTER: John Haney.

JOHN HANEY

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

DIRECT EXAMINATION

BY MS. CANO:

Q. Good afternoon, Mr. Haney. Have you been sworn?

A. I have.

Q. Would you please state your name and business address for the record?

A. My name is John Haney. My address is 9250 West Flagler Street, Miami, Florida.

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

A. I am employed by Florida Power and Light, and I am the Director of Demand-Side Management.

Q. Have you prepared and caused to be filed 36 pages of prefiled direct testimony in this proceeding?

A. Yes.

Q. And did you also prepare and cause to be filed two errata sheets to your direct testimony?

A. Yes.

Q. Do you have any other changes or revisions to your prefiled direct testimony to make at this time?

A. I have one. On Page 25, Line 21, there needs to be a period at the end, and then strike Line 22.

Q. Thank you. With those changes, if I were to ask you the same questions contained in your prefiled direct testimony today, would your answers be the same?

A. Yes, they would.

MS. CANO: Chairman Carter, I ask that the prefiled direct testimony of John Haney be inserted into the record as though read.

CHAIRMAN CARTER: The prefiled testimony of the witness will be inserted into the record as though read.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF JOHN R. HANEY

DOCKET NO. 080407-EG

JUNE 1, 2009

Q. Please state your name and business address.

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

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

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

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

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

Q. Please state your educational background.

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

Q. Please provide your employment history.

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

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

Q. Are you sponsoring any exhibits in this case?

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

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

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

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

Q. What is the purpose of your testimony?

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

Q. Please summarize your testimony.

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

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

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

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

I. FPL'S HISTORICAL DSM PERFORMANCE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

II. COLLABORATIVE APPROACH TO GOALS-SETTING

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

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

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

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

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

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

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

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

III. METHODOLOGY FOR SELECTING MEASURES FOR EVALUATION

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

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

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

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

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

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

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

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

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

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

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

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

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

IV. METHODOLOGY FOR DEVELOPING TECHNICAL POTENTIAL

Q. Please define what you mean by technical potential.

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

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

Q. How was the technical potential calculated?

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

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

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

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

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

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

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

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

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

illustrates a comparison of recent energy efficiency technical potential results.

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

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

V. METHODOLOGY FOR DEVELOPING ACHIEVABLE POTENTIAL

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

A. As explained by FPL witness Sim, FPL took the technical potential data provided by Itron and performed preliminary cost-effectiveness screening of the measures in the technical potential using enhanced versions of the RIM and TRC tests, hereafter referred to as the E-RIM and E-TRC. This screening included the economic impact of environmental compliance costs for specific emissions including sulfur dioxide (SO_2), nitrogen oxides (NO_x), and carbon dioxide (CO_2). This screening was performed using the

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

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

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

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

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

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

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

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

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

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

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

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

Q. What was the total achievable potential for FPL?

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

VI. ANALYSIS OF SOLAR PHOTOVOLTAIC (PV) SYSTEMS

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

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

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

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

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

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

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

A. FPL estimates that the achievable potential for these applications is zero "0".

VII. ANALYSIS OF HIGH THERMAL EFFICIENCY COGENERATION

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

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

Q. What has been FPL's experience in regard to high thermal efficiency cogeneration in its service territory?

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

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

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

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

VIII. DETERMINATION OF FPL'S DSM GOALS

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

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

Q. How were the practical constraints developed?

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

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

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

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

Q. What are FPL's proposed DSM goals?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

A. This is shown on Exhibit JRH-18.

IX. CONCLUSIONS

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

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

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

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

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Commission review of numeric conservation goals (Florida Power & Light Company).	DOCKET NO. 080407-EG
In re: Commission review of numeric conservation goals (Progress Energy Florida, Inc.).	DOCKET NO.080408-EG
In re: Commission review of numeric conservation goals (Tampa Electric Company).	DOCKET NO.080409-EG
In re: Commission review of numeric conservation goals (Gulf Power Company).	DOCKET NO.080410-EG
In re: Commission review of numeric conservation goals (Florida Public Utilities Company).	DOCKET NO.080411-EG
In re: Commission review of numeric conservation goals (Orlando Utilities Commission).	DOCKET NO.080412-EG
In re: Commission review of numeric conservation goals (JEA).	DOCKET NO. 080413-EG DATED: JULY 2, 2009

ERRATA SHEET

DIRECT TESTIMONY OF JOHN R. HANEY

PAGE #	LINE #	CORRECTION
3	20	insert "RIM and Participant based" before Achievable
20	8	after "GWh" insert "(at the generator)"
24	16	strike "maximum"
30	13-22	Strike the entire paragraph

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Commission review of numeric conservation goals (Florida Power & Light Company).	DOCKET NO. 080407-EG
In re: Commission review of numeric conservation goals (Progress Energy Florida, Inc.).	DOCKET NO.080408-EG
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In re: Commission review of numeric conservation goals (Florida Public Utilities Company).	DOCKET NO.080411-EG
In re: Commission review of numeric conservation goals (Orlando Utilities Commission).	DOCKET NO.080412-EG
In re: Commission review of numeric conservation goals (JEA).	DOCKET NO. 080413-EG Filed: August 10, 2009

ERRATA SHEET

DIRECT TESTIMONY OF JOHN R. HANEY

PAGE #	LINE #	CORRECTION
25	14-17	Strike the answer and replace with the following: "Every PV system was screened under the E-RIM and E-TRC tests using incentives set to a value that allowed the measures to pass the Participant test. These measures failed the E-RIM and E-TRC tests. FPL has not traditionally offered DSM programs designed to incent measures that are not cost-effective."

BY MS. CANO:

Q. Are you also sponsoring exhibits to your testimony?

A. Yes.

Q. Are those exhibits true and correct to the best of your knowledge and belief?

A. Yes, they are.

Q. Do those consist of Exhibits JRH-1 to JRH-18?

A. Yes.

MS. CANO: Mr. Chairman, I would note that Mr. Haney's exhibits have been premarked for identification on staff's exhibit list as Numbers 17 through 34.

CHAIRMAN CARTER: For the record, Commissioners, for identification purposes, Exhibits 17 through 34. You may proceed.

BY MS. CANO:

Q. Have you prepared a summary of your direct testimony?

A. Yes, I have.

Q. Would you please provide that to the Commission at this time?

A. Yes. Good afternoon, Chairman Carter and Commissioners. My testimony details the efforts FPL undertook to ensure that the proposed goals are

based on reasonably achievable cost-effective demand-side management potential and the utility's planning process for the period of 2010 through 2019.

FPL has been successful in cost-effectively avoiding 12 new power plants using demand-side management. The U.S. Department of Energy data reveals FPL to be number one nationally for cumulative conservation achievement, and number two in load management measured by load reduction. FPL is also ranked number four nationally as measured by cumulative energy reduction. FPL serves about 2 percent of the total United States demand, but has achieved 12 percent of the total demand reduction of U.S. demand, and has achieved 7 percent of the total demand reduction of load management.

These impressive results have been accomplished while implementing DSM programs that keeps rates lower than they otherwise would have been had those avoided plants been built. This has been achieved with all customer segments participating, including low income. We find that low income customers are taking advantage of our programs at the same rate or at a similar rate as the rest of our customers. This is particularly

important in these tough economic times.

To develop the proposed DSM goals, FPL participated in the collaborative made up of the FEECA utilities, NRDC and SACE. The collaborative was formed to ensure consistency of process and technical analysis. The collaborative selected Itron, a nationally recognized energy analysis consulting firm, to perform the technical and achievable potential analyses.

These comprehensive analyses, along with our system planning process, formed the basis of our goals. FPL's proposed goals meet the requirement of FEECA as amended and the DSM goals rule. They are based upon an evaluation of full technical potential. They are cost-effective to our participating customers. They are cost-effective to the general body of ratepayers. They account for the need for incentives to customers, and they properly account for anticipated costs of greenhouse gas emissions.

FPL's proposed goals are sensitive to customers. They avoid DSM cross-subsidies. They minimize DSM related rate impacts. They do not give away customer dollars to customers who already have an economic incentive to undertake DSM, and they

serve the interest of FPL's most vunerable customers, low income.

Commissioners, FPL's proposed goals represent FPL's reasonably achievable cost-effective DSM potential during the period 2010 through 2019, and FPL respectfully requests that they be approved.

Thank you.

CHAIRMAN CARTER: Thank you.

COMMISSIONER ARGENZIANO: Mr. Chair.

CHAIRMAN CARTER: Commissioner Argenziano.

COMMISSIONER ARGENZIANO: Yes. I just want to let you know I am back. I had a little hard time getting back on, but I am on.

CHAIRMAN CARTER: Thank you, Commissioner.

COMMISSIONER ARGENZIANO: Thank you.

MS. CANO: Thank you. At this time FPL would like to distribute and mark for identification one additional exhibit.

CHAIRMAN CARTER: Okay. Let's do that now.

MS. CANO: This is the errata sheet to the deposition transcript for John Haney.

CHAIRMAN CARTER: Okay. Commissioners, for the record that will be Exhibit Number 139, I believe. Is that correct, staff? Yes, Exhibit 139,

the errata sheet.

(Exhibit Number 139 marked for identification.)

MS. CANO: And the full transcript has already been stipulated as part of staff's stipulated exhibits.

CHAIRMAN CARTER: Okay. Does everyone have one? Okay. Let's proceed.

MS. CANO: Okay. FPL tenders the witness for cross-examination.

CHAIRMAN CARTER: Ms. Kaufman, good afternoon.

MS. KAUFMAN: Good afternoon, Mr. Chairman. Thank you.

CROSS EXAMINATION

BY MS. KAUFMAN:

Q. Good afternoon, Mr. Haney.

A. Good afternoon.

Q. I am Vicki Kaufman. I don't think we have ever met before, but I am here on behalf of the Florida Industrial Power Users Group, and I want to ask you a few questions about cogeneration.

A. Yes, ma'am.

Q. If you could turn to pages, I guess, beginning on 26 of your direct testimony?

A. I'm there.

Q. Okay. And on 26 and going over to 27 you talk about cogeneration, do you not?

A. Yes, ma'am.

Q. Can you just give us a brief description of what cogeneration is.

A Cogeneration is when a customer decides to self-generate or use a heat or a thermal process on their facility and allows them to use that heat and power within their facility.

Q. And sometimes does the cogenerator have additional or excess energy that it can sell back to FPL?

A. Yes, it does.

Q. Okay. And is it true that cogeneration generally uses waste heat in the production process that would otherwise just be released into the atmosphere?

A. It sometimes does, yes.

Q. So would you agree that it can be a very efficient form of generation?

A. As an overall generator, yes, it can, if you look at all of the heat and power that come from it as a total, right. And it is subject to the same cost-effectiveness analysis as our other DSM

options.

Q. Do you know what Florida Power and Light's projected 2009 energy costs were, the ones that you would have filed in docket -- I guess it would have been 080001?

A. No, ma'am, I don't.

Q. Let me see if I can pass out an exhibit.

MS. KAUFMAN: And, Mr. Chairman --

CHAIRMAN CARTER: Do you need a number?

MS. KAUFMAN: Yes, sir. I guess this would be 140.

CHAIRMAN CARTER: Commissioners, for the record, this will be Exhibit Number 140. Okay. How about a shot at the title?

MS. KAUFMAN: FPL Energy Costs -- Projected Energy Costs.

CHAIRMAN CARTER: Outstanding.

(Exhibit Number 140 marked for identification.)

CHAIRMAN CARTER: Okay. Ms. Kaufman, you may proceed.

MS. KAUFMAN: Thank you, Mr. Chairman.

BY MS. KAUFMAN:

Q. Mr. Haney, do you have Exhibit 140 in front of you?

A. I do.

Q. And would you accept, subject to check, that this is an excerpt from Florida Power and Light's projected fuel filing?

A. I would subject to check. I'm not familiar with the document.

Q. If you would take a look, Mr. Haney, at Line 15 there. And this -- this is expressed in kilowatt hours, the line all the way over, Line 15, all the way to the right?

A. Yes.

Q. Okay. Would you agree with me that in megawatt hours the projected cost for Florida Power and Light's fuel would be about $64.75 per megawatt hour?

A. Again, I'm not familiar with this document. I would say based on what I see in front of me, yes.

Q. You don't have any reason to think that FPL would have filed inaccurate fuel information, do you?

A. No, I don't.

Q. Okay.

A. But, again, I didn't take this out of what was filed.

Q. Understood. Do you have any idea what FPL paid, say, last month on an as-available basis to its

cogenerators?

A. No, I don't. That is outside of my scope.

Q. Okay. Would you agree that it is probably substantially less than $64.75 per megawatt hour?

A. I wouldn't know.

Q. Is there a witness in this proceeding for FPL that would know that?

A. Not to my knowledge, no.

MS. KAUFMAN: Thank you.

CHAIRMAN CARTER: Thank you, Ms. Kaufman.

For the record, state your name and the party that you are representing?

MR. WEINER: Thank you very much, and I appreciate this opportunity to participate in this proceeding. My name is Daniel Weiner. I am co-counsel with Mr. Jacobs and Mr. Longstreth on behalf of NRDC and SACE.

CHAIRMAN CARTER: You may proceed.

MR. WEINER: Thank you very much.

CROSS EXAMINATION

BY MR. WEINER:

Q. Good afternoon, Mr. Haney.

A. Good afternoon.

Q. I'm trying to move this along as quickly as possible for you.

As an initial matter, I believe you said you were director of demand-side management at FPL. Would you mind just running through briefly your responsibilities in that capacity?

A. Absolutely. I am responsible for the development of demand-side management programs at FPL, as well as ensuring that the programs are managed and implemented in a cost-effective way. Also responsible for all the regulatory filings and all of the activity associated with ensuring that the programs meet all the FEECA requirements and DSM goals rules.

Q. Thank you. I would like to talk a little bit about the efforts that you mentioned in your opening statement to reach low income customers. And reaching low income customers is one of FPL's priorities, is in the DSM a priorities, would you agree with that?

A. Reaching all of our customers -- I would say it is a priority, yes, as well as reaching all customer classes.

Q. So it is a priority?

A. It is a priority, yes.

Q. Okay. And FPL certainly believes that it can offer DSM measures to every class of ratepayers?

A. By class, you mean --

Q. Every income class, every -- all across the income spectrum?

A. Yes, we have an opportunity to reach all of our customers with our DSM programs.

Q. And is it correct, Mr. Haney, that FPL is currently able to reach low income customers at roughly the same rates as non-low income customers?

A. We have just recently done a study that showed that they are participating at roughly the same rate as our other -- as our other customers with the exception of our air conditioning program, where we see a slight less participation there.

Q. Got you. Actually you are one step ahead of me, as that was my next question, is you believe that this equal participation, just so we have a clear record, is true regardless of the cost of the measure?

A. Regardless of the cost.

Q. With possibly the exception of the air conditioning?

A. With possibly the -- yes. With possibly the exception of our air conditioning program. We are seeing them participate in our insulation programs and our other programs that we offer.

Q. Okay. So it is correct, then, isn't it, that if FPL offered a wider menu of DSM measures, FPL could

make these measures available on an equal basis to low income customers as residential customers as compared to the rest of the income levels that FPL services, is that correct?

A. I think you could say that any program that we offered we would offer to all of our customers, and low income customers would participate in those, as well.

Q. And you have no basis to think that these low income customers would participate at a lower rate than for other customers, correct?

A. I have no reason to believe otherwise, and we are seeing them participating in our programs today.

Q. Okay, great. And, finally, just -- and low income customers who adopt a DSM measure certainly can reduce their bills, can they not?

A. I think customers that are participating have an opportunity to reduce their bills. In a lot of cases we find that when customers implement demand-side management, they will actually use more than they did before they implemented the measure. So we will see them either getting more comfortable or leaving that light on longer than they normally would. And so we have seen it happen both ways

where customers actually their bill reduces and in some cases their bill will stay the same or go up, because they are looking for the comfort that it brings.

Q. Right. But it is possible for them to reduce their bill?

A. It is possible.

Q. Using demand-side measures?

A. It is possible.

Q. Okay. I would like to ask you just very briefly about the E-RIM test.

A. Yes.

Q. And what I would like to ask is under the E-RIM test, is it possible that participants in a particular DSM measure will benefit more than nonparticipants under the E-RIM test?

A. It would be true that customers could, yes. A customer could benefit more, but that is also true of all the tests, whether it is E-RIM or E-TRC.

Q. Okay. But it is true?

A. It is customer behavior.

Q. Okay. Now, when FPL offers a DSM measure, for example, to a residential or small business customer, FPL doesn't limit the number of people who

can enroll, does it?

A. No, sir. In the past, and I would say in the future FPL doesn't limit customer participation. So when we run advertising or we promote a program we don't cut them off, no.

Q. You have never turned away prospective customers to your knowledge?

A. No, sir.

Q. Okay. Thank you. Dr. Sim mentioned earlier today that -- I believe it was the -- and this is subject to check, the E-RIM 664 megawatt portfolio. He thought that that was projected to meet all of FPL's unmet need through 2019. Do you agree with Dr. Sim?

A. He would be the expert on that one.

Q. Okay. So you do agree with him to the best of your knowledge?

A. To the best of my knowledge.

Q. Okay. And is it also true that unmet need is to some extent a limiting factor on the use of DSM measures?

MR. GUYTON: Objection. This is going outside this witness' line of direct examination. This was a line that was covered in detail by the resource planning witness, Doctor Sim.

CHAIRMAN CARTER: Okay. Just tighten it

up. Let's move on.

MR. WEINER: Okay. Sorry. To move on -- excuse me. Sorry. One second.

CHAIRMAN CARTER: Take a moment if you need to.

MR. WEINER: Could I just ask -- and if the Commission would prefer, I just have one other question on unmet need. Just very basic, if I could get Mr. Haney's response, or should I just move on?

CHAIRMAN CARTER: Well, if it is within his ambit.

MR. WEINER: Okay. Thank you.

BY MR. WEINER:

Q. If you can answer this please just feel free to say so. I just wanted to ask hypothetically, if for some reason there was a regulatory decision that foreclosed or delayed construction of one of FPL's, say, new nuclear units, you would agree that unmet need would increase?

MR. GUYTON: Objection. This goes beyond the scope of this witness' testimony.

CHAIRMAN CARTER: Sustained.

MR. WEINER: Okay. I will move on.

BY MR. WEINER:

Q. Sir, I just want to ask you very quickly

about the marketing of DSM measures.

A. Yes.

Q. It is true, isn't it, that in 2005 FPL was able to ramp up implementation of its DSM portfolio in about a year?

A. Correct, yes, we were. We saw demand rising and moved very quickly to increase our load control efforts, as well as develop additional programs that we were able to get through with Commission approval in about a year. So, by the end of that next summer we had additional measures that we could offer to customers.

Q. Thank you very much. Now, the last topic I would just like to cover with you briefly is the two-year payback and free riders. So I would like to talk about these measures quickly. If we leave aside the problem of free riders for the moment, would you agree that such measures do offer the least expensive way to increase energy efficiency under either E-RIM or E-TRC, setting aside the problem with free riders?

A. I would agree that these -- that customers who have an opportunity to implement measures with less than a two-year payback are absolutely getting benefit very quickly. It is why we have agreed and it is why as a collaborative we really moved to look

at a two-year payback as a way to limit that. When customers have that opportunity, right, the economic opportunity already in front of them, it is not a good idea, or it has not been felt like the way to go at that would be to give customers more money, just to take ratepayer money and use it to pay customers who already have that economic opportunity.

Q. Okay. So there is -- those do have the most bang for the buck than for the customer for whoever is paying?

A. They have the quickest payback.

Q. Okay. So let's add free riders now, since, obviously, that's what we are discussing. And FPL does eliminate all measures with a simple payback of less than two years to minimize free riders, correct?

A. Yes.

Q. Okay. So just to confirm, there were measures that would have passed the E-RIM and Participant test that were screened out due to the two-year payback, correct?

A. That is correct.

Q. Okay. And subject to check, there were about 197 measures that passed E-RIM that were screened out, correct?

A. That is correct, yes.

Q. Okay. Does FPL address the free rider problem for DSM measures in any other way besides the two-year payback screen?

A. In program implementation we do. In the goals part of this process, we only use the two-year payback as the screen as agreed to by the collaborative, yes.

Q. Okay. And I will get to that in a second, actually. But, okay. So do you maintain that measures -- that the basis of this two-year bayback, do you maintain that measures with paybacks of less than two years will be adopted automatically by customers based on natural market forces?

A. No, I don't. I think customers implement measures for multiple reasons, some of them economic, and they don't implement them for multiple reasons. The thought is that they have the financial incentive already in front of them in order to implement those measures. And throwing more money at them, wasting our customers' money, that just doesn't seem like the way to get them to implement the measures. Therefore, we do multiple things in order to promote them.

It is not as if we just walk away from

those measures. I think it is important to think about when we go out to see a customer, those are recommendations that we would make to that customer. So we talk to them about raising their thermostat. We talk to them about getting a tune-up on their air conditioner. If the supply and the return temperatures aren't, you know, Delta T of about 20 degrees, then you know there is something wrong with that unit. You need to have it inspected.

So we offer a multitude of things for our customers that are in that two-year payback criteria. They can go on-line and our on-line surveys recommend it through our literature and top ten tips. We are always recommending those measures to customers. It is just we don't feel like it is a good use of our customers' money to throw more money at them.

Q. Okay, thank you very much. I apologize for one second.

CHAIRMAN CARTER: Okay. Take your time. You have got a minute. Just take a minute.

MR. WEINER: Thank you, sir. Thank you. We can take one minute.

BY MR. WEINER:

Q. Mr. Haney, subject to check, and I apologize

for that. I think I might have grabbed the wrong document actually. So, my apologies. My understanding, and we are checking this, is that Itron did say that if measures with a payback of less than two years did -- sorry, excuse me one second. I lost my place here.

CHAIRMAN CARTER: Let's just kind of -- we are going to go off the record -- we are just going to go off the record for a moment to give you an opportunity. Nobody leave. We are going to give him a couple of seconds to get his paperwork together.

MR. WEINER: Yes. And if we can't find it, we will just move on.

CHAIRMAN CARTER: Okay.

MR. WEINER: Thank you.

CHAIRMAN CARTER: Just say when.

(Off the record.)

CHAIRMAN CARTER: We are back on the record. You may proceed.

BY MR. WEINER:

Q. So basically then you agree based on your last response, and we can refresh if you want to, that there are market barriers that prevent certain types of simple DSM measures from being adopted by some

residential customers automatically?

A. Yes, there are.

Q. All right. Thank you very much, and I apologize for the confusion there.

So do you accept, I believe GDS concluded, and that was based partly on data submitted by FPL, that -- and the other FEECA utilities, that the average penetration rate in the residential market for the types of measures excluded was about 25 percent?

A. I don't know. I'm not familiar --

Q. Subject to check that was at Page 25 of their testimony. Does that sound reasonable to you? Do you have any reason to dispute that?

A. I don't have any reason to agree or disagree with it, actually.

Q. But something less than a 50 percent penetration rate would be conceivable given that there are market barriers?

A. Some measures I would say --

MR. GUYTON: Objection.

CHAIRMAN CARTER: Hang on, hang on. Hold the phone.

MR. GUYTON: The witness is being cross-examined about other witness' testimony. It

is not about his testimony. He is being asked what Mr. Spellman has testified to. I just don't think it is proper cross-examination.

CHAIRMAN CARTER: Okay. Let's just rephrase.

MR. WEINER: Okay.

BY MR. WEINER:

Q. Do you know what the penetration rate for these measures that have been excluded is?

A. No, sir, I don't.

Q. Okay. Assuming there is a lower level than 100 percent penetration rate, and that is because of market barriers, if it is true that a free rider would adopt a measure anyway, would you expect that all free riders would adopt the measure regardless of the incentive level?

A. I think a free rider has an opportunity -- would face the same barriers to implementation as any other customer. I think the two-year payback is just merely saying that they have the financial, you know, the financial barrier is overcome. There are other issues that are preventing them from installing that measure. That is why in a lot of cases it is education. It is just the customer understanding really what the value of turning down

their thermostat is, or putting in a more efficient light bulb, or turning the lights off when they leave. A lot of times customers don't understand it, and so we spend a lot of time just on educating customers on those measures, but that doesn't mean that we are going to take money and throw at them to make their incentive -- their financial incentive even greater.

Q. But, in principle there is no reason why the level of incentive changing would increase the number of free riders, correct?

A. There is no principle there. And, in fact, in the next phase of this docket we will look at designing programs, and we will have to look at ways to manage those programs that we bring back to the Commission for approval to address free riders at that time, as well.

Q. But in the goals phase, you have never researched whether varying incentive levels could change the total benefit relative to the cost of the program, correct?

A. In the goals phase we look at as a way to address free riders and to deal with our customers' money in the most efficient way, the two-year bayback has been the way to do that.

Q. And so just to have a clear record, you haven't researched whether varying the incentive level might change the necessity for the two-year payback or justify another level of payback in a different type of situation, you have just --

A. Well, I don't know that I would say that. We have looked at other options around payback. Essentially, these payback adoption curves will -- you know, they will tend to show you at a payback range where the customers actually implement the measure. In the past -- well, not in the past, but what you typically will see is about two years is where that penetration really starts taking off. And that is where we have limited it to the two years as the point where the economic incentive has already taken over for that customer.

Q. Okay. And have you done primary research with respect to FPL's customers in this regard?

A. No, we have not.

Q. So you have done --

A. This is secondary.

Q. Secondary sources. And can you name, I believe you had mentioned an ACEEE study. Can you name any other study in which the two-year payback was analyzed besides that one?

A. I believe in my direct testimony as an exhibit there are several other there. There is also a report that has been put out by -- it is the Shelton Group that shows two-year payback and adoption curves. Well, it actually just shows adoption curves versus payback.

Q. And is it supportive of the two-year payback screen?

A. It merely shows at a payback period what would you assume -- what could you look at as far as a percent adoption by customers.

Q. Okay. And just to be clear, FPL has never considered whether a two-year payback might be cost-effective for certain types of customers but not others. You have never looked at it based on individual segments of the market, have you?

A. I'm not sure I would know how to look at that. We view it as paying for customers who have paybacks under two years as being a very inefficient way to move the market. We see a much more effective way of moving the market doing it through surveys and doing it through promotional activities.

Q. Okay. And the adoption curves that you referenced, those are the same for all measures or are they different? Are they the same?

A. It is a summation of all measures, but it doesn't break it down by measure. It is not by measure. I mean, with 2,000 measures it would be a little overwhelming.

Q. Okay. But different measures do have different adoption curves?

A. And that's why in the -- yes, and that is why actually we deal with that issue in the program design phase where we are actually looking at each measure and what is the best way to get that measure implemented.

MR. WEINER: Is it okay if my colleague asks -- interjects with one?

CHAIRMAN CARTER: No. He can help you, but he can't ask questions.

MR. WEINER: Oh, sorry. Okay.

CHAIRMAN CARTER: You have already started on the witness, so --

MR. WEINER: Sorry.

BY MR. WEINER:

Q. And the measures -- but, the measures that are excluded at the two-year payback, are those considered at the program phase?

A. No, they are not considered to be as part of the goals, but they absolutely are considered as

part of the things that we would recommend to customers through energy surveys and on-line and in printed material. So it is not that these measures aren't part of what we recommend to customers, we just don't move them into the goals phase of the process.

Q. Okay. I would like to show you a brief exchange that a member of the Commission had with an FPL witness in 1994 to read. Pass this out.

BY MR. WEINER:

Q. Mr. Haney, if you could just take a sec to read --

CHAIRMAN CARTER: Could you do me a favor before you ask the next question?

MR. WEINER: Sure.

CHAIRMAN CARTER: Pull your mike closer so that the court reporter can hear you.

MR. WEINER: Oh, sorry. Sure.

CHAIRMAN CARTER: You have been fading in and out on us.

MR. GUYTON: And if you could wait until all of us have the benefit of the transcript, please.

MR. WEINER: And I realize that the docket from this exchange is not, so we can get that in a

second.

CHAIRMAN CARTER: Hang on a second. Hang on a second. You may proceed.

MR. WEINER: This is an excerpt from the 1994 DSM docket. I don't have the docket number handy, but we will -- Volume 5, but we will get it in a second. And I believe this would be Exhibit -- yes, 141.

CHAIRMAN CARTER: So you want it marked for identification purposes?

MR. WEINER: Please. Thank you, Mr. Chairman.

CHAIRMAN CARTER: 141. Commissioners, for your records, this will be Exhibit 141. Recommendation on a title.

MR. WEINER: We are just looking for the docket.

CHAIRMAN CARTER: Could you give me a recommendation for a title?

MR. WEINER: Yes, it's excerpt from the 1994 DSM Docket.

(Exhibit Number 141 marked for identification.)

CHAIRMAN CARTER: When we get to dealing with the exhibits and all like that, make sure you

have the docket number and all like that, so when we go through the process we can put it in, otherwise it will just be available for cross-examination only, okay?

MR. WEINER: Okay. Would you like the docket number now?

CHAIRMAN CARTER: I sure would.

MR. WEINER: Great. Sorry about that. Docket Number 930548-EG. I guess there are several. Docket Number 549-EG, and then keep going, 550-EG and 551-EG, the same.

CHAIRMAN CARTER: Okay. You may proceed.

MR. WEINER: And the hearing is June 2nd, 1994.

BY MR. WEINER:

Q. Mr. Haney, have you had a chance to look through this excerpt?

A. I am almost through it, yes.

Q. Okay. Take your time. All set?

A. Okay.

Q. So if you look at Page 644, Lines 4 to 6, Commissioner Clark expressed the feeling that, "I guess what I'm saying is I think you need another method to determine free riders." And Commissioner Clark is referring to the two-year payback screen, correct?

MR. GUYTON: Objection. I don't think this is proper cross-examination of this witness. This is not impeachment. This is not something he is familiar with, and he is now being asked what a former Commissioner said to a former FPL witness 15 years ago. It is entirely out of context.

CHAIRMAN CARTER: I am going to sustain the objection. I think you can get where you need to get by using what is available to us here. So I am going to sustain the objection. You may proceed.

BY MR. WEINER:

Q. Okay. Leaving aside that, since the 1994 hearing, has FPL explored alternatives to the two-year payback since 1994 at the goals stage?

A. At the goals stage. Actually, in this docket we have looked at -- I think Witness Dean will talk about some alternative measures that we looked at and ways to deal with it, so I would defer those questions to him.

Q. Okay. So, I would just like to talk finally very briefly about the decision to use the two-year payback screen. Could you just -- who made the decision to use the two-year payback screen?

A. It was the collaborative that made the decision. So it was the FEECA utilities, NRDC and

SACE.

MR. WEINER: Okay. And I would like to at this time enter, I apologize if I am phrasing that wrong, Exhibit 142, I believe.

CHAIRMAN CARTER: You have something you want to mark for identification?

MR. WEINER: Yes, mark for identification Exhibit 142.

CHAIRMAN CARTER: 142. The title?

MR. WEINER: And the title would just be the Itron Final SOW, Statement of Work.

(Exhibit Number 142 marked for identification.)

CHAIRMAN CARTER: Okay. You may proceed.

MS. BROWNLESS: Can we stop just a minute, please?

CHAIRMAN CARTER: Do you need a break, Ms. Brownless?

MR. WEINER: Could we go off the record?

CHAIRMAN CARTER: Okay. Let's go off the record. Commissioners, let's does this, let's come back at a quarter of.

(Off the record.)

CHAIRMAN CARTER: We are back on the record. And when we last left we were going to

allow the attorneys an opportunity to kind of get things together. You are recognized, sir.

MR. WEINER: Thank you very much, Mr. Chairman.

CHAIRMAN CARTER: Turn your mike on.

MR. WEINER: Thank you very much, Mr. Chairman.

BY MR. WEINER:

Q. So, Mr. Haney, we apologize for that interruption. Just as a recap, I believe you were saying that the decision to use the two-year payback during the present goals setting phase was a decision of the collaborative together, right?

A. Yes, it was.

Q. That is your testimony. What I would like to ask you now is to ask that an exhibit be marked, which is an excerpt from the final Itron statement of work as exhibit, I believe the number would be 142, 143?

CHAIRMAN CARTER: Hang on a second. Hang on a second.

Ms. Fleming, is this the same document we had before on 142, Itron Final SOW?

MS. FLEMING: It is my understanding what was initially handed out was a confidential version of this document, but I think, I believe this

document is appropriate for the public, so I would just say continue with this numbering as 142.

CHAIRMAN CARTER: We'll keep the same number and same title. You may proceed.

MR. WEINER: Thank you very much.

BY MR. WEINER:

Q. Actually, I would like to direct your attention to the final paragraph on what is actually labeled Page 5, Mr. Haney. And I believe it is the third sentence which reads, "We are prepared to address a total of three achievable program scenarios as defined by the utilities." Do you recognize this paragraph?

A. Yes.

Q. So, basically, if you read this paragraph, NRDC and SACE, did they agree that these scenarios should be defined by the utilities?

A. This is a document that was signed by the utilities first. Secondly, I would say that as we were entering dealing with free riders, we actually had a conference call with all the members of the collaborative to address ways to deal with free ridership. And on that call we agreed that a two-year payback would be the method that we would use in order to address free ridership. So, NRDC

and SACE did agree to the two-year payback criteria through that conference call.

MR. WEINER: Okay. At this time I would like to request that Exhibit 143 -- yes, 143 be marked. And I will give you a second, Mr. Haney, to look that over.

CHAIRMAN CARTER: Are you going to give us something that will be marked 143?

MR. WEINER: Yes.

CHAIRMAN CARTER: Okay. For identification purposes 143. A title? Brevity is appreciated.

MR. WEINER: Sure. February 5th, 2009 E-mail to the Collaborative.

(Exhibit Number 143 marked for identification.)

CHAIRMAN CARTER: Okay. You may proceed.

MR. WEINER: Thank you.

BY MR. WEINER:

Q. So, Mr. Haney, in fact, didn't NRDC and SACE object to the achievable potential scenarios being preset by the utilities? And if I could direct your attention to the bottom of Page 2, I believe that says the collaborative should establish the three potential scenarios.

MR. GUYTON: Objection. There has been no foundation laid for this document. It is not even established that the witness is familiar with it.

MR. WEINER: I will move to strike that.

BY MR. WEINER:

Q. Do you recognize this e-mail, Mr. Haney?

A. I don't recall the e-mail. I recall conversations with Mr. Wilson about it, but I don't recall specifically this e-mail.

Q. And do you -- you were part of the collaborative, you were on the e-mail list for the collaborative, correct, Mr. Haney?

A. Yes.

Q. So, does it look -- does it look like an e-mail that would have been sent out to the collaborative?

A. By its to, I would say it was sent out to the Florida Collaborative, yes.

Q. But you don't recall the concerns that Mr. Wilson expressed about the utilities defining the achievable program scenarios?

A. I believe you asked me if I was familiar with this e-mail, and to that I said no.

Q. Okay. And you don't recall any other instance?

A. I think my response was that I do recall talking to Mr. Wilson about some of these issues. I just do not recall this e-mail specifically.

Q. And you do recall discussing the issue of who should define the three achievable potential program scenarios with Mr. Wilson?

A. Correct, I do remember that. That was actually one of the reasons we had the conference call to get everyone's input on how we should move forward.

Q. And apart from the conference call, were there other instances where Mr. Wilson did express reservations about the utilities defining achievables?

A. To define achievables?

Q. The three achievable potential scenarios?

A. Not the three scenarios, no.

Q. Or instances where Mr. Wilson expressed reservations about the two-year payback apart from the conference call?

A. No, sir.

Q. Okay. So, I would like to jump to the end now, after the collaborative, please. NRDC and SACE refused to endorse the results of the achievable potential study, didn't they?

A. I received an e-mail to that effect, yes.

MR. WEINER: And at this time, I would like to mark for the record as Exhibit 144 a letter from Mr. Haney to Mr. Wilson, I believe.

CHAIRMAN CARTER: Is the letter to -- the letter is from Mr. Haney to Mr. Wilson?

MR. WEINER: Yes.

CHAIRMAN CARTER: Okay. Commissioners, that will be Exhibit Number 144 marked for identification. A short title will be Haney's letter to Wilson.

(Exhibit Number 144 marked for identification.)

CHAIRMAN CARTER: Okay. You may proceed.

MR. WEINER: Thank you very much.

BY MR. WEINER:

Q In the first sentence of the last paragraph you state --

MR. GUYTON: Wait just a minute so that we have a chance to digest this.

MR. WEINER: Oh, sure.

CHAIRMAN CARTER: Okay. Let's take a minute.

(Pause.)

MR. GUYTON: Thank you, Mr. Chairman.

CHAIRMAN CARTER: Okay. You may proceed.

MR. WEINER: Okay. Thank you.

BY MR. WEINER:

Q. So you state we were -- excuse me, sorry. So you state, "John and George, while the other collaborative members and I are disappointed that you will not endorse the achievable potential study, we have enjoyed working with you and appreciated your input."

Do you know why NRDC and SACE did not endorse the achievable potential study results?

A. He never shared that with me, no.

Q. So your testimony is that Mr. Wilson never shared with you the reasons?

A. Why he did not specifically, no.

Q. Okay.

A. It sounds to me like you are trying to lead me somewhere. I said earlier that he and I had talked. We had discussions about his concerns, and we tried to address them which, actually, this letter demonstrates, on numerous occasions. So did he say to me here the three reasons or whatever that we will not, I don't recall that conversation.

MR. WEINER: Okay. I would like to enter as an Exhibit 144, I believe.

CHAIRMAN CARTER: This is 144.

MR. WEINER: Okay. 145.

CHAIRMAN CARTER: For identification purposes?

MR. WEINER: Letter from Wilson to Haney.

CHAIRMAN CARTER: Okay. This is a reverse of 144?

MR. WEINER: Yes, exactly.

CHAIRMAN CARTER: Commissioners, for your records, 145 is the Wilson letter to -- Wilson's letter to Haney.

(Exhibit Number 145 marked for identification.)

MR. WEINER: And, Mr. Chairman, just let me know. I will wait for everyone.

CHAIRMAN CARTER: Okay. Just hang on a second.

Did the parties have an opportunity to look over this document? Did you have an opportunity to look it over?

MR. GUYTON: Yes, Mr. Chairman. Thank you.

CHAIRMAN CARTER: Okay. You may proceed.

MR. WEINER: Thank you, Mr. Chairman.

BY MR. WEINER:

Q. Mr. Haney, I am going to read you the second

to last paragraph, if you don't mind. And this is a letter from, as we said -- it's actually -- it is from Mr. Wilson to yourself. "Therefore, we regretfully inform you that we cannot endorse the final report results, as we had limited opportunity and in some cases no opportunity to either review or shape those results. Please share this with the rest of the collaborative at your earliest convenience."

It appears to me from this letter that NRDC/SACE stated that they felt they had limited or no opportunity to even review and certainly not contribute to the results of the achievable potential study. Do you believe that is accurate?

A. This is actually part of the conversation that Mr. Wilson and I had. And we had tried very hard over that period to be able -- you know, to get more conversation going and to try to overcome his concerns. And, obviously, we were just not able to do so.

He still participated on the conference calls. He was still, you know, part of the process. As we were getting to the end, there was a lot of work that was going on that was really specific to each utility. And, you know, those calls were very much action oriented to get us to this date. And I

think that was his primary concern is that he felt like he was not getting enough information. We gave him all the information we had at the time.

Q. So, would it be correct, though, to say that in addition to not getting enough information based on this letter that was addressed to you, he also felt he was not being allowed to participate in the process of shaping the goals?

MR. GUYTON: Objection. This letter is the best evidence of what Mr. Wilson indicated. Asking this witness to restate what the letter is is just not the best evidence.

MR. WEINER: I will withdraw the question.

CHAIRMAN CARTER: Okay.

BY MR. WEINER:

Q. So, Mr. Haney, I would like to show you one last exhibit, if you don't mind.

CHAIRMAN CARTER: Do we need to mark it for identification?

MR. WEINER: Marked for identification.

CHAIRMAN CARTER: Commissioners, Exhibit 146. Short title recommendation?

MR. WEINER: Acheivable -- excuse me. SACE, S-A-C-E, feedback.

CHAIRMAN CARTER: Okay.

MR. WEINER: For achievable potential analysis.

MS. HELTON: We will just go with SACE Feedback, okay?

MR. WEINER: Thank you, Mr. Chairman.

(Exhibit Number 46 marked for identification.)

CHAIRMAN CARTER: Just hang on a second. Give everyone an opportunity to get the documentation.

Is everybody ready?

MR. GUYTON: Yes, thank you.

CHAIRMAN CARTER: You may proceed.

MR. WEINER: Thank you.

BY MR. WEINER:

Q. Mr. Haney, do you recognize the document attached to this e-mail?

A. Yes, I do.

Q. Have you had a chance to peruse the section on free ridership limitations on Page 2? Take your time.

A. Just on the free ridership?

Q. Yes, so we can -- the second half of Page 2.

A. Yes. This is addressing the scenarios that we actually ran around -- it wasn't really

around free -- that was not a free ridership issue. It was more looking at scenarios that would impact ultimately the goals.

Q. Okay. But didn't NRDC and SACE suggest consideration of a shorter payback screen or no payback screen as opposed to the two-year payback?

A. These are two separate issues. In addition, the utilities wished to explore a fourth component, free ridership minimization. That is the conference call that I discussed previously that we had on free ridership. So we actually had a call that addressed specifically the free ridership part of this.

The second part of this e-mail appears to be dealing with sensitivities that the collaborative agreed to run at -- I believe it was even staff's recommendation that we look at are there some sensitivities that could be run to give us an idea of what was actually moving the participation and ultimately the goals for our customers that we would recommend.

Q. So your testimony is that in addressing free ridership the NRDC and SACE did not ever propose that the scenarios encompass a one-year payback or no payback screen?

MR. GUYTON: Objection. I don't think that is a fair characterization of his testimony. I think he just said that there are two separate issues. And the scenario that is discussed here is different from the original decision on free ridership.

CHAIRMAN CARTER: Let's rephrase.

MR. WEINER: I'll rephrase.

BY MR. WEINER:

Q. Did NRDC and SACE, to your recollection, ever propose that the achievable potential scenarios encompass a one-year payback screen or no time payback screen?

A. One of the issues we did in sensitivities would look at and actually we did it through our sensitivities around incentives. We looked at a two-year payback, and we looked at a scenario with 33 percent of the incremental cost and then 50 percent of incremental cost to vary the incentives. In that discussion, could it have been brought up? I don't remember, but I know that is where we settled as the collaborative was to look at the two-year payback as well as 33 percent of incremental cost and 50 percent of incremental cost for incentives.

Q. So is it correct that I believe those other two scenarios also included a two-year payback?

A. It included the lesser of the two-year payback with 33 percent of incremental costs or 50 percent of incremental costs. So those were the three incentive scenarios that were looked at.

Q. So you did not consider a one-year payback or a no payback screen?

A. I *am saying* it could have been talked about, but where we settled was the two-year payback.

MR. WEINER: Okay. Thank you very much, and I believe that is it for us. We appreciate it.

CHAIRMAN CARTER: Okay. Ms. Brownless.

MS. BROWNLESS: I can start or wait until everybody gets the document.

CHAIRMAN CARTER: Hang on a sec. This is so thrilling, we want to be on the edge of our seat.

MS. BROWNLESS: I got it, yes. Thank you. I appreciate it.

CHAIRMAN CARTER: You are just using this for cross-examination purposes, correct?

MS. BROWNLESS: No, we will be identifying this, marking it as Exhibit Number 147, and the short --

CHAIRMAN CARTER: Hang on a second. Hang on a second before we do that, before I give you a number. Hold on. Hold the phone. Did all the parties get a copy of this?

MS. KAUFMAN: I will share with Mr. Perko.

CHAIRMAN CARTER: You will share with -- staff, do you have a copy? Court reporter? Okay. We will mark it for identification purposes as Exhibit 147, Commissioners. A short title?

MS. BROWNLESS: FSC Interrogatories 1 through 7 to FPL.

(Exhibit Number 147 marked for identificaiton.)

CHAIRMAN CARTER: Okay. You may proceed.

MS. BROWNLESS: Thank you.

CROSS-EXAMINATION

BY MS. BROWNLESS:

Q. Have you had a chance to look at these interrogatories, sir?

A. Just as it was handed out, yes.

Q. Sure. And this is a true and correct copy of the interrogatory responses that were provided to Florida Solar Coalition by FPL?

A. Yes, they are.

Q. Okay, thank you. And, Mr. Haney, I believe

you sponsored Interrogatory Number 4, is that right? If you look in the very back you have affidavits.

A. Got it.

Q. Is that correct?

A. Yes.

Q. And Mr. Gantz phonetic) sponsored 1 through 3?

A. Yes.

Q. Okay. And are you able to verify on behalf of Mr. Gantz that his responses in 1 through 3 are also what was provided?

A. Yes, ma'am.

Q. Thank you. With regard to the interrogatory you answered, if you were asked the same questions today, would your answers be the same?

A. Yes.

Q. Thank you. As part of the measures that you reviewed, did FPL review any hybrid solar hot water and PV systems for residential and/or commercial application?

A. I don't believe so.

Q. Was FPL aware that these types of systems have been installed in its service area?

A. For the technical potential study, we pulled all the parties together to look at the

measures that should be included, and I don't recall that being a measure that was discussed. And I personally didn't know that they had been installed in our service territory.

Q. Okay. Subject to check, would you accept that there are these types of hybrid systems in your service area?

A. Subject to check, uh-huh.

Q. Did FPL evaluate all measures identified by Itron on a stand-alone basis, each measure by itself?

A. The measure attributes were given to Itron on a stand-alone basis. As part of their analysis, they actually stacked those measures to ensure that we weren't double counting, so they were not evaluated as stand-alone measures.

Q. Well, would it be fair to say that the measures that were in the technical potential study for FPL --

A. Yes, ma'am.

Q. -- and the data associated with each measure was established on a stand-alone basis?

A. Yes, ma'am. Each measure was stand-alone, or at least it was provided to Itron as a stand-alone measure.

Q. Okay. And in your analysis, your economic

potential analysis, were the measures combined in any way, for example, as Progress Energy has combined solar water heating with direct load control?

A. No, ma'am. I think as Dr. Sim stated earlier today, we have not combined measures to make a less cost-effective measure compared with a more cost-effective measure to make the blend pass an E-TRC or an E-RIM test.

Q. And I am going to hand you what has previously been marked as Exhibit 137, which is FSC's Interrogatory Number 14. And also turn to Page 25 of your testimony, your direct testimony.

Now, in your testimony you indicate starting at Lines 18 that FPL considered PV techologies in smaller demand-side generation scale less than 10 kW, is that correct?

A. Yes, ma'am.

Q. Okay. Looking at the answer to Interrogatory Number 14, it appears that all of the PV systems analyzed by FPL were 10 kW or less, is that correct?

A. Yes, ma'am.

Q. Okay. And you are aware that in this docket measures up to two megawatts can be considered, is that right?

A. Yes, ma'am.

Q. Okay. So, larger scale commercial or industrial applications up to two megawatts were not considered at all, is that right?

A. No, that is not correct. This question is asking about techologies less than 10 kW. On a business scale, we actually did look at systems that were 25 kW for the business customer.

Q. Okay. And when you say for the business customer, you mean you analyzed PV measures 25 kW or above for those?

A. 25 kW, yes, ma'am.

Q. Okay. And did you do that in response to -- if you would look at Interrogatory Number 11. Is that the place where you would have analyzed those larger sized facilities? Number 129 -- Item Number 129 or Interrogatory Number 12, Item 266, commercial rooftop photovoltaic, or Item 267, commercial parking lot photovoltaic in Interrogatory 13?

A. Eleven appears to me to be dealing with solar water heating, so it wouldn't have been there.

Q. Right.

A. And Interrogatory Number 12 is potentially -- and Interrogatory Number 12 for commercial rooftop, and for Interrogatory Number 13 where it is addressing parking lot photovoltaic.

Q. Okay. All right. Just so I am clear, that is where the larger systems would have been analyzed, the larger PV systems?

A. And off the top of my head I don't know which one it would have been addressed, but it would have been, I believe, in those, yes.

Q. Okay. Now, you state in your testimony on Page 14 that every PV system failed the Participant test, is that correct?

A. We have an errata that --

Q. Page 25, Line 14.

A. Page 25. We have actually filed an errata on Line 14, and subsequently today we talked about an errata for 22.

Q. Okay. And here is what I'm trying to match up. My understanding from Dr. Sim's testimony is that for all of the measures that he analyzed that are listed in my interrogatories, he made the Participant test equal one, and that is how he derived the incentive -- utility incentive figure, is that correct?

A. For the RIM test that is his testimony, yes.

Q. Okay. And so no systems, if that is the methodology that one is using, no PV system could have failed the Participant test, is that right?

A. That is correct.

Q. I mean, it would have to be one because that is how you -- that's how you did it?

A. That is how we evaluated it to see if it would pass the RIM test.

Q. Okay. Is it the accurate statement that they passed the Participant test because under your methodology they all had one, but they did not pass the E-RIM or the E-TRC test?

A. Given that we made the incentive equal to one, they passed the Participant test because we forced it to.

Q. Right. But did not pass the E-RIM?

A. E-RIM and E-TRC.

Q. Okay. And down in the question that you just corrected today --

A. Yes, ma'am.

Q. -- is that logically just been through why you removed Line 22?

A. Yes.

Q. And I am going to hand out my little chart again. Is the incentive level that was used in the Participant test in the numerator, because there is a benefit, the same as the incentive level that is used as a cost in the RIM test?

A. That is a Dr. Sim question.

Q. Okay. All right. And I want to turn to the response to Interrogatory Number 7, and if you are the person to ask about that. Can you take a minute to look at that interrogatory and see if you are the person to question about it, or whether I should wait for Mr. Rufo?

A. I would suggest waiting for Mr. Rufo.

Q. Thank you. Now, Dr. Sim referred this question to you. Do you agree that the pricing for PV systems have decreased over the past five years?

A. We have actually seen them increasing.

Q. PV?

A. Oh, PV?

Q. Yes.

A. On photovoltaic, I don't -- I don't know if it has been decreasing over the past five years.

Q. Well, do you know whether it has been decreasing over the past five years?

A. I do not.

Q. Do you have an opinion about whether it will decrease over the next five years?

A. Photovoltaic?

Q. Yes, sir, PV is what we are talking about.

A. I think we have seen with solar

techologies that they have not been decreasing recently, so I would say I don't have any basis for saying it would go up or go down.

Q. Okay. Do you believe that PV technology is becoming cheaper?

A. I think we have seen at a large scale PV technology coming down in price. I have not seen that at a small scale.

Q. Has Florida Power and Light done any studies of PV pricing in Florida?

A. No, we have not.

Q. Because the PV technology did not pass the RIM or the TRC test, it was completely excluded from moving on in the process and being included in the goals, is that right?

A. That is correct. Like all measures that didn't pass the Participant, E-RIM, or E-TRC, they were not carried through the process for goals.

Q. Okay. And so Florida Power and Light did not attempt to develop any goals associated with that type of technology?

A. We did not, nor did we on any noncost-effective measures.

Q. Okay. When you get to the next phase of this process, do you intend to evaluate PV systems as part

of your program portfolio?

A. We intend to look at all measures to see if they can be cost-effective to move forward into the program phase, so, yes.

Q. Okay. Even measures that you deemed previously not to be cost-effective?

A. If they pass the cost-effectiveness test, then, yes, we would. PV, I guess, since it didn't pass and it was not stacked, I would say it would be unlikely for PV to carry forward into the program phase.

Q. And it would also be unlikely for solar hot water for the same reason, correct?

A. Solar hot water, actually -- since it was actually considered as an energy efficiency measure, that actually competed against other water heating measures, and so I believe we might have an opportunity to see it in the program phase. We'll have to evaluate it as a stand-alone to see if it could be.

Q. It wasn't evaluated as a stand-alone in this? Wasn't that --

A. It was an energy efficiency measure. It was part -- solar thermal was actually part of the energy efficiency measures that Itron evaluated.

Q. Yes, and that would be Interrogatory Number 8, right, residential solar water heating?

A. Yes.

Q. Okay. And you also evaluated commercial solar water heating in Interrogatory Number 11, correct?

A. That is correct.

Q. And neither item passed the RIM or the TRC test, did they?

A. These were using the savings that were derived out of the technical potential study, and so using those values for energy reduction and demand reduction they didn't pass E-RIM or E-TRC.

Q. Okay. But when you get to the program development side, are you going to use other figures for kWh savings?

A. We will look at the kW and kWh savings that solar water heating will contribute as a stand-alone system, yes.

Q. Using different inputs is my point.

A. Yes.

Q. Okay. So you are going to use different figures for that, and where are you going to get those figures? Are those going to be FPL utility specific?

A. Those were actually figures that were

supplied to Itron in the beginning of the technical potential study. So, yes, they were -- they were figures that were evaluated by the collaborative.

Q. Okay. Now I am confused. Are you going to use the same data for kWh savings that Itron used in -- that Itron used and that were used in these interrogatories, or different data?

A. In the program phase, so for the -- let's separate to the program phase, right?

Q. You're in the program phase now.

A. And in the program phase we will use for solar water heating its full impact or the impact that it would have as a stand-alone measure, not competing with other water heating measures as it did within the technical potential study.

Q. Well, isn't what is provided in these interrogatories the results of your economic screening as reported on your Exhibit 12?

A. Yes.

Q. Okay. And would you do a different type of screening at the program phase than was done here?

A. I am afraid we may be talking past each other, right? In the technical potential study, as part of all of the measures we supplied summer kW peak, winter kW peak, gigawatt hours, or kilowatt

hours that were saved by that measure. As it went through the technical potential study, and Mr. Rufo is probably a better person to really talk about how that worked, but ultimately measures, they went through that model as they are efficient or as they have the quickest payback for a measure, right. So it was stacked. They competed against each other.

So, a program that had a low Participant test was lower in that stack. So, therefore, it would have had less of an opportunity to actually save energy. So one of the things that you saw in solar water heating was that since it was a high cost item to a customer with a long payback, it actually was able to reduce less of a -- reduce less for a customer. So its contribution to technical potential was smaller.

As we move into the program phase, we will actually take the results that we had -- not the results, but the input of the stand-lone solar water heater, right, and we will use that to develop E-RIM and E-TRC -- well, E-RIM and the participant Test. And if it passes, then we have an opportunity to have a solar water heating program.

Q. So if I am processing what you are telling me, you will have different data, different kWh,

because it is only going to be the actual kWh savings associated with each measure?

A. Yes.

Q. It is not going to have to compete against anything?

A. Yes. I'm sorry if I wasn't clear on that.

Q. I got it.

Okay. So what I deduce from that is that at the program phase, the next step, solar water heating and PV systems could be included as programs?

A. I think it is more likely, as I said earlier, that we may see that with solar water heating, because it actually competed against other measures where PV didn't, and so I don't believe that those inputs will be any different to the screening.

Q. Okay. In other words, you think that with regard to PV the RIM test is going to come up less than one?

A. Yes, ma'am.

Q. Now, Mr. Haney, are you an attorney?

A. No, I'm not.

Q. Okay. And to the extent that you have expressed opinions about the PSC rules and how they

should be implemented, or Section 366.82, or House Bill 7135, those opinions are based on your technical experience in this field as opposed to any legal training?

A. That is correct.

MS. BROWNLESS: That's all I have, sir.

CHAIRMAN CARTER: Thank you.

Commissioners, I am going to go to staff, and then I will come back to the bench.

Staff, you're recognized.

CROSS EXAMINATION

BY MS. FLEMING:

Q. Good afternoon, Mr. Haney.

A. Good afternoon.

Q. Most of my questions have been asked, so I only have one question for you. Earlier today we asked Dr. Sim what FPL is doing to educate its customers about measures with a payback period of two years or less, and he suggested that you were the more appropriate witness. So with that, I am going to ask you the question again. I will repeat it for your benefit, but what is FPL doing to educate its customers about DSM measures with a payback period of two years or less?

A. Actually, we have a robust marketing plan

around our demand-side management programs. It starts with bill inserts, where we pass information along to customers on particularly top ten tips around energy efficiency and our programs. We have our website, which has really improved over the years so that we see a lot more customers going to the web. And we also have instituted an on-line energy survey, where as part of that on-line energy survey those measures are also recommended to customers.

We do advertising, whether it is print, or TV, radio. Typically, it will be radio and print advertising. We also participate in many local home shows where customers are out looking for ways to, you know, modify their houses or to make changes. And so we will spend a lot of time at those home shows really focusing on customers when they are about to change something in their house or want to change something in their house. Here are some recommendations that we would make on that order.

So I would say it is a robust plan. We actually look across all channels to reach our customers so that they can participate. In the new home market, we do a lot of work with builders in order to promote energy efficient building and

helping builders actually meet the new codes. As they are getting stricter it is harder for them to meet those codes. And so we will spend time with them helping them evaluate ways so that they can make new construction more efficient, as well.

MS. FLEMING: Thank you, Mr. Haney. We have no further questions.

CHAIRMAN CARTER: Commissioners? Redirect?

MS. CANO: A brief redirect, Chairman. Thank you.

CHAIRMAN CARTER: You are recognized.

REDIRECT EXAMINATION

BY MS. CANO:

Q. Good afternoon, Mr. Haney.

A. Hey, Jessica.

Q. Mr. Weiner asked you a few questions about the decisions to use a two-year payback criterion. Do you recall those?

A. Yes, I do.

Q. And then he also asked you a few questions about some communications that discussed sensitivity cases that were run or were suggested to be run against the two-year payback. Do you remember those questions?

A. Yes.

Q. Could you please explain for the Commission what sensitivity analyses, if any, were run?

A. As it relates to the two-year payback, we ran -- it was actually two additional scenarios. One scenario was the lesser of a two-year payback, or 33 percent of the incremental cost for a customer purchasing a measure. And then we ran a second scenario where we looked at the lesser of a two-year payback or a 50 percent on the incremental cost of that measure. So there were three scenarios that were run to identify appropriate incentive levels.

Q. And as between the two-year payback or the two sensitivity cases that were run, which one resulted in larger DSM savings?

A. The two-year payback actually was the largest of the portfolios, and we actually used that portfolio as the one to recommend our goals.

MS. CANO: Thank you. I have no further questions.

CHAIRMAN CARTER: Okay. Exhibits?

MS. CANO: Yes. FPL --

CHAIRMAN CARTER: Seventeen through 34, is that right?

MS. CANO: Yes. FPL moves 17 through 34 into the record.

CHAIRMAN CARTER: Are there any objections? Without objections, show it done.

(Exhibit Numbers 17 through 34 admitted into the record.)

CHAIRMAN CARTER: Before we proceed further, Commissioners, just to make sure that we have all got our paperwork together here. I don't know if I was explicit or not, but on Exhibit 133, which is the Florida Energy and Climate Action Plan, that has been moved into evidence. And, also, if the parties have not checked on your list, make sure that you check it has already been moved into evidence.

Okay. Exhibit 138. Staff?

MS. FLEMING: That is the exhibit that we are going to wait to move in after --

CHAIRMAN CARTER: That is the one we're waiting on?

MS. FLEMING: Yes.

CHAIRMAN CARTER: That is probably why I didn't mark it. 139.

MS. CANO: FPL moves Exhibit 139 into the record.

CHAIRMAN CARTER: 139 is the errata sheet. Any objections? Without objection, show it done.

(Exhibit Number 139 admitted into the record.)

CHAIRMAN CARTER: Exhibit 140.

MS. KAUFMAN: FIPUG would move 140.

CHAIRMAN CARTER: Exhibit 140 is FPL's energy costs and projected costs. Are there any objections? Without objection, show it done.

(Exhibit Number 140 admitted into the record.)

CHAIRMAN CARTER: Exhibit 141.

MR. WEINER: NRDC and SACE would move 141, which is the excerpt from the 1994 proceeding.

CHAIRMAN CARTER: Hang on a second here. I think I had a note to that.

MR. WEINER: It's an excerpt from the official record.

CHAIRMAN CARTER: Yes. Yes, I did have a note for that. I'm not sure a proper -- well, Ms. Helton.

MS. HELTON: Mr. Chairman, could I recommend that we hear from Mr. Guyton or from Ms. Cano concerning this record.

CHAIRMAN CARTER: Okay. Let's hear from you first. You're recognized.

MR. GUYTON: FPL would object to this. It

hasn't been properly authenticated, and it was used for purposes of cross-examination simply to ask what two other people said at a hearing that the witness didn't attend. It just hasn't been properly authenticated and it is not proper evidence for consideration in this proceeding given the way that it was presented.

CHAIRMAN CARTER: Okay.

MS. HELTON: Mr. Chairman, I do believe that Mr. Guyton made a timely objection at the time that the exhibit was attempted to be used for purposes of cross-examination. My recollection is that there really was no cross-examination concerning this exhibit and I don't think that it is appropriate to be admitted into the record.

MR. JACOBS: If I may speak, Mr. Chairman.

CHAIRMAN CARTER: You're recognized, Mr. Jacobs.

MR. JACOBS: Thank you. If I'm not mistaken, this is from the Commission's records. Can the Commission take official notice of its own records?

CHAIRMAN CARTER: Well, let me just tell you this is that the perspective for which it was used was not identified. The witness didn't have

any knowledge on this. So there is -- I think the claim this now under that circumstance would make the process somewhat of a charade, as the British would say. Denied.

MR. JACOBS: Thank you.

CHAIRMAN CARTER: Number 142.

MR. WEINER: Number 142. NRDC and SACE would ask that Number 142 be entered into the record, which is the excerpt of the --

CHAIRMAN CARTER: Statement of work.

MR. WEINER: -- statement of work.

CHAIRMAN CARTER: Are there any objections?

MR. GUYTON: Well, it has not been properly authenticated. FPL is not going to object to 142.

CHAIRMAN CARTER: Okay. Show it done.

(Exhibit Number 142 admitted into the record.)

CHAIRMAN CARTER: 143.

MR. WEINER: 143, NRDC and SACE would ask that that be entered into -- marked as an exhibit. That is the letter from Haney to Wilson.

CHAIRMAN CARTER: This is -- my recollection tells me this is the one he said he

didn't -- this is not the right one.

MR. WEINER: Right. That is the February 5th. Excuse me, that is the February 5th e-mail.

CHAIRMAN CARTER: Okay.

MR. GUYTON: FPL objects to this on the grounds that the witness stated that he was not familiar with and did not recognize it. This exhibit hasn't been authenticated.

CHAIRMAN CARTER: Anything further, before I rule?

MR. WEINER: No, nothing further.

CHAIRMAN CARTER: Okay. Denied.

144.

MR. WEINER: 144 is the letter from Wilson to --

CHAIRMAN CARTER: It's Haney's letter to Wilson.

MR. WEINER: Letter from Haney to Wilson.

CHAIRMAN CARTER: And 145 is Wilson's letter to Haney.

MR. WEINER: Is Wilson to Haney.

CHAIRMAN CARTER: Are there any objections? 144 and 145 are entered.

(Exhibit Numbers 144 and 145 admitted into

the record.)

CHAIRMAN CARTER: 146.

MR. WEINER: Is the feedback memorandum from NRDC SACE -- NRDC/SACE feedback.

CHAIRMAN CARTER: Are there any objections? Without objection, show it done.

(Exhibit Number 146 admitted into the record.)

CHAIRMAN CARTER: Give me a second. Hang on. Did I miss something? 147.

MS. BROWNLESS: That is --

CHAIRMAN CARTER: Ms. Brownless, you are recognized.

MS. BROWNLESS: Yes, sir. That's my exhibit, and we have identified everything with the exception of the interrogatories verified by or provided by Mr. Ting. We can wait and ask Mr. Rufo about this and put it in at that time or we can put it in here. It is FPL's pleasure.

CHAIRMAN CARTER: Are any objections to it? Are there any objections to this being entered in, or do you want to wait until the next witness, or how do you want to proceed?

MR. GUYTON: FPL has no objection, just would like the opportunity, if nothing else to move

the hearing along, to have the opportunity to take a look at some of these before the witnesses take the stand so that we don't have to slow things down.

CHAIRMAN CARTER: Okay. That will be fine. And, also, too, I think this pertains to another witness Ms. Brownless said. And if there is anything that you discover in the interim, you can come back to us and we will look at it at that point in time. Okay?

MR. GUYTON: Thank you, Mr. Chairman.

CHAIRMAN CARTER: So it is entered in.

(Exhibit Number 147 admitted into the record.)

CHAIRMAN CARTER: Okay. Does that complete all of our exhibits for this witness?

Nothing further for this witness during direct? Thank you, sir. You are on recess.

THE WITNESS: Thank you.

CHAIRMAN CARTER: Let's see. Let's do this. Let's give the court reporter a stretch break. And I think we have got Mr. Wizard next. Is that right, Mr. Burnett?

MR. BURNETT: Yes, sir.

CHAIRMAN CARTER: Okay. Let's take a stretch break, Commissioners. We will be back on

the half hour.

(Off the record.)

CHAIRMAN CARTER: We are back on the record, and when we left we were just getting ready for Progress to call its first witness.

Mr. Burnett.

MR. BURNETT: Thank you, sir. We call John Masiello to the stand, please.

MR. BURNETT: May I proceed, sir?

CHAIRMAN CARTER: You're recognized. You may proceed, yes, sir.

MR. BURNETT: Thank you.

JOHN MASIELLO

was called as a witness on behalf of Progress Energy Florida, Inc., and having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BURNETT:

Q. Good afternoon, Mr. Masiello. Will you please introduce yourself to the Commission and provide your business address?

A. Good afternoon. My name is John Masiello, and my business address is 3300 Exchange Place in Lake Mary, Florida, 32746.

Q. Mr. Masiello, you have been already sworn as

a witness, correct?

A. That is correct.

Q. Okay. Who do you work for and what is your position?

A. I work for Progress Energy Florida, and my position is Director of Demand-Side Management and Alternative Energy Strategy.

Q. Mr. Masiello, have you filed direct testimony and exhibits in this proceeding?

A. I have.

Q. And do you have any corrections or changes to make to your prefiled direct testimony or exhibits?

A. I have one change.

Q. And what is that, sir?

A. The change is on my Exhibit JAM-7, Page 2 of 9, and it starts with year 2010, and the number is changed to 2064. In 2011, it is 2159. In 2012, it is 2113. In 2013, it is 2196. In 2014, it is 2277. In 2015, it is 2576. In 2016, it is 2555. In 2017, it is 2269. In 2018, it is 2210. In 2019, it is 2019. At 2284, and then the total is 22703.

Q. And, Mr. Masiello, with those corrections, if I asked you the same questions in your prefiled direct testimony today, would you give the same answers that are in your prefiled testimony?

A. I would.

MR. BURNETT: Mr. Chair, we request that the prefiled direct testimony be entered into the record as though read here today.

CHAIRMAN CARTER: The prefiled testimony of the witness will be inserted into the record as though read.

MR. BURNETT: Thank you.

PROGRESS ENERGY FLORIDA

DOCKET NO. 080408-EG

DIRECT TESTIMONY OF JOHN A. MASIELLO

Introduction and Qualifications

Q. Please state your name and business address.

A. My name is John A. Masiello. My business address is 3300 Exchange Place, Lake Mary, Florida 32746

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

A. I am employed by Progress Energy Florida, Inc. ("Progress Energy," "PEF," or "the Company") in the capacity of Director, DSM and Alternative Energy.

Q. Please describe the duties and responsibilities of your position with Progress Energy.

A. My responsibilities include the design, implementation and operations of the Company's Demand-Side Management (DSM) programs, including the development, implementation, training, budgeting, and accounting functions related to these programs. By DSM, I mean direct load control (DLC) and energy efficiency programs or dispatchable (demand response) and non dispatchable programs.

Q. Please summarize your educational background and professional experience.

A. I have a Masters of Business Administration degree from the University of Central Florida and a Bachelor of Arts degree in Business Management. In addition, I have received the following energy-related certifications; Certified Energy Manager (CEM) and Certified Cogeneration Professional (CCP), from the Association of Energy Engineers. Additional certifications I have received include Certified Sustainable Development Professional (CSDP), Certified Business Energy Professional (BEP), and Distributed Generation Certified Professional (DGCP). I am also a Certified Energy Rater for the State of Florida. Beyond the education and certifications mentioned above, I have over twenty five (25) years of experience in developing and implementing Demand Side Management (DSM) Programs. Prior to joining Progress Energy in July 1991, I served for ten years as the manager of an energy services company that was recognized by the Carter Administration for its development of a model energy efficiency program.

Q. Have you previously testified before the Florida Public Service Commission?

A. Yes. I have provided testimony to the Florida Public Service Commission ("FPSC" or the "Commission") on behalf of Progress Energy Florida on numerous occasions in consideration of our company's DSM programs. In addition, I have served as an industry expert, providing guidance on energy efficiency programs and policy for the state of Florida, on FPSC workshops, and government committees. I am currently serving on the Governor's Florida Policy Academy

Team, the Council for Sustainable Florida, and the Florida Solar Energy Center Policy Advisory Board. In 2009, I received the AEE 2009 *Renewable Energy Innovator of the Year* award.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present the various goal scenarios resulting from the Achievable Studies conducted in participation with the seven (7) electric utilities subject to FEECA, along with the Natural Resources Defense Council (NRDC) and the Southern Alliance for Clean Energy (SACE) (collectively referred to as the "Collaborative"). Members of the Collaborative in conjunction with Itron, Inc., performed analyses to determine the technical and achievable potential for energy efficiency in Florida. The result of these studies developed 6 scenarios to be utilized in determining the numeric demand-side goals for each of the utilities for the years 2010 through 2019. The goal scenarios presented range from a high to low Rate Impact Measure (RIM) scenario and a high to low Total Resource Cost (TRC) scenario. The proposed estimated goal scenarios are based upon the Company's most recent planning process of the total cost-effective kilowatt and kilowatt-hour (kWh) DSM savings reasonably achievable in Progress Energy's service area over the ten-year period from 2010 to 2019.

Q. Please describe how your testimony is organized.

A.

Section 1: Introduction and Qualifications

Section 2: Progress Energy's Proposed Goal Scenarios

Section 3: Overall Process to Develop the Proposed Goal Scenarios

Section 4: Achievable Numeric DSM Goal Scenarios

Section 5: Regulatory Compliance (Testimony Guidelines and Issues)

Section 6: Innovative Measures/Initiatives

Section 7: Conclusions

Q. Do you have any Exhibits to your testimony?

A. Yes, I have prepared or supervised the preparation of the following exhibits to my direct testimony:

1. Exhibit No. ___ (JAM 1), Progress Energy's Proposed Goal Scenario Ten-Year Projections of DSM Savings;
2. Exhibit No. ___ (JAM 2), Progress Energy's projected total Technical potential amount of DSM;
3. Exhibit No. ___ (JAM 3), Progress Energy's projected economic amount of DSM savings using RIM;
4. Exhibit No. ___ (JAM 4), Progress Energy's projected economic amount of DSM savings using TRC;
5. Exhibit No. ___ (JAM 5), Progress Energy's projected annual bill impacts on residential customers with 1,200 kWh, with no incremental DSM added;

6. Exhibit No. ____(JAM 6), Progress Energy's projected achievable goal scenario amount of DSM savings using RIM and Participant tests with 1,200 kWh bill impacts;
7. Exhibit No. ___ (JAM 7), Progress Energy's projected achievable goal scenario amount of DSM savings using TRC and Participant tests with 1,200 kWh bill impacts;
8. Exhibit No. ___ (JAM 8), Progress Energy's Sensitivity Analysis - RIM - TRC DSM economic potential with regard to high and low capital costs for generation, high fuel and CO2 costs, low fuel and CO2 costs, and no future CO2 costs;
9. Exhibit No. ___(JAM 9) Measure list used for analysis;
10. Exhibit No. ___ (JAM 10) Measures not found cost effective for Achievable Study analysis;
11. Exhibit No.___(JAM 11) Energy Management Upgrades
12. Exhibit No. ___ (JAM 12) PEF Renewable Energy Initiative;
13. Exhibit No. ___ (JAM 13) Neighborhood Energy Saver Plus Initiative;
14. Exhibit No. ___ (JAM 14) Carbon Footprint Initiative;
15. Exhibit No. ___ (JAM 15) Business Energy Saver Initiative
16. Exhibit No. ___ (JAM 16) Customer Awareness and Education Initiatives
17. Exhibit No. ___ (JAM 17) List of measures that are eliminated based on 2 year payback criteria;
18. Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony;

PROPOSED DSM GOAL SCENARIOS

Q. What are the DSM scenarios that you are proposing to the Commission for their review in establishing goals for PEF during the period of 2010-2019 in this proceeding?

A. Below are the goal scenarios being proposed to the Commission for Progress Energy:

PEF's DSM Goal Scenarios									
	"Low"			"Mid"			"High"		
	WMW	SMW	GWh	WMW	SMW	GWh	WMW	SMW	GWh
Rate Impact Test (RIM)	239	252	397	431	380	475	560	521	614
Total Resource Cost Test (TRC)	246	240	516	440	383	666	882	744	1585

***All bill impacts and analysis were developed based on the high scenario**
***All values are presented at the generator and will be adjusted accordingly to account for transmission and distribution losses at the meter.**

Q. How is Progress Energy's DSM proposed goal scenario for the upcoming period of 2010-2019 allocated for the residential and commercial/industrial segments?

A. The following table summarizes Progress Energy's proposed residential and commercial ten-year cumulative goals scenario.

Residential			Commercial/Industrial		
Winter MW	Summer MW	GWh	Winter MW	Summer MW	GWh
463	323	488	96	198	126

Q. How successful has Progress Energy's DSM goals achievement performance been for the 2005-2014 period?

A. Progress Energy is currently on track to meet its DSM goals achievement from 2005 – 2014. Below is a summary of accomplishments through 2008:

Residential Market Segment

- 207 MW of winter peak demand reduction,
- 87 MW of summer peak demand reduction, and
- 118 GWh of energy reduction

Commercial/Industrial Market Segment

- 86 MW of winter peak demand reduction,
- 97 MW of summer peak demand reduction, and
- 78 GWh of energy reduction.

The results above include the impact of customers' heightened awareness of efficiency, fuel prices, and environmental impacts. During the past few years, results were directly affected by the number of standby generation installations as an outcome of hurricanes and subsequent legislation. Although many companies have installed back-up generation in recent years, this is not expected to continue

at the same rate in the future. Rising costs and decreased availability of generators are expected to result in fewer participants in this program. During the more than two decades of implementing DSM, Progress Energy has met its goals consistently since the inception of the FEECA. Additionally, Progress Energy has demonstrated success in implementing cost-effective programs that have resulted in the savings of nearly $1 billion dollars since 1981 and more than 12,000 GWh.

Progress Energy has aggressively sought achievement of its goals by continuously developing innovative program offerings to our residential and commercial/industrial customers. This strategy has resulted in avoiding the need for generation while meeting the efficiency needs of our customers. Specific programs that have contributed to the successful implementation of measures and produced meaningful results for our customers include currently approved programs noted below:

Residential DSM Programs

Home Energy Check: The Home Energy Check program is a comprehensive residential energy evaluation (audit) program. The program provides PEF's residential customers with an analysis of energy consumption and recommendations for energy efficiency improvements. It acts as a motivational tool to identify, evaluate, and inform consumers on cost-effective energy-saving measures. It serves as the foundation of the residential Home Energy Improvement program and is a program requirement for participation. To further

influence customer behavior, an educational efficiency kit is included with this program.

The Home Energy Check offers seven different types of energy audits:

- Free walk-through audit
- Paid walk-through audit ($15 charge)
- Energy rating (Energy Gauge)
- Mail-in audit
    - Student Audit
- Web-based audit
- Phone-assisted audit

Home Energy Improvement: This is an umbrella program for existing homes. This program combines thermal envelope efficiency improvements with upgraded equipment and appliances. The Home Energy Improvement program includes incentives for measures such as: duct testing, duct leakage repair, attic insulation, injected wall insulation, replacement windows, window film, reflective roofing, high efficiency heat pump replacing resistance heat, high efficiency heat pump replacing a heat pump, HVAC commissioning, plenum sealing, proper sizing and supplemental bonuses for contractors to complete required paperwork.

Residential New Construction: The Home Advantage Program promotes energy-efficient construction which exceeds the building code. Information, education, and consultation are provided to homebuilders and contractors on energy-related issues and efficiency measures. This program encourages the installation of high performance windows, reflective roof materials, high efficiency

insulation, conditioned space air handler placement and energy recovery ventilation.

Low Income Weatherization Program: The program goal is to integrate PEF's DSM program measures with the Department of Community Affairs (DCA) and local weatherization providers to deliver energy efficiency measures to low-income families. Through this partnership PEF assists local weatherization agencies by providing energy education materials and financial incentives to weatherize the homes of low-income families.

Neighborhood Energy Saver Program: Neighborhood Energy Saver (NES) was designed by PEF to assist low-income families with escalating energy costs. This program has been recognized by American Energy Services Professionals (AESP) and the Southeastern Electric Exchange (SEE). The goal of the NES program is to implement a comprehensive package of electric conservation measures for an entire defined community at no cost to the customer. In addition to the installation of the conservation measures, an important component of this program is educating families on energy efficiency techniques and the promotion of behavioral changes to help customers control their energy usage.

EnergyWise: This is a voluntary load control program that serves to reduce system demand during peak capacity periods and/or emergency conditions by temporarily interrupting selected customer appliances for specified periods of time. Customers have a choice of options and receive a credit on their monthly electric bills depending on the options selected and their monthly kWh usage.

Renewable Energy Program: This program consists of the following two (2) options designed to encourage the installation of renewable energy systems.

- **Solar Water Heater with EnergyWise:** This measure encourages residential customers to install a solar thermal water heating system. Since inception of this program, in February 2007, over 1,500 customers have taken advantage of this program. These participants have leveraged state, federal, and PEF's rebates and incentives to directly benefit from solar energy, while providing all customers the benefits of demand reduction associated with our residential direct load control program, EnergyWise.
- **SolarWise for Schools:** This measure promotes environmental stewardship and renewable energy education through the installation of solar energy systems at schools within PEF's service territory. Customers participating in the Winter-Only EnergyWise or Year-Round EnergyWise Program can elect to donate their monthly credit toward the SolarWise for Schools Fund. The fund accumulates associated participant credits for a period of 2 years, at which time the customer may elect to renew for an additional 2 years.

All proceeds collected from participating customers, and their associated monthly credits, are used to install solar photovoltaic arrays at schools, promote photovoltaic and renewable energy, and provide energy education

Commercial DSM Programs:

PEF has also established program measures to address the commercial, industrial and governmental sectors. Progress Energy recognizes the unique needs of our varied business segments, and consistently strives to develop products and services to meet their needs.

Business Energy Check: The Business Energy Check is an audit for non-residential customers and includes multiple options to support the convenience of our customers. The free audit for non-residential facilities can be completed at the facility by an auditor or online by the business customer. The paid audit provides a more thorough and detailed energy analysis for non-residential facilities. This program acts as a motivational tool to identify, evaluate, and inform consumers on cost-effective and energy-saving measures for their facility. It serves as the foundation of the Better Business Program and as such, is a requirement for participation in that program.

Better Business: This umbrella efficiency program provides incentives to existing commercial and industrial customers for heating, air conditioning, motors, water heating, roof insulation upgrade, duct leakage and repair, window film, demand-control ventilation, lighting, occupancy sensors, green roof, compressed air and HVAC optimization.

Business New Construction: This is an umbrella efficiency program for new commercial/industrial buildings. This program provides information, education, and advice on energy-related issues and efficiency measures through early involvement in the building's design process. With the exception of the ceiling

insulation upgrade, duct test and leakage repair, HVAC steam cleaning and roof top unit recommissioning, the Commercial/Industrial New Construction program provides incentives for the same efficiency measures listed in the Better Business program for existing buildings.

Innovation Incentive: Recognizing the diversity of commercial customers' needs along with emerging technology, our Innovation Incentive program provides incentives for customer-specific demand and energy conservation projects, on a case-by-case basis. The individual measure and application must pass cost effectiveness tests, identifying it as being a benefit to all customers, both the participant and the non-participants. To be eligible, projects must reduce or shift a minimum of 10 kW of peak demand. This program focuses on measures not offered in PEF's other DSM programs. Examples include refrigeration equipment replacement, microwave drying systems, and inductive heating (to replace resistance heat).

Standby Generation: PEF provides an incentive for customers to voluntarily operate their on-site generation during times of system peak. Since the 2004 hurricane season and resulting regulation there has been an increase in customer owned backup generators. This has directly impacted the program's success with an increase in participation of over 200% since 2006. The program allows Progress Energy to control the operation of the units or send notification for the customer to manually operate the system. The customer receives a monthly incentive for the available demand and an energy credit associated with the hours of dispatched control.

Curtailable Service Program: The Curtailable Service Program is a dispatchable DSM program in which customers contract to curtail or shut down a portion of their load during times of capacity shortages. The curtailment is done voluntarily by the customer when notified by PEF. In return for this cooperation, the customer receives a monthly rebate for the curtailable portion of their load.

Interruptible Service Program: The Interruptible Service program is a rate tariff which allows PEF to switch off electrical service to customers during times of capacity shortages. The signal to operate the automatic switch on the customer's service is activated by the Energy Control Center. In return for this, the customers receive a monthly rebate on their kW demand charge.

Technology Development Program: This program allows PEF to undertake certain development and demonstration projects which have promise to become cost-effective conservation and energy efficiency programs. Recently, this program has been used to research wireless strategies for load control, including IP addressable switches. In an attempt to advance the residential load control program, an initial effort has led to a plan for the transition of approximately 700 winter megawatts to the next generation of load management, DSM Smart Grid. Additionally, this program has helped to research solar water heating and photovoltaic arrays, supporting the development of Solar Water Heating with EnergyWise and SunSense.

Qualifying Facility: Power is purchased from qualifying cogeneration and small power production facilities.

Q. How do Progress Energy's DSM accomplishments compare to other utilities in the nation?

A. Progress Energy has been a leader in implementing innovative demand-side management and energy efficiency programs in the State of Florida since 1981. Progress Energy has consistently been engaged in the marketing and implementation of cost-effective programs and measures, as demonstrated by our success of DSM program implementations for both our residential and commercial customers.

Progress Energy Florida has proven to be a leader in energy management and conservation. Progress Energy is ranked first in the nation in two important areas. Progress Energy is ranked first for Demand Side Management reduction as a percentage of peak load and first for Energy Wise demand reduction as a percentage of winter peak. This data is provided in the 2008 US DOE/EIA 861 Report comparing the top 10 utilities based on the total customers served who report Demand Side Management and Load management programs.

Through Progress Energy's consistent innovation, we have been able to grow a significant program portfolio over time. Progress Energy will continue to be an innovative leader in DSM by responding to the changing environment to meet the energy efficiency needs of our customers. There are ongoing changes in the DSM landscape impacted by stronger building codes. With the decline in the housing market, tightened credit availability, and weakened financial and retail industries, the Florida economy has been adversely affected and consumers may not be able to invest in needed efficiency improvements in future years to the same

extent as they have in the past. Recognizing this changing landscape, Progress Energy is focusing our efforts on cost effective innovative technologies that will result in market transformation similar to those led by PEF in the residential new construction and renewable arenas.

Q. Please give a general description as to how Progress Energy developed its 2010-2019 goal scenarios?

A. Collaborative was formed consisting of members from seven Florida utilities(subject to FEECA), SACE and NRDC. Collectively, the Collaborative identified a comprehensive list of measures and the associated costs, savings, feasibilities, and saturation for those measures with consideration of overlapping measures, rebound effects, free riders, and interactions with efficiency codes, as guided by Commission Rule 25-17.0021(3), F.A.C. Utilizing supply-side curves provided by Itron Inc., we then evaluated the measures in Florida Integrated Resource Evaluator (FIRE), an FPSC approved model. In addition, our system planning organization developed the base supply plan to enable a direct comparison of DSM to our generation resource needs. When this exercise was completed, three scenarios varying the amount of customer incentives were developed for RIM and TRC perspective: the lesser of 33% of incremental cost or 2 year payback (low), the lesser of 50% of incremental cost or 2 year payback (mid) and 2 year payback (high), constrained by RIM. This analysis produced the 6 goal scenarios described above to provide as options to the FPSC for review in determining Progress Energy's goals for the period of 2010-2019. We then conducted assessments of the residential and commercial market segments (both

new and existing construction) and their major end-use categories to estimate the Technical Potential, Economic Potential and Achievable Potential for DSM within the Progress Energy service area. With the inclusion of the Achievable Potential Study with Itron Inc., Progress Energy has developed a comprehensive list of programs and measures addressing low income, renewable and other innovative programs. These programs will be combined to establish the 2010-2019 program filing to achieve a cost effective DSM portfolio. For additional detail regarding Itron Inc.'s analysis, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 18-21.

Overall Process to Develop DSM Goal Scenarios

Q. What was the process used to determine the DSM goal scenarios for the 2010-2019 period for Progress Energy?

A. In anticipation of setting goals for DSM programs in the State of Florida, an assessment of the technical potential for energy and peak demand savings from energy efficiency (EE), demand response (DR), and customer-scale photovoltaics (PV) was required by the FPSC. Due to the enormity of the project, the parties concluded that efficiencies could be realized by a collaborative approach. A Collaborative was formed, and a Request For Proposal (RFP) was developed and issued to eleven providers to perform the technical potential study. Four responses were received, with Itron Inc. being selected by the Collaborative. Eventually Itron Inc. went on to conduct the economic and achievable studies as well.

For the first phase of the process, the goals filing, a comprehensive list of measures was developed by Itron in conjunction with the Collaborative. In addition, key measure data and baseline data were also provided to facilitate the analysis. The key measure data provided included measure costs (with input from Collaborative members), measure savings, measure feasibility, and measure saturation, with consideration for overlapping measures by ordering the measures by least-cost, accounting for interactive effects between measures. Additional considerations were given to rebound effects, free riders, interactions with building codes, and appliance efficiency standards. Supply curve measures by customer segment and customer building types were provided by Itron Inc. and were used to facilitate the cost-effectiveness analysis performed with the FIRE model. FIRE is a computer program developed to assist in determining the cost-effectiveness of demand-side programs. There are basically three sections of the computer program: 1) a section for data input, 2), a section that calculates costs and benefits, and 3) a section that uses four tests that analyzes the measure's cost effectiveness. The four cost effectiveness tests are: 1) The TRC Test, 2) the Participants Test, 3) the RIM Test, and 4) the Utility Cost Test. The FIRE model evaluates the economic impact of existing and proposed conservation measures by determining the relative cost-effectiveness of the measures versus an avoided supply-side resource (the avoided unit).

The analysis was broken into three distinct segments, consisting of Technical Potential, Economic Potential and Achievable Potential. Assessments were conducted of the residential, commercial, and industrial market segments (both

new and existing construction) using the major end-use categories defined in Chapter 25-17.0021, through a series of Participant, RIM, and TRC evaluations. Measures with less than a 2 year payback without any utility incentive were treated as free riders and removed from further analysis. A list of these measures is included in Exhibit No. ___17 (JAM) List of measures that are eliminated based on 2 year payback criteria. A 2 year payback barometer is a widely accepted threshold which results in a large percent of free riders initially. For further material regarding two year payback, please reference the American Council for an Energy-Efficient Economy (ACEEE) report by John Laitner, 2006, McKinsey & Company Pedro Haas 2008. Given the large number of free riders resulting from the 2 year payback barometer, Progress Energy chose to provide higher incentives to reduce the payback period of those measures that had longer payback periods, which promoted increased adoption projections. Next, three incentive scenarios were developed for RIM and TRC; the lesser of 33% of incremental cost or 2 year payback (low), the lesser of 50% of incremental cost or 2 year payback (medium) and 2 year payback constrained by RIM or TRC (high). This produced the 6 goal scenarios that Progress Energy is presenting for review. The result of this tiered analysis culminated with the Achievable Potential. The values and impacts of the Achievable Study were developed by Collaborative inputs including saturation levels and combined with the Itron Inc. analysis using a dynamic modeling tool developed by KEMA Inc. known as DSM Assyst End-use Study Model. DSM Assyst produced the customer adoption estimates taking into account the incentive level, the customer awareness of the measure, vendor and product availability, and each

utility's saturation levels from existing DSM program history. For additional detail regarding Itron Inc.'s analysis, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 9 and 11.

Regarding the inclusion of demand response, the values and impacts of the Achievable Study were developed by Itron Inc. This model utilizes industry data from the 2008 Department of Energy (DOE) Demand Response Study of Load Reduction, as well as the 2008 Federal Energy Regulatory Commission (FERC) Assessment of Demand Response and Advanced Metering Study, in addition to others. For additional detail regarding Itron Inc.'s inclusion of DR measures, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, page. 10.

Additionally, PV values and inputs of the Achievable Study were developed by incorporating the findings of several industry-known studies into the Itron Inc. model, i.e. 2002, Analysis of Factors Influencing the Annual Energy Production of Photovoltaic Systems. For additional detail regarding Itron Inc.'s inclusion of PV measures, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, page 10.

The Achievable Study provided direct input into Progress Energy's proposed DSM goal scenarios for 2010-2019, with 215 iterative RIM measures identified for inclusion in the proposed goal scenario. For additional detail regarding Itron Inc.'s analysis, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 8, 9, 11, 18-21.

Q. What other sources were used to assist with developing the DSM goal scenarios?

A. Extensive efforts were made to identify opportunities to offer our customers cost effective DSM programs by researching emerging technologies, state, local, national trends, marketing analysis, customer analysis studies, industry benchmarking, and direct customer feedback from audits and tradeshows.

To better understand customer behavior, focus groups were conducted to determine market acceptance of energy-efficiency measures. The groups provided valuable directional information on which measures would generate greater customer participation. Customers were presented a series of potential energy-efficiency home-improvements with corresponding incentives, energy savings, customer costs, benefits, pay-back periods as well as other pertinent information. Customers then evaluated the measure based upon their likelihood to participate.

In addition to using customer research for program refinement, Progress Energy tests advertising messaging in focus groups prior to the launch of new energy-efficiency advertising campaigns. This ensures the messaging selected is effective in attracting and motivating the customer to participate in programs. Prior to launching Save the Watts Campaign in 2007, Progress Energy tested customer reaction to this concept and found broad acceptance and likability.

Q. Did you produce ten-year projections of DSM savings as a result of this process?

A. Yes. We have made projections for the ten-year planning period recognizing the success and history of existing programs. Ten-year projections of the total amount of cost-effective savings reasonably achievable through DSM for the Progress Energy system are shown in my Exhibit (JAM___1).

Q. What considerations did Progress Energy use to determine the DSM measures to be analyzed?

A. In an effort to identify measures to address the emerging needs of our diverse customer segments, members of the Collaborative, as well as Itron Inc., compiled a comprehensive list of efficiency measures that include direct load control and customer-scale photovoltaic technologies. The sources of this information included measures from recent DSM program filings in Florida, the California Database for Energy Efficiency Resources (DEER), Itron Inc.'s energy efficiency program Best Practices project, and previous potential studies conducted in other regions. During the analysis of the DSM measures, Progress Energy gave consideration to the issues and end-use categories specified in Commission Rule 25-17.0021(3), F.A.C., including the market penetration of natural gas. The DSM measures were evaluated separately for the residential and commercial/industrial market segments and vintage (*i.e.*, existing construction and new construction). The residential space conditioning measures were also evaluated for each of the two major baseline technologies (*i.e.*, strip-heat and heat pumps). For additional detail regarding Itron Inc.'s

considerations when developing the measure list, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 9-11.

Q. What DSM measures did the Collaborative analyze?

A. Collectively, the Collaborative compiled a comprehensive measure list contained in Exhibit No. ___ (JAM 9).

For additional detail regarding Itron Inc.'s considerations when developing the measure list, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony pgs. 9-11.

Achievable Numeric DSM Goal Scenarios

Q. With respect to your achievable numeric DSM goal scenarios, would you please describe the market penetration analysis that you mentioned previously?

A. Yes. The market penetration analysis used to estimate the participation projections for each DSM measure involved a mix of approaches. Actual historical data and expert judgment from over twenty five years of implementing successful DSM programs by the Company provided the basis for projecting participation in many of the DSM measures included in Progress Energy's programs. Participation was determined based upon varying forces such as market growth, economic strength, weather conditions, and other related impacts. Additionally, Progress Energy, along with the other IOU's, incorporated the information provided by Itron Inc. Florida-specific baseline

data was also leveraged from end-use surveys, baseline studies previously conducted, case studies from FSEC, and demographic data from the Florida Census. In addition, secondary sources such as the 2006 California Commercial End-Use Survey and the Energy Information Administration's Residential, Commercial, and Manufacturing Energy Consumption Surveys were used to perform the market penetration analysis.

For additional detail regarding Itron Inc.'s considerations regarding market penetration analysis, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, page.11.

Q. What cost-effectiveness test should the Commission use to set DSM goals for Progress Energy?

A. As set in past precedent in Order No. PSC-94-1313-FOF-EG, issued October 25, 1994 in Docket No. 930549-EG, the RIM test is the threshold measure that should be used in Florida as it reasonably balances the interests of all stakeholders. This well-recognized principle was upheld a second time in Order No. PSC-99-1942-FOF-EG, issued October 1, 1999 in Docket No. 971005-EG, and additionally a third time in Order No. PSC-04-0769-PAA-EG, issued August 9, 2004 in Docket No. 040031-EG.

Q. How does Progress Energy define cost-effective DSM?

A. Under current regulatory framework, DSM programs are found to be cost-effective only if they satisfy the Commission's Participant and RIM cost-effectiveness tests. If a DSM measure passes both the Participant and RIM

tests, then it is cost effective to all customers, both those participating and those not participating. A program that passes the Participant and TRC tests, but fails the RIM test, is not considered cost-effective for purposes of determining DSM goals that represent and benefit all customers.

Q. Are there any direct load control measures that were cost-effective?

A. Yes. Several load control programs for both residential and commercial options were found to be cost effective, contributing an estimated 333 WMW to Progress Energy's proposed Winter Peak MW Demand goal over the ten-year period.

Q. How did PEF incorporate direct load control into its achievable goal scenarios potential?

A. PEF analyzed the potential for direct load control from two perspectives. We looked at our existing residential Energy Management Program which currently provides approximately 700 MW of winter demand reduction and 300 MW of summer demand reduction. We evaluated a previously offered Commercial DLC program that was closed to new participants as of July, 2000. Using our existing Residential and Commercial DLC programs as the foundation, we examined how we could transition the existing DLC platform to the next generation DLC technology that is compatible and will allow future integration with "smart grid" technologies. Part of this evaluation involved examining additional load control programs. These programs give customers greater

knowledge of their energy cost in a more detailed and timely manner and allow customers to control and change their energy consumption patterns.

Q. What do these cost-effectiveness results for the direct load control measures mean to Progress Energy's Residential Energy Management Program?

A. The cost-effectiveness results mean that Progress Energy's strategy to transition from the existing one-way DLC system that is near its end-of-life to a two-way DLC system is cost-effective and will help preserve the generation capacity we have accumulated over the 25+ years the program has been in existence. It will also provide the infrastructure necessary to enhance and support existing and future DSM programs, including innovative renewable energy programs such as Solar Water Heating with EnergyWise.

Q. How is PEF preparing its existing Energy Management Programs for "Smart Grid"?

A. A "Smart Grid" solution has many definitions but one of the key components is secure integrated two-way communications with key devices and equipment on the utility grid. This new communication capability provides the timely energy usage and system load information required by both the Utility and the consumer to achieve the enhanced direct load control capability and improved grid efficiency. It allows the Utility to tap into DSM benefits and operational efficiencies that current stand-alone systems cannot provide.

In addition, at the Federal level, the Energy Independence and Security Act (EISA) of 2007 and the American Recovery and Reinvestment Act of 2009 (ARRA) provide incentives for utilities to demonstrate/evaluate and invest in Smart Grid technologies. Additionally, HB 7135 added new language in *Florida Statute* 366.82(2) which gives the Commission explicit authority to "allow efficiency investments in generation, transmission and distribution as well as efficiencies within the user base." We must plan for incorporating the right functionality and flexibility into our DLC technology as required to make these efficiency improvements and to move toward a "smarter" grid.

Q. How long has PEF offered direct load control programs?

A. We began our existing Residential and C/I Load Management programs in 1981 targeting electric water heaters, central electric heating/cooling systems, and pool pumps. These programs have grown resulting in a direct load control program that is one of the largest in the country. One-way paging technology was available and widely used at the time of program inception and was installed as the communication infrastructure for this program. We have upgraded the system several times, but at this juncture we are facing issues of technology obsolescence and end-of-life. Driven by the decline in personal paging devices, manufacturers of our communications infrastructure discontinued production of new equipment in the mid 1990's. In addition, it is increasingly difficult to find replacement parts for our field transmitters and receivers. Also, many of our original switches will soon reach the end of their useful life. The one-way paging systems are giving way to newer digital two-

way communications systems that are being applied to Smart Grid technologies. PEF needs to transition its current direct load control programs to a new digital two-way communications platform. Please see Exhibit No.___ (JAM 11) Energy Management Upgrades for additional information regarding the existing one-way direct load control system used today.

Q. How does PEF propose to transition its existing direct load control program to next generation direct load control technology?

A. PEF is approaching a DLC technology transition in an incremental manner. Given the large amount of load that is currently under control, we must begin to change out DLC switches and communications infrastructure to replace failed equipment as well as older, obsolete equipment prior to complete failure. The new switches will have dual communications ability to allow continued operation with the existing communications system and then be converted over to the new digital two-way communications systems. Therefore, we have developed a ten year replacement schedule for our existing residential customers that will change out all DLC switches with digital two-way communication switches. This process will be done in a cost effective manner over approximately ten years and will give us even more DR program options for customers, will be fully compatible with Smart Grid infrastructure, and will have the flexibility to perform other functions at lower cost. The new two-way communications platform will also allow PEF to enhance our commercial direct load control programs. These enhancements will provide commercial customers with the appropriate communications, usage data, costs, and time-of-use data. This approach can

also support future transition to new smart grid strategies. The resulting infrastructure can enable future demand response programs that could include tiered pricing that support customer behavior changes based on energy usage/price awareness. Please see Exhibit No.___ (JAM 11) Energy Management Upgrades for additional information regarding our strategy for a systematic technology upgrade.

Q. Please describe some of the next generation demand response programs that PEF is evaluating.

A. As previously mentioned, we began by deploying new residential direct load control technology compatible with future Smart Grid technologies to transition old equipment being used in our existing programs to next generation direct load control. We also examined new and enhanced commercial demand response programs as part of our potential studies. Some of the potential programs we researched included providing targeted commercial customers with more immediate energy use and cost information, peak period notification, direct load control programs with incentives, time-of-use pricing, and general usage/cost awareness education which can lead to additional energy and demand reductions based on customer behavior/actions. The implementation of a commercial incentive tariff that pays for use would be necessary to support these Commercial DR programs. Additional potential residential programs being evaluated include future tiered pricing that support customer behavior changes based on energy usage/price awareness, future smart appliance

control capability, and enhanced programs utilizing future Smart Grid technologies such as renewable distributed generation and storage. PEF is also evaluating programs that deliver distribution grid efficiencies and demand response capabilities.

Q. Are there other benefits to PEF's customers in deploying this new technology?

A. Yes. As an example, PEF commercial customers can benefit by leveraging this technology to shift load from peak to off-peak periods under PEF's existing TOU rate or by participating in a new direct load control program with peak incentives.

Also, next generation direct load control programs with two-way communications to the customer's home can integrate with future Smart Grid technologies that identify operational issues in advance to improve quality of service and reduce down time, especially in storm situations. Other potential benefits could result from integration with future Smart Grid technologies being evaluated to deliver distribution grid efficiencies and capabilities that allow for future support of integrating renewables such as solar PV and electric vehicles. These Smart Grid technologies can mitigate peak power demands on the grid from variable loads induced on the system that must be managed to protect the grid integrity. Deploying this new technology will also provide the potential to create a number of local jobs in Florida that will benefit the overall Florida economy.

Q. What direct load control demand and energy potential has been included in PEF's achievable goal scenarios?

A. As part of the technical potential study, PEF completed a comprehensive study on a number of direct load control programs that we could cost effectively deploy on our system. In the ten year proposed goal scenarios, PEF has included expanding its existing residential direct load control program, adding programs that provide commercial customers with more energy and cost awareness, new direct load control incentives, and Enhanced TOU capabilities.

Regulatory Compliance

Q. Has Progress Energy provided an adequate assessment of the full technical potential of all available demand-side conservation and efficiency measures, including demand-side renewable energy systems?

A. Yes. Progress Energy is providing Exhibit No. ___ (JAM-2), Progress Energy's projected total Technical potential amount of DSM. For further details of the Technical Potential Study, please refer to Exhibit No. ___ (JAM 18), Itron Inc.'s Direct Testimony.

Q. Has Progress Energy provided an adequate assessment of the achievable potential of all available demand-side conservation and efficiency measures, including demand-side renewable energy systems?

A. Yes. As a result of the collaborative efforts described earlier, Progress Energy is providing Exhibit No. ___ (JAM 6), Progress Energy's projected achievable

amount of DSM savings using RIM and Participant tests with 1,200 kWh bill impacts; and Exhibit No. ____ (JAM 7), Progress Energy's projected achievable amount of DSM savings using TRC and Participant tests with 1,200 kWh bill impacts. For further details of the Achievable Potential Study, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 9,18.

Q Should the commission establish separate goals for demand-side renewable energy systems?

A. No. There is no need to establish separate goals for demand-side renewable energy systems since they are already included with our existing goals. Currently PEF offers a program known as *Solar Water Heater with EnergyWise*. This measure encourages eligible residential customers to install a solar thermal water heating system. Another example is the Company's program known as *SolarWise for Schools,* promoting environmental stewardship, energy education, and renewable energy production through the installation of solar energy systems at schools within PEF's service territory. In addition, Progress Energy has developed new solar initiatives for both residential and commercial customers to be implemented in association with the approval of our program filing. Since demand-side renewables are included in our overall DSM goals, a separate goal is not required.

Q. Should the commission establish additional goals for efficiency improvements in generation, transmission and distribution?

A. No. Progress Energy continuously identifies and evaluates conservation and efficiency improvement opportunities throughout its transmission and distribution resources, as guided in 25-17.001(e). For example, Progress Energy is evaluating a Smart Grid strategy that will transition our current direct load control programs to the next generation of DSM, known as Distribution Grid System Efficiency as described in Exhibit No. ___ (JAM 11). The Energy Management (EM) Upgrades is a key component of this program that will result in transmission and distribution efficiency improvements.

Q. Should the commission establish separate goals for residential and commercial/industrial customer participation in utility energy audit programs for the period 2010-2019?

A. No. Progress Energy has a robust DSM program that requires participation in our energy audit prior to the installation of DSM measures. We meet the diverse needs of our customer segments by offering multiple audit options for the customer's convenience. These audit types include online, mail-in, on-site, phone, and student audits to educate consumers on implementing cost-effective efficiency measures. The audit is the catalyst for measure implementation. While specific measures are designed and directed for individual customer segments, the process, procedures and objectives are developed as a cohesive collection and as such ensure cost effective synergies.

Q. Does Progress Energy's proposed DSM goal scenarios adequately reflect the costs and benefits to customers participating in the measure, pursuant to Section 366.82(3)(A), F.S.?

A. Yes. For the reasons discussed above, we are confident that the costs and benefits of program participants are adequately reflected in our proposed goal scenarios.

Q. Do Progress Energy's proposed DSM goal scenarios adequately reflect the costs and benefits to the general body of ratepayers as a whole, including utility incentives and participant contributions?

A. Yes. The Participant and RIM tests taken together adequately encompass consideration of each of these costs and benefits. Given that we utilized these tests in our measure analysis, we are confident that the goal scenarios we are proposing will provide the Commission the necessary information to determine goals that will enable Progress Energy to provide our customers with comprehensive DSM services, while ensuring that all stakeholders' interests are balanced.

Q. Do Progress Energy's proposed DSM goal scenarios adequately reflect the costs imposed by state and federal regulations on the emission of greenhouse gases?

A. Yes. We have included the estimated costs associated with potential CO2 regulations in our measure analysis, in response to the HB7135 addition to FS 366.82 3.(d); "In order to estimate the costs imposed by state and federal

regulations on the emission of greenhouse gases." We used a mid range CO2 estimate known as the EPA Study to comply with this requirement.

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

A. Progress Energy believes utility incentives, as authorized in recent legislation, provide the Commission a useful tool to address a utility's performance and financial impacts as it strives to meet future goals. The traditional application of the Commission's RIM cost-effectiveness modeling has undergone a modification in this docket with the inclusion of carbon costs, acceptance of a smaller buffer above RIM 1.0, and the inclusion of innovative projects that would not have ordinarily qualified under traditional RIM. Progress Energy believes that these changes from traditional RIM warrant consideration of an incentive, and therefore supports a Commission evaluation of utility incentives based on the outcome of this goals docket. If the Commission seeks to prescribe goals based on any test other than RIM, as already modified above, we believe the issues of goals and incentives would become inseparable, and an immediate consideration of incentives would become necessary.

Q Please identify the projected technical potential for Progress Energy.

A. As developed in conjunction with the Collaborative effort, please refer to document number 03183-09 and Exhibit No. ___ (JAM 2), Progress Energy's Technical Potential Study. For further details of the Technical Potential Study, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages11-16.

Q. Please identify the 2010-2019 projected DSM economic potential and associated measures for Progress Energy based on the RIM cost-effectiveness tests.

A. As developed in conjunction with the Collaborative effort, please refer to Exhibit No. ___ (JAM 3)

Q. Please identify the 2010-2019 projected DSM economic potential and associated measures for Progress Energy based on the TRC cost-effectiveness tests.

A. As developed in conjunction with the Collaborative effort, please refer to Exhibit No. ___ (JAM 4)

Q. Please identify the 2010-2019 projected DSM achievable potential and associated measures for Progress Energy based on the TRC and Participant cost effectiveness tests.

A. As developed in conjunction with the Collaborative effort, please refer to Exhibit No. ___ (JAM 7)

For further details of the Achievable Potential Study, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 18-21.

Q. Please identify the 2010-2019 projected DSM achievable potential and associated measures for Progress Energy based on the RIM and Participant cost-effectiveness tests.

A. As developed in conjunction with the Collaborative effort, please refer to Exhibit No. ____ (JAM 6)

For further details of the Achievable Potential Study, please refer to Exhibit No. ___ (JAM 18) Itron Inc.'s Direct Testimony, pages 18-21.

Q. Please describe what is included in Exhibit No. ___ (JAM 8).

A. In the referenced exhibit, PEF is providing the sensitivity of the 2010-2019 RIM DSM economic potential with regard to high and low capital costs for generation, high fuel and CO2 costs, low fuel and CO2 costs, and no future CO2 costs.

Q. Would you briefly describe the methodology used to determine the sensitivity analysis for the 2010-2019 TRC and RIM DSM economic potential with regard to high and low capital costs for generation, high fuel and CO2 costs, low fuel and CO2 costs, and no future CO2 costs.

A. Using the Economic Study data as input into the FIRE model, we adjusted each component of avoided costs for referenced sensitivities above. For each sensitivity, we produced RIM and TRC case results, which are included in Exhibit No. ___ (JAM 8)

Q. Please describe what is included in Exhibit No. ___ (JAM 5).

A. In the referenced exhibit, Progress Energy has provided estimated 2010-2019 annual bill impacts on residential customers using 1,200 kWh/month with no incremental DSM added.

Q. For Progress Energy, what are the 2010-2019 annual bill impacts on residential customers using 1,200 kWh/month for the projected RIM achievable portfolio and the projected TRC achievable portfolio?

A. Progress Energy's estimated annual bill impacts on residential customers using 1,200 kWh/month for the projected RIM achievable portfolio and the projected TRC achievable portfolio, can be found in Exhibit No. ___ (JAM 6) and Exhibit No. ___ (JAM 7).

Innovative Measures/Programs

Q What communication efforts has Progress Energy Florida made to educate customers about energy efficiency and the programs available to them through Progress Energy Florida?

A. PEF uses a three-prong approach to educate customers about energy efficiency. This strategy includes the following:

- Broad-based campaigns typically carried out through mass media in order to reach the greatest number of customers in a highly cost-effective manner;
- An interactive customer messaging campaign to bring the message to life and interest customers in participating in programs; and
- Grassroots and community marketing for one-on-one communication to leave a lasting impression.

Combined, these three approaches interact to create an effective communication strategy that educates and engages customers so that the message is not only memorable but prompts action by PEF customers. For additional information regarding what we are doing to educate our customers regarding efficiency, please refer to Exhibit No. ___ (JAM 16) Customer Awareness and Education Initiatives.

Q. Is Progress Energy planning any new programs that encourage demand side renewable systems?

A. Yes.

Renewable Energy Initiative

Progress Energy has a long history of proactively pursuing research and development of innovative technologies in order to offer our customers options in meeting their varying desires to conserve electricity. We will be filing for approval of enhancements to our current renewable offerings as well as new solar offerings for both residential and commercial customers. These measures will be designed to encourage the implementation of renewable energy systems within PEF's service territory. The program will consist of measures to provide incentives for solar PV array installations for PEF customers, and enhancements to our existing Solar Water Heating and EnergyWise program. This initiative is further described in Exhibit No. ___ (JAM 12), PEF Renewable Energy Initiative.

Carbon Footprint Initiative

Additionally, we are proposing a new commercial sector initiative called the "Carbon Footprint" (CF) program. The initiative would allow for the impacts of carbon associated with tradeshows or conventions to be captured, and would enable the convention host to redirect their funding contributions toward PEF's low income and renewable energy programs. This new initiative leverages the integration of these hospitality-sector promotional events with our low-income energy efficiency and renewable energy programs, resulting in advanced participation with our low-income community and solar energy measures. Please refer to Exhibit No. ___ (JAM 14), Carbon Footprint Initiative.

Q. What is the purpose of the Carbon Footprint Initiative and how will it work?

A. From our experience with the Orlando convention market, we recognize that there is interest in the hospitality sector for convention hosts to participate in carbon offset activities. In order to capture the impacts that conventions or meetings could have on carbon, an algorithm has been developed to calculate the carbon emissions effects associated with on-site electric consumption and travel. The benefit to the convention host would be to reduce carbon by directing their funding contributions toward PEF's low income and/or renewable energy programs. Progress Energy would provide a certificate, signage, or other recognition that the event had offset its carbon use while conferencing in Florida.

Q. Provide examples how Progress Energy balances the needs of the diverse customer segments within its vast service territory?

A. Progress Energy consistently analyzes the evolving needs of its customers in our service territory. Associated with the DSM program expansion implemented in 2007, Progress Energy introduced an innovative approach to supporting residential low-income customers and communities with the Neighborhood Energy Saver (NES) program. Further enhancements and the addition of measures to this successful program are proposed, along with the introduction of a commercial initiative, Business Energy Saver Initiative (BES). The following examples include either enhancements to programs that we offer our customers currently, or are new innovative initiatives that are being considered for implementation.

Neighborhood Energy Saver Plus (NESP)

Currently, the PEF NES program consists of a comprehensive package of electric conservation measures at no cost to the customer. NES uses a unique canvassing technique that employs a door to door implementation strategy with coinciding informational and educational communications. Every opportunity from the initial communication through the installation of the measures is used to educate customers on lowering their energy bill and empowering customers to sustain the behavioral changes. Progress Energy Florida will add five additional energy conservation measures to its existing NES program. With the addition of NES Plus, the total number of energy conservation measures will increase from 16 measures to a total offering of 21.

In addition to the installation of the conservation measures, an important component of this program is educating families on energy efficiency techniques and the promotion of behavioral changes to help customers manage their energy usage. We will continue to take this program to new levels with the addition of the "Low Bill" Energy Education Assistance Workshop, developed to educate and empower low income customers to use the energy in their homes more efficiently and reduce their energy consumption. The curriculum will incorporate a tradeshow style format utilizing props featuring interactive hands-on workstations consisting of displays illustrating duct leakage, lighting, water heating, thermostat settings, EnergyWise, infiltration/indoor air quality reduction techniques, and the impact of faulty equipment in their homes. Please refer to Exhibit No. (JAM 13), Neighborhood Energy Saver Plus Initiative, for further detail.

Business Energy Saver Initiative

Progress Energy Florida is offering an energy-saving initiative to help local small businesses better manage their energy costs and their bottom lines through the implementation of energy efficiency measures, education, and behavioral changes. The Business Energy Saver initiative was developed to address the needs of economically targeted small business customers by providing no cost measures designed to improve their bottom line. The initiative was inspired by our successful Neighborhood Energy Saver program and is intended to be implemented in conjunction with NES wherever possible. Please refer to Exhibit No. ___ (JAM 15), Business Energy Saver Initiative, for further details.

Conclusions

Q. How much DSM is potentially achievable, based on the maximum goals scenario presented, during the 2010-2019 period for Progress Energy?

A.
- 560 MW of winter peak demand reduction,
- 521 MW of summer peak demand reduction, and
- 614 GWh of energy reduction

Q. Has Progress Energy used a sound and reasonable process to determine its proposed 2010-2019 DSM goal scenario?

A. Yes. Progress Energy used the Commission's approved cost-effective methodology to conduct a series of Participant, RIM, and TRC evaluations, considering the needs of our generation requirements, a comprehensive list of

measures, measure costs, measure savings, measure feasibility, and measure saturation. Assessments were then conducted of the residential, commercial and industrial market segments (both new and existing construction) and the major end-use categories, to determine our proposed 2010-2019 goal scenarios.

Q. Does the methodology used by Progress Energy comply with statutory and Florida Administrative Code requirements?

A. Yes. Progress Energy used the Commission's approved cost-effective methodology, as guided by Florida Administrative Code 25-17.0021, as well as Section 366.82, Florida Statutes.

Q. Do Progress Energy's proposed DSM goal scenarios provide a cost-effective means for all ratepayers to help meet the need for additional generation through 2019?

A. Yes. Progress Energy's proposed goal scenarios for 2010-2019 are the culmination of an extensive collaborative effort to assess the full technical and achievable potential for energy and peak demand savings for DSM in Florida. Additionally, we are proposing more efficiency options for our low income customers and enhanced incentives for customers interested in investing in renewable energy. Once our goals determined, we are confident that the result will be a DSM goal complement that will meet the efficiency needs of our diverse customer segments for the next ten years while balancing the interests of all stakeholders.

Q. What is the next action that is requested be taken toward determining Progress Energy's 2010-2019 DSM goals?

A. Progress Energy requests the FPSC review the proposed goal scenarios with consideration of precedent set in Orders No. PSC-94-1313-FOF-EG;PSC-99-1942-FOF-EG, and PSC-04-0769-PAA-EG. Consistent with this well-reasoned precedent, particular attention should be paid to minimize any adverse impacts to our customers by asking those who can least afford it to subsidize the participation of others. Focus should also be placed on balancing the needs of all stakeholders, as the Commission has done consistently in the past

Q. Should one of Progress Energy's proposed DSM goal scenarios be approved?

A. Yes. While we are confident that the process for determining PEF's proposed goal scenario was sound, there are external influences impacting the DSM landscape to include stronger building codes, the decline in the housing market, tightened credit availability, and weakened financial and retail industries. Given the adverse impact that these factors have had on Florida's economy, consumers may not be able to invest in needed efficiency improvements in future years to the same extent as they have in the past. Thus, while PEF believes that the Commission should approve the goals set forth in the high scenario for PEF, external factors that are beyond PEF's control may act to make the energy component of those highly aggressive goals difficult to achieve.

Q. Does this conclude your testimony?

A. Yes, this concludes my testimony.

BY MR. BURNETT:

Q. Mr. Masiello, do you have a summary of your prefiled direct testimony?

A. I do.

Q. And while keeping your eye on the red light, would you please give that.

A. I will keep one eye on the red light.

Chairman and Commissioners, thank you.

My name is John Masiello, and I am the Director of Demand-Side Management and Alternative Energy Strategy for Progress Energy Florida. Since 1991, I have performed various roles and responsibilities for developing and implementing PEF's DSM programs. Florida utilities and this Commission are guided by the statutory requirements of the Florida Energy Efficiency and Conservation Act, commonly known as FEECA, together with recent amendments to FEECA reflected in House Bill 7135, and specific rules in the Florida Administrative Code provide the foundation for this goals setting docket.

At least once every five years, Florida utilities are required to propose numeric goals for a ten-year period and provide ten-year projections for the total cost-effectiveness, winter and summer

peak demand savings, and annual general -- and annual energy savings reasonably achievable in the residential and commerical/industrial classes through DSM based upon the utility's most recent planning process.

The rules establish that utility goals must be cost-effective and reasonably achievable. The goals must consider free riders, overlapping of measures, interaction with building codes, and appliance efficiency standards, and the utility's latest monitoring and evaluation of DSM programs. Identifying those measures that have less than a two-year payback should be considered as free riders in this docket.

Our on-site energy audits, along with our aggressive Save the Watts marketing campaign, provides education and motivates our customers to act on prudent energy investments. This properly aligns the cost of the improvement directly to the customer that it benefits.

In reviewing utility goals, the Commission must also consider cost and benefits to all ratepayers, including utility incentives and participant contributions.

PEF's proposed goals comply with these

rules and statutes. Our proposed goal scenarios for 2010 to '19 are the culmination of an extensive collaborative effort to assess the full technical and achievable potential for energy efficiency and peak demand savings for DSM in Florida.

We are proposing greater efficiency options that will benefit our low income customers, both residential and small business, and enhanced incentives for customers interested in investing in renewable energy. Additionally, we have proposed expanding our educational initiatives to build on our successful school programs, community activities, social media outreach, like Twitter, and so forth.

Once our goals have been determined, we are confident that the results will be a DSM portfolio that will meet the efficiency needs of our diverse customer segments for the next ten years while balancing the interests of all stakeholders.

PEF's proposed goals are also supported by the testimony and exhibits of Itron's representative, Mike Rufo. On behalf of the collaborative, Itron conducted a thorough technical potential study to assess the technical potential for reduced electricity use in peak demand by

implementing a wide range of end use energy efficiency and demand response measures, as well as customer scaled solar photovoltaics and solar thermal installations in the service territories of the seven collaborative utilities.

Itron also developed appropriate estimates of achievable potential for the seven FEECA utilities. Itron's technical potential study serves as the foundation for estimating economic and achievable potential for each collaborative utility and provides direct input into PEF's proposed DSM goals for 2010 to '19.

The Commission should review the proposed goals scenarios with consideration of well-established precedent set in the prior Commission order establishing conservation goals. The Commission should also balance the needs of all stakeholders and minimize any adverse impacts to customers. Indeed, special consideration must be given to external factors beyond PEF's control, such as the decline in housing market, tightening credit availability, weakened financial and retail industries, and unemployment. The adverse effects these factors have on the overall Florida economy may make highly aggressive goals difficult to

achieve. That's why PEF believes that this Commission should approve the goals set forth in the high E-RIM scenario for PEF. External factors that are beyond our control may act to make the energy component of those highly aggressive goals difficult to achieve.

Through our high E-RIM proposed goals, we have increased our potential by almost 300 percent above our 2004 goals filing. By adding carbon costs as a benefit and lowering our cost-effective threshold to 1.01, we have enhanced the benefits significantly, which is largely responsible for increasing our energy savings potential. We feel that we have met the statutory requirements of FEECA and House Bill 7135 by proposing our high E-RIM case, which is not business as usual.

This concludes the summary of my direct testimony, and I am happy to answer any questions that you may have. Sorry, I was a little long-winded.

CHAIRMAN CARTER: We do it like they do in the clubs. We flash the lights, so we flashed the lights on.

MR. BURNETT: You barely made it, Mr. Masiello.

THE WITNESS: I needed some water in between.

MR. BURNETT: Mr. Chairman, we tender Mr. Masiello for cross-examination.

CHAIRMAN CARTER: Ms. Kaufman, you are recognized.

MS. KAUFMAN: Thank you, Mr. Chairman.

CHAIRMAN CARTER: Mr. Cavros, good afternoon. Good to see you again.

MR. CAVROS: Good afternoon, Chairman. Always a pleasure to be here.

CHAIRMAN CARTER: Ms. Kaufman.

MS. KAUFMAN: Thank you, Mr. Chairman.

CROSS EXAMINATION

BY MS. KAUFMAN:

Q. Good afternoon, Mr. Masiello. How are you?

A. Good afternoon. I'm fine. How are you?

Q. I am Vicki Kaufman, and I am here on behalf of FIPUG. And I don't know if we have met in person, but I took your deposition last week, if you recall.

A. I do recall.

Q. Mr. Masiello, can you turn to Page 8 of your direct testimony.

A. I have it.

Q. Okay. Beginning at Page 8, and then I think

going through about Page 14, you talk about specific programs that have contributed to the successful implementation of measures and providing meaningful results for our customers. Do you see that?

A. Yes.

Q. And following that you list a number of programs that have met that criteria, correct?

A. That is correct.

Q. One of the programs that you list you talk about on Page 14, and that is your interruptible service program, correct?

A. That is correct.

Q. So would you agree that that program has been a beneficial tariff and provided benefits to Progress' ratepayers?

A. Yes.

Q. And you also talk on the same page at the bottom about qualifying facilities, correct?

A. That is correct.

Q. And qualifying facilities are those that engage in cogeneration, correct?

A. That is correct.

Q. And would you agree that those programs have also been beneficial to Progress' customers?

A. Yes.

Q. I am going to come back to the cogeneration in a second, but I want to talk to you about the E-RIM test, which is what Progress advocates in this case, is that correct?

A. That is correct.

Q. And as I understand it, that is the Commission's RIM test with the additional consideration of carbon costs?

A. That is correct.

Q. So, unlike Power and Light, carbon costs are the only environmental emissions that you include in the E-RIM test, correct?

A. SOx and NOx should be included, as well.

Q. Did you include SOx and NOx in your calculations on your E-RIM?

A. Yes. In fact, we do it through the carbon costs. We do it through the ECRC clause, as well.

Q. Now, when I took your deposition do you recall that we went through all of the inputs to the RIM test?

A. Uh-huh.

Q. And you told me that you had performed those calculations in accordance with the Commission's cost-effectiveness manual?

A. Yes.

Q. Okay. I'm not going to go through all of those again, since your deposition is already in the record. Do you also recall telling me that you have not reviewed what the other -- how the other utilities had performed their RIM calculations?

A. That is correct.

Q. So you don't know whether or not they have performed them in the same way that Progress performed them, correct?

A. Yes.

Q. Let's turn back to cogeneration for a moment. Do you believe that a customer who engages in cogeneration can provide a positive contribution to Progress' conservation efforts?

A. Perhaps.

Q. Excuse me?

A. Perhaps.

Q. Perhaps. So they may not?

A. Yes, I mean, depending on what it is that you are referring to.

Q. Well, when a customer cogenerates on your system, they are using waste heat that would otherwise just be dissipated in order to create energy, and isn't that a conservation benefit?

A. Certainly.

Q. Okay. If they didn't do that, the heat would just go to waste, correct?

A. If you are talking about waste heat that would normally be dissipated as opposed to put it to good use, I would agree.

Q. Okay. Do you know what Progress Energy's average projected fuel cost was in 2009?

A. No.

Q. All right. Well, let me provide you with an exhibit.

MS. KAUFMAN: Ms. Brownless will distribute that. And, Mr. Chairman, I think that is going to be 148.

CHAIRMAN CARTER: You are correct. Number 148, Commissioners, for the record. Short title?

MS. KAUFMAN: Progress Projected Energy Costs.

CHAIRMAN CARTER: Excellent.

MS. KAUFMAN: Thank you, sir.

(Exhibit Number 148 marked for identification.)

COMMISSIONER SKOP: Mr. Chairman?

CHAIRMAN CARTER: Yes, sir.

COMMISSIONER SKOP: It is Commissioner Skop joining. Just one quick question for Ms.

Kaufman, if I may?

CHAIRMAN CARTER: You're recognized.

COMMISSIONER SKOP: Thank you, Mr. Chair. Ms. Kaufman, is it my understanding that FIPUG's position with respect to cogen is cogen in the sense of a waste heat process because not all cogen is emission free?

MS. KAUFMAN: I'm sorry, Commissioner Skop. I apologize. Could you repeat your question? I had a hard time hearing you.

COMMISSIONER SKOP: I'm sorry. With respect to the FIPUG position on cogen, I believe the assertion was made that it has no emissions or it is emission free. Are we talking about cogen strictly in a waste heat process sense rather than other forms of cogen?

MS. KAUFMAN: That is the kind of cogeneration that I am referring to, Commissioner Skop.

COMMISSIONER SKOP: All right. Thank you.

CHAIRMAN CARTER: Thank you.

You may proceed. We're getting feedback. I was going to have a little fun with that, but, you know, like always, my fun is a shut down.

Ms. Kaufman, you are recognized.

MS. KAUFMAN: Thank you.

BY MS. KAUFMAN:

Q. Mr. Masiello, we distributed Exhibit Number 148. I had asked you to accept, subject to check, that this was filed by Progress Energy in the fuel docket. Will you accept that?

A. Subject to check.

Q. Okay. And if you will look at Line 20, all the way to the right, you will see that this is expressed in kilowatts, but would you agree with me that Progress projected its price in megawatts to be about $73 per megawatt hour?

A. That is what it has here on the chart.

Q. Okay. Do you know what Progress is paying its as-available -- is paying for -- let me start that again. Do you know what Progress is paying its as-available cogenerators?

A. I'm sorry, I do not.

MS. KAUFMAN: All right. And let me pass out another exhibit. We are going to have to put Ms. Brownless on the payroll.

And, Chairman, this would be 149.

CHAIRMAN CARTER: 149, Commissioners. A title?

MS. KAUFMAN: Progress As-available

Prices.

CHAIRMAN CARTER: Okay. You may proceed.

MS. KAUFMAN: Thank you, Mr. Chairman.

(Exhibit Number 149 marked for identification.)

BY MS. KAUFMAN:

Q. Mr. Masiello, would you accept, subject to check, that this is a forecast that is distributed to your as-available cogenerators, and this was from July 21st to the 23rd?

A. Subject to check.

Q. And if you would just scan down the middle column that says as-available price, dollars per megawatt hour. You would agree with me, wouldn't you, that those prices are substantially less than the $73 we just discussed?

A. I would.

Q. And this is the price that Progress projected to pay its cogenerators when they sell their energy back to Progress, correct?

MR. BURNETT: Objection, lack of foundation.

CHAIRMAN CARTER: Okay. Let's tee it up. Ms. Kaufman, let's tee it up.

BY MS. KAUFMAN:

Q. Mr. Masiello, would you -- what is your understanding of what that middle column, as-available price, means in this forecast?

A. This is not an area that I would say that I have expertise in, so I don't have an answer.

Q. So you don't know what it means?

A. I would imagine it has to do with something with the as-available price for fuel for the existing generation.

Q. And since it is titled forecast as-available prices, would you accept that it is the price Progress pays to the cogenerators for the designated dates?

A. Perhaps.

Q. And I think I've already asked this, I apologize, but those prices are a lot less than the $73, correct, on Exhibit 148?

A. Comparing the two numbers, I would say yes.

Q. Thank you. I want to switch topics for a moment and ask you in your role in this case have you reviewed the goals that have been proposed by GDS and Southern Alliance for Clean Energy?

A. Yes, I have.

Q. You compared them to the goals that Progress has suggested?

A. Yes, I have.

Q. Can you tell us on an order of magnitude how much higher or lower GDS's goals are than Progress' suggested goals?

A. Just about seven times higher.

Q. Have you calculated that in terms of dollars?

A. Dollars in terms of --

Q. If the GDS goals were approved rather than the Progress goals, what would that seven-fold increase mean in terms of dollars?

A. Yes. We took a -- given the time that we had to work with that, we did take a look at it in light of the fact that none of that had been done. So, yes, we have.

Q. Do you have a ballpark of what the dollar amount is?

A. It was just under $6 billion over the ten years.

Q. $6 billion over the ten-year horizon?

A. That is correct.

Q. So would it be fair to say that if those goals are selected or implemented that customers will see a significant increase in their ECCR charges?

A. Just taking that on the surface, $66 billion by ten years, that is 600 million a

year. We currently pass through just under 80 million, so that would be a significant increase.

Q. You are aware, are you not, that Progress Energy is in front of the Commission for a base rate increase?

A. Yes, I am.

Q. And if Progress is successful in whole or in part in prosecuting that case, customers will see their base rates rise, as well, correct?

A. Yes.

MS. KAUFMAN: Thank you. That's all I have.

CHAIRMAN CARTER: Thank you.

Mr. Cavros, good afternoon and welcome.

MR. CAVROS: Thank you, Chairman.

CROSS EXAMINATION

BY MR. CAVROS:

Q. Good afternoon, Mr. Masiello, how are you?

A. I am fine. How are you?

Q. Fine, thank you.

Mr. Masiello, the RIM test includes lost revenue in its calculation, is that right?

A. That is correct.

Q. And the TRC test does not include lost revenue, lost utility revenue, is that correct?

A. That is correct.

Q. Because the TRC does not include lost utility revenue, measures with higher relative kilowatt hour reductions will tend to pass the TRC, correct?

A. Higher relative to their capacity benefit. I mean, you can have high energy savings. You would need associated high capacity benefit, as well.

Q. Would they tend to -- tend to pass the TRC -- rather, measures with higher kilowatt hour reductions, would they tend to pass the -- would TRC tend to pass those measures as opposed to RIM?

A. Again, I would say that if they had proportionately high capacity benefits, you would see them passing RIM or TRC.

Q. Conversely, because RIM does include lost utility revenue, measures with higher kilowatt reductions will tend not to pass the RIM test, is that correct?

A. Well, let me give you an example. We have in our programs today for our existing homes, we have some of the most energy intensive measures passing RIM. High-efficiency heat pumps, window replacement, wall insulation, attic insulation, those are the most energy intensive measures that you can have, and they all pass RIM.

Q. Does CFL light bulb pass RIM?

A. CFL does not pass RIM.

Q. Conversely, a CFL lamp passes the TRC test, correct?

A. It probably does.

Q. Okay. And measures excluded due to the two-year payback criteria tend to have a relatively higher kilowatt reduction -- kilowatt hour reduction characteristics as compared to measures --

A. Characteristics --

Q. I'm sorry, as compared to measures that weren't excluded?

A. I would say there is probably two factors. A high energy and a low cost, the combination of the two.

Q. So they tend to have higher benefit/cost ratios?

A. Right, that is what would happen.

Q. Okay. I would like you to refer to Progress Energy Florida's response to Staff's 7th set of Interrogatories Number 73, and this is part of staff's composite exhibit, and I also have --

CHAIRMAN CARTER: As long as he has got one for you and the witness and the parties, that will be fine since it is in the record already as

part of staff's composite exhibit. Number 2, staff, is that correct? Through 4, 2 through 4. Well, actually -- wait a minute. A little longer than 2 through 4. Thank you.

At any rate, you are just using it primarily for cross-examination, is that correct?

MR. CAVROS: That is correct.

CHAIRMAN CARTER: Okay. You may proceed.

BY MR. CAVROS:

Q. Do you have that in front of you, Mr. Masiello?

A. Yes, I do.

Q. Okay. Let me read the question to you. Please complete the table below, describing which measures were excluded due to a payback of less than two years. Please provide these values by customer type and measure type for each cost-effectiveness test.

Under the energy efficiency column, if you look at the RIM row for total annual gigawatt hours, you will see 179, is that correct?

A. That is correct.

Q. And under the TRC row total annual gigawatt hours, you will see 1,872 gigawatt hours, is that correct?

A. That is correct.

Q. The value for TRC is about ten times higher than that of RIM, is that correct?

A. That is correct.

Q. And this is largely because the TRC test will allow measures with relatively higher kilowatt hour reductions to be found cost-effective as compared to RIM, isn't that right?

A. That is correct.

Q. That is why in the case of the CFL bulb, which we discussed earlier, it passed the TRC test, but it was captured and removed by the two-year payback criteria, is that right?

A. The CFL bulb is a good example.

Q. And, additionally, if you look at the row for residential summer megawatts, and that value is 120, and the value for annual gigawatt hours -- for residential annual gigawatt hours is 958, do you see those two?

A. I do.

Q. Now, if that 120 megawatts was a power plant generating 958 gigawatt hours a year, what would its capacity factor be?

A. I will have to calculate that.

Q. I will give you a minute.

A. So we would have the ability to put

120 times 24. I don't have a calculator.

MR. CAVROS: I think we have one in the house.

THE WITNESS: I am having trouble with these keys.

MR. BURNETT: Mr. Chair, if I may, sir, in the interest of --

CHAIRMAN CARTER: Mr. Burnett, you're recognized.

MR. BURNETT: Thank you, sir. In the interest of time and efficiency, if NRDC has a calculation, we would be happy to accept it, subject to check. Maybe it will speed things along if they know the answer already. I don't know if there is any value of having Mr. Masiello do math.

CHAIRMAN CARTER: What about it, Mr. Cavros?

MR. CAVROS: Can I ask Mr. Masiello how much longer it might take before I answer that?

CHAIRMAN CARTER: Sure, you can do that. That would be fine.

THE WITNESS: Every time I hit the equal key it goes back to some other number that I don't know what it is doing.

CHAIRMAN CARTER: Do we have another

calculator somewhere, staff?

MR. SAYLER: I have got an iPhone, Commissioner.

THE WITNESS: I think that is what this is, an iPhone. Okay. Oh, boy. I'm not sure this is any more helpful. Is it a 32 percent capacity factor, or am I punching this key wrong?

CHAIRMAN CARTER: It sounds good to me.

THE WITNESS: I am having trouble with this key, as well. The number four key doesn't seem to work for me.

CHAIRMAN CARTER: Well, let's proceed on. We are going to just -- just use your best guesstimate, and let's proceed on.

THE WITNESS: If I had a guess at the numbers, they are looking probably maybe 40 percent range, somewhere around there.

CHAIRMAN CARTER: Okay.

BY MR. CAVROS:

Q. Okay. Well, we had it estimated as higher.

A. As higher than that?

Q. Yes.

A. Okay.

Q. But we would like to get the exact number. Could we have that filed as a --

CHAIRMAN CARTER: Late-filed?

MR. CAVROS: -- late-filed?

CHAIRMAN CARTER: Sure. That will be Number 150. Short title?

MR. CAVROS: Capacity Calculation.

(Late-filed Exhibit Number 150 marked for identification.)

CHAIRMAN CARTER: Progress Energy Capacity Calculation. Okay. You may proceed.

MR. CAVROS: Thank you.

BY MR. CAVROS:

Q. Since we are on the topic of two-year paybacks, do you know what the penetration level is for your measures that were excluded from the two-year payback were excluded because of the two-year payback criteria?

A. I'm sorry, say that again.

Q. Sure. For the measures that were excluded because of the two-year payback criteria, do you know what the penetration levels of those -- or the penetration rates of those -- of those measures are?

A. I would say we might know some of them, certainly not all of them.

Q. Well, have you done any Florida-specific research on the number of so-called free riders?

A. We have over time done a series of research on a variety of things, but typically we work with measures that have less than a two-year payback through our education programs, education and awareness programs.

Q. I guess I was asking about original research, if you had an idea -- if you had a number, an estimate of the number of free riders that might participate in any given program?

A. Not to the -- no, not to the extent that we would be able to definitively say what the percentage of free riders were.

Q. Okay. And do you have any specific Florida information on the adoption patterns of free riders?

A. You mean relative to the two-year payback?

Q. Yes, relative to the two-year payback specific to Florida?

A. No, I would say that -- in the nature of our research we do end use analysis, we do appliance saturation survey. We look at what happens as a result of our marketing plans. But, typically, the two-year payback are measures that we work through our educational programs.

Q. And yet you support a blanket two-year payback exclusion across all measures, correct?

A. Yes.

MR. CAVROS: Okay. I would like to at this time refer to Itron's response to NRDC/SACE's First Set of Interrogatories Number 2. And this is not part of staff's composite exhibits. I would like to pass this out.

CHAIRMAN CARTER: Okay. You may do so.

MR. CAVROS: Actually, it is two part. This is the cover page, and that is the attachment that goes with it.

CHAIRMAN CARTER: You're doing a good job. Keep on keeping on. Thank you.

This would be exhibit -- Commissioners, for the record, Exhibit Number 151. And it would be --

Mr. Cavros, I need a recommendation for a short title.

MR. CAVROS: PEF Penetration Level Doc, or Measure Penetration List.

CHAIRMAN CARTER: That would be this document?

MR. CAVROS: That's correct. That is the attachment actually that was referenced in the -- in the response.

CHAIRMAN CARTER: Okay. PEF Penetration

Document. So this 151, for all parties involved, this will just be a composite. Both of these documents are part and parcel of the same. Okay.

(Exhibit Number 151 marked for identification.)

CHAIRMAN CARTER: You may proceed.

MR. CAVROS: Thank you.

BY MR. CAVROS:

Q. Mr. Masiello, what is the penetration rate for AC maintenance?

A. Is this based on --

Q. This is based on this document, that is correct. And, you know, I apologize. Maybe before I go there I should actually tell you what it is in response to. And it is in response to the following question from NRDC/SACE to Itron: Please provide a list of all measures screened out based on the above criteria. Their assumed base case naturally occurring penetrations and their associated energy and demand impacts in the technical potential study. And the response from Itron was: A list of measures screened based on their two-year payback criteria along with their associated per unit energy and demand impacts and the estimated naturally occurring penetration rates through year 2019 are shown in Attachment A for PEF,

TECO, Gulf Power, JEA, OUC, and FPU. And that is the document before you.

So if we could go to the table again, I will ask you once again what the penetration rate is in this document under the column -- I'm sorry, for AC maintenance. And by penetration rate, I mean cumulative ten-year penetration rate TRC column.

A. This is a document that Itron supplied you?

Q. That is correct.

A. Under that column for -- is that column cut off? Am I looking at the right column?

Q. Yes.

A. Cumulative year something penetration rate TRC?

Q. Correct. It would be the fourth column from the right.

A. It is 2.6.

Q. Thank you. And what is the penetration rate for proper refrigerant charging?

A. The same column?

Q. Correct.

A. 6.3. Coincidently, the AC maintenance outdoor cleaning is part of our energy audit. That is an instruction program that we provide our

customers as to the benefits of having their system maintained annually. So that is instructed by our energy auditors who are up there with our customers every day.

Proper refrigerant charging and air flow. We have actually trained our contractors to do proper refrigerant charging and air flow on every system to include proper duct sizing, which is also critical. So both of those measures are, in fact, part of our program.

Q. And could we just go down a few more -- a few more rows for the low flow showerhead. What is the penetration rate of that in your territory?

A. 7.5 and 11.5.

Q. Okay. And the 11.5 would be faucet aerators, is that correct?

A. Yes. You know, interestingly enough, over the years we have had programs of these nature and, unfortunately, people take the low flow showerheads out and the faucet aerators out, which is unfortunate. Not only do they do that, today they are installing multiple heads coming from all sides, including down. And that is a tough one to deal with, but it is a real issue.

Q. Now, these aren't the type of adoption rates

that one might expect of measures that will be adopted within two years, right?

A. Depending on the popularity, I would tell you that that doesn't surprise me, some of these.

Q. Yet you choose to exclude them, correct?

A. I'm sorry?

Q. Yet you choose to exclude these measures, correct?

A. What I am saying is the negative impacts of these measures, I'm not sure you can make a change.

Q. You say that these measures are included in your programs, but isn't it true that once these measures are eliminated they cannot be offered an incentive in program development?

A. What we are saying is they are generally dealt through education.

Q. Which means once they are eliminated, they cannot be offered an incentive?

A. Eliminated would mean they were installed?

Q. No, excluded from consideration of achievable potential, or the group of measures that can move on to achievable potential?

A. Oh, if we didn't include them in our achievable, then you would not see that in our

goals.

Q. Right.

A. So these are the measures that get done every day that we don't take credit for them, but we educate them. And we see this all the time. We did an expansive program with Seminole County schools where we came up with curriculum, we came up with a teacher's day, we had video developed. And as a result the students started shutting lights off, their custodians started turning thermostats up, and first year savings was 500 and some odd thousand dollars that we don't take credit for. But the educational program did what it should have.

Q. Now, you mentioned that the AC maintenance, the outdoor coil cleaning is part of your audit program.

A. Say that again.

Q. Yes. You mentioned earlier that the AC maintenance --

A. Yes.

Q. -- the outdoor coil cleaning was part of your audit program?

A. Yes.

Q. And that exemplifies how you are promoting these measures through education, is that correct?

A. Yes.

Q. I don't want to pass a value judgment, but 2.6 percent seems very low to me. I'm sorry.

A. I would agree it is low. This is something that the contractors market extensively throughout these -- throughout the neighborhoods throughout our service territory. This is something that every AC contractor in our area, especially in Central Florida, as a result of the downturn in the housing market have advertised this extensively relatively low cost measure.

MR. BURNETT: Mr. Chair, I was going to hold this to see if this document was going to be used as evidence, but with the repeated reference to the numbers in here, I feel compelled to note that the document offered up as 151 at this point is not a correct version. It is outdated and contains information that was actually corrected and supplemented on July 31st.

So the numbers that are being referred to are not -- they are no longer accurate. So at this time I would have to object just because the record now has incorporated those numbers several times. An amendment was filed by Itron and those numbers are no longer valid.

CHAIRMAN CARTER: Okay. Mr. Cavros, speak to the objection.

MR. CAVROS: I do not have an updated version if this is not the -- if this is not the most recent. What we would like to do is file the supplemented response, which I believe Itron has filed since this document was submitted to NRDC/SACE.

CHAIRMAN CARTER: Ms. Helton.

MS. HELTON: I am a little bit troubled that Mr. Burnett is just now telling us that we are not using some good numbers, and I think it is beneficial to the Commission to have the correct numbers in front of us. And I am a little bit confused about what the status is of the supplemental information from Itron. Is that part of the current record?

MR. BURNETT: Ms. Helton, yes. I'm sorry, I apologize for the delay. I was actually just, you know, going through the paperwork to make sure that I did have the correct numbers before I spoke. And, again, thought the appropriate time would be when this was actually moved into evidence. But not representing Itron, my understanding is that Itron filed this correction on July 31st, 2009. It is

part of the docket and in the record.

MS. HELTON: Well, I guess it was part of their exhibits to the prefiled testimony? Is it part of the record here, or will it be part of -- no, it will not be part of the record here.

MR. BURNETT: I don't know, ma'am. I would just state that the document that he is questioning on is no longer valid.

CHAIRMAN CARTER: Hang on a second.

Ms. Clark, you are recognized.

MS. CLARK: What my records show is that we filed a supplemental and corrected response to NRDC's and SACE's First Set of Interrogatories 1 through 8 on the 4th, actually, of August. So we did provide it. It is not in the record. I mean, it was part of discovery, and it was not put in the record prior to this.

MR. CAVROS: Chairman, I don't have that.

CHAIRMAN CARTER: You don't have it?

MR. CAVROS: I did not receive it.

MR. BURNETT: Mr. Chair, if I could be helpful. I don't think the substance of Mr. Masiello's answers will change, so I can withdraw the objection if it helps. But, again, I just wanted to note that, but I am certainly willing to

withdraw it. I don't think it is going to change any of his answers.

CHAIRMAN CARTER: Ms. Helton.

MS. HELTON: It sounds like we have available the corrected information, so perhaps we can provide that for all parties tomorrow. And if the goal of Mr. Cavros is to include this in the record, we can look at that in the morning.

CHAIRMAN CARTER: Mr. Cavros, can we get that to you in the morning and you can look it over, and we will just go on from now based upon what we have here and the numbers will speak for themselves, and we can just do it at that point in time.

In fact, what we will do, Commissioners, is that in the process of looking at 151 as a composite exhibit, and as we get the updated information, we will let that be the addendum to it. Okay. So is everyone clear on where we are going with this? Okay. You may proceed.

MR. CAVROS: Thank you, Chairman.

BY MR. CAVROS:

Q. Mr. Masiello, you can increase -- you can increase the penetration rates of these measures if you were to offer incentives, is that correct?

A. Perhaps, yes.

Q. Thank you. In your advocacy for the Rate Impact Measure test one of your arguments is the occurrence of cross-subsidization, is that right?

A. That is correct.

Q. In other words, nonparticipants tend to be losers and participants tend to be winners in that scenario?

A. That is correct.

Q. And in your mind cross-subsidization is a bad thing?

A. I would think yes.

Q. Okay. I was hoping you might consider the following example and just provide your opinion as an energy efficiency practitioner. And the example is as follows, I lived in my house or have lived in my house for the last ten years, and I have maintained a constant electricity use of 500-kilowatt hours a month. And then the population increases in my area and there is more development, and my utility needs to build a new power plant to meet the needs of the additional population.

Since that power plant construction will raise the revenue requirement of my utility, which will be spread out over the whole rate base, haven't I just cross-subsidized the needs of the new

residents?

A. I guess I would say if you had new load come onboard, you would also have new kilowatt -- more kilowatt hours to spread those costs over.

Q. And when was the last time rates stayed static when a new power plant was constructed?

MR. BURNETT: Objection, vague. I don't know what -- if he is talking about in general, Mr. Chairman, or to my utility, or a specific time frame, but --

CHAIRMAN CARTER: Rephrase. Rephrase.

BY MR. CAVROS:

Q. Mr. Masiello, you said it, and tell me if this is a correct interpretation of what you told me. But there will be more kilowatt hours used by the new population, as well, so you can't necessarily conclude that there would be a rate impact. Was that your answer?

A. Yes.

Q. And let me rephrase my next question. In your history as Progress Energy Florida's DSM manager, has Progress Energy ever built a plant, constructed a plant where there has been no impact on Progress Energy customers rates?

A. I don't know that.

Q. You don't know because why?

MR. BURNETT: Objection, foundation.

CHAIRMAN CARTER: Let's move on.

THE WITNESS: I mean, I know that if we buy an avoided -- if we buy an avoided PPA contract, for example, that comes in at the avoided cost there is no change.

BY MR. CAVROS:

Q. Okay. Then let me just maybe ask you one last and follow-up question in this area. Can supply sources cause cross-subsidization?

A. They could.

Q. Thank you. The benefit/cost test, the RIM, the TRC, and the Participant test include the benefits and cost of -- the benefits and cost of a measure, correct? And, Mr. Masiello, one of the factors in the benefit side of the calculation for RIM and TRC is the avoided cost of new generation, is that right?

A. That is one of them.

Q. Okay. And one of the components of avoided cost is capital costs, is that correct?

A. That is correct.

Q. And all factors being static on the cost side of the equation and all factors on the benefit side being static except capital costs, the benefit/cost

ratio for RIM and TRC would be higher if -- I apologize, let me change that question. Strike that question.

All factors being static on the cost side of the equation, and on the benefit side of the equation all avoided cost factors were static except that the capital construction costs for the avoided unit went up, what would that do to the benefit/cost ratio?

MR. GUYTON: I am going to object in that the question assumes facts not in evidence; that is, it is a hypothetical, but it hasn't been shown to have a practical basis in fact.

CHAIRMAN CARTER: Well, let's do this. Ask him for his opinion, can he give you his opinion. Let's try it that way.

BY MR. CAVROS:

Q. In your opinion as an energy efficiency practitioner, all things being static on the cost side, all things being static on the benefit side except the avoided cost -- the value of the avoided cost goes up, what does that do to the benefit/cost ratio, does it increase it or decrease it?

A. It should increase it.

Q. Thank you. And the higher the benefit/cost

ratio is the more chance that a measure has of passing that benefit/cost test, is that correct?

A. That is correct.

Q. Okay. And your avoided unit for purposes of the benefit/cost ratio for the 2010 to 2019 time frame in this proceeding is two natural gas combustion turbines and one natural gas combined cycle, is that correct?

A. That is correct.

Q. And the Levy nuclear units are to be constructed and operational within the 2019 time frame of these proceedings, is that correct?

A. Say that again, how many?

CHAIRMAN CARTER: You said the eleven nuclear units.

BY MR. CAVROS:

Q. I'm sorry. The Levy.

A. You scared me for a minute.

Q. Yes, I apologize. I'm sure two are a handful. The Levy nuclear units are to be constructed and operational within this 2019 time frame, is that correct?

A. That is right.

Q. Okay. And do you know what the capital costs of those units is?

A. I'm sorry, I don't know.

Q. How do the capital costs of a nuclear unit compare to the capital costs of a combined cycle natural gas unit megawatt-for-megawatt of capacity?

MR. BURNETT: Objection, lack of foundation.

CHAIRMAN CARTER: Okay. Either lay a foundation or rephrase the question.

MR. CAVROS: Sure.

BY MR. CAVROS:

Q. Do you know the capital costs of a -- strike that.

Mr. Masiello, were the Levy nuclear plants considered as the avoided cost in this proceeding?

A. No.

Q. Why is that?

A. The Levy plant was not an avoidable unit.

Q. And is the definition of an avoidable unit a unit that garners a certificate of need in between FEECA hearing dates?

A. It is a unit that has a needs case approval.

Q. As an energy efficiency practitioner, do you believe in placing supply-side and demand-side resources on a level playing field?

A. To the extent that they are avoidable, yes.

Q. Did Progress Energy Florida develop the avoided cost for these proceedings in-house or did Itron?

A. The avoided cost --

Q. That is correct.

A. -- was done in-house.

Q. Okay. And, Mr. Masiello, Progress Energy Florida doesn't earn a rate of return on non-load management DSM assets, right?

A. Well, I guess a non-load management DSM asset, you would -- if it is a capital expense, you would earn a rate of return.

Q. Do you earn a rate of return on supply-side assets?

A. I'm sorry?

Q. Do you earn a rate of return on supply-side assets?

A. Yes.

MR. CAVROS: Okay, thank you. I have no further questions.

CHAIRMAN CARTER: Commissioners, before we proceed further, I guess in all fairness I need to give you my thinking about the scheduling is that we

are at 5:00 now, we will probably go for another half an hour or so. But I just wanted to give everybody a heads-up. Eat your Wheaties tomorrow. We are going to go for an extended period of time. We are going to ask -- we are going to have the air conditioning to remain on, so we want to at least make it bearable for you here, and ask if we can have the process. So, please, ma'am, please, sir, tomorrow we will probably go until about 7:00. So be prepared, all right? And today we will probably -- I am thinking that we will probably find a good breaking point around 5:30 or so for today.

Ms. Brownless, you may proceed.

MS. BROWNLESS: Commissioner, I have several exhibits, so if you could give me three minutes I will pass them all out at the same time and perhaps that will speed this whole process up.

CHAIRMAN CARTER: Okeydokey.

Oh, by the way, the locks on the doors here, they are controlled electronically, and at 5:00 o'clock it is an automatic shutdown. So if you leave and want to come back in while we are proceeding, maybe you want to take someone to the door with you to let you back in, because they are automatic locks. We don't control the locks, DMS

does.

(Off the record.)

CHAIRMAN CARTER: We are back on the record.

Ms. Brownless, you're recognized.

MS. BROWNLESS: Thank you.

CROSS EXAMINATION

BY MS. BROWNLESS:

Q. Good afternoon, Mr. Masiello.

A. Good afternoon.

Q. We have handed out a bunch of exhibits, so if you could just look at the responses to the Florida Solar Coalition Interrogatories Numbers 1 through 7, and 8 through 12, supplemental response to Interrogatory Number 8 through 12, and POD Number 4.

Have you had a chance to do that?

A. I am on 4.

Q. Okay, I'm sorry. When you get done --

A. Do you want we to look at all of these?

Q. I just want you to verify that these are true and correct copies of what was provided by Progress Energy to the Florida Solar Coalition.

CHAIRMAN CARTER: Ms. Brownless, just take your time and just do them one at a time. Just do them one at a time. It will be easier for all

parties involved, okay? I don't want to rush you. Just take your time. Okay?

MS. BROWNLESS: Sure.

CHAIRMAN CARTER: All right, then.

BY MS. BROWNLESS:

Q. Can you look at the responses to the Florida Solar Coalition's First Set of Interrogatories Numbers 1 through 7? It looks like this.

A. Okay, I have it.

Q. And you provided the answers to these responses, correct?

A. That is correct.

Q. Okay. And are these responses true and correct copies of what was provided to the Florida Solar Coalition?

A. They look so.

Q. Okay. Then there are responses to the Florida Solar Coalition Interrogatories 8 through 12. Do you have those?

A. I have that.

Q. Okay. And I believe you also provided these responses, is that correct?

A. That's correct.

Q. And do these look accurate to the best of your knowledge and belief?

A. I'm sorry?

Q. Are these accurate to the best of your knowledge and belief?

A. Yes.

Q. Okay. Now, there was a supplement provided to our Interrogatories Numbers 8 through 12. Do you have that?

A. Yes.

Q. Okay. And is that accurate to the best of your knowledge and belief?

A. Yes.

Q. Okay. And, finally, there is a Request for Production of Documents Number 4. And is that accurate to the best of your knowledge and belief?

A. Yes.

Q. If you were asked the same questions that are in all of this discovery today, would your answers be the same?

A. Yes.

MS. BROWNLESS: We would like this marked as Composite Exhibit Number 152.

CHAIRMAN CARTER: Commissioners, for the record, this will be Composite Exhibit Number 152.

And, Ms. Brownless, you have been hitting on all cylinders today, so give us a good short

title.

MS. BROWNLESS: Interrogatory responses.

CHAIRMAN CARTER: Excellent.

(Composite Exhibit Number 152 marked for identification.)

CHAIRMAN CARTER: You may proceed.

MS. BROWNLESS: Thank you.

BY MS. BROWNLESS:

Q. Now, you have current programs utilizing solar technology, is that correct?

A. That is correct.

Q. Okay. And these are solar water heating with EnergyWise program?

A. That's right.

Q. And that combines solar hot water and direct load control, right?

A. That's right.

Q. And that is a residential program, correct?

A. That's right.

Q. Okay. And then you have a solar wise for school program?

A. That's right.

Q. And that is a combination of solar and direct load control, also?

A. That is correct.

Q. I ask in Interrogatory Number 9 in the second set of interrogatories what the results of the RIM and TRC participant tests were, is that correct?

A. Yes.

Q. And both of these tests passed the RIM and the TRC -- both of those programs passed those tests?

A. That is correct.

Q. With the data that is represented on Interrogatory 9-A, correct?

A. Yes.

Q. I want to back up for a minute and refer to my wonderful chart out of the demand-side management manual, and ask a few questions about how Progress Energy calculated its RIM, E-RIM, and E-TRC tests. And if you look at that chart that is included in the Commission's demand-side management manual, does it pretty much reflect the cost/benefit ratios and categories used by Progress Energy?

A. Yes.

Q. Okay. Is there any either cost or benefit that was included by Progress Energy in its test that is not reflected on this chart?

A. I don't see the carbon costs.

Q. Okay. And in this chart, how did -- or in your analysis, how did you account for carbon costs?

A. Carbon cost using our file model was used as an other benefit that is in the model.

Q. And it occurs to me that carbon costs can be accounted for in quite a few different methods. Were you here for the testimony of Dr. Sim?

A. I was.

Q. Okay. And you heard his explanation of how Florida Power and Light accounted for the carbon costs, is that correct?

A. Yes.

Q. Did Progress Energy use a similar method or a different method?

A. I would say it was similar.

Q. Okay. And did you use the same carbon cost figures as Dr. Sim and FPL?

A. I don't know what they used.

Q. Okay. So you don't know whether yours were higher, or lower, or --

A. (Indicating no.)

Q. All right. Did you include SOx and NOx in your analysis?

A. Yes.

Q. Okay. And did you do that in a similar way to the way that Dr. Sim did it for Florida Power and Light?

A. I don't know that to be true.

Q. Okay. How did you do it?

A. We included it in the carbon costs.

Q. Okay. So your environmental costs included SOx, NOx, CO2?

A. Right.

MR. BURNETT: Mr. Chairman, I just wanted to give Mr. Masiello a reminder to give verbal responses for the court reporter. And if he could just speak up a little bit. I'm having some trouble hearing him. I'm sorry.

THE WITNESS: Okay.

BY MS. BROWNLESS:

Q. Now, when I look at the little chart that I handed out, I am going to look at the Participant Test part of it, Mr. Masiello.

A. Okay.

Q. And the equipment costs and O&M costs for the equipment that the customer would purchase that is in the denominator in this equation, did it include tax credits and incentives paid by the state? In other words, were those tax credits and incentives subtracted in order to get the equipment costs to the owner?

A. Federal tax credits were, in fact, included. State refunds were not.

Q. Okay. And when you said included, they were used to reduce the cost?

A. Yes.

Q. Okay. Now, when I look in the numerator where it says incentives, okay, where did that incentive number come from for purposes of your calculations?

A. The incentive for these calculations for the participant test --

Q. Yes, sir.

A. -- would have come from the results of the RIM test as to an appropriate amount that would be available for a participant test on a solar system.

Q. Okay. So let me make sure I understand that. If a measure had a RIM score of less than 1 --

A. Right.

Q. -- would that indicate that there would be no amount of incentive available?

A. Right.

Q. Is that right?

A. Yes, that would be right.

Q. Okay.

A. Essentially what went on, what happened here is you would describe an incentive for this. I think in the example that you had provided a

two-dollar-a-watt buy down, or something. On the average system, this was a 2.5 kW system, so a two-dollar-a-watt buy down would be $5,000.

Q. Okay.

A. Now, we did not take $5,000. There was an amount of 3,000-some-odd dollars, I forget the actual amount. When you then do a RIM test with that incentive, the unit failed the RIM test.

Q. Okay. Because the incentive that is used in the numerator of the participant test is the same number as used in the denominator of the RIM test?

A. Uh-huh.

Q. Okay. Those match up. And looking at the total resource test, is the participant cost in the denominator of the total resource test the same as the equipment cost under the participant test on this chart?

A. The total resource cost would have the full incremental cost, so in this case that would be the full cost of the measure, and the bill cost for the participant would be minus the incentive.

Q. Okay. So for the total resource test was the incentive -- the incentives that you told me about -- okay, let me back up here.

So in the total resource test, you would

take the participant cost plus -- minus the utility incentive?

A. On the TRC?

Q. Yes.

A. There is no incentive in TRC.

Q. That is what I was thinking. So I guess would the participant costs under TRC take into account the tax credit?

A. On the TRC would it take into account the tax credit. The tax credit goes to the participant test, any other incentives would go to reduce the cost of the participant test only.

Q. Okay. So the participant cost here under the total resource test is not the same as used for equipment costs and O&M costs under the participant test, that is a different number?

A. Well, it comes from the rate impact test. The incentive that you are referring to?

Q. No.

A. I'm sorry.

Q. I am confusing you, I think.

A. Okay.

Q. I'm trying to figure out if the number that is equipment cost and O&M cost under the participant test, which you have told me is the out-of-pocket cost

minus the tax rebate, right?

A. Well, it depends on where you are putting it.

Q. Well, I am looking at my chart.

A. Okay. But you are seeing that the incentive is in the denominator -- is in the numerator.

Q. No, I'm not talking about the incentive at all.

A. Not the incentive.

Q. No, I am just talking about the equipment costs and O&M costs.

A. Equipment costs and O&M costs. That would be right.

Q. Okay. So is that the same as participant cost in the denominator of the total resource test? Are those numbers the same?

A. You have to repeat that one more time for me.

Q. Okay. The equipment costs and O&M cost which is shown in the denominator of the participant test?

A. Right.

Q. Is that the same number as the participant cost shown in the denominator of the total resource test? Are those the same?

A. It should be, yes.

Q. Okay. So if the tax credits are taken into account in the participant test in developing the equipment costs and O&M costs, the tax credits are taken into account in this participant cost, as well?

A. Right.

Q. Okay. Now, did you also from this participant cost exclude any state incentives just as you did for the participant?

A. Under the participant test, again, we exclude state incentives because, unfortunately, they have not -- they haven't been available some part of this year. And it is not certain if they will be there next year unless there are some funds available, but the federal credits are available through 2016.

Q. And so that is why the federal credits are included to reduce the customer's out-of-pocket cost in both the total resource test and the participant test?

A. Uh-huh.

Q. Okay. Now I am looking at Mr. Sim's chart, which I know you don't have the benefit of, and I apologize for that. In his denominator for the total resource test he has included utility equipment and administration costs. Did you guys do that, as well?

A. Yes.

Q. Okay. He has included for the total resource test -- well, strike that.

Do you see the box that says increased supply cost in the total resource test on the chart that I gave you?

A. Yes.

Q. What is that? Is that something you guys included?

A. I guess that would be what Mr. Sim was saying in the event that the avoided unit has a higher efficiency or heat rate there might be some increase cost as a result of that change.

Q. Okay.

A. Because you are deferring the more efficient unit.

Q. All right. And do you include that in your analysis?

A. If it is -- if it is --

Q. If that is the case?

A. Yes. If it is in the stacking order, that would be the case.

Q. Okay. And that is going to be exactly the same amount -- whatever you determine for the total resource for that increased supply cost is also going

to show up in your RIM test, right?

A. Yes.

Q. Okay. And, likewise, the administrative costs are going to show up in the total resource test and the rate impact test?

A. Yes.

Q. Okay. And if I asked this before, because it is getting late, please forgive me. The incentive that is shown in the denominator of the rate impact test is purely money associated with the utility. It is whatever the utility rebate or incentive is, correct?

A. In the participant test?

Q. In the rate impact test, because that's the only place --

A. If that is the incentive that we would be providing the customer.

Q. Okay. And does that incentive in the denominator of the rate impact test match the incentive in the numerator of the participant test, is that the say number?

A. It should.

Q. Okay. And when you are calculating revenue loss, do you calculate the revenue loss associated with the measure over the life of the measure?

A. Yes.

Q. Now, in the stack of stuff that I passed out there is an exhibit that looks like this.

A. I think I have seen that one.

Q. And could you take a minute to look through this, Mr. Masiello?

A. Certainly.

Q. Now, Mr. Masiello, does this look like printouts from Progress Energy's website?

A. Yes.

Q. Okay. And I believe you told us that -- well, you may not have told us. If you turn to Exhibit 12 of your testimony, Mr. Masiello, that discusses renewable energy programs and your renewable energy initiative on Page 1, doesn't it?

A. Is this what you handed out?

Q. No, sir. This is looking at your testimony --

A. Back to my testimony.

Q. -- Exhibit Number 12 to your testimony.

A. I have that.

Q. And that is discussing your renewable energy initiatives, correct?

A. That is correct.

Q. Okay. And the renewable energy initiatives that you discuss are SunSense for homes, which is a

residential PV program?

A. That's correct.

Q. And SunSense for business, which is a commercial PV program?

A. That is correct.

Q. Okay. And those programs are also discussed on the website, is that right?

A. That is correct.

Q. Okay. And if I look on the third page of the handout --

A. Did you say the third page?

Q. Yes.

A. It is not numbered, is it?

Q. Unfortunately not, no, sir.

A. Okay.

Q. I'm sorry. Let's see, the fourth page, excuse me. Okay.

A. Can you show me --

Q. Yes, it looks like this. Okay. And it is labeled at the top about the Progress Energy Carolina SunSense programs, right?

A. Sure.

Q. Okay. Is the SunSense for homes program as discussed here -- your SunSense for home program a corollary to the residential PV program that is

described in the little box at the bottom?

MR. BURNETT: Mr. Chairman, if I could, I want to object to questioning on this line. As Mr. Brownless said, this is about Progress Energy Carolina's SunSense program. If she certainly wants to ask questions about ours here in Florida, I think that is fair, but we are a little far away from North and South Carolina.

CHAIRMAN CARTER: I think he is right, Ms. Brownless.

MS. BROWNLESS: Well, sir, if I may respond.

CHAIRMAN CARTER: Of course.

MS. BROWNLESS: Thank you. The programs are very similar and use exactly the same terminology. They have slightly different rebates, and to the extent that they are structured the same, it is the structure that we are looking to discuss, sir.

CHAIRMAN CARTER: But what does that have to do with where we are today? That is what I was listening for you to say.

MS. BROWNLESS: Well, what it has to do with where we are today is if there is a difference in the structure, why is there a difference? This

is going to be quite quick, believe me.

CHAIRMAN CARTER: Ms. Helton.

MS. HELTON: I am still struggling with how what happens in the Carolinas is relevant to what happens in Florida.

MS. BROWNLESS: Well, because I think if you look at Exhibit Number 12, and that is the programs that Mr. Masiello has determined are proposed programs involving solar, they are identical to the programs here.

MR. BURNETT: Mr. Chair, I'm sorry, but now Ms. Brownless is testifying.

CHAIRMAN CARTER: Yes. Objection sustained. Move on.

BY MS. BROWNLESS:

Q. With regard to the SunSense for homes program and the SunSense for business programs, when I asked you in my Interrogatories Number 9 to provide me the results of the RIM test and TRC test for those programs, you didn't provide me any results, did you?

A. That is correct.

Q. Okay. And have you conducted those analysis for those programs?

A. No. As you can see, in my filing I provided them as initiatives, and what we are

proposing are the possibility of these initiatives as we go into the filing phase of this goals docket.

Q. Okay. In structuring these programs, do you intend to make them cost-effective under the RIM?

A. I think that is something we will see as we get to the filing phase as to whether or not we will be able to do that.

Q. Okay. So let me make sure I understand.

A. Sure.

Q. You have indicated that it is your intention to include these programs because you are discussing them in Exhibit 12 of your testimony, right?

A. I'm saying these are initiatives that we would pursue to find a way to include these in our programs.

Q. Okay. And to quickly talk about what the initiatives would be for these programs. For the residential PV program, it would be a rebate of 150 per watt, correct?

A. $1.50, yes.

Q. Okay. And when does the customer get that rebate, get that money? Is it paid in one lump sum at the beginning?

A. Yes.

Q. Okay. And you have capped that or anticipate

you will cap that at 1,000 kilowatts, right?

A. That's right.

Q. So that is one megawatt, right?

A. That's right.

Q. Okay. With regard to the SunSense commercial PV program, you indicate on Page 3 that there will be ongoing energy payments associated with it under a 20-year sell-all contract, right?

A. That's right. Again, these are concepts, but, yes.

Q. Okay. And will that be paid up front, or paid on an ongoing basis, or how will that work?

A. That's an ongoing basis.

Q. Okay. So would there be any up front incentive paid for the PV?

A. No.

Q. Okay. And are you considering using 18 cents a kilowatt hour as a ballpark for that figure?

A. Again, conceptually that has been the market rate that we have seen of late.

Q. Okay. You currently have a residential solar water heating program that is combined with direct load control, right?

A. That's right.

Q. And what is the incentive you pay for that?

A. $450.

Q. If I remember your testimony from your deposition, you are intending to increase that in your program implementation stage?

A. That is correct.

Q. And you are going to increase to $500, is that right?

A. That's right.

Q. Okay. Would you -- are the incentives that you give dependent upon whether funds are actually available from the state?

A. No, they are independent of the state.

Q. Okay. Do you have a cap on your solar water heating program with EnergyWise at this time, limit the number of people who can participate?

A. No. I mean, it is subject to customers that are motivated to go on the load management system.

Q. You would have a cap, however, as we discussed, for your PV business proposed program?

A. Right.

Q. As well as a cap for the residential PV program?

A. Right.

Q. A charge of -- would you consider increasing

when you are to the program implementation stage your rebate to the residential PV folks to $2 per watt similar to what is being offered in Carolina?

A. I think that is possible.

Q. And would you also consider increasing your rebate for residential solar water heating to $1,000 from the 500?

A. That would not -- using the methodology that we currently use on the RIM, there would not -- it would not afford $1,000.

Q. It wouldn't pass the RIM?

A. It wouldn't pass.

Q. Even with your -- even combined with --

A. With it combined is why we can give what we do.

Q. Thank you. Now, at your deposition I asked for a late-filed exhibit, Late-filed Exhibit 4, and I think I have passed that out. And is it true that if the recommendations of GDS are accepted in this docket that Progress Energy would spend on solar programs -- and I can share with you if you would like -- they would spend approximately $6,464,592, according to Mr. Spellman.

A. Mr. Spellman's five year average of 10 percent?

Q. Yes.

A. Okay.

Q. And that that would be spent each year for five years, is that correct?

A. That is what he suggested.

Q. That is his suggestion, okay. In Late-filed Deposition Exhibit Number 4, I asked you to prepare for me an exhibit which would provide the funds that Progress anticipates it will spend contingent on the SunSense for homes and SunSense for business programs being approved as you have outlined them in Exhibit 12.

A. Right.

Q. Okay. And with regard to this exhibit, which I guess we should identify as 154.

CHAIRMAN CARTER: That will be Exhibit 153. 152 was a composite.

MS. BROWNLESS: Chairman, 153 was the -- identified the web site publication.

CHAIRMAN CARTER: It was?

MS. BROWNLESS: For identification purposes, yes.

MS. FLEMING: I don't believe it was.

CHAIRMAN CARTER: No, it was not. That's why I said we needed to take them one at a time. I've got these others as a composite for 152. There

was no reference to it, but we can make this, if you prefer --

MS. BROWNLESS: Well, if we can make the website printouts 153, please.

CHAIRMAN CARTER: The website printouts will be 153.

MS. BROWNLESS: Yes, sir.

CHAIRMAN CARTER: 153.

MS. BROWNLESS: And we will just call them Progress website.

CHAIRMAN CARTER: Okay.

(Exhibit Number 153 marked for identification.)

MS. FLEMING: Mr. Chairman.

CHAIRMAN CARTER: Yes.

MS. FLEMING: If I may, with respect to this Late-filed Exhibit Number 4, it is already contained in Staff Exhibit Number 4 under Tab 6.

CHAIRMAN CARTER: Okay. So for the record, let's let that -- so we don't have to do that again. That will be fine.

You may proceed. Any idea about how much more you have to go, Ms. Brownless?

MS. BROWNLESS: Two more questions.

CHAIRMAN CARTER: Two more questions.

Okay, thank you.

BY MS. BROWNLESS:

Q. What does the asterisk mean on this late-filed exhibit?

A. Show me which one you are looking at.

Q. It's Late-filed Exhibit Number 4. There is an asterisk. See down at the bottom?

A. Oh. It states that the project -- the program is projected with a two-year implementation and a five-year cost structure. So we designed the program to go out for two years. So at the top you see two years of a residential program. At the bottom you see two years of a commercial program, which, as you know, we have talked about that going out over 20 years. And then we just show the five-year cost structure for that.

Q. Okay. So this is a five-year cost structure for both the residential and the commercial program?

A. Yes.

Q. So when you say residential solar PV, that is the SunSense for homes program?

A. That is correct.

Q. Okay. And the commercial solar PV, that is the SunSense for business program?

A. Yes.

Q. Okay. And the bottom numbers are the totals, is that right?

A. That is correct.

Q. Okay. And so if I am reading this correctly, assuming that we use Mr. Spellman's numbers, and these are just rough calculations, the totals for 2010 would be roughly 35 percent of Mr. Spellman's amount, in 2011 it would be about 54 percent of Mr. Spellman's amount, in 2012 through 2014 it would be 40 percent, right?

A. Uh-huh.

Q. Okay. Now, looking quickly back at Interrogatory Number 9-A.

A. I'm sorry?

Q. 9-A. When you were calculating these values that are here, did you use Itron cost figures for measure costs and kWh savings?

CHAIRMAN CARTER: Before you answer, Ms. Brownless, your two questions turned into four, and I did not give staff nor the people an opportunity to make arrangements for child care, and I don't really want to -- I mean, I thought we could get to 5:30, and it would be a reasonable time, but because we didn't give people notice this morning to make those kind of arrangements, and I don't want to be accused of creating latchkey kids.

MS. BROWNLESS: Yes, sir.

CHAIRMAN CARTER: So let's do this. You seem like you are getting your second wind, so let's just pick it up tomorrow at 9:30.

MS. BROWNLESS: Thank you, sir.

(Hearing adjourned at 5:40 p.m.)

(The transcript continues in sequence with Volume 3.)

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STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, 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 13th day of August, 2009.

JANE FAUROT, RPR
Official FPSC Hearings Reporter
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