BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

PETITION FOR INCREASE IN RATES BY FLORIDA POWER & LIGHT COMPANY. DOCKET NO. 080677-EI

2009 DEPRECIATION AND DISMANTLEMENT STUDY BY FLORIDA POWER & LIGHT COMPANY. DOCKET NO. 090130-EI

_____/

VOLUME 47

Pages 6228 through 6447

ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE A CONVENIENCE COPY ONLY AND ARE NOT THE OFFICIAL TRANSCRIPT OF THE HEARING, THE .PDF VERSION INCLUDES PREFILED TESTIMONY.

PROCEEDINGS: HEARING

PRESENT: CHAIRMAN MATTHEW M. CARTER, II
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER NANCY ARGENZIANO
COMMISSIONER NATHAN A. SKOP

DATE: Wednesday, October 23, 2009

TIME: Commenced at 9:30 a.m.
Concluded at 1:00 p.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: RAY D. CONVERY
Court Reporter
(850) 222-5491

PARTICIPATING: (As heretofore noted.)

ORIGINAL

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
76, 77, 78, 79, 80, 81, 82, 83, 84		Premarked	6390
342, 343, 344		Premarked	6391
530	Plant Scherer Brochure	6281	6391
531	Aerial View of Plant Scherer	6283	6391
532	FPL TYSP Excerpt	6354	6391
533	TYSP Excerpts-FMPA, OUC, Gulf	6365	6391

From Staff's Comprehensive Exhibit List:

Item 11, Nos. 264 and 268			
Item 37, No. 34			
Item 41, No. 109			
Item 68, No. 50		Premarked	6405

P R O C E E D I N G S

(Transcript follows in sequence from Volume 46.)

CHAIRMAN CARTER: Okay. We are back on the record. And when we last left, we had completed cross-examination on Witness Santos.

Commissioners, before we go with Witness Hardy, we have a preliminary matter. Staff, your recognized for a preliminary matter.

MR. TEITZMAN: I just need to make a quick appearance. Adam Teitzman appearing as advisory counsel to the Commissioners.

CHAIRMAN CARTER: Okay. Staff, any further preliminary matters?

MS. BENNETT: No, Mr. Chairman.

CHAIRMAN CARTER: From the parties, any preliminary matters?

MR. WRIGHT: No, sir.

CHAIRMAN CARTER: Okay. Mr. Anderson, you're recognized. Call your next witness.

MR. ANDERSON: Thank you, Chairman Carter. FPL calls as its next witness Keith Hardy.

CHAIRMAN CARTER: Has Mr. Hardy been sworn?

MR. ANDERSON: Have you been sworn, Mr. Hardy?

MR. HARDY: No, I haven't.

CHAIRMAN CARTER: Mr. Hardy, would you please stand. Also, Witness Davis, Reed and Deason, would you please stand so I can swear you all in as a group, please.

Whereupon,

GEORGE KEITH HARDY, JOHN J. REED and TERRY DEASON were called as witnesses and were duly sworn to speak the truth, the whole truth, and nothing but the truth.

CHAIRMAN CARTER: Thank you. Please be seated. Mr. Anderson.

DIRECT EXAMINATION

BY MR. ANDERSON:

Q Thank you, Chairman Carter.

Good morning. Would you tell use your name and your business address.

A My name is Keith Hardy, 700 Universe Boulevard, Juno Beach, Florida.

Q By whom are you employed and in what capacity?

A FPL as a Vice-president of Power Generation Operations.

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

A Yes.

Q Do you have any errata?

A Excuse me?

Q Do you have any errata or changes?

A No.

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

A Yes.

MR. ANDERSON: We ask that his prefiled direct testimony 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 GEORGE K. HARDY

DOCKET NO. 080677-EI

Q. Please state your name and business address.

A. My name is George K. Hardy. My business address is 700 Universe Boulevard, Juno Beach, Florida, 33408.

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

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as Vice President of Power Generation Operations.

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

A. I am responsible for the overall management and direction of the non-nuclear power plants for the Company. This fleet consists of approximately 20,000 MW of electric generating capability including combined cycle, traditional fossil fuel fired steam boilers, aero-derivative and large frame, simple cycle gas turbine technologies.

Q. Please describe your educational background and professional experience.

A. I received a Bachelor of Science in Mechanical Engineering from North Carolina State University, and am a Graduate of the Leadership Institute of Boston University's School of Business. My professional background with FPL involves technical, managerial, and commercial experience in progressively more-demanding assignments over more than 20 years. This includes operations,

maintenance, engineering, and business management roles. My progression of responsibilities includes: Lead Design Engineer of the Power Resources Department, Maintenance and Production Manager of Martin (combined cycle) Plant, General Manager of Power Generation's Steam "Fleet Team", General Manager of Manatee (steam) Plant, General Manager of Due Diligence and New Plant Design, Director of Contracts, General Manager of Martin Plant site, Vice President of Technical Services, and currently Vice President of Florida Power & Light's Power Generation Operations with over 700 employees.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring the following exhibits:

- GKH-1 – Changes in FPL Fossil Generating Capability
- GKH-2 – FPL Fossil Net Heat Rate Comparison
- GKH-3 – FPL Fossil 5-Year Cumulative Percent Reduction in Emission Rates
- GKH-4 – FPL Fossil 5-Year Cumulative CO_2 Greenhouse Gas Avoided
- GKH-5 – FPL Fossil Availability Comparison
- GKH-6 – FPL Fossil Forced Outage Rate Comparison
- GKH-7 – FPL Change in Fossil Capacity-Managed per Employee
- GKH-8 – FPL Fossil Total Non-Fuel O&M Cost Comparison
- GKH-9 – FPL Fossil Base Non-Fuel O&M Cost Comparison

Q. Are you sponsoring or co-sponsoring any Minimum Filing Requirements (MFRs) filed in this case?

A. Yes. I am sponsoring the following MFR:

- B-18 – Fuel Inventory by Plant

I am co-sponsoring the following MFRs:

- B-12 – Production Plant Additions
- B-13 – Construction Work in Progress (Test and Subsequent Years)
- C-8 – Details of Changes in Expenses
- C-41 – O&M Benchmark Variance by Function (Test and Subsequent Years)

I am also co-sponsoring the following West County Energy Center Adjustment Schedules:

- B-6 – Jurisdictional Separation Factors – Rate Base
- B-8 – Monthly Plant Balances Test Year – 13 Months
- C-4 – Jurisdictional Separation Factors – Net Operating Income

In addition, I am co-sponsoring the following 2009 supplemental MFR schedules that FPL has agreed with the Florida Public Service Commission ("FPSC" or "Commission") Staff and the Office of Public Counsel to file:

- B-13 – Construction Work in Progress
- C-15 – Industry Association Dues
- C-41 – O&M Benchmark Variance by Function

Q. What are the purpose and key points of your testimony?

A. My testimony addresses three major areas: 1) FPL's fossil generation system performance, 2) FPL's fossil non-fuel operating and maintenance (O&M) expenses and (non-construction) capital expenditures, including the effect of adding approximately 3,600 MW of cleaner, highly efficient combined cycle generating capability, including Turkey Point Unit 5 and West County Energy Center (West County) Units 1 and 2 between 2006 and 2010, and 3) the construction capital and first year non-fuel O&M costs of placing an additional 1,200 MW into commercial operation in 2011 with West County Unit 3.

The Power Generation Division is responsible for the operation and maintenance of FPL's fossil power plants. Through its leadership, management systems, and processes, the Power Generation Division has helped successfully defer the need for new generating units and avoid costs by improving the performance of FPL's existing fossil fleet. Not only has FPL's fossil fleet operating performance improved over time, it has also consistently exceeded industry averages, and has been frequently ranked "Best-in-Class" when compared to other large generating fossil fleets within the industry.

Q. Please summarize your testimony.

A. In just more than 20 years, FPL's fossil plant capacity will have doubled from 10,700 MW in 1990 to 21,400 MW in 2011 with the addition of West County Unit 3, and evolved from conventional steam technology to primarily modern combined cycle technology. Based on the Federal Energy Regulatory

Commission's Electric Power Production classifications of fossil Steam Production and Other Production (i.e. combined cycle, simple cycle, and gas turbine units), FPL's fossil capacity will have been distinctively transformed from about an 80:20 mix to a 30:70 mix of "Steam" vs. "Other" (see Exhibit GKH-1).

Both the doubling of FPL's fossil generating capacity to serve FPL's long term customer electricity needs, and the dramatic transformation of its generating mix to predominantly cleaner and highly efficient combustion turbine-based technology, typically in combined cycle configuration, are key drivers of FPL's fossil fleet trends in non-fuel O&M expenses and capital expenditures.

The impressive performance of FPL's fossil fleet of generating units is evident in FPL's consistent industry-leading results. As illustrated in Exhibit GKH-2, FPL's fossil fleet net heat rate, a reflection of generating efficiency, improved almost 19 percent over the 1990 to present timeframe (and by 10 percent over the five year period from 2002-2007 alone). Such excellent performance results in significantly lower fuel costs and reduced emission rates.

For example, in a system such as FPL's, with approximately $5 billion of fossil fuel costs in 2007, a 10 percent heat rate improvement translates into $500 million per year of fuel cost savings to customers.

As represented in Exhibit GKH-3, emission rates have also dropped significantly over the 2002 to 2007 timeframe, contributing to a cleaner environment. For example, FPL's 19 percent reduction in its fossil Carbon Dioxide (CO_2) emission rates over this five year period is estimated to have avoided a cumulative 30 million tons of CO_2 releases, resulting in less greenhouse gas emissions (refer to Exhibit GKH-4). FPL's fossil system fuel cost savings and emission benefits from efficiency improvements will continue to grow as new and modernized units are placed in service.

As shown in Exhibits GKH-5 and GKH-6, over the last decade, FPL's fossil fleet has also averaged excellent plant availability of over 92 percent Equivalent Availability Factory (EAF) and reliability performance of approximately 2 percent Equivalent Forced Outage Rate (EFOR), compared to fossil industry averages of 87 percent EAF and 7 percent EFOR. This outstanding plant availability and reliability performance allows FPL to continue to provide customers with the cleanest, most fuel-efficient generation that can be produced from its fossil fleet, and pass along the resulting fuel savings to our customers. Further, the high availability and low forced outage rates of FPL's fossil units have helped FPL avoid or defer the need to add additional capacity to the system.

What makes FPL's fossil plant performance more noteworthy is that, in addition to significant improvements in performance, FPL has been able to reduce fossil "Total" (i.e. Base Rate plus Environmental and Capacity Clauses) non-fuel O&M

cost per unit of capacity by more than 40 percent, from almost $19/installed kW in 1990 to under $11/kW at the present time (see Exhibit GKH-8). Another indication of FPL's superior performance is that FPL's $11/kW fossil cost was approximately $20/kW lower in 2007 than the fossil industry average $/kW, as well as what FPL's fossil $/kW cost would be if escalated at the Consumer Price Index (CPI) from 1990 over the same timeframe. This average $20/kW difference represents significant annual fossil non-fuel O&M cost avoidance (nearly $400 million/year presently) for a fossil fleet the size of FPL's (approximately 20,000 MW of generating capacity). Contributing to this excellent performance is Power Generation's consistent improvement in workforce staffing. Since 1990 and through 2011, the level of fossil capacity-managed per employee is projected to increase from approximately 5 MW/employee to 20 MW/employee (see Exhibit GKH-7).

FPL's fossil non-fuel O&M expenses will increase in the coming years as a result of adding 4,800 MW of new generating capacity and performing major maintenance to its fleet. However, on a $/kW basis, FPL's fossil Total non-fuel O&M costs for 2010-2011 are expected to remain well below both the fossil industry average and what the O&M cost would be if escalated by CPI from 1990 (see Exhibit GKH-8). Also, FPL's projected fossil "Base" (i.e. Total less Environmental and Capacity Clauses) non-fuel O&M $/kW compares favorably with CPI for 2010 and 2011 (see Exhibit GKH-9).

Base capital expenditures are also increasing in the coming years primarily due to the need to purchase combustion turbine (CT) wear parts to effectively maintain FPL's growing fleet of combined cycle generating units.

Thus, while FPL has provided customers with excellent cost control and plant operating performance, an increase in the level of expenditures is required to operate and maintain FPL's growing fossil fleet of cleaner and more efficient generating units.

Lastly, the construction estimates and operating and maintenance costs for West County Unit 3 remain consistent with the estimates provided to the Commission in Docket No. 080203-EI.

FPL'S FOSSIL GENERATION SYSTEM PERFORMANCE

Q. What indicators does FPL use to measure the operating performance of its fleet of fossil generating units?

A. FPL uses a number of indicators to measure the performance of its fossil fleet. These indicators include EAF to measure unit availability, EFOR to measure unit reliability, Net Heat Rate (British Thermal Units (Btu)/kWh) to measure unit efficiency, and cost (non-fuel O&M $/installed kW of capacity) to measure the effectiveness of resource management and utilization.

As shown on several exhibits within this testimony, FPL's fossil fleet performance in these measures is compared against both our own long term historical performance as well as that of the fossil industry.

Q. Please define the indicators used to measure plant availability and reliability.

A. EAF is a measure of the percent capacity available from a generating unit to provide electricity throughout the year, regardless of whether the generating unit is actually called upon to operate. Planned and Forced outages are the main components typically associated with measuring FPL's fossil EAF. EAF is reported in terms of the hours in a given period (e.g., a year) that a generating unit is available to deliver electricity, as a percentage of all the hours in the period. FPL strives for, and has achieved, high fossil EAF.

EFOR is a measure of a generating unit's inability to provide electricity when it was scheduled to operate. EFOR is reported in terms of the hours when a generating unit could not deliver electricity as a percentage of all the hours during which that unit was called upon to operate. Since lower EFOR results in greater availability of the most-efficient generating capacity serving customers, FPL strives for, and has achieved, low fossil EFOR.

Q. Has the EAF of FPL's fossil plants improved over time?

A. Yes. As shown in Exhibit GKH-5, FPL has improved the EAF of its fossil fleet from less than 82 percent in 1990 to over 92 percent in 2008.

Q. How does the EAF of FPL's fossil plants compare to that of others in the industry?

A. FPL's fossil fleet has maintained an industry-leading position in EAF. As shown in Exhibit GKH-5, FPL's fossil plants have performed significantly better than the fossil industry average. Over the last decade, from 1998 through 2007, the fossil industry EAF averaged 87 percent, while FPL's fossil unit performance averaged over 92 percent. FPL's fossil EAF performance has also been either "Best-In-Class" or "Top-Decile" for nine of the last ten years.

Q. Has the EFOR of FPL's fossil plants also improved over time?

A. Yes. As shown in Exhibit GKH-6, the EFOR of FPL's fossil plants have been exceptionally low. Even at this excellent performance level, FPL's fossil fleet EFOR has improved from an average of approximately 3 percent during the 1990's to an average of about 2 percent during the last decade.

Q. How does the EFOR of FPL's fossil plants compare to that of others in the industry?

A. FPL's fossil EFOR performance has significantly outperformed the fossil industry average, as shown in Exhibit GKH-6. Over the last ten-year period from 1998 through 2007, FPL's fossil plant EFOR averaged 2 percent, and was less than one-third the fossil industry EFOR average of 7 percent. FPL's fossil EFOR performance has also been either "Best-in-Class" or "Top Decile" for eight of the last ten years.

Q. What is the significance of FPL's fossil EAF and EFOR performance to this case?

A. During the early 1990s, FPL's fossil system EAF and EFOR improvements helped defer the need for new capacity additions. Currently, with the progressive transformation of its fossil generating fleet to cleaner combined cycle units, FPL's excellent fossil EAF and EFOR performance results in more opportunity for this highly efficient capacity to be operating, minimizing customer fuel costs and emissions.

Q. How did FPL's EAF and EFOR improvement actions also help avoid or defer the need for new generating capacity?

A. By the early 1990s, FPL had improved its fossil plant availability which allowed the Power Generation Division to implement a program known as Perfect Execution of Peak Operations (PEPO). The PEPO program was designed to systematically assess the peak generating capacity of units within their design capabilities. This program allowed the Power Generation Division to operate its fossil units at peak capacity during high load demand periods. The PEPO program raised FPL's level of confidence in the reliability of these peaking megawatts to the point that they could be included in the rated capacity for our fossil fleet when determining the need for new generating capacity. In the mid-1990s, PEPO was integrated into the normal operation and rating of the fossil units and made over 600 MW available to FPL. Over the last 15 years, FPL has been able to utilize this philosophy of providing peak capacity, amounting to over

1,700 MW of additional generating capability benefiting customers through the present time.

Q. What indicator does FPL use to measure the efficiency of its fossil fleet?

A. FPL's indicator of fossil efficiency is net heat rate, which is calculated by dividing the total heat input in Btu, from fuel used each year by FPL's fossil fleet, by the net kWh of electricity produced from those units. The lower the heat rate is, the more efficient the generating fleet.

Q. Please show how the efficiency of FPL's fleet of fossil generating fleet has improved over time.

A. The trend in efficiency of FPL's fossil generating fleet is provided in Exhibit GKH-2. Since 1990, FPL has improved the net heat rate of its fossil fleet from 10,214 Btu/kWh to 8,318 Btu/kWh in 2008, almost a 19 percent improvement in efficiency. With the addition of the West County Units 1, 2, and 3, the net heat rate of FPL's fossil fleet is expected to drop further, providing even better efficiency to benefit the customer.

Q. How does FPL's fossil plant net heat rate performance compare to other utilities?

A. As shown in Exhibit GKH-2, FPL's fossil fleet net heat rate compares extremely favorably to the industry. The industry average for all representative fossil plants exhibited little long term improvement and has remained above 10,000 Btu/kWh. FPL's fossil fleet average net heat rate improved 10 percent over five years alone (between 2002 and 2007) from 9,237 to 8,324 Btu/kWh. FPL's fossil net heat

rate performance has also been either "Best-in-Class" or "Top Decile" among public electric utilities in every one of the last ten years.

Q. What actions has FPL taken, or does FPL plan to take, to improve overall fossil fleet efficiency performance (e.g., improvements in system heat rate)?

A. In the power generation industry, the natural course of events is for power plants to suffer deterioration in performance as they age and experience wear and tear. The ongoing challenge is to minimize the rate of heat rate degradation and restore it when possible. So, restoring performance actually represents an improvement in an operating environment that otherwise would result in decline. FPL works diligently to minimize degradation of, and to restore, this lost generating unit performance. This has been accomplished through practices such as condition-based maintenance.

However, the major step-change system heat rate performance gains have been achieved through plant modernizations (conversions of conventional plants to combined cycle technology) and the addition of new, highly efficient generating technology. FPL is a leader in converting older power plants to modern combined cycle technology, which significantly increases the efficiency of these plants and reduces emissions.

Q. Can you provide an example of how an improved net heat rate benefits FPL's customers?

A. Yes. For example, if fossil net heat rate improves 10 percent, this means that, assuming nothing else changes, the system now requires 10 percent less fuel to

produce the same amount of kilowatt-hours. If fossil system fuel costs prior to efficiency gain equal $100 million per year, then the 10 percent heat rate improvement would produce $10 million in fuel savings per year to customers. Likewise, scaling up to a system such as FPL's, with approximately $5 billion fossil fuel cost in 2007, this 10 percent net heat rate improvement results in $500 million per year of fuel cost savings to customers.

In addition, as mentioned above, system enhancements through power plant modernizations and additions of cleaner, highly efficient generating technology have had the added significant benefit of reducing FPL's fossil generation air emission rates. As shown in Exhibit GKH-3, FPL's fossil system air emission rates, over the five year period from 2002 to 2007, were reduced by approximately 19 percent for Carbon Dioxide (CO_2), and by about 50 percent for both Nitrogen Oxides (NO_x) and Sulfur Dioxide (SO_2). FPL's 19 percent reduction of its fossil CO_2 emission rates over this five year period is estimated to have avoided the release of over 30 million cumulative tons of CO_2 (see Exhibit GKH-4) resulting in a significant reduction in greenhouse gas emissions and contributing to a cleaner environment. The modernization of the existing Cape Canaveral and Riviera Power Plants further exemplify FPL's commitment to environmental sustainability.

Q. Please summarize your position on the performance of FPL's fossil generating system.

A. FPL has maintained an extremely reliable power generating system for many years. FPL has significantly improved the operating performance and efficiency of its fossil generating units in all areas, and surpasses industry performance, frequently achieving "Best-in-Class" or "Top-Decile" performance.

FPL's FOSSIL NON-FUEL O&M EXPENSES AND CAPITAL EXPENDITURES

Q. What has been FPL's experience with non-fuel O&M expenses associated with fossil units in recent years?

A. FPL has worked aggressively to reduce and contain costs. FPL's fossil total non-fuel O&M expense, measured in dollars per installed kW of generating capacity, has declined 19 percent over the last decade from $12.8/kW in 1998 to $10.4/kW in 2007. Over the longer period from 1990 to 2007, FPL prudently and successfully leveraged the economies of scale of its existing sites to reduce fossil Total non-fuel O&M cost per kW of installed capability by over 40 percent (from almost $19/kW to under $11/kW) as shown in Exhibit GKH-8. This is superior performance considering FPL was approximately $20/kW lower in 2007 than both the industry average fossil non-fuel O&M cost and what FPL's fossil non-fuel O&M cost would be if escalated at CPI over the same timeframe. For a fossil fleet the size of FPL's (approximately 20,000 MW of generating capacity), this represents significant annual fossil non-fuel O&M cost avoidance of nearly

$400 million. Contributing to this excellent performance is Power Generation's improving workforce staffing optimization trend since 1990 (see Exhibit GKH-7) showing that by 2011, FPL's fossil capacity-managed per employee is projected to be four times higher than the rate achieved in 1990 (from approximately 5 MW/employee to 20 MW/employee).

Q. What steps has FPL taken to reduce fossil non-fuel O&M expenses associated with maintaining the fleet?

A. To control costs, FPL transitioned its fossil plant major maintenance overhaul philosophy from calendar-based to condition-based overhaul intervals, adopted "Centralized Major Maintenance" and "Fleet Team" approaches, is leveraging contracts for goods and services during overhaul seasons resulting in more-favorable pricing and contract terms, and introduced quality practices known as "Six Sigma" to help execute outages more efficiently and effectively. "Six Sigma" is discussed in the testimony of FPL witness Bennett.

By doing overhauls on condition-based intervals, FPL can optimize the life of existing plant components while improving plant reliability and availability. The Centralized Maintenance concept transitioned the fleet from an approach where each site independently allocated its overhaul resources, to an approach where overhaul resources are optimized at the system level. The Fleet Team approach, in which FPL organizes its technical support groups around the major plant components such as boilers, CTs and generators, improves the replication and standardization of best practices across the fleet.

FPL further enhanced its fleet maintenance performance with the creation of the Fleet Performance and Diagnostic Center (FPDC). Critical fossil plant operating parameters are monitored "24/7" online. Automated statistical analysis detects any slight change in performance and alerts employees. FPL can also analyze the equipments' ability to perform according to its rated specifications and evaluate ways to improve efficiencies. The goal is to identify equipment degradation far enough in advance of a failure so corrective measures can be put in place. These initiatives and efforts are focused on achieving process control and preventing failures from occurring.

The Power Generation Division's mission and commitment to the customer can be summarized in two words: Deliver Certainty - the certainty that our generating units are cost-effective, efficient, available, and reliable to meet the needs of our customers.

Q. Can improvements in maintenance processes continue to enable FPL to keep the level of O&M expenses relatively constant?

A. No. While condition-based maintenance has optimized the useful life of plant components, with the addition of 4,800 MW of new generation, FPL must perform additional maintenance consistent with the scale of its expanded fleet in order to maintain the reliable service of its fossil system. Despite FPL's continuing maintenance improvement processes, fossil non-fuel O&M expenses are forecast to increase from 2006 through 2011. These increases are primarily due to long-term infrastructure investments in new generating plant additions and

condition-based maintenance of the fossil fleet. These cost increases are dictated by the fact that FPL's number of high-efficiency CTs more than doubled between 2000 and 2006 (from 15 to 36), and will more than triple between 2000 and 2011 (from 15 to 49) with the completion of West County Unit 3.

Q. Please discuss the comparison of FPL's 2010 and 2011 fossil Base non-fuel O&M for the FERC Steam Production and Other Production functional areas to the Commission's benchmarks (on MFR C-41) using 2006 as the benchmark year.

A. FPL's overall fossil Base O&M compares favorably with the Commission's benchmarks, as explained below.

Comparing FPL's projected 2010 and 2011 fossil Base non-fuel O&M expenses to the Commission's benchmarks for the FERC Steam and Other functional areas indicates that FPL's Steam expenses are approximately $24 million and $28 million below the 2010 and 2011 benchmarks. Conversely, FPL's Other O&M expenses are approximately $33 million and $52 million above the respective 2010 and 2011 benchmarks. These results are not surprising considering both the dramatic growth of FPL's Other generating capacity and the transformation of FPL's fossil generating mix from predominantly Steam to primarily highly efficient Other capacity (as shown earlier in Exhibit GKH-1).

However, FPL's fossil generation fleet is operated and maintained as a combination of Steam units and Other units for availability, reliability, and cost

with centralized support for engineering, environmental, quality, maintenance planning/execution, production assurance, and business services. The fleet is not managed at a FERC function level of Steam vs. Other, but as a portfolio of units. If one were to compare FPL's fossil Base non-fuel O&M for the combined Steam and Other functions to the CPI inflation benchmark at the portfolio level, FPL's projected Base O&M for 2010 is a total $9.2 million over the benchmark. This $9.2 million variance is the result of higher costs incurred to operate and maintain long term infrastructure investments, such as the 3,600 MW of new generating capacity added from 2006 through 2010, including Turkey Point Unit 5 in 2007 and West County Units 1 and 2 in 2009. FPL's fossil portfolio's Base non-fuel O&M cost on a $/kW basis (as shown in Exhibit GKH-9) increases only four percent, from $9.8/kW in 2006 to $10.2/kW in 2010. In contrast, inflation as measured by CPI is projected to increase 11 percent during this period. FPL's costs are projected to increase at a rate so far below CPI inflation for this period because of cost reductions FPL is undertaking in anticipation of removing two Steam plant sites from service in 2011 for scheduled modernization.

Of course, eliminating costs for two Steam plant sites is not something that FPL can do year after year, so this cost-reduction pattern cannot be sustained over a more extended time frame. As Exhibit GKH-9 reflects, FPL's fossil Base non-fuel O&M returns to normally-anticipated levels in 2011 due to both the increased number of planned CT outages associated with the expanded combined cycle fleet and the addition of O&M costs for the new, high efficiency West County Unit 3

when it becomes fully operational that year. High efficiency combined cycle units like West County Unit 3 generate large fuel savings for FPL's customers, but they also require more maintenance than FPL's older, simpler but less-efficient units.

FPL's fossil portfolio 2011 Base O&M request will be $24.2 million over the portfolio's combined (Steam plus Other) inflation benchmark. However, from 2006 thru 2011 the fossil fleet will have added over 4,800 MW of clean and fuel efficient combined cycle capacity. This $24.2 million variance is essentially the result of higher costs incurred to operate and maintain the 4,800 MW of new generating capacity added from 2006 through 2011 including Turkey Point Unit 5 in 2007, West County Units 1 and 2 in 2009 and West County Unit 3 in 2011. Consistent with the above explanation, FPL's fossil portfolio's Base non-fuel O&M cost on a $/kW basis (as shown in Exhibit GKH-9) will have increased only 14 percent from $9.8/kW in 2006 to $11.2/kW in 2011. This 2006 to 2011 increase is consistent with inflation for this period.

Recapping, FPL's fossil fleet's historical performance in $/kW demonstrates FPL's ability to cost-effectively operate and maintain the fleet as a fossil portfolio of Steam and Other Production Units. The associated Base non-fuel O&M costs on a $/kW basis are consistent with CPI growth for the period 2006 thru 2011, while the 4,800 MW of capacity additions during the 2006 thru 2011 period provide FPL customers with cleaner and fuel efficient generating capacity.

Q. Why did FPL use $/kW as the basis for justifying Base non-fuel O&M expenses that exceed the FPSC benchmark calculation (MFR C-41)?

A. In the 1983 FPL Rate Case (Docket No. 830465-EI), the Commission established the Base non-fuel O&M benchmark, which gave the production plant category only CPI inflation as an expense escalator with no additional escalator for customer growth. However, at that time, the Commission recognized the need for FPL to incur over time the rising expenses associated with new plant additions. FPL's use of $/kW is a good metric to normalize for the effect of growth in Base non-fuel O&M expenses that are due to adding electric generating capability.

Q. What actions has FPL undertaken to reduce non-fuel O&M costs in light of the economic downturn?

A. FPL reviewed its operating fleet and has determined that some of its older, less-efficient units should be placed into Inactive Reserve status. This would enable the units to return to service when needed in the future to satisfy load growth, as well as, with adequate notice, meet FPL's reliability needs under extended, significantly-changed load and resource conditions in the near term. This plan permits FPL to reduce steam plant operations and maintenance costs, and will allow FPL to redeploy this skilled workforce within the business unit and reduce contractor usage for unit outages. In addition, FPL has been able to reduce the spending plans at the four units located at the Cape Canaveral and Riviera sites, because they are scheduled to be taken off-line beginning in 2010 and 2011 for the FPSC-approved modernizations. Together, these actions are expected to reduce non-fuel O&M costs on FPL fossil Steam units by approximately $10

million in 2010 and by approximately $12 million in 2011, when compared to 2006 expenses.

Q. What assurance can you provide that FPL's 2010 and 2011 forecasts for non-fuel O&M expenses are reasonable?

A. First, the Company's historical performance demonstrates its ability to cost-effectively manage its resources while achieving industry-leading performance in the areas of EAF, EFOR, and net heat rate.

Second, even with the inclusion of the new units in 2007 (Turkey Point Unit 5) and in 2009 (West County Units 1 and 2), FPL is forecasting its 2010 fossil Base non-fuel O&M (see Exhibit GKH-9) at only $10.2/kW, representing only a four percent increase over the four year period from 2006, and averaging one percent per year. Similarly, even with the inclusion of the new West County Unit 3 in 2011, FPL is projecting its Base non-fuel O&M cost to be $11.2/kW in 2011, which is expected to be consistent with inflation when comparing back to 2006 (as shown on Exhibit GKH-9). Moreover, throughout the 2008-2011 timeframe, FPL's Total fossil non-fuel O&M cost in $/kW is expected to still remain approximately $20/kW below what the cost would have been if escalated by CPI since 1990. Also, by 2011, FPL's Total fossil non-fuel O&M cost of $12.1/kW is also projected to remain at least 35 percent below FPL's own 1990 $/kW level (from Exhibit GKH-8). This further exemplifies FPL's continued commitment to control and contain costs.

Third, FPL has the processes, procedures, and structure in place, such as condition-based maintenance, Central Maintenance organization, overhaul services contract leveraging, Six Sigma techniques, the Fleet Performance and Diagnostic Center, and Fleet Teams to continue to manage, assess, and sustain the outstanding performance of FPL's fossil generation portfolio. FPL's team is committed to maintaining the industry-leading performance it has achieved with excellent availability, reliability, efficiency, and low cost.

Q. Please summarize FPL's fossil (non-construction) Base capital expenditures required to sustain or improve its fossil fleet for the period 2006-2010 and 2010-2011?

A. FPL's annual fossil Base capital expenditures are projected to increase from approximately $218 million to $258 million between 2006 and 2010, and to $318 million by 2011.

Q. What are the capital expenditure drivers for sustaining FPL's fossil fleet?

A. As previously illustrated in Exhibit GKH-1, from 1990 to 2011 FPL's fossil generation system will have both doubled in magnitude and evolved to a fleet of primarily clean and highly efficient combustion turbine-based other capacity. The cost to sustain the growing CT-based combined cycle fleet is the primary driver of fossil (non-construction) Base capital expenditure growth in 2010 and 2011.

FPL's number of high efficiency CTs more than doubled between 2000 and 2006 (from 15 to 36), and will more than triple between 2000 and 2011 (from 15 to 49) with the completion of West County Unit 3. Since these CTs run in base-loaded

combined cycle configuration, with at least 30 percent lower heat rate than conventional plants, FPL's customers benefit with avoided fuel cost and emissions. However, the increasing number of CTs in FPL's system comes with the greater need to undertake maintenance outages to replace wear parts needed to sustain the performance of these plants, even within two years after going on-line.

Such outages are typically driven by runtime-based maintenance requirements on these advanced, highly efficient CTs during their operating cycle. This allows FPL to continue providing its customers with the most efficient generation from the fleet. The purchase of CT outage wear parts for FPL's combined cycle fleet is the primary cost driver of the increase from 2006 to 2011.

While capital expenditures necessary to sustain the performance of FPL's CT fleet are substantial, the benefits to customers from such performance are real (including avoided fuel cost and emissions). With the growing number of CTs in FPL's fleet, these expenditures are needed for FPL to sustain the excellent performance of its fleet and continue to provide customers with clean and fuel-efficient generation into the future.

Q. Has FPL undertaken any steps to control or reduce capital expenditures in light of the economic downturn?

A. Yes. As explained previously, FPL reviewed its operating fleet and has determined that some of its older, less efficient units should be placed into Inactive Reserve status. This would enable the units to return to service when

needed in the future to satisfy load growth, as well as, with adequate notice, meet FPL's reliability needs under extended, significantly changed load and resource conditions in the near term. In addition, FPL has been able to reduce the spending plans at the four units located at the Cape Canaveral and Riviera sites because they are scheduled to be taken off-line beginning in 2010 and 2011 for the FPSC-approved modernizations. These combined actions are expected to reduce outage work on FPL's steam units and will decrease the annual capital expenditures by approximately $35 million in 2010 and by approximately $40 million in 2011, when compared to 2006 expenditures.

WEST COUNTY ENERGY CENTER UNIT 3

Q. Is the currently forecasted cost of adding West County Unit 3 consistent with Docket No. 080203-EI and the Commission's Final Order (No PSC-08-0591-FOF-EI issued September 12, 2008) granting FPL's petition for a determination of need for the proposed unit?

A. Yes. The currently-forecasted cost of adding West County Unit 3 is consistent with the estimated amount of $865 million in the Commission's Order to provide the 1,219 MW of additional clean, highly efficient generating capacity in June 2011.

Q. What are FPL's forecasted annual operating expenses for the first full year of operation for West County Unit 3?

A. The first full year of non-fuel O&M expenses (FERC account 546 through 554) for West County Unit 3 is expected to be $8.8 million.

Q. Are these first full year of non-fuel O&M expenses reasonable?

A. Yes. These non-fuel O&M expenses are consistent with the cost estimates associated with FPL's Petition to Determine Need for West County Unit 3 as provided to the Commission.

Q. Does this conclude your direct testimony?

A. Yes.

BY MR. ANDERSON:

Q Do you have some exhibits to your direct testimony?

A Yes.

Q These are GKH-1 through GKH-9, right?

A Yes.

MR. ANDERSON: Mr. Chairman, these have been premarked on staff's comprehensive exhibit list as Exhibits 76 to 84.

CHAIRMAN CARTER: Thank you.

BY MR. ANDERSON:

Q Did you prepare rebuttal testimony in this proceeding?

A Yes, I did.

Q And does that consist of 26 pages of prefiled testimony.

A Yes, it does.

Q Do you have any changes, additions, corrections, deletions to that testimony?

A No, I do not.

Q You had some exhibits to your rebuttal testimony, right?

A I did.

Q GKH-10 through 12?

A Yes.

MR. ANDERSON: Mr. Chairman, those have been premarked as 342 to 44 on the Staff Comprehensive Composite Exhibit List.

CHAIRMAN CARTER: Okay. The prefiled testimony of the witness will be inserted into the record as though read, and the exhibits as part of staff's comprehensive exhibit list.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY OF GEORGE K. HARDY

DOCKET NO. 080677-EI & 090130-EI

AUGUST 6, 2009

Q. Please state your name and business address.

A. My name is George K. Hardy. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408-0420.

Q. Did you previously submit direct testimony in this proceeding?

A. Yes.

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

A. Yes. I am sponsoring the following exhibits, which are attached to my rebuttal testimony:

- GKH – 10, FPL Combined Cycle Asset Life Comparison
- GKH – 11, FPL Oil & Gas-Fired Steam Asset Life Comparison
- GKH – 12, FPL Coal-Fired Steam Asset Life Comparison

Q. What is the purpose of your rebuttal testimony?

A. Specifically, I will address three aspects of FPL's fossil power generation operations: plant asset lives, generating efficiency improvements, and Staff audit findings.

SUMMARY

Q. Please summarize your rebuttal testimony.

A. The several key points I wish to communicate in my rebuttal testimony are as follows:

1. The current 25, 35, and 40 year life expectations are appropriate for FPL's advanced combined cycle units, large oil and gas-fired steam units, and coal-fired steam units based on engineered plant design life, FPL's detailed engineering knowledge of the actual condition and operation of its units, FPL's distinctive outdoor, subtropical operating environment, and the operating characteristics (base load versus cycling) of the FPL fossil fleet. When compared with the average life of industry units at retirement, FPL's asset life expectations are also reasonable.
2. FPL's generating efficiency improvements from new, highly-efficient combined cycle plant additions are significant and are expected to improve FPL's operated fossil fleet net heat rate by 14% from 2002 through 2009 and by 20% from 2002 through 2014, contributing to the lower fuel usage and fuel costs for FPL's customers.
3. FPL believes that Staff's Audit Findings 1 & 5, concerning storage fees and clean up costs are better characterized as statements of fact. As I explained, the referenced facts do not affect FPL's 2010 and 2011 test year and forecasted cost estimates.

SUPPORT OF FPL WITNESSES CLARKE AND DAVIS REBUTTAL TESTIMONY ON POWER PLANT ASSET LIVES

Q. What is the purpose of your rebuttal testimony related to plant asset lives?

A. The purpose of my rebuttal testimony is to explain the basis of FPL's fossil generating asset lives based upon information, including FPL's operating experience.

Q. What is the profile of FPL's fossil generating fleet?

A. FPL's fossil fleet will consist of approximately 20,000 MW of generating capability in the summer of 2009. Since 1990, this fleet has continuously evolved from an older steam boiler fleet to a modern, fuel efficient and cleaner combined cycle fleet. This transformation was accomplished by adding new advanced combined cycle units and retiring older less-efficient units. The retired units were repowered using new advanced combustion turbine technology to meet increasing capacity needs, while significantly lowering emissions. The current technology mix consists of approximately: 10,000 MW of combined cycle, 7,000 MW of oil and gas fired steam, 1,000 MW of coal, and the balance consists of gas turbines.

FPL's fossil fleet has 79 units, accounting for 87 percent of the fossil fleet capacity, that are located outdoors, on or within 30 miles of Florida's coastline. This proximity to the harsh coastal environment adversely affects the life of FPL's generating assets.

The fossil fleet's operational mission is to serve FPL customers' base load, cycling, and peaking energy demands. This fleet has also experienced a significant increase in unit cycling over the last six years, which decrease the lives of its generating assets from increased wear and tear, compared with base load operations. Wear and tear from cycling and from actions of the elements are recognized considerations that decrease electric plant asset life.

Even with its growth, geographic location, and cycling challenges, FPL's fossil fleet continues to be an industry leader for high reliability, availability, and efficiency, with low non-fuel O&M cost (see direct testimony Exhibits GKH: 2, 5, 6, & 8).

Q. What are FPL's expected lives for each key technology type?

A. The expected asset lives are 25 years for advanced combined cycle units, 35 years for large oil/gas steam units, and 40 years for coal units.

Q. What is the basis for the expected life of these generating assets?

A. As further explained by FPL witnesses Clarke and Davis, FPL's expected fossil generating asset life is based on the design life of the plant, the engineered components contained within the plant, the environment the asset operates in, and the way the asset is operated to meet customer needs. Witness Clarke states that the life spans used by FPL are within those seen in the industry, noting however that they are on the lower end. This is not surprising to FPL because FPL's expected life of its assets is based on intimate knowledge of its plants, how they are operated to meet customers' needs, and the adverse impacts of the coastal

environment. FPL's customer base is 94% residential and commercial, resulting in a load profile of high peak loads during the day and very low loads during evening and early morning hours. This characteristic requires FPL to cycle units off at night and start units up during the day to meet this distinctive load profile. In 2008, FPL cycled (off then back on) its fossil units an estimated 5,100 times, versus less than 3,000 cycles in 2003, representing a 70% increase in total annual fossil system cycles. This increasing cycling trend is expected to continue in the upcoming years. FPL's combined cycle combustion turbines accounted for approximately 60% of the total generating fleet cycles for these periods. Cycling a plant designed for base load, while necessary to properly serve customers, will shorten the expected life of the plant.

Q. What are the expected asset lives of each of FPL's types of fossil generating units?

A. Based on the experience of FPL engineers and plant management, the expected asset lives for FPL generating units are based on the following:

a) The 25 year expected life of the combined cycle units is based on the engineered plant design life, adjusted to take into account the fact that the units are shifting from use as baseloaded units to more-heavily cycled units. The physical life of the combustion turbine is estimated to be 25 years by the manufacturer when cycled extensively, or 30 years at base operations. Based on FPL's actual and anticipated usage the asset life was established at 25 years.

b) The large gas-fired units at Martin and Manatee use a 35 year asset life because these units are also heavily cycled. The cycling consumes asset life, thus making a 35 year life more appropriate, based on their current cycling mission. Re-tasking these plants from baseload to cycling units is the right thing to do because it permits customers to receive the fuel efficiency and environmental benefits of our cleaner and more modern units, contributing to FPL's overall low cost of generation and excellent environmental performance.

Also, as part of FPL's recent fossil fleet experience, FPL has already retired six mid-sized cycling oil & gas-fired units (at Lauderdale, Ft. Myers, and Sanford sites) at 33 years of life for economic repowering benefits. These units were converted to cleaner, more-efficient combined cycle technology providing customers with lower fuel cost and emissions. Fossil fleet efficiency improvements provided from these unit conversions is included in the heat rate and emissions comparisons in my direct testimony (see Exhibits GKH 2 - 4).

c) The coal units' asset life is based on a 40 year boiler life. In the late 1990's a 30 year life was assigned to FPL's Scherer plant on the basis of damage done to boilers by burning western coal, which was hard on the equipment due to slag build-up. Since then, FPL has found ways to

manage the slag problem resulting in an increase to a 40-year economic recovery period.

For our coal units, 40 years remains a reasonable asset life due to original design expectations, and also taking into account the potential effect of future environmental regulations (i.e. CO2) on coal technology, which will tend to make the plants lives shorter than if such regulations are not enacted.

Q. How was FPL Witness Clarke of Gannett Fleming assisted with access to Fossil Power Generation information, sites, and personnel to help support his determination of plant expected asset lives?

A. FPL assisted Witness Clarke in the following manner:

- Mr. Clarke was oriented in the operation and maintenance practices of FPL's fossil plants by personnel from Power Generation's Technical Services Department and power plants.
- Mr. Clarke visited several FPL fossil plants that operate and maintain both combined cycle and steam boiler technologies.
- Mr. Clarke was provided with FPL's 2007 Integrated Resource Plan (IRP) - the basis for economic recovery dates (or probable retirement dates) of all generating units. The dates in this IRP were used in FPL's 2008 Ten Year Power Plant Site Plan submitted to the Florida Public Service Commission.

Q. Did any intervenor witness meet with FPL fossil plant personnel, to discuss the operation and maintenance practices of FPL fossil plants?

A. No. They did not meet with any FPL personnel to discuss operation and maintenance practices of FPL fossil plants.

Q. Did any intervenor witness visit any of FPL's fossil plants?

A. No. they did not visit any of FPL's fossil plants.

Q. Are the asset lives mentioned above for the combined cycle, oil and gas units, and coal units consistent with industry electric generating unit retirement data?

A. Yes. FPL researched industry data from Ventyx' Energy Velocity database for similar type retired units of at least 150 MW in size, with the following findings:

- Of the industry combined cycle units retired to date, their average age was 22 years at retirement, compared with FPL's estimated life of 25 years (see Exhibit GKH - 10).
- Of oil and gas-fired steam units retired to date, the industry average age was 37 years at retirement, compared with FPL's estimated life of 35 years (see Exhibit GKH - 11)..
- Of the coal-fired steam units retired to date, their average age was 41 years at retirement, compared with FPL's estimated life of 40 years (see Exhibit GKH - 12).

This information further supports the reasonableness of FPL's asset lives used in the Depreciation Study.

Q. Do some of FPL's units operate beyond their design life?

A. Yes. FPL's fossil fleet reliability strategy focuses on a condition-based maintenance program that identifies components that are approaching end of

design life. These components are repaired or replaced based on the risk of failure and the economic benefit to FPL customers. This approach has served FPL and its customers well as FPL's fossil fleet reliability is among the very best in the industry.

Q. Should periods longer than design life be used to establish the initial asset lives for FPL's fossil generating fleet?

A. No. It would be inappropriate to establish asset lives that are greater than their design life. This is because extending plant life beyond the design life requires "unknown levels and timing of capital additions", as stated in OPC's witness Pous direct testimony. Therefore, the design life, actual unit condition, and operating missions should remain the overall governing factors for setting asset lives. In the event that economic conditions, technological advancements, environmental regulations and other factors were to support future investments in the existing plants to prolong their lives, the condition of the plants and changes in estimated operating life resulting from those investments would be reflected in future depreciation studies. It would be incorrect to assume such longer estimated operating lives at the present time when neither such decisions nor investments have been made.

Q. Are the current 25, 35, and 40 year asset life expectations reasonable for FPL's advanced combined cycle, large oil/gas steam units, and coal units?

A. Yes, for the reasons explained above.

SUPPORT OF FPL WITNESS DEATON REBUTTAL TESTIMONY ON GENERATING EFFICIENCY (NET HEAT RATE) IMPROVEMENTS

Q. What is the purpose of your rebuttal testimony related to generating efficiency?

A. In addition to the comments of FPL witness Deaton on SFHHA's witness Kollen's testimony, the purpose of my rebuttal testimony is to explain the significance of FPL's generating efficiency improvements from new, highly-efficient combined cycle plant additions from 2002 through 2014.

Q. Has FPL's fossil fleet heat rate improved from capital investments made in new fuel efficient combined cycle technology from 2002 through 2009?

A. Yes. From 2002 through 2009, FPL will have added new fuel efficient combined cycle technology at its Sanford, Ft. Myers, Manatee, Martin, Turkey Point, and West County plant sites. The new generating capacity additions will have reduced its operated fossil fleet net heat rate (essentially, fuel consumption for electricity generated) by 14% during this period, from approximately 9,200 Btu/kWh to 7,900 Btu/kWh from 2002 through 2009.

Q. Will future capital investments from 2010 through 2014 in new fuel efficient combined cycle technology also produce fossil heat rate improvements?

A. Yes. FPL will continue to invest in new fuel efficient combined cycle technology from 2010 through 2014. The new generating capacity additions are estimated to further reduce fossil fleet net heat rate by 6% during this period, from approximately 7,900 Btu/kWh to 7,400 Btu/kWh. FPL's operated fossil fleet net

heat rate is expected to be approximately 20% more efficient in 2014 than it was in 2002.

COMMENT ON STAFF AUDIT FINDINGS

STAFF AUDIT FINDING NO. 1

Q. Please comment on Staff witness Kathy L. Welch's Audit Finding 1 with respect to "Storage Fees" as stated in her direct testimony.

A. Although called an Audit Finding, this statement is more of a statement of fact. It is true that $810,000 was booked to Account 549 - Miscellaneous Other Power Generation Expense for FPL's prorated share of the storage fee for two combustion turbines (CTs) in 2008. It is equally clear that these storage fees were made for the benefit of, and actually did benefit, FPL's customers.

Q. What is the benefit to FPL customers of paying this CT storage fee?

A. In June 2006, FPL Group had a master agreement with General Electric to purchase two 7FA combustion turbines. This agreement resulted in very favorable pricing to FPL Group which directly benefited FPL's customers. FPL has a large fleet of these combustion turbines, as does its affiliate NextEra. FPL Group purchased two CTs and elected to store them until future sites for them were determined. In the interim, the two CTs have been made available for use as critical spares for FPL and NextEra.

Because having these CT spares benefits both FPL and NextEra, storage fees are prorated between FPL and NextEra, based on the overall number of applicable 7FA turbines in each fleet. The monthly General Electric storage fee of $75,000 is allocated between FPL (60%) and NextEra (40%). FPL expensed $810,000 in 2008 for its prorated share of storage fees from July 2007 thru December 2008.

Q. Have FPL customers received a benefit from the two combustion turbines available as critical spares?

A. Yes. Components from these units have proven beneficial to have as spares. For example, during a 2007 inspection on Martin Unit 8A, FPL identified the need to replace the turbine first stage wheel. Using a rotor from one of the two shared spares reduced the Martin Unit 8A outage duration by 90 days on one of the most fuel efficient units in the FPL fossil fleet. During the 90 days following Martin Unit 8A's return to service in March 2007, the unit generated approximately 480,000 MWH of electricity at a total fuel cost of about $34 million. It is estimated that had the unit not returned to service as quickly as it did, the replacement fuel cost would have been about 20% (or $6.8 million) higher. Thus, from an FPL customer perspective, fuel savings realized on even just this one occasion shows the clear customer benefit of sharing the cost of storing the combustion turbine spares.

Q. What is the impact of the storage fee on the 2010 test year and 2011 subsequent year forecast?

A. For 2010 and 2011, $540,000 is included in each year for FPL's prorated share (60%) of the monthly $75,000 storage fee.

STAFF AUDIT FINDING NO. 5

Q. Please comment on Staff witness Kathy L. Welch's Audit Finding 5 with respect to "Oil Spill Expense" as stated in her direct testimony.

A. Again, FPL views this not so much as an audit finding, but as a statement of fact. FPL agrees that $618,673 was booked to Account 512 - Maintenance of Boiler Plant for oil cleanup at the Martin, Turkey Point fossil and Riviera plants in 2008. The work was contracted out to Southern Waste Services (SWS), an emergency response service provider.

Q. Is this expense contained in FPL's 2010 test year and 2011 subsequent year forecast?

A. No. This was a 2008 expense for unplanned events. There is no such amount contained in FPL's 2010 test year and 2011 subsequent year forecast. Funding is only included for condition based maintenance to prevent this type of event.

Q. Does this conclude your rebuttal testimony?

A. Yes.

CHAIRMAN CARTER: Mr. Anderson.

BY MR. ANDERSON:

Q Thank you. Have you prepared a summary of your direct and rebuttal testimony, Mr. Hardy?

A I have.

Q And you're familiar with the Commissioners' light system?

A Yes, I am.

Q Please provide your summary to the Commission.

CHAIRMAN CARTER: Hang on second. Now, he's doing direct and rebuttal?

MR. ANDERSON: Yes, sir; that's right.

CHAIRMAN CARTER: Chris, that will be six minutes. One second. Do you need a second?

Okay. Then I'll have to time you the old-fashioned way. You may proceed.

THE WITNESS: Good morning, Commissioners. Thank you for the opportunity to testify before you today. My name is George Keith Hardy and I am the Vice-president of Power Generation Operations for FPL's non-nuclear generation fleet.

In the 20-year period ending 2011, FPL's fossil fleet will double in capacity and evolve from conventional steam plants to modern, cleaner and highly-efficient combined cycle units. My direct

testimony addresses FPL's industry-leading fossil fleet performance during this transformation, along with the need for funding to sustain reliable operations for the future.

As my direct testimony exhibits reflect, FPL's fossil fleet performance has excelled in heat rate, availability, reliability and non-fuel O&M costs. Our performance also consistently exceeds industry averages and frequently ranks best in class. This exemplary performance provides customers with superior reliability and cost savings.

Since 1990, FPL's fossil generating efficiency or net heat rate improved 20 percent avoiding significant fuel use and emissions. Fifty percent of this gain has been realized in the past five years providing FPL customers with $500 million in fuel cost savings during 2007 alone.

FPL's non-fuel O&M costs per kW has also improved 40 percent since 1990. As a best-in-class performer, FPL currently operates it's 20,000-megawatt fossil fleet $400 million per year lower than the fossil industry average. FPL's fossil fleet will double by 2011. Notably, this capacity is being managed with half the 1990 workforce. This work force is motivated, highly skilled and committed to doing their jobs

exceptionally well.

As my Exhibit 8 shows, FPL's fossil non-fuel O&M costs will increase. This increase is primarily due to the addition of 4800 megawatts of high-efficiency combined cycle capacity and tripling the number of advanced combustion turbines since the year 2000; however, FPL's fossil non-fuel O&M costs per kW is expected to be in line with CPI and remain best in class.

Capital costs are also increasing. FPL must perform maintenance consistent with its expanding fleet to assure excellent service, reliability and fuel cost savings.

Regarding my rebuttal testimony, I address FPL's expected fossil generating asset lives and FPL's continued efficiency improvements. FPL's expected 25-, 35- and 40-year generating asset lives for our respective advanced combined cycle, large oil-, gas-fired, steam and coal-fired units are based on the underlying engineered design life of the plants and FPL's industry-leading operating experience. This experience includes but is not limited to operating modes, operating environment, and the impact of evolving technology and regulatory uncertainties.

FPL's ongoing plant retirements and

modernizations, with advanced technology, will continue to improve FPL's generating efficiency and provide customers with cost savings and environmental benefits into the future.

Recapping, FPL has provided customers with outstanding service in the area of plant operating performance and cost control for many years. FPL has the leadership, the systems and the processes in place to sustain this performance. This request reflects reasonable and necessary increases consistent with the growth of FPL's generating assets to assure our ability to prudently operate and maintain a reliable system and provide FPL customers with clean, low-cost, fuel-efficient generation. Thank you.

MR. ANDERSON: I just wanted to confirm that the witness's direct and rebuttal are in the record as though read.

CHAIRMAN CARTER: The prefiled testimony of the witness, both direct and rebuttal, is entered into the record as though read.

MR. ANDERSON: Thank you. Mr. Hardy is available for cross-examination.

CHAIRMAN CARTER: Good morning, Mr. McGlothlin.

/ / / / /

CROSS EXAMINATION

BY MR. McGLOTHLIN:

Q Mr. Hardy, you and I spoke prior to the hearing. I'm Joe McGlothlin. I'm with the Office of Public Counsel, and I have some questions that relate primarily to your rebuttal testimony and specifically your testimony that supports the use of a 40-year life for FPL's coal units and 25-year life for its combined cycle units.

Now, FPL Witness Mr. Clarke used the 40-year service life for coal units in his depreciation study. Are you the source of that 40-year service-life assumption?

A The source of that assumption is based upon the engineered design of that plant. What I provided and what Mr. Clarke was looking at was the -- actually the design documents by which that plant was designed.

Q When you say "that plant," which plant do you have in mind?

A Any of our plants, whether it's our coal plants, our oil- and gas-fired unit plants, or in the combined cycles as well.

Q And you're aware that OPC's witness, Mr. Pous, has recommended the use of 60 years for the coal-fired units and that the choice of 40 years as opposed to a

longer period has the effect of -- translates into a higher annual depreciation expense relative to what that level of expense would be if a longer service life were to be chosen, correct?

A Well, I understand, if you change service lives or change the depreciation life, you're obviously going to change the recovery schedule of the asset; yes.

Q With respect to coal units, FPL owns a portion of Scherer Unit 4; does it not?

A It does.

Q And Georgia Power owns portions of the other Scherer units located on the same site?

A Yes.

Q There are a total of four units at Plant Scherer.

A Yes, there are.

Q Were you in the room when FIPUG witness Jeff Pollock testified by way of exhibit and testimony that Georgia Power uses a 55-year service life for its depreciation purposes?

A No, I don't recall that.

Q Well, I'll refer the Commissioners to transcript page 3072 where that question and answer appears, and, Mr. Hardy, I'll ask you to assume --

A I assume it, that's fine.

Q All right. For purposes of my questions.

I'm going to ask Mr. Pouchor to hand out a document at this point, and I'll have some questions --

CHAIRMAN CARTER: Do you need a number or is it already in the record?

MR. McGLOTHLIN: I do need a number.

CHAIRMAN CARTER: You need a number. Commissioners, the next number will be 530, No. 530.

Mr. McGlothlin, short title.

MR. McGLOTHLIN: Plant Scherer Brochure.

CHAIRMAN CARTER: Plant Scherer Brochure. Okay.

(Exhibit No. 530 marked for identification).

CHAIRMAN CARTER: You may proceed, Mr. McGlothlin.

BY MR. McGLOTHLIN:

Q Mr. Hardy, I've provided to you a document that we've called the Plant Scherer Brochure which, according to the information provided, was prepared by the -- several owners of the plants at the Scherer location. Have you seen this document before?

A No, I have not.

Q Well, I have only some limited questions about it, and if you'll turn to the third page of the brochure itself and the caption at the top of the page is, "About

the Plant."

A The third page excluding the cover?

Q Yes.

A Okay.

Q And the first paragraph of that section of the brochure provides some basic and general information. It says, "Unit 1, the first of four self-contained 880,000 kilowatt units began commercial operation in March, 1982. Units 2, 3 and 4 followed in February of 1984, January, 1987 and March, 1989 respectively. Georgia Power, a Southern Company, operates the entire facility under contract with the joint owners."

Now, in your capacity as Vice-president of Power Generation, are you able to confirm that this general information is accurate with respect to its description of the Scherer site?

A Yes, it appears to be.

Q Now, during the course of the case -- well, just to summarize, with respect to the four units at Plant Scherer, they are the same size, 888 megawatts each. They were all built in the 1980s. Is it true that they were all built by Georgia Power Corporation?

A Yeah, they were the contracting entity, yes.

Q Now, have you visited Plant Scherer?

A I have.

Q So you're familiar with the layout, the configuration of the site?

A In general terms, yes. I haven't spent a lot of time there, but yes.

MR. McGLOTHLIN: I have another exhibit to pass out at this point.

CHAIRMAN CARTER: Do you need a number?

MR. McGLOTHLIN: I do.

CHAIRMAN CARTER: No. 531 Commissioners, No. 531. Short title, Mr. McGlothlin.

MR. McGLOTHLIN: Aerial View of Robert Scherer Power Plant.

CHAIRMAN CARTER: Okay. Aerial View of Plant Scherer, how about that?

MR. McGLOTHLIN: That's even better.

(Exhibit No. 531 marked for identification.)

CHAIRMAN CARTER: You may proceed.

BY MR. McGLOTHLIN:

Q Mr. Hardy, we've provided -- let me, if I may, take just a moment. We also have an easel-size version of this photograph that I'd like to use.

CHAIRMAN CARTER: You want to use the easel?

MR. McGLOTHLIN: I'd like to be able to refer to it. I don't think I need a pointer and mike or anything like that.

CHAIRMAN CARTER: Okay. Mr. Poucher's going to put it up for you. That will be fine.

BY MR. McGLOTHLIN:

Q Mr. Hardy, we provided you with an aerial photograph that we located on the -- with the Wikipedia site. Do you recognize this to be a photograph of the Plant Scherer?

A Yes.

Q And so does it accurately depict the configuration of the major facilities of Plant Scherer?

A I'm not sure exactly when this was taken, but there's been a lot of modifications because of added environmental equipment in recent years, so I'm not sure that I can see the back side of this plant, but in general terms, yeah, it appears to represent it.

Q And general terms would be adequate for purposes of our conversation.

A Okay.

Q In the middle of that complex there is a generally rectangularly-shaped, buff-colored building. Is that the powerhouse as it's described?

A Yes, it is.

Q And is it true that, within the powerhouse are the boilers and turbines for all of the four power plants at Scherer?

A Yes.

Q Now, during the case we've heard witnesses mention certain factors that they contend might account for differences in the service lives that one utility could attribute to its plant versus a different assumption that another utility would attribute to its own plant. One that I remember is that service lives may differ with different geographical location.

Now, would it be reasonable for us to expect that FPL's ownership portion of Scherer 4 probably shares the same mailing address as the other units at Plant Scherer?

A Yes.

Q So we can discount geographical location as any factor that would account for a difference in service lives, can we not?

A We can.

Q And another factor that's been mentioned as potentially justifying different service life assumptions is differences in climate. Now, can we reasonably assume that the climate at one end of the powerhouse is probably the same as the climate at the other powerhouse?

A Yes, we can.

Q So we can discount climatological differences

as any factors that would account for the difference in service lives, can't we?

A Yes.

Q In terms of the vintage of the units, is it true that all four were built in the 1980s?

A Yes.

Q And is it true that they share the same design and also have the same megawatt capacity, 880 megawatts each?

A Yes.

Q All built by the same entity, Georgia Power Corporation?

A Yes.

Q Now, another factor mentioned is differences in the manner different utilities may operate and maintain their units. Referring back to the brochure and the statement that you and I looked at at page 3, do I understand correctly that Georgia Power operates all four of the units?

A Yes, they do.

Q So could we assume reasonably that the manner and mode of operation of Scherer 4 is very similar to the manner and mode of operation of Scherer Units 1, 2 and 3?

A Yes.

Q Now, do I understand correctly that, if Georgia Power operates all four units, Georgia Power also maintains all four units?

A Yes, they do.

Q Now, may we assume reasonably that the maintenance practices that it employs on behalf of FPL at Scherer 4 are as good as it employs for its own ownership elsewhere on the Scherer plant?

A Yes.

Q So we can discount any differences in maintenance routines as a justification factor in terms of explaining the difference in service lives, can't we?

A Yes.

Q Does Georgia Power or perhaps its affiliate, The Southern Company Services, procure and deliver fuel to Scherer 4?

A Yes, they do.

Q So the same entity procures fuel for all four plants at Plant Scherer.

Now, is it true that Scherer 4, which is the Scherer unit of which FPL owns a portion, shares some facilities at the plant site in common with the other Scherer units?

A That is correct.

Q And, for instance, if we can again focus on

the aerial photograph, while you've testified that there are four units, the photograph shows only two stacks; is that correct?

A Yes.

Q So is it true that FPL's ownership interest in Scherer 4 shares a stack with one of the other Scherer units?

A Yes.

Q And FPL uses a 40-year service life assumption for that stack while Georgia Power uses a 55-year life for the same stack, correct?

A I don't know what they use for that stack.

Q Okay. Is it true the four Scherer units share certain facilities in the switch yard in common?

A Yes.

Q Is it true that the four units at Plant Scherer share the same ash retention pond?

A Yes.

CHAIRMAN CARTER: Do you need some water, Mr. Hardy?

THE WITNESS: No. I apologize. I woke up this morning with something in my throat. So I apologize. I'm fine.

CHAIRMAN CARTER: Okay. Mr. McGlothlin, you may proceed.

BY MR. McGLOTHLIN:

Q Do you need a moment, sir?

A No, I'm fine. Thank you.

Q Now, you said earlier that Georgia Power operates and maintains all four units including Scherer 4, and that either Georgia Power or its affiliate provides the fuel for all four and maintains all four. In light of that, please refer to page 6 of your rebuttal. At the bottom of page 6 you described some slag buildup problems that Scherer 4 encountered when it began burning western coal. Do you see that question and answer?

A Yes, I do.

Q Now, is it true that more units than simply Scherer 4 at this Plant Scherer site have been burning western coal?

A I can't answer that. I'm not familiar with what the other sites were burning.

Q Well, at the bottom of page 22 you say, "Since then, FPL has found ways to manage the slag problem resulting in an increased 40-year economic recovery period." In view of the testimony that Georgia Power operates, maintains and fuels those units under contract to FPL, was it FPL or Georgia Power or its affiliates that managed and addressed the slag buildup problem?

A Georgia Power addressed with us the slagging problem. How it affected the depreciation lives, as we stated here, is our decision and not Georgia Power's, but the issue that you're referring to here was a slagging problem that occurred that we've overcome, and we've since reset the depreciation schedules accordingly.

Q You say Georgia Power addressed it with FPL. Whose employees were on the site managing that problem?

A Georgia Power is there managing the problem.

What we were looking at is the effects of the slagging and how it affected the equipment that -- it was primarily the boilers.

Q So it was FPL's decision to up the service life to 40 years, but it was Georgia Power that addressed how to manage the slag buildup problem?

A It was a coal issue that we since have changed some of the coal constituents that would eliminate some of the slagging issues. And the original life, design life of that plant is 40 years. There were adverse effects that were taking place because of the slagging, therefore we reduced the asset life to 30. We resolved those issues and reset it back to its original design life.

Q Yes. I understand that FPL would make the

decision with respect to the 30-year versus the 40-year. What I'll seek clarification of is, when you say we addressed the constituents of the coal, was that Georgia Power acting on FPL's behalf?

A It's FPL and Georgia Power working together to understand what the problem is, how to resolve it and what's the best way to go about it in the timeframes. So they don't operate and maintain that without -- you know, in a vacuum. We're involved with the issues that occur at that facility, this being one of them.

Q Okay. At page 7, line 15, you say, "Mr. Clarke, your depreciation witness, visited several FPL fossil plants that operate and maintain both combined cycle and steam boiler technologies." Did Mr. Clarke visit the Scherer 4 unit?

A No, he did not.

Q Did he visit the St. Johns Power Park, the other coal unit?

A I don't believe he did.

Q I'll refer you now to page 8 at line 8. You refer to the Ventyx Energy Velocity Database that contains data for retired units of at least 150 megawatts, do you not?

A 150 megawatts or greater, yes.

Q Yes. And that data consists only of units

that have been retired, correct?

A That is correct.

Q So any units that are active and that have either reached or are expected to reach longer service life durations would not be captured in that database?

A Yes. This particular information was the life or the age of a unit when it was retired, that is correct.

Q I'll change subjects now and ask you several questions about the combined cycle units.

A Okay.

Q In your rebuttal testimony you describe how the combustion turbines that are incorporated in the combined cycle mode have seen increased slagging, is that correct?

A That's correct.

Q Now, first a question for clarification. To my layman's mind, cycling can have more than one meaning. It could mean load-following as the output varies to meet changing demands, or it could mean start-stop. In what sense are you using the term?

A Start-stop.

Q And in your rebuttal testimony you say that the increased number of starts and stops has developed over the past six years, is that correct?

A What we identified in my rebuttal testimony was an increase -- I don't know exactly where it is, but it was in a specific timeframe. I think it was 2003 to maybe 2007 or '8.

Q Okay. Now, again, in terms of a layman's understanding, I remember reading that, at least at a period of time, combined cycle was regarded as an intermediate generation technology as opposed to either baseload or peaking. Is that no longer the case?

A That was never the case. I think you're referring to a gas turbine that was applied in a manner in which it was not -- did not have a heat recovery steam generator on the back end of it. Many years ago, before the advances in technology in the last 15 years, these units were just for peaking. They were stand-alone gas turbines and they were intended for peak shaving. Because of increases -- because of technology and what has happened in our ability to fire gas turbines a lot harder than what they had been in the past, that technology has been applied primarily today in a combined cycle type of configuration, which is significantly different than what you're referring to as a peak shaving.

Q The most recent units constructed and those planned by FPL are configured to have three combustion

turbines and a single large steam generator, correct?

A That's correct.

Q That's called a 3 on 1 application?

A Yes.

Q And in terms of size, those are approximately 1200 megawatts each, are they not?

A They are.

Q And within the industry, that is a very large combined cycle unit; is it not?

A I wouldn't -- I'm not -- I haven't seen the data as to what's typically built in the industry. That is what FPL builds. We've built 4 on 1s in the state of Florida now for a number of years.

Q Well, for -- to provide a frame of reference, 1200 megawatts is larger than some nuclear units and as large as others; is that correct?

A That is correct.

Q So clearly one would expect that units of that size to be designed and intended for baseload application. Am I correct in that?

A No, not necessarily.

Q With respect to the heat rate that can be achieved with that design, is it fair to say that the heat rate is 7,000 or less Btus per kilowatt hour?

A Yes.

Q And in terms of where that would place such a unit in the order of dispatch in terms of economic dispatch, isn't that among the best available to the company?

A Yes.

Q So, in terms of the hierarchy of generators and the practice of sending out the most economical unit available to meet the load, one would expect that to be very low in the ascending order of things; am I correct?

A Yes.

Q And the lower in the dispatch order, the more likely that a unit would be expected to operate in a baseload manner, is that correct?

A That is correct.

Q Now, if the current load on the system is insufficient to enable the company to operate those large combined cycle units continuously, wouldn't one expect the system to grow into that capability as the utility adds customers and that those customers use more energy and that portion of the load that is continuous baseload would grow over time? Would one expect the utility to, over time, see less cycling and more continuous operation of those units?

A I think you need to restate that. I think there were several questions in there. Why don't we try

to break them up a little bit.

Q I'll do that.

I believe your testimony is that currently those combined cycle units have seen increased starts and stops, that form of cycling.

A Yes.

Q And that is because the amount of continuous baseload on the system is insufficient to justify operating them continuously without those starts and stops.

A No. The reason that the cycling is increasing is -- there's a couple of things that are impacting that. First and foremost is the economy in Florida. We've seen, as I think has been testified here on several occasions, the economy in Florida has resulted in a reduction of load. That is one aspect of why we are cycling the units more. But to your point, we're running them more but we also have the ability to shape our generation very closely with the load with the combined cycle units, and that's one of the ways that we lower the fuel costs to the customer is shaping that load and making sure that we're operating the most efficient combined cycles that we have.

The other thing that is unique about FPL's load is that it's largely residential, and what that

does is, for our particular load profile during a given day, we have very high peaks and we have very low valleys. So we will bring units on during the day and we will bring them off at night, again, for the purposes of shaping our generation to the load, making sure that we're operating not only the most efficient units, but operating them at their most efficient points.

So it's a combination of the current economy here in the state of Florida, but FPL has always had a fairly unique load profile because of the makeup of its load, which is largely residential. As you can imagine, from 1:00 a.m. until 5:00 o'clock in the morning, being largely residential, there's not a lot of load out there.

Q I received the impression when reading your rebuttal testimony that you were describing a level of cycling that was unexpected to the company. Is that correct?

A No, it's not unexpected. It's -- as you can see, as we've brought more combined cycles into service, as you have indicated, they are the most efficient units that we have, so they're the first ones that we operate, and -- but even so, as we get a larger and larger base of combined cycle technology, you still are going to remove those units from service at night and -- to shape

the load or to shape the generation to the load, and it's also dependent on the time of the year as well. So it's not unexpected, but it is in fact what we do.

Q If the economy recovers and if over the next several years FPL experiences a growth in sales and a growth in customers, would that have the effect of increasing the company's baseload level such that there will be fewer starts and stops that currently are being experienced?

A No, I don't believe so. I think that, if you go back and you look at the load profile prior to the economic downturn in the state, still you have the same profile that you have. Especially in the shoulder months, this time of the year when air-conditioners aren't running that much, we have very, very low valleys. And so, yes, we are going to continue to cycle these units, and it's not unexpected and we will continue to do that. It's the most cost-effective thing for the customer.

Q Now, in your testimony, I think both in your direct and rebuttal, you describe the increased maintenance that the company incurs or in which it engages as a result of this cycling, among other things; do you not?

A You say I referred to this in my testimony?

Q You described the additional maintenance that is necessary to perform in light of the additional cycling, do you not?

A Are you referring to something in my testimony?

Q Yes.

A That would be helpful.

Q Okay. Well, it will take me a moment to find it.

Well, let me just ask the question: Does the cycling result in additional maintenance requirements for the combustion turbines?

A If you look at combustion turbines, the maintenance of a combustion turbine is based on operating hours and the number of cycles. So, yes, they -- the number of cycles that you make on a gas turbine affects its overall life and the maintenance, and it changes maintenance intervals for that particular piece of equipment. I wouldn't say that it necessarily changes or adds maintenance. It's just you're on a different maintenance curve.

Q Because the maintenance is a function of both running hours and the number of cycles, if the number of cycles increases, that would have the effect of reducing the interval between maintenance outages; would it not?

A It depends on the number of cycles and the type of cycles. Not all cycles are the same on a gas turbine.

Q All right. But in any event, during a maintenance outage, the decision of management is whether to incur the cost of refurbishing or replacing parts and returning to service or not, correct?

A Yes, we always make the decision as to how to repair and how to return a unit back to service.

Q Now, the most recent 3 on 1 combined cycle units that the company's built have ranged in cost from $600 million to more than $800 million; correct?

A That -- yes.

Q So, in terms of the decision to repair or not to repair, it would be easy to justify economically a decision to replace combustors or do those other things that are necessary to return an $800-million unit to service for the customers; correct?

A We always make the -- an evaluation as to what to do and how to repair these particular pieces of equipment, and it's not limited to the new units. I think you're referring to West County. We make those decisions every day on all the equipment that we maintain.

Q And you have incurred such maintenance outages

with combined cycle units already in terms of its recent operating history, have you not?

A Which units are you referring to?

Q I'm referring to combined cycle units in general.

A Have we incurred maintenance?

Q Yes.

A Oh, yes, we've incurred maintenance.

Q In your rebuttal testimony you describe how the combined cycle units are moving away from baseload operations, but at page 21 of your direct testimony -- I'm sorry, page 23, beginning at lines 21 on page 23, you refer to the CTs or combustion turbines and how they are configured in combine cycle mode, and at line 23 you say, "Since these CTs run in baseload and combined cycle configuration with at least 30 percent lower heat rate," et cetera -- and I'm more focused on the beginning part of the sentence. Has the nature of the operation of combined cycle units changed from baseload to something other than baseload between the time you filed your direct testimony and the time you filed your rebuttal testimony?

A No, it has not. I think it's important to understand that the way that a unit is operated is dependent on the time of the year. FPL is traditionally

a -- their highest load periods are in the summer. You will operate these particular units in a baseload configuration during that time period.

During what we call the shoulder months, which is in the spring and the fall, when load is not as high, we will start cycling those units. And, again, we will -- there's opportunities for us to cycle units even during the summertime at low loads, at night. We do that quite often if it is the most cost-effective thing to do to reduce fuel consumption.

Q Mr. Hardy, in your rebuttal testimony you provided some information about fossil plant cycling, and then you say, of that, some 60 percent is attributable to the CTs or combined cycle units. You did not provide us any information about the number of starts and stops per CT. Do you have that available to you? What do you think would be representative in today's --

A I don't have the individual breakdown by CT. I just have it at a fleet level. I'll give you an example: This year we're projecting that we will cycle our CTs in Florida 4900 times.

Q How many CTs do you have?

A Thirty-two at the moment. With -- plus West County, we have about 35, I believe.

Q Well, as a rough approximation, I'll ask you to do the math. What does that work out to in terms of an average number of starts?

A One thing I've learned, I don't do math on the stand. You're welcome to try.

Q No. I learned that before you did.

Would a ballpark of around 150 sound about right?

A I trust your math.

Q And that is an approximation only.

A Yes.

MR. McGLOTHLIN: I have one more exhibit to pass out.

CHAIRMAN CARTER: Okay. Do you need a number? That will be 532, Commissioners, 532 for your records. A short title?

MR. McGLOTHLIN: Excerpt G.E. Gas Turbine Maintenance Manual.

CHAIRMAN CARTER: Excerpt Gas Turbine Maintenance --

MR. McGLOTHLIN: Manual.

CHAIRMAN CARTER: -- Manual. Okay. We need to put G.E. then. I'll wait until I get my copy and I'll use that title. Yes, sir.

MR. McGLOTHLIN: Actually, I've just

remembered something. This is contained in a staff composite exhibit. I don't think we need to make a separate exhibit number out of it.

CHAIRMAN CARTER: Okay.

MR. McGLOTHLIN: But I would like to distribute it and ask a couple of questions on it.

CHAIRMAN CARTER: Okay. So you'll use it for cross-examination. So, Commissioners, we'll save No. 532 for another exhibit. We'll just save that. So nothing there for right now.

You may proceed.

BY MR. McGLOTHLIN:

Q Mr. Hardy, we've distributed an excerpt --

CHAIRMAN CARTER: Is your mike on?

BY MR. McGLOTHLIN:

Q Thank you.

Mr. Hardy, we've distributed an excerpt from a larger document. Do you recognize this as the -- a portion of the G.E. guidelines for maintaining its combustion turbines?

A Yes, I do.

Q Now, is it true that, with respect to maintenance criteria, G.E. distinguishes between or recommends that its customers distinguish between those CTs that are in continuous operation on the one hand and

those that are not?

A Are you referring to a specific area here?

Q Yes, I'm looking at page 5.

A Right. Well --

Q And the paragraph that says, "This is further illustrated."

A Oh, okay.

Q And I'll also refer you to the very first paragraph at the top of that second page of the two-page excerpt, and as a preface to my question, I'll read it. "In the G.E. approach to maintenance planning, a gas fuel unit operating continuous duty with no water or steam injection is established as the baseline condition which sets the maximum recommended maintenance intervals. For operation that differs from the baseline, maintenance factors are established that determine the increased level of maintenance as required." And then in the paragraph that begins, "This is further illustrated in Figure 8 for the example of a gas turbine operating on gas fuel at baseload conditions, the unit operates 4,000 hours and 300 starts per year."

My question to you simply is: If your CTs in combined cycle operation are experiencing something like 150 starts or thereabouts per year, would that fall

within the category, in G.E.'s parlance, of a continuous duty operation that warrants the maximum maintenance interval?

A I think it -- well, it falls within what is described on this document, but I would also say that, if you read the top of this, these are maintenance considerations.

FPL pioneered this technology in 1994. We have more operating experience with this technology than anyone else in the world actually. Although these are considerations and these are guidelines, I can tell you that this technology is not mature enough to where you can just say that you can operate this piece of equipment per these intervals and use these as a strict guideline.

I can cite -- if you were to give the entire document here, there's many references to maintenance intervals on this particular technology, and without question, G.E. and FPL and others strive to make these intervals, but I will also tell you that this technology is not mature enough to make these intervals. That is why FPL in my testimony -- and we believe this -- not just believe it, but we have experienced it over the last 15 years of operating this particular technology. We understand the issues that they have. We understand

that many of the components in here haven't necessarily met their design life.

The other thing to remember here is this is the best that they say that you can get. Anything that you do or anything that they may have missed in their design is a debit to what you read on this page. Most importantly, one of the debits that is not highlighted here -- and I think it's important. I understand what this document says, but more importantly is what it doesn't say, and that there are several issues that G.E. and a lot of the other manufacturers deal with, and we work very closely with them. One of the most significant issues that we are working with them on right now is just the proximity of our fleet and the fleet in the Gulf coast to chloride contamination due to the proximity to the ocean and the Gulf. That has -- in fact, we work and have been working for many years now with G.E. with many of the people that authored this paper to help them and to help us understand what we can do to extend the life of this equipment. You will be seeing documents that will come out from various -- from G.E. probably within the next year that's addressing this issue, and a lot of the information that will be contained in that document is a result of working closely with FPL. In trying to resolve some of these

issues, we use some of our fleet to help them understand what's going on, and it also helps us. It's one of the reasons that FPL has been able to operate this fleet more effectively and efficiently and at a lower cost that anyone else in the U.S.

Q I appreciate your answer, and I want to make it clear that by my question I'm not challenging or disputing FPL's maintenance practices. I have a more limited purpose for the question. You've described a level of cycling in your testimony, both in your prefiled and today, and in order to give that some context for those of us who don't work on these things day in and day out, I think it's useful to relate that to the criteria that the manufacturer establishes in terms of what it regards as representative of continuous operation and that which is greater than that. And you agree with me, would you not, that the level of cycling, at least on an average basis, approximately 130, 150 starts a year, falls well under that level which G.E. describes as continuous operation?

A I would agree that that's what this document states, but I would not agree that this document is complete. I would not agree that this document takes into consideration other factors that they didn't know about when they wrote this document, and that, again, I

would refer to the heading of this. These are considerations. It is the responsibility of the owner to understand its equipment, to understand the environment that it works in, and to manage these assets based upon their operating experience but using this document in their considerations just as the heading said.

CHAIRMAN CARTER: Mr. McGlothlin, one second, please. Commissioner Skop.

COMMISSIONER SKOP: Thank you. Good morning Mr. Hardy. Just a quick followup question to Mr. McGlothlin. You keep referring to other considerations that may affect the operating and maintenance considerations identified in the document that we're currently looking at.

With respect to the G.E. 7FA turbine, are part of the considerations you're referring to the first-stage wheel dovetail cracking problems, or does that factor into any of that, because I guess, if my understanding or memory is correct, didn't that result in increased inspections and lowered life expectancies?

THE WITNESS: You have a very good memory. Yes, that is exactly correct. There were a number of first-stage wheel cracks based upon a -- some of the early designs of the G.E. 7FAs. I don't remember the

exact number. We had some of those in our fleet, but we were very fortunate in that, when we -- because we pioneered a lot of this technology, we had the ability to leverage our commercial terms, quite honestly, and all of those wheels were replaced under warranty.

COMMISSIONER SKOP: All right. Thank you.

THE WITNESS: But you're right, yes. That's just one consideration, and, again, that's not contained in this document.

CHAIRMAN CARTER: Commissioners, anything further from the bench at this time?

Okay. Mr. McGlothlin, you may proceed.

MR. McGLOTHLIN: That's all I had, and I would like to note also that, while I used only this excerpt to save paper, the complete document is part of the staff's composite exhibit.

CHAIRMAN CARTER: Thank you, Mr. McGlothlin.

Good morning, Ms. Bradley.

MS. BRADLEY: Good morning. No questions.

CHAIRMAN CARTER: Thank you. Mr. Moyle, good morning.

MR. MOYLE: Thank you. Good morning, Mr. Chairman. I have a few questions for Mr. Hardy.

/ / / / /

/ / / / /

CROSS EXAMINATION

BY MR. MOYLE:

Q Good morning.

A Good morning.

Q I wanted to ask you some questions about both your direct and rebuttal, but I wanted to follow up on a point you were making with Mr. McGlothlin that left me a little unclear, and I think you were talking about the 130 versus 150 starts. You buy the equipment from G.E., correct?

A Yes, we do.

Q And G.E. is the manufacturer of the equipment?

A Yes, they are.

Q Okay. And they have reams and reams of engineers that are involved in the design, manufacture and production of the equipment; is that right?

A Yes, they do.

Q Okay. And do you typically enter into maintenance agreements with G.E. where they come in and inspect and are involved in the maintenance of the units?

A No, we do not.

Q Do you enter into agreements with G.E. where they supply parts, replacement parts?

A Yes, they supply parts.

Q Tell me about those type of agreements if you would.

A It's a parts agreement. It's a contract that we have with G.E. which is not unlike contracts that we would have with other suppliers. This equipment is extremely unique. There's not many third parties that you could go to to procure this equipment. And so you -- what we have is a parts agreement, a parts contract with them that -- where we can purchase parts and also refurbish parts.

Q Do you pay them so much per year for that agreement or do you pay them based on kind of the parts that you need?

A We have an agreement that lays out the parts, what we call wear parts that are consumed in the unit, and we have pricing associated with that.

Q Do you find that this arrangement works well for the maintenance of your fleet?

A Yes.

Q Okay. Given the role that G.E. plays in the manufacture and production and design of these units and the role that the company plays in operating the units and maintaining them, wouldn't you -- if there was a discrepancy or a disagreement, wouldn't you follow the manufacturer's recommended maintenance process or

schedule as compared to not?

A We always try to follow their maintenance practices.

Q And the document that Mr. McGlothlin was talking about, it was -- you know, as I understood it, it was so many starts would then constitute one type of a treatment; is that right?

A That's correct.

Q And G.E.'s not wrong in that, are they?

A G.E. is optimistic.

Q But they're not wrong.

A It depends on the piece of equipment that you're talking about, and it's the -- as Mr. Skop just indicated, there are certain things that have occurred with some -- with these equipment, pieces of equipment that would render that document inaccurate.

Q Yes, sir. And to use an analogy, I'm more familiar with say a car.

A Yes.

Q You know, you get a manual from Ford about how often you need to maintain your vehicle, and typically the best practice is to follow that; correct?

A Yes.

Q Okay. And to the extent that something unexpected happens, analogous to the problem that

Mr. Skop detailed, well, you have to deal with the unexpected issue that came up, but it doesn't negate the manufacturer's guidelines for maintenance; does it?

A No, and I want to clarify: We are not negating the maintenance practices that G.E. is recommending. We are doing more than what G.E. is recommending because of some of the issues that we have that are unique to FPL's system.

Q And indeed, if you weren't maintaining it consistent with G.E.'s recommended maintenance processes, including the document that Mr. McGlothlin shared with you and referenced, do you know, would that have an impact on the warranty?

A In all of the commercial agreements with G.E. and other manufacturers, you have to use prudent maintenance practices. That is correct.

Q So -- and prudent maintenance practices would include following the maintenance recommendations and schedules laid out by the manufacturer, correct?

A As a minimum.

Q You said "at a minimum"?

A Yes.

Q Do you know how long the warranties for the equipment typically are from G.E.?

A It depends on what you can negotiate.

Q What's the maximum length you've negotiated?

A I don't believe -- that's confidential information. I'm not sure that I can release that information.

Q Well, I'd like to know it, if you can write it on piece of paper maybe.

A I would also say, if I can, that it varies over time. Like anything, being a provision in a commercial agreement, depending on the market and your ability to negotiate and the leverage that you have dictates some of those terms. So obviously, when the markets are robust for the suppliers, your ability to negotiate a longer-term warranty and increase their risk profile is greatly diminished. So, when you look over the fleet of gas turbines that we have, regardless of the manufacturers, you'll see a variety of warranties and different commercial terms depending on the particular situation when we had to procure the equipment.

Q Yes, sir. And I don't want to get into your business, and I understand in terms of different length of times could be negotiated.

A Uh-huh. I may also state, if I may, that being complex pieces of equipment like this, you may negotiate individual warranties on specific components.

It's not just getting a blanket warranty. So it's a very complex document in many ways.

Q Would you consider it confidential to just tell me the longest warranty period that you've been able to negotiate?

MR. ANDERSON: Chairman Carter.

CHAIRMAN CARTER: Mr. Anderson.

MR. ANDERSON: At this time FPL would like to object to this line of questioning which we've gone on for quite a line now as irrelevant to any issue in this proceeding. The way it started was the questions about maintenance practices and pointing out that doing less than the minimum requirements might void the warranty. What the witness clearly testified to is that we far exceed, we do a lot more than that, and that provides no point of departure for getting into the details of the warranties of these various machines. That is not a subject of the witness' testimony. There is -- you know, we'll be here truly all day on truly immaterial, irrelevant minutia if we don't move on.

CHAIRMAN CARTER: To the objection, Mr. Moyle.

MR. MOYLE: I'm rarely accused of delving into minutia, and I'm not endeavoring to do it at this point in time, but clearly it's relevant to an issue in the case which is this witness is testifying about expected

lives for each key type of technology. So, to the extent that warranties by manufacturers are being provided for equipment that is longer than the warranties -- I mean, I'm sorry -- than the expected lives, clearly that would be relevant, and he says that there's 25 years for advanced combined cycle units. You know, if the warranties are for 30 years, then I think that undermines, you know, the testimony with respect to a 25-year life expectancy if the manufacturer is willing to stand behind it for a longer period of time.

CHAIRMAN CARTER: Mr. Teitzman.

MR. TEITZMAN: I would agree with Mr. Moyle. It appears to be relevant testimony.

CHAIRMAN CARTER: Okay. Tread lightly, Mr. Moyle. You may proceed.

BY MR. MOYLE:

Q Sir, with respect to advanced combined cycle units, has any manufacturer provided you a contractual representation with respect to maintenance, replacement, warranty, service on combined cycle units that are greater than 25 years?

A A warranty greater than 25 years?

Q A warranty, a maintenance agreement, a parts agreement, any type of agreement that contemplates a timeframe greater than 25 years.

A The suppliers of this equipment do not warrant their equipment for the entire life, expected design life of the equipment.

Q What's the expected design life for the equipment, of a combined cycle unit, say a G.E. F7?

A Depending on how you operate it, between 20 and 25 years is the expected -- what they advertise in their literature.

Q And with respect to contracts that they sign, the parts agreements, things like that -- you answered my question with respect to warranties. Like, if you buy a car, you know, typically the warranty is three years or five years; correct?

A Yes.

Q Oftentimes you drive cars longer than three or five years, correct?

A Yes.

Q And with respect to these units that you have these commercial relationships with, don't they have contractual arrangements with you with respect to parts replacements or things like that that extend beyond 25 years or that contemplate the unit operating beyond 25 years?

A No.

Q They do not?

A They do not. We buy parts from G.E. that are what we call wear parts. They are blades and vanes. They last hours, anywhere from 24,000 to 48,000 hours. We have warranties associated with those parts, but they don't extend the entire length of their expected life.

Q And when you say "hours," I mean, 24,000 hours, how many years is that? Is that a year, do you know?

A How many years? It depends on how many hours a year you run it, but on average it's about three years.

Q All right. So you would agree with me that the best operating practice with respect to maintaining these units, these combined cycle units is you buy them from the manufacturer, then you enter into a replacement parts agreement; is that right?

A No, I wouldn't characterize that as the best maintenance approach.

Q I'm sorry, not -- I used the wrong word, not maintenance, but in terms of maintaining and getting parts and keeping the units up and operational, is that right?

A It's been the approach that FPL has used to date, yes.

Q I see in your rebuttal testimony that it

appears that you purchased two combined cycle units that in effect -- my reading is that were really not needed, and what you ended up doing with them was, you know, storing them and charging ratepayers to store them, and then basically using those two brand-new units for parts; is that correct?

MR. ANDERSON: Object, it's a mischaracterization of the testimony. He said "you" and those units were bought by FPL Group.

CHAIRMAN CARTER: Mr. Moyle, rephrase.

BY MR. MOYLE:

Q Okay. With that clarification that "you" means FPL Group, was my characterization largely on point?

A Let me -- if I can, FPL Group bought two CTs. They were placed in storage, and yes, we have used them on occasions for parts.

CHAIRMAN CARTER: Hang on a second, Mr. Moyle.

Commissioner Skop.

COMMISSIONER SKOP: Thank you, Mr. Chair. I guess, since we're on this point, this was the point I wanted to get on to just briefly, so I'll do it here, Mr. Moyle, with you.

MR. MOYLE: That's fine.

COMMISSIONER SKOP: On page 11 of your

rebuttal testimony, in relation to Staff Audit Finding No. 1, it speaks to that storage charge which was booked to -- I guess $810,000 booked to Account 549. Do you see that?

THE WITNESS: Yes.

COMMISSIONER SKOP: Okay. And that was the storage fee for two G.E. 7FA combustion turbines for 2008, is that correct?

THE WITNESS: That amount was a retroactive payment, but yes, you are correct.

COMMISSIONER SKOP: Okay. Are there any other accounts that deal with having those two complete entire combustion turbines in spares?

THE WITNESS: In FPL, no.

COMMISSIONER SKOP: Okay. On line 15 of your rebuttal, of that same page of you rebuttal testimony, you discuss, in June, 2006, FPL Group had a master agreement with G.E. to purchase the two 7FA combustion turbines. Do you see that?

THE WITNESS: Yes.

COMMISSIONER SKOP: Were those two turbines part of any need determination approved by this Commission?

THE WITNESS: No, they were not. They were for an affiliate.

COMMISSIONER SKOP: So typically, when there is a need determination and they come for a proposed project, it will be the capital cost of the equipment which, you know, for a combustion turbine is pretty high, plus any spares or rotating-pool type warranties; is that correct?

THE WITNESS: Yes.

COMMISSIONER SKOP: Okay. All right. But that was not done here. This was a master agreement between FPL Group and G.E. Power Systems, is that correct?

THE WITNESS: That is correct. There was an agreement that had been in place for years that, if we opted to go purchase a G.E., it provided the framework from which we could purchase that, and it was done at an affiliate level and it ended up at a group level, but it was never done for FPL.

COMMISSIONER SKOP: Okay. Let me get to that point because again, on line 15, you state in June, 2006 that FPL Group had the master agreement. Was that a new agreement or was that agreement either an extension to the April, 2000 agreement that FPL Group and G.E. announced for the purchase of 66 7FA combustion turbines?

THE WITNESS: I do not believe it was in the

66. In fact, I am pretty certain that it was not.

COMMISSIONER SKOP: So this is a separate --

THE WITNESS: This was a separate agreement, but I -- they may have referred to it in many ways to accelerate some of the negotiations. You may refer to previous agreements and then edit them, but I'm not exactly sure, but I would say no.

COMMISSIONER SKOP: Okay. So do you know if these two 7FA combustion turbines -- were these leftover turbines or deferrals from some contract that -- or were these turbines originally slated for your unregulated affiliate?

THE WITNESS: They were originally slated for the unregulated affiliate. There was a project that did not go forward.

COMMISSIONER SKOP: Okay. So, as a result of those turbines being originally slated for an unregulated project -- and there may be some benefit for having those because, again, you have a large fleet on both sides, but this gets into one of those tenuous questions to the extent that, on page 12 of your rebuttal testimony, that storage fee for these two complete turbines is allocated in an amount on line 4 between 60 percent to Florida Power & Light ratepayers and only 40 percent to your affiliate or to your

unregulated affiliate.

THE WITNESS: Yes.

COMMISSIONER SKOP: So that seems to be somewhat -- although there may be common benefit, again, that same burdening rate seems to apply, and I think that's the underlying tension here with respect to the disposition of those turbines.

My second question goes on page 12 of your rebuttal testimony, lines 6 through 19, where you generally explain the benefit that those two complete turbines provide as it pertains to the benefit that may be received by FPL ratepayers, and on line 10 you talk about the replacement of the turbine first-stage wheel.

THE WITNESS: Yes.

COMMISSIONER SKOP: Is that related or was that related on the Martin unit to the dovetail cracking on that wheel?

THE WITNESS: Yes, it was.

COMMISSIONER SKOP: Okay. But you previously stated in my question that FPL had resolved all those issues via a warranty by leveraging its large account with G.E. So, if that would have been covered under warranty, then why was it necessary to use the spare, or did G.E. ultimately replace that entire rotor assembly on your turbine that's in storage?

THE WITNESS: Yes, the reason that that particular rotor was used, was -- let me back up to the issue of the wheel crack itself. The wheel crack itself, we have had a number of units that were at high risk. This particular one -- and it was -- it's a particular revision of that particular wheel that was a high-risk wheel that we had. We had been monitoring it for quite some time. We did discover that there was a crack in it. When you had a crack in it, at that point your opportunity to repair becomes quite extensive and quite expensive, especially if you're going to G.E. and say you want to replace it on an accelerated basis, you're at their mercy. So although the wheel was under warranty, they were under no obligation to accelerate or to return or to even offer a replacement rotor because they're under obligation to replace that wheel. That wheel could take up to six to eight weeks to repair, and my testimony is that we looked at that time at the spare rotor, the complete rotor that we had, or that FPL Group had, and we opted to use that spare rotor to enable us to return that unit to service very quickly. And the benefits of that returning to service quickly are outlined in my testimony. The repair of the rotor that came out was repaired under warranty at no cost to FPL.

COMMISSIONER SKOP: Okay. With respect to,

again, the multi-year agreement -- and again, I'll -- it's hard to refer to which one, but I'll take the one that you're referring to. With respect to these multi-year agreements that FPL Group enters into, do those agreements or contracts contain any provision for liquidated damages as they pertain to identified design defects or deficiencies?

THE WITNESS: I don't recall any specifics in there. If there's a particular piece of -- or a particular component that we would consider high risk, we would try to establish a separate warranty for that component. We were able to do that early in this particular technology, but as it's matured, our ability and the issues, quite honestly, have diminished. So our ability to negotiate specific warranties on specific components or to negotiate longer-term warranties has somewhat diminished over the years.

COMMISSIONER SKOP: Okay. But the first-stage-wheel dovetail cracking problem, though, was identified as a fleet-wide problem across the entire G.E. 7FA fleet; correct?

THE WITNESS: G.E.'s 7FAs had that particular revision of wheel. We had some, but they've modified them over the years. So it was identified as a 7FA fleet issue, but not all gas turbines were in that mix.

COMMISSIONER SKOP: So is it correct to understand that, either by virtue of the 2006 agreement or if in fact the April, 2000 agreement maybe was deferred or leftover turbines from that, that these two turbines that were purchased by FPL Group initially for an unregulated project and are now being held as I guess whole spares, to Mr. Moyle's point, are they essentially using those two turbines to cannibalize parts instead of using a rotating spares pool?

THE WITNESS: No. We are using those only for specific issues, and the specific issue pertains to just rotor replacements. We're -- FPL Group is actively trying to sell those two units. So, you know, it's very important that we don't cannibalize these things as you referred to because, if you do, it's going to be more difficult to sell them.

We have a specific use for those and it has to do with a spare rotor. We exchange rotors and that's all we've used them for.

COMMISSIONER SKOP: Okay. Well, I guess to that point -- I mean, I've actually been in G.E. facilities where you've taken off the casing and you pulled the rotor and, you know, if you're taking a rotor from a turbine and putting it in another turbine as a whole replaceable unit to get that unit back on line, I

mean, that to me is some form of cannibalization because ultimately you have to go back and repeat the process because you're having to tear the entire unit apart, grab the rotor, transport it -- or crate it, transport it and reassemble it.

THE WITNESS: Yes.

COMMISSIONER SKOP: So I'll just make this short. I guess, with respect to the holding costs and capital costs of these two complete combustion turbines -- again, because you're saying that you're only using the rotors for a specifically identified problem, then why not just have two spare rotor assemblies? Why maintain the storage costs and the capital costs of having two complete turbines which include, you know, everything else that comprises a turbine?

THE WITNESS: The reason that we do this is right now the storage fees associated with these particular components or these particular units is approximately $45,000 per month for FPL, and that proration is based upon our fleet versus the affiliates' fleet and how many units each has that these particular components will fit into. The advantage for FPL is that, if we were to go out and purchase a spare rotor, the market value right for a spare rotor is about

$18 million. So we're getting access to two $18-million components for $45,000 a month, and we feel that that is a prudent expense and a prudent risk-mitigation expense right now to assure that this highly-efficient fleet is maintained in as good a condition as we possibly can.

COMMISSIONER SKOP: Okay. And I understand that, but I need to probe just one layer below that. What you're saying is you have access to an $18-million piece of equipment for the mere sum of $45,000 in storage costs. I guess the crux of my question deals with, where are the capital costs for these two turbines being allocated to, because, obviously, either Group owns them -- and I'm not so sure that Group is carrying that cost. If the cost, the original cost for those two turbines were being allocated down to FPL Group, then I guess I would have a problem with the statement that you just gave because there would be more to it than that.

THE WITNESS: I have -- I will say that I do not believe -- but -- I've never looked at any of the accounts, but I'm 99.9 percent sure that this is all -- all the capital investment of these two assets are held at FPL Group and are not in any way associated with FPL. I just haven't looked at this in detail, but I manage a lot of this, and I will tell you that I would be very surprised.

COMMISSIONER SKOP: Okay. And just approximately, do you know the capital cost of two 7FA turbines, just approximately a rough number?

THE WITNESS: Those are probably between 50 and $60 million.

COMMISSIONER SKOP: Each or combined?

THE WITNESS: No, total.

COMMISSIONER SKOP: Okay. All right. Thank you.

CHAIRMAN CARTER: Commissioners, at this time, anything further from the bench?

Mr. Moyle, you may proceed.

BY MR. MOYLE:

Q Commissioner Skop asked you questions and he has a lot more knowledge about these than I do, but I just want to make sure I can understand what happened with respect to these two. This defect that cropped up, it came about and affected -- it was fleet issue, is that right, generally?

A Yeah. There was a series of turbines that were manufactured that had a particular issue with one of the components in the rotor.

Q And G.E.'s a good company. You would agree with that, right?

A Yes.

Q Didn't they jump on this pretty quickly, a $25 million-dollar piece of equipment? You have a key component of it -- you said it's 18 million, so it seems to me that represents the majority of the cost. Did they figure out a plan of action pretty quickly to make their customers able to use the equipment that they purchased?

A Yes.

Q What did they do?

A Well, there's two aspects of this. Number one, if you have a particular component such as this that has a defect in it, you've got to understand the risks that you're running with and how to mitigate that risk and how to manage that risk. So one of it is what are you going to with the component that you're currently running? The other issue that they dealt with is do they have an idea as to how to fix it? And so you've got to run both of those in parallel. As I mentioned earlier, we worked very closely with G.E. on this particular issue, and one of the things that we were able to do was to manage this particular risk in a manner in which it enabled us to continue to run these pieces of equipment for an extended period of time and to be able to take this particular rotor out of service on a scheduled outage. We were very confident that we

were going to find a crack. The analysis that we had done said that this particular unit was probably going to have a crack.

Q I'm sorry. Let me just make sure I understand. You discover there's a problem, there's a crack. It's not such a problem that you say shut it down, we've got a catastrophic risk. You were able to continue to run the piece of equipment for a period of time. Is that right?

A No, what we had was that we knew that there was a defect in this component and we knew what was leading -- what was contributing to the failure modes of this particular piece of equipment. We knew what they were. We knew how to manage them. So we managed them over a period of time and consumed as much life of out that component as we possibly could. It's one of the ways that FPL's able to manage the fleet at a lower cost is because we feel that we understand this equipment better than anyone else. We were able to run that piece of equipment longer than most, take it out of service with basically no remaining life in that component.

Q And do you believe you were able to -- you understand this equipment better than G.E.? You said you understand it better than anyone else. Does that include G.E.?

A It depends on what you're referring to in their particular piece of equipment, but I will tell you that we collaborate very closely and, yes, there are some things that we do -- we know a little bit more than they do, yes.

Q And I was just using your words. You said you understand this equipment better than anyone else, and I was trying to understand whether, by saying that, G.E. is included with anyone else?

A Certain aspects, yes.

Q So the answer to the question that I tried to ask a while ago which was, you were made aware of the problem, I assume, based on your answer about, well, we were able to get all the useful life out of it, that it wasn't one where you said shut to down. You said, you know what, we can manage through this. Keep it running. We'll deal with it at the next scheduled outage. Is that right, in broad terms?

A In very broad terms, yes. Let me just say, you just don't do that lightly because, if you're wrong, it costs you about $15 million.

Q I understand, and I don't want to get into the minutia, but I want to understand what happened. From the point in time where you were made aware of the problem to the point in time that you had your next

scheduled outage where you corrected the problem, how long was that?

A I don't recall. We may have gone through several outages.

Q Can you give me a ballpark? I mean, months, years?

A No, because -- I mean, we may have had a half a dozen of these components in our fleet and all of them at various hours and various mechanisms that were causing the particular defect to propagate. So, you know, it's just one of many issues that we're managing at our fleet here.

I think the intent here is is that, yes, you know, if somebody came to us and said that you've got a defect in your rotor, many people might just go and shut that piece of equipment down. We don't. We try to understand it. We manage it and try to run it to the greatest extent possible to consume as much life out of that component as we possibly can.

Q What did G.E. recommend you do?

A G.E. came out with several recommendations. I don't remember -- you know, obviously the first thing that they would do is inspect it. But again, you've got to understand, G.E. found the crack, then they had to go back and figure out why it cracked.

Q And I presume this crack occurred with other utilities that have this equipment, is that right?

A Yes.

Q Do you know how they handled it with other utilities?

A No, I don't.

Q You have no knowledge at all about how they handled it with any other utility in the country?

A It's up to each individual utility as to how they handle a recommendation from G.E.

Q Do you know if G.E. said to other utilities, you know what, our fault, a problem with our equipment. We've got you covered. We've got this parts replacement agreement. We will get you a new part. You can continue to run it until you're next scheduled outage and then we'll put that part in after your next scheduled outage? Do you know if G.E. did that with any other utility in the country?

A I do not know what G.E. did with other utilities.

Q Do you know if any other utility in the country, to use the term Commissioner Skop used, cannibalized new equipment for the replacement of the defective part?

A I do not know what other utilities did.

Q You would agree with me, would you not, as a general rule of thumb in a market, that something that's brand-new can command a higher price than something that has been materially altered and has a replacement part in it?

MR. ANDERSON: Chairman Carter, at this time we would renew our objection. There is no established relevance of these questions to anything in the record, and even if one argued for a moment that there's some relevance, we're way past any point of materiality, and it's not a good use of time and does not advance the cause of understanding this record at all.

CHAIRMAN CARTER: Mr. Moyle, to the objection.

MR. MOYLE: Well, I'm trying to understand. I think the witness is not completely clear on the capital costs that have been assigned. What he has said is that rental storage costs are being allocated to FP&L. If there is any capital assignment of this and they're going to basically sell the units, I want to find out whether any of that money flows back to the ratepayers, and I want to make the point that, by putting in a spare part rather than a new thing, you've basically diminished the value of the piece of equipment.

CHAIRMAN CARTER: Before I go to Mr. Teitzman, I think that, in response to Commissioner Skop's

question, he said that the capital cost was being borne by the Group as opposed to FPL. Mr. Teitzman.

MR. TEITZMAN: You are correct, Chairman, that the witness did testify to that. So it would appear that FPL is not bearing the cost and therefore we might be getting to the point of no longer being relevant.

CHAIRMAN CARTER: Okay.

MR. MOYLE: I'll move on.

CHAIRMAN CARTER: Thank you.

BY MR. MOYLE:

Q You're not 100 percent sure that FPL is not bearing some of the costs related to the capital aspects of these rotors, are you?

A No. That's what I testified when I said I'm 99.9 percent confident that we're not.

Q And we've spent a lot of time on this. I'm going to try to just wrap it up briefly, but I'm curious as to -- were you involved in the decision about taking these parts and using them with FPL's equipment, or paying the storage fees?

A You're referring to the two units that are in storage, was I involved in that?

Q Yes.

A Yes, I was.

Q And can you help me understand the rationale

because I thought what you said to Commissioner Skop was in essence FPL Group over-ordered these units. They had two extra. They were for projects that were with NextEra and then how the decision gets made that the rent associated with this is borne -- the majority of the rent becomes borne by FPL.

MR. ANDERSON: Object to the characterization in the question and ask that the question be reasked.

CHAIRMAN CARTER: Rephrase, Mr. Moyle.

BY MR. MOYLE:

Q Is the majority of the cost of the storage borne by FP&L?

A The storage costs are prorated between NextEra and FPL based upon how many of the assets these particular components will fit.

Q Can you tell me the breakdown of that proration?

A I think my testimony says on page 12, line 4, 60 percent.

Q Is borne by FPL?

A Yes.

Q So you would agree that's the majority, correct?

A Yes.

Q And you would also agree that these two units

were for NextEra projects and not FPL projects, correct?

MR. ANDERSON: Objection, asked and answered already.

MR. MOYLE: Well, he's kind of boxing me in. He's objecting to the question that I asked where I --

CHAIRMAN CARTER: It's been asked and answered about the units. He said that -- both to your previous questions and Commissioner Skop's questions, that they were owned by the FPL Group with one of their subsidiaries. Move on, Mr. Moyle.

MR. MOYLE: Yes, sir. I'm sorry. He was talking about my mischaracterization. I was just trying to make sure I wasn't mischaracterizing anything.

CHAIRMAN CARTER: Okay. Move on.

BY MR. MOYLE:

Q How did you go about making that decision?

A Which decision?

Q To allocate the costs to FPL for these two units that were originally designed for NextEra?

A As I previously stated, it's based upon how many of the assets in each one of the businesses these particular components will fit.

Q The contract, the parts replacement contract that we talked about earlier, did that not cover this defective part?

A No. It's nothing to do with it.

Q Huh?

A It has nothing to do with it.

Q So all the other utilities that had this defective part, they were out of luck; they didn't have any contractual arrangements that provided relief?

A I have no idea what the other utilities' contractual arrangements were.

Q You're aware that -- and you also have assets in your fleet that you manage that are purchase power agreements that you have with other entities, correct?

MR. ANDERSON: Objection, beyond the scope of the witness' testimony. There's not one word about power purchase agreements in his testimony?

CHAIRMAN CARTER: To the objection, Mr. Moyle.

MR. MOYLE: He says they have 20,000 megawatts that they count. Some of that I think is through the purchase power agreements that they have, and I think it's relevant.

CHAIRMAN CARTER: Mr. Teitzman.

MR. TEITZMAN: It is my understanding that that is outside the scope of the witness' testimony.

CHAIRMAN CARTER: Okay. Sustained. Move on, Mr. Moyle.

MR. MOYLE: Mr. Chairman, at the risk of

just -- I mean, I don't, you know, want to make you mad at me, but --

CHAIRMAN CARTER: That won't happen.

MR. MOYLE: -- but the 20,000 megawatts, I want to know whether that includes his purchase power agreements. I think -- you do reference 20,000 in your testimony, do you not?

A I do.

Q Does that include you purchase power agreements?

A No, it does not.

Q So that's all FPL-owned and managed, is that right?

A It's FPL-owned. It does include the portion from St. Johns and from Scherer.

CHAIRMAN CARTER: Mr. Moyle, just for -- you won't make me mad because yesterday I was in my surgery and a friend of mine went through surgery and he didn't make it and I'm here today. So everything's looking up roses to me, so you won't make me mad.

MR. MOYLE: Okay. Well, I'm sorry, sorry about that.

BY MR. MOYLE:

Q What's the oldest combined cycle unit you have in your fleet?

A That would probably be our Putnam facility.

Q How old is that?

A It was commissioned I believe in --

Q I'm sorry?

A I believe it was COD in 1978.

Q So that's over 35 -- over 30 years, is that right?

A Yes. That unit is still operating, but I would also make the note that it's not the same unit that was commissioned in 1978.

Q And that's because you've made some changes to it, some replacement -- replaced key component parts, is that right?

A Yes, because that unit had an original design life of 25 years, and those components have reached their end of life and we've addressed them as we have continued to operate it.

Q On your rebuttal -- let me -- I don't need to refer to it. Let me ask you this: If an expert for one of the Intervenors had called you up and said, you know, I'm going to be providing testimony in this case, can I come look at your power plants and kick the tires, would you give me a tour, would you have done that? Would you have hosted them and let them kind of look around?

A I wouldn't speculate as to what we would have

done.

Q If an expert for an Intervenor had called you and wanted to talk to you about what you do, would you have entertained that discussion and talked to them about your plants and how you operate them, how you maintain them?

A I don't know that I would speculate on how I would respond to a question like that.

Q I guess I ask that question because in your rebuttal testimony you say that no Intervenor witness met with FPL fossil plant personnel to discuss the operation and maintenance practices of FPL fossil plants, and you also say that no Intervenor witness visited any fossil plants. That's on page 7, lines 21, and it runs through page 8, lines 4. By stating that in your testimony, I was kind of led to believe that that inquiry, if it had been made, might have been something you would do, and you're not sure whether that would be prudent or not?

A I would not speculate as to how I would respond to that, but I would also add that those two expert witnesses I believe, I recall hadn't been in a power plant in 30 years, much less ours.

Q On page 11, line 9 --

A Of my rebuttal or direct?

Q Rebuttal. I'm trying to understand the distinction that you draw between an audit finding and a statement of fact. The question is is -- a staff witness has made an audit finding, and you seem to take issue with the audit finding. Are you taking issue with the audit finding of the staff witness in terms of the audit finding itself? Do you see that on line 9?

A Yeah. I think it's a matter of semantics. We don't dispute the fact that there was a line item that they referred to there. What we go on to say is that it's not something that we budget for, but it was in fact an expense that we incurred. We don't dispute the finding.

Q Do you dispute that it was an audit finding?

A I guess that's what they were doing when they found it is they were auditing.

Q So you would say no, that you don't dispute it as an audit finding; is that right?

A That's correct.

MR. MOYLE: Mr. Chairman, I think I'm just about done, if you'll give me one minute.

CHAIRMAN CARTER: Yes, sir. Take a moment.

MR. MOYLE: Just a couple more.

CHAIRMAN CARTER: Yes, sir. You may proceed.

/ / / / /

BY MR. MOYLE:

Q On your direct testimony --

A Yes.

Q -- a couple of questions there. Page 5 line 4, I just want to make sure I'm clear on this point. You talk about a 80/20 mix to a 30/70 mix of steam versus other. That's the goal of the company, to take the steam to the other in that drastic of a fashion in terms of the steam versus the other?

A No, it's not a goal. It's just a statement of fact.

Q What's included in "other"?

A It's not conventional steam- and oil- and gas-fired units. I haven't read the FERC accounting codes, but it is primarily -- in our use of that particular accounting code is that it is our combined cycle units.

Q For heat rate, heat rate is analogous, to go back to the car, to miles per gallon; isn't it?

A Yes.

Q In terms of, if you improve the heat rate, it's sort of like a car getting improved miles per gallon.

A Yes.

Q You don't actually get any more megawatts out

of a unit by improving the heat rate, do you; you just use less fuel?

A You get more megawatts per Btu.

Q Okay. And on page 20, line 6, you're talking about the portfolio's combined inflation benchmark.

A Yes.

Q What is the inflation benchmark?

A It's the benchmark that the Commission uses to at least understand or try to benchmark what is reasonable cost.

Q Okay. And you guys overshot that by 24 million and change, is that right?

A You're referring to line 6 where it states that?

Q Yes, sir.

A Yeah. It's primarily due to the addition of 4800 megawatts of new generation which the benchmark does not account for.

Q Page 21, line 13, you were asked a question about certain actions taken in light of the economic downturn.

A Yes.

Q Do I understand that question correctly that these actions were taken because of the economic downturn?

A It was -- these actions were taken to try to mitigate the cost and to reduce our cost as a result of the economic turn-down. It was our approach to mitigate the consequence of it and to keep our costs as low as we possibly could.

Q Was this action taken as a result of your load being diminished?

A Yes. As has been stated several times, that there has been a reduction in the load within the state of Florida due to the economic conditions.

Q Okay. And just so I'm clear, it wasn't taken as a -- I mean, the consequence of the economic downturn resulted in lower load, therefore resulted in you putting some these units into inactive reserve; correct?

A It was the way in which we reacted to the economic conditions which in effect has enabled us to reduce our costs and to manage our costs and bring them in line with the current conditions within the state.

Q And it wasn't necessarily belt-tightening like reducing your O&M or reducing your workforce, correct?

A No, I would disagree with that. The purpose of it was to reduce our O&M because we had units that were not in service because of the economic downturn, and it was our ability to reduce our costs to make sure that we were not incurring additional costs for units

that weren't necessarily being utilized at the time, and I would also note that those costs that we reduced as a result of this are not in this filing. In fact, if we were to operate these units going forward, we would have to do something much different because the cost of operating these units is not in this filing. It is the way in which we have reacted to the economic conditions. We reacted as quickly as we could and we've made some significant changes.

Q Are you comfortable as we sit here today that you have sufficient workforce and assets to be able to operate your fleet effectively, efficiently and maintain it effectively and efficiently?

A Yes. That was part of the strategy of putting some of these units in what we've referred to as inactive reserve. By doing that, we could take these employees and reassign them to other locations and prevent them from having -- so that we wouldn't have to do a reduction in force. This is -- we have been very, very proactive in reaching and trying to minimize the impact to FPL and to its customers by keeping these costs in line but yet retaining a workforce that, when load does return, we'll have them available and we'll be able to restart these units.

Q Yes, sir. And the reason I was asking that

question is because I think you indicated that you've reduced your workforce by half since 1990, isn't that correct?

A I said that we were operating a fleet that was twice the size with half the people that we had in 1990, yes.

MR. MOYLE: Okay. Thank you for your time. This took longer than I had anticipated, but I appreciate it. No further questions.

CHAIRMAN CARTER: Thank you, Mr. Moyle.

Mr. Wright.

CROSS EXAMINATION

BY MR. WRIGHT:

Q Thank you, Mr. Chairman. Good morning, Mr. Hardy.

A Good morning.

Q My name is Scheff Wright and I represent the Florida Retail Federation in this proceeding. I have a few lines of cross for you. I am hopeful that they will not take too long. My first line goes more or less to the issue of the company's fuel costs which you discuss at various points in your direct and rebuttal testimony, and in relation in particular to the company's fleet. Do you participate in the company's planning decisions for power plant development?

A In a very minor way.

Q Can you tell us what that minor way is, briefly?

A I don't make decisions on what generation will be needed or where it will be placed. If those decisions are made and they're made and shown to be prudent that we need additional generation, I will be consulted on operating costs and things of that nature based upon the technology that they're proposing.

Q Thank you.

As page 5 of your direct testimony you talk about FPL's -- I think you were just talking about this with Mr. Moyle -- about FPL's distinctive transformation from an 80/20 mix steam-to-other mix to a 30/70 steam-to-other mix. In general, and as briefly as you're comfortable with, who made the decisions to shift the -- transform, as you used the word, the company's fossil capacity in that way?

A I don't know that I can pinpoint a specific individual. These decisions have been made over probably a ten-year period and involve many people.

Q I was figuring that it was some sort of planning group. Can you give us an idea of who that might have included?

A I would imagine Resource Planning is involved

with it, a number of individuals, a number of organizations within FPL.

Q Thank you.

And the transformation you talk about there largely is a shift from steam-dominated, fossil-steam, gas-oil steam units like the old Manatee and Martin Units to a fleet that's largely dominated by gas-fired, combined cycle and combustion turbine units; is that correct?

A That's correct.

Q Okay. Are you aware of the magnitude of fuel swings, fuel cost swings that FPL has experienced in the last two years?

A I understand that, yes, there has been a great deal of volatility in fuel prices in general, yes.

Q Okay. Would you agree, subject to check -- and I can read you the sentence from the Commission's order if you want -- that FPL's projected fuel costs for 2009 based on its initial fuel docket filings was slightly more than seven billion dollars?

A I'm okay with that.

Q Okay. And for next year -- I'm reading to you now from FPL's prehearing statement in this year's docket 090001. Do you agree this year the projected fuel and purchase power cost recovery amount for 2010 is

about $3.8 billion?

A Okay, yes.

Q Thank you. Just a few followup questions to some discussion you had with Mr. McGlothlin regarding coal units. Do you have an idea of how many good-sized coal units, say more than 300 megawatts, there are in the United States? And if you want to pick a different size threshold, that would be completely okay with me.

A I can tell you there's 700 units with an average size of 438 megawatts.

Q That's a great statistic. Thank you, sir.

A I thought you'd like it.

Q Do you know how many of those 700 are more than 40 years old?

A None of them. The average life is 38 years, excuse me, the average life. I don't know the range.

Q You just used the phrase "average life." Do you mean the average age of those 700 units is 38 years?

A Thank you. Yes, the average age.

Q Okay. And so you don't know the distribution of ages?

A No, I do not.

Q All right. Thank you. Do you know anything about the projected retirement dates of those 700 units?

A No, I do not.

Q And so you wouldn't know anything about their projected retirement ages, would you?

A No.

Q Thank you. In response to -- this is a potentially minor thing, but I just wanted to pursue it briefly in response to questioning by Mr. McGlothlin. You made the statement that FPL's load is largely residential, and I can show you the page from the ten-year site plan if you want to see it, but would you agree that FPL's -- the percentage of FPL's total sales to ultimate consumers represented by the rural and residential class is approximately 51 to 53 percent?

A Yes, I'm fine with that.

Q Okay. Is that unusual? I mean, is it unusually high is really what I'm asking you?

A I think that what's unusual is the -- what I was describing was the load profile of the FPL load within the state of Florida. I attribute that largely to the residential and retail base that FPL has, and, more importantly, the lack of a large industrial base that would typically have more of a baseload operation which would tend to raise your low load -- or your low loads during the evenings.

CHAIRMAN CARTER: I see you reaching for the folder, Mr. Wright. Do you need a number?

MR. WRIGHT: Yes, sir.

CHAIRMAN CARTER: That would be 532, 532. Short title?

MR. WRIGHT: FPL TYSP Excerpt.

CHAIRMAN CARTER: FPL TYSP Excerpt.

(Exhibit No. 532 marked for identification.)

CHAIRMAN CARTER: While we're doing that, Mr. Hardy, unless you need a restroom break, my plans are to continue. Are you okay with that?

THE WITNESS: I certainly am.

CHAIRMAN CARTER: But just kind of give me that high sign if you need to go, but, Commissioners, I plan on just kind of rolling on through. So everybody kind of sit tight and be prepared for the -- which I think should be a short haul, but -- lunch probably around 1:00, something like that.

You may proceed, Mr. Wright.

BY MR. WRIGHT:

Q Thank you, Mr. Chairman.

Mr. Hardy, in this excerpt I've reproduced the pages from FPL's Ten-Year Site Plan that show the existing generating facilities, and then the very last page is FPL's projected capacity changes and reserve margins. Have you seen this before?

A Yes. It's not a document that I spend a lot

of time on.

Q But you're familiar --

A I've seen it, yeah.

Q And you're familiar with the information contained therein, correct?

A Generally, yes.

Q Okay. The first three substantive pages which is Schedule 1 of FPL's Ten-Year Site Plan lists all the company's generating units together with some summary information, location, fuel, in-service days, projected retirement and capacity. Is that a fair characterization?

A Yes, it appears to be.

Q And the last page is the projected capacity changes on the system, correct?

A In my document, that's Item 12, or page 12.

Q It is page 12, and to use our favorite phrase from this proceeding, FPL is welcome to preserve optional completeness. I do have a copy, one, of the complete Ten-Year Site Plan, but it's about two inches thick and I don't think we'd want it in the record.

CHAIRMAN CARTER: I don't think we need one in the record. We can just refer to it as the current 2009, 2018 Ten-Year Site Plan.

/ / / / /

BY MR. WRIGHT:

Q Thank you. I just wanted to ask you a few questions about the company's system, Mr. Hardy. First, you discussed briefly with Mr. Moyle the Putnam unit. I just want you to confirm for me that Putnam is not among the units that is planned for projected cold storage or projected inactive reserve, is it?

A No, it is not.

Q And you still do have a number of steam units on your system, correct?

A Yes, we do.

Q And you also have a number of gas turbines?

A Yes.

Q I use the term gas turbine interchangeably with the term combustion turbine or simple cycle combustion turbine. Is that consistent we your use of those terms?

A No, as turbines being what we would refer to as aeroderivatives. Combustion turbines usually refer to the more advanced gas turbines that we currently operate in the combined cycle configuration. Simple cycle could be -- is more of how that particular technology is applied, whether it's applied in a -- we have combustion turbines that are applied in simple cycle and combined cycle applications.

Q If I could ask you to look at what is the -- it's actually the third page of the exhibit package, page 28 of the Ten-Year Site Plan. And I'm looking at the third grouping there, the Ft. Myers plants.

A Yes.

Q I see you've got two units identified as CTs, 3A and B, and then apparently what appear to be 12 units identified as GTs.

A That's correct.

Q Is the basic technology of these units the same?

A They're both gas turbines. The GTs are a much older technology. The two CTs, as you referred to them, are actually the same technology that are used in the Unit 2 above. They're just applied in a simple cycle mode instead of a combined cycle mode.

Q Right. They don't have a heat recovery steam generator and steam turbine generator attached to them, correct?

A Correct.

Q And that really -- that is what a combined cycle unit is, correct?

A Yes.

Q One or more combustion turbines or gas turbines with a HRSG and a steam turbine generator.

A Yes.

Q Just a few more questions on this. Regarding the company's Lauderdale 4 and 5 combined cycle units, do you know whether the company has a projected retirement date for those units?

A I don't believe so.

Q The same question with regard to I think it's Martin 3 and 4 which are similar vintage combined cycle units.

A No, I don't believe so.

Q And when you said that, you mean no, you don't believe the company has a projected retirement date for those units; correct?

A I don't believe that we've projected what the retirement date -- of course, this just looks out ten years, I believe. What this states is it's not going to be retired in ten years.

Q And that's certainly my understanding, and my question is, are you aware of a projected retirement year beyond 2018?

A No.

Q Thank you. This next line of questions relates to the lives of combined cycle units particularly as you testify on that subject in your rebuttal testimony. I think the more substantive

testimony -- although you testify about it at page 4, I think the more substantive testimony is on page 8 of your rebuttal where you're talking about Ventyx data regarding combined cycle units that have been retired. Your testimony states that the average age of the units retired to date was 22 years at retirement, correct?

A Yes.

Q Do you know how many units have been retired to date as reflected in the Ventyx database?

A I'm not sure I understand the question. You said, "retired to date"?

Q Well, I apologize if my question was not clear.

You were talking about similar type retired units of at least 150 megawatts in size. Correct so far?

A Yes.

Q And then on pages 10 and 11, you make the statement that, "Of the industry combined cycle units retired to date, their average age was 22 years at retirement," correct?

A That's correct.

Q And my question is: Do you know how many units are covered by that statement?

A Just a moment. I'll find it. I believe I

have it.

Q Thank you.

A I may have misspoke.

MR. ANDERSON: If it helps you, Mr. Wright, the information is on Exhibit GKH-10 in the notes.

BY MR. WRIGHT:

Q Thank you. The answer appears to be five.

A Good. Yes.

Q Do you know what the youngest age of any of these five retired units was?

A Yes. It looks like PSE&G retired a unit that was commercial in June of 1993 and retired it in April of '04, and it was ten years old.

Q Do you know why that unit was retired at such a tender age?

A I do not.

Q Do you know what the technology of that unit was?

A No, I do not.

Q Are you familiar with Tampa Electric's Polk IGCC unit?

A I am.

Q That unit had a rather calamitous accident at one point. It threw a blade or two, did it not?

A I couldn't comment. I'm not that familiar

with it.

Q Okay. I just wondered if you might know whether the PSE&G unit of which you spoke might have been retired due to an unexpected severe accident.

A I do not know. I think that particular unit may have been a result of some regulatory issues in California, but that would be speculation.

Q You just said California?

A Yeah.

Q And it was a PSE&G unit, not PG&E?

A You're right. Excuse me.

Q That's okay. You threw me off. I was expecting New Jersey.

A You're right.

Q PG&E?

A It is a PSE&G.

Q In California?

A I don't know where it is.

Q Okay. That --

A This is Public Service Enterprise Group.

Q Do you know what the oldest of the retired units was at its retirement?

A Twenty-seven years.

Q Can you tell us the --

A Excuse me, 28 years.

Q Thank you. Can you tell us anything about that unit, where it was, who owned it?

A The plant name was Long Beach Generation, LLC, El Segundo Power, NRG.

Q Thank you. Do you know the technology of that unit?

A No, I don't.

Q Do you know how many combined cycle units greater than 20 years of age are still operating in the United States?

A Could you ask me that question again?

Q Sure. Do you know -- you've got some information about retired units.

A Yes.

Q And I'm trying to ask you whether you have some information about still -- about the combined cycle units that are still operating organized according to their ages. Do you know how many combined cycle units are presently operating in the United States that are more than 20 years of age?

A I know how many combined cycle plants are operating in the U.S. that are greater than 500 megawatts, but I don't know your specific question.

Q I would love to hear the answer that --

A 242.

Q How many?

A 242.

Q Thank you. But I did understand your answer to my original question to be you don't have any information about their ages or the distribution of their ages?

A I do not.

Q Thank you. Do you have any information about their projected retirement dates?

A No, I do not.

Q So the Ventyx Energy Velocity Database upon which you relied does not contain that information?

A No, I didn't say that. I just said that I didn't have that information.

Q Do you know whether the Ventyx Energy Velocity Database upon which you relied in your testimony contains that information?

A I've not specifically looked at that database, so I can't testify to that, but I'm assuming that it does.

Q In discussing projected lives of combined cycle plants, don't you think it would have been useful to inquire of the Ventyx Database about projected date of -- projected retirement dates and actual lives of operating units?

A No, not necessarily.

CHAIRMAN CARTER: Mr. Wright, do you need a number?

MR. WRIGHT: I do, Mr. Chairman. Thank you.

CHAIRMAN CARTER: 533, Commissioners, 533.

Short title?

MR. WRIGHT: TYSP Excerpts-FMPA, OUC, Gulf.

CHAIRMAN CARTER: Okay. I got TYSP Excerpts. You left me after the dash.

MR. WRIGHT: I apologize for that. FMPA, comma.

CHAIRMAN CARTER: FMPA, comma.

MR. WRIGHT: OUC, comma.

CHAIRMAN CARTER: OUC, Comma.

MR. WRIGHT: Gulf.

CHAIRMAN CARTER: Gulf.

MR. WRIGHT: And I apologize for the length, but this is the third ten-year site plan excerpt exhibit in this docket.

CHAIRMAN CARTER: Okay. That will be fine. And it's -- when you say that, Mr. Wright -- now, this is already in. We don't need to -- we can just refer to it because this is the current ten-year site plan for Gulf, so we don't really need it in the file. If anyone wants it, they can look that up. It's the 2009 to 2018.

Is that correct?

MR. WRIGHT: Well, we don't need the whole document, I'm sure, but I do want these pages.

CHAIRMAN CARTER: Oh, absolutely. Absolutely, and also --

MR. WRIGHT: It's also -- these are excerpts from the ten-year site plans filed with the Commission for the Florida Municipal Power Agency and Orlando Utilities Commission in addition to Gulf Power Company.

CHAIRMAN CARTER: And the Ten-Year Site Plan for the FMPA is dated April, 2009, and that's available to the parties if they wish to get that, okay. So we don't need to put it in the record, just for the record.

MR. WRIGHT: Yes, sir.

CHAIRMAN CARTER: Okay. Staff, are you comfortable with that?

MS. BENNETT: Yes, sir.

CHAIRMAN CARTER: Okay. Let's role.

(Exhibit No. 533 marked for identification.)

BY MR. WRIGHT:

Q Yes, sir. Mr. Hardy, do you have occasion to look at other utilities' ten-year site plans?

A No, I do not.

Q I'm sure you're aware they exist.

A Yes.

Q If I could just ask you to look at what is the -- first look at the third page into the document which is Schedule 9 from the FMPA 2009 Ten-Year Site Plan. You'll agree that that's the projected -- that's the summary information filed in the Ten-Year Site Plans for FMPA's Cane Island Unit 4, a combined cycle unit; correct?

A Yes.

Q And you'll agree that FMPA projects a unit book life for that unit of 30 years?

A Yes. That's what this document states.

Q If you look two pages further which is the business page, the corresponding Schedule 9 from Gulf's Ten-Year Site Plan, that's also for a planned although as yet unlocated combined cycle unit; correct?

A Let me make sure I understand this. This is a -- okay. It's a G technology combined cycle of unknown manufacture or location. Is that correct?

Q Yes, sir.

A Okay.

Q And if you look down at row 13 or line 13, you'd agree that Gulf is projecting a 40-year book life for that unit; would you not?

A That's what's stated here, yes.

Q And if I could ask you to look at the very

last page of that exhibit which is the corresponding table from Orlando Utility Commission's 2009 Ten-Year Site Plan, this schedule refers to OUC's projected Stanton Energy Center Unit B, a plus or minus 300-megawatt combine cycle unit; correct?

A Yes.

Q And OUC is projecting 30 years for the book life of that unit, would you not?

A Yes.

MR. WRIGHT: Thank you. If I could just have a moment, Mr. Chairman, I'm at least very close.

CHAIRMAN CARTER: Yes. Thank you.

MR. WRIGHT: Thank you for your indulgence, Mr. Chairman. Thank you for your time, Mr. Hardy. I don't have anymore questions.

CHAIRMAN CARTER: Thank you, Mr. Wright.

Mr. Hardy, can you role with us a little longer?

THE WITNESS: Absolutely.

CHAIRMAN CARTER: Okay. Mr. Wiseman, good morning. You're recognized.

CROSS EXAMINATION

BY MR. WISEMAN:

Q Thank you, Mr. Chair.

Good morning, Mr. Hardy, Ken Wiseman for the

South Florida Hospital and Healthcare Association. The good news is that Mr. McGlothlin and Mr. Wright have stolen an awful lot of my thunder. We've got -- I actually have very little for you left, but I do want to go over a few things.

Let me start with a subject that you talked about with Mr. Wright just now. Do you recall that you testified about the unusual situation on FPL in terms of the minimal industrial load that it has? Do you recall that testimony?

A Yes. I referred to the characterization of FPL's load profile compared to another utility that may have more industrial load that would keep the valleys up in their load profiles.

Q Right. And I think what you said specifically was that, if you had more industrial load, that would be baseload that would raise the low-load levels in the evenings. Is that correct?

A It does have that characteristic, yes, depending on the industrial load. Not all industrial load will do that.

Q Sure. Understood. But would you agree then that customers that take load in the evening, if you had more customers like that, that would to some extent at least diminish the need for all the cycling that takes

place on the FPL system?

A It would depend on the makeup of our system and, you know, I guess there's a hypothetical situation where you could say yes, if -- I don't think that -- when you look at our particular load profile, we have higher loads in the valleys as you referred to it in the summertime than we do in the shoulder months. So it could have that effect.

Q Right. And so, just as a general proposition, if you have customers -- well, customers that take on a load, a flat load profile basis, those types of customers don't cause cycling of your generating units, correct, to the same extent that say a residential customer would?

A Obviously, if everybody in our load consumed a flat amount of electricity on a 24-hour basis, our load profile would be flat.

Q And then you would not need to have cycling to the extent that you have it, correct?

A Yes. If we had a flat load profile, we would not have to cycle.

Q Okay. Great.

Now, your division is responsible for operation and maintenance services of FPL's non-nuclear generating units; correct?

A That's correct.

Q And would you agree that, if you provide excellent O&M services, that that would defer the need for new or more generation?

A Could you restate that, please?

Q Sure. If your division provides excellent O&M service to FPL's existing generating fleet, that would defer the need for more or new generation. Do you agree with that?

A You used the word "if," and I would say yes. I would also point out that FPL, when you look at its comparison and its performance, we maintain our fleet at a higher availability and a lower forced outage rate at a lower cost than anybody else in the nation.

Q And let me make clear, I was only use using the term "if" -- I was not suggesting that you don't provide excellent service, O&M services.

A Okay. Thank you.

Q So with that understanding then, you'd agree that, by providing excellent O&M services, that that does defer the need for new or more generation; correct?

A Yes, it would. I guess the way that I would characterize it, if you did not maintain it properly, you would require more generation, yes.

Q By providing excellent O&M services, does that

also extend the service life of generating units?

A It maintains them to as close to their design life as you possibly can. Maintaining a piece of equipment does not change the design life. It just gets you closer to the design life.

Q But the design life doesn't necessarily equate to the actual end life of a generating unit, isn't that true?

A Yes, it does.

Q Well, if the design -- you're saying that, if the design life is -- say for a particular unit is 25 years, that it's impossible to operate the facility after 25 years?

A It would be impossible to operate that facility beyond its design life if you did not make investments into that that were replacing any components that had reached their end of life. That's -- go ahead.

Q Okay. Fair enough.

Okay. Now, I think you referred to this both in your testimony and in your summary this morning. FPL's achieved best of class in performance a number of years. Is that true?

A That is correct.

Q Okay. And can you -- would you equate performance with service, service to customers?

A Yes. I think that the -- you know, the performance that FPL had been able to maintain over the past 20 years certainly has improved and is a contributor to good service to the customers of FPL and also at a very low cost.

Q All right. Now, you would agree, though, that to achieve best-in-class service, that comes with a cost; right?

A Maybe -- could you define "service." You said that we --

Q I'm equating service with performance of your generating units.

A Okay.

Q And so, with that understanding, I'll ask the question again. Would you agree that, to achieve best in class service, that to do that comes with a cost, meaning you have to spend money on operation and maintenance activities; correct?

A Yes, and I think that what differentiates us is our ability to target those dollars and target them appropriately, and that's why we've been able to achieve the level of service that we have at the lowest cost in the industry.

Q Do you believe that it's reasonable that, if ratepayers are paying for best-of-class service, then

they should also have best-in-class service in terms of reliability?

A Yes, I think that's a reasonable expectation.

Q Okay. Would you agree that it would not be fair or appropriate for ratepayers to pay for best-in-class service but only receive average service lives of generating units?

A No, I wouldn't agree with that.

Q All right. Now, can you refer to page 4 of your rebuttal testimony, specifically to lines 13 to 14. Do you have that?

A Yes, I do.

Q Okay. Now there you say that the expected asset lives are 25 years for the combined cycle units, 35 years for steam, and 40 years for coal units. Do you see that?

A Yes, I do.

Q All right. Now, I had an exhibit, but we can actually -- this is one instance where Mr. Wright beat me to the punch. Let's just use his exhibit. Can you turn to Exhibit 532, please, and specifically it's the -- it's the third page of the document. It's -- the original page was 28 in FPL's Ten-Year Site Plan.

A Unless I'm missing it, mine does not have exhibit numbers on them.

Q I'm sorry. It's the FPL Ten-Year Site Plan.

A Okay.

Q And it would be the third page in that -- the original page number at the bottom was 28.

A I'm there.

Q Okay. Now, if we looked at -- let's start with the Cutler units. Those units were put in service in 1954 or 1955, correct?

A That is correct.

Q Okay. So those units would be 54 and 55 years old currently, is that right?

A That is the length of service that that particular plant has been in operation, but there have been many, many pieces of equipment that have reached their end of life that we have addressed.

Q But the plants are still in service, right?

A Yes, they are.

Q Okay. And let's look at the Cape Canaveral units. I think they're on the following page, on page 29, the original page 29. Well, wait a minute. Is that right? No. I'm sorry. They're on page 28 also up at the top.

Now, those units went into service in 1965 and 1969 respectively, correct?

A Yes.

Q So you'd agree that those units are -- one unit is 44 years old and one unit is 40 years old currently, right?

A That is correct.

Q All right. And let's look at the Port Everglade Units 1 through 4. Those are on page -- original page 29. It looks like those units went into service between the years 1960 to 1965, right?

A That is correct.

Q So those units are about 45 to 49 years old currently, right?

A Again, you're use of the words unit, those particular facilities are still in service but I would say that there are many components that have reached their end of life and that we have addressed them to enable these particular units to remain in service.

Q All right. That's fair enough.

Look at the combined cycle units for Putnam. Those units went into service in 1977 and 1978, correct?

A Yes.

Q Again, I understand that you've replaced parts on these plants, but currently those are approximately 31 to 32 years old; right?

A Yes, they're 31 and 30 -- 31 and 32 years old, but I would also go on to say that it's not just a

matter of replacing components within those particular facilities. We make deliberate decisions at the -- when we run into a piece of equipment that's at its end of life, to make a decision at that point whether to continue to invest and how to invest in that facility. We would invest differently at Cutler than we would, say, at a Martin unit, or a Martin 3 or 4, a combined cycle unit.

Q All right. Has FPL ever retired a combined cycle unit in 25 years or less?

A Not that I'm aware of.

MR. WISEMAN: Thank you. I have no further questions.

CHAIRMAN CARTER: Thank you, Mr. Wiseman.

Staff?

MS. BENNETT: Staff understands that the parties have all agreed to the entry of some of the exhibits from staff's composite exhibit, so if that is the case, we have no questions.

CHAIRMAN CARTER: Okay. Commissioner Skop, you're recognized.

COMMISSIONER SKOP: Thank you, Mr. Chairman. I'll make this brief.

Mr. Hardy, I just have four followup questions. Do you know how many G.E. 7FA turbines are

currently in Florida Power & Light's generating fleet?

THE WITNESS: I believe there's 32.

COMMISSIONER SKOP: And with respect to the two G.E. 7FA turbines that are used for critical spares, do you know if either of those two turbines with respect to either parts that may have been having design deficiencies or the rotor problems, are those two turbines affected by some of the other problems that the fleet has experienced?

THE WITNESS: You know, I would say not to my knowledge. They were obviously purchased much later in the manufacturing design cycle. So many if not all of the issues that we currently deal with have been dealt with in those particular units.

COMMISSIONER SKOP: Okay. So those -- by virtue of being manufactured later in the process, either changes or different parts were used for the manufacture of those two respective units; is that correct?

THE WITNESS: That's correct.

COMMISSIONER SKOP: With respect to the rotor swap for I believe the Martin 8A Unit that came from the critical spare, or one of the two critical spares, do you know if FPL Group invoiced or charged, made any other accounting entries to FPL associated with the cost

of that particular rotor that went into service in the Martin 8A plant?

THE WITNESS: I'm not aware of any. I'm not sure exactly when you say "any additional entries." The only entries that I am aware of that were made is the entries for the purchase and then the sale back to the group. Once the unit that came out of the Martin facility was repaired, we sold it back to Group.

COMMISSIONER SKOP: Okay. Was that a -- I guess a wash transaction then, equal/equal, cost-in/cost-out?

THE WITNESS: I don't know the specific details of that transaction, but the way that we -- the way that it is done is that FPL purchases that rotor at the lowest cost of either the cost of the component or the market value of that component, whichever is lower, and then we sell it back at the higher of market or cost, and we do that to protect the -- protect FPL.

COMMISSIONER SKOP: Okay. And that would be my concern in regards to affiliate transaction for, again, turbines that were previously slated for another use not related to FPL.

With respect to your statement that it's your understanding that FPL Group, if it owns these two 7FA turbines, plans to sell them in the future, what is the

forward-going plan to deal with fleet maintenance issues that would deal with rotating turbo machinery like the rotors or other components?

THE WITNESS: We have looked at the purchase or the build-out of an additional spare. In other words, if these two spare rotors at Group were to be sold as part of the overall package, we would evaluate at that time whether or not we feel that we need a critical spare, a critical spare rotor at that time. We've not made that determination at this point because the units haven't been sold. So we can we continue to feel that it's the right thing to do to pay the storage fees on them and have them available to FPL.

As far as what we would do at the time of sale, we haven't evaluated that.

COMMISSIONER SKOP: Okay. Thank you.

CHAIRMAN CARTER: Thank you, Commissioner.

Anything further from the bench?

Redirect?

MR. ANDERSON: Yes, please.

CHAIRMAN CARTER: You're recognized.

MR. ANDERSON: Just as a brief housekeeping matter, Mr. Hardy had said 99.89 percent confidence that there are not capital costs or anything of those units. We checked with our chief accounting officer. We need

to make that 100 percent, and he's available to answer any questions. I wanted to tie a bow on that for the Commissioner.

CHAIRMAN CARTER: Commissioner Skop, are you comfortable with that?

COMMISSIONER SKOP: Yes, that's fine.

CHAIRMAN CARTER: Thank you.

Mr. Anderson, you may proceed. Redirect.

REDIRECT EXAMINATION

BY MR. ANDERSON:

Q Yes, thank you.

Let's begin, please, with what was handed out as cross-examination exhibit, the excerpt from the FPL Ten-Year Site Plan. Do you have that?

A Yes.

Q Look at that page 28 that you were just asked about.

A Yes.

Q And let's use Cape Canaveral just as an example there. Counsel was asking you about the lives of those plants, and they're about 40 and 44 years; right?

A Yes.

Q It's not FPL's plan to like run those units indefinitely, is it?

A No. Our plans are to take those units out of service in April of next year and we will modernize that facility with a 3 on 1 combined cycle plant.

Q And that's an economic type of determination to make that type of decision, right?

A Yes. And I think that that's what's unique about FPL is that you can look at what the industry does and draw some judgments about the industry, but I think you also need to look at what FPL does and the way that it applies technology.

FPL pioneered the advanced gas turbine technology in the early '90s, and we've used it differently than anyone else. You look at the heat rates, the forced outage rates, the availability and what it's benefitted from the customer. FPL applies this technology very differently. We've applied it at our Fort Meyers facility in the early 2000s by increasing our capacity and reducing our environmental footprint. The same was true at Sanford where we took oil- and gas-fired units out of service. We retired them and applied technology differently than anyone else in the country has done. And so I think that it's -- when you look at the generalization of what other people do, I think you have to look specifically at what FPL has done because we apply this technology very

differently than anyone else.

Q Then if we could look at Exhibit No. 533 which was handed out by Mr. Wright, it was the Ten-Year Site Plan Schedule 9 Performance Data for Proposed Combined Cycle Plants. Do you have that there?

A I'm sure I do, but I don't have any exhibit numbers.

Q Yeah, it's the one that says "Ten-Year Site Plan-Schedule 9, Performance Data for Proposed Combined Cycle Plants."

A Just a moment.

CHAIRMAN CARTER: Show it to him, Mr. Wright, so he'll know which one we're talking about.

Thank you, Mr. Wright. Mr. Anderson.

BY MR. ANDERSON

Q Yes. Thank you.

Just flipping through that, please confirm for me that none of these plants are in service. These are all proposed plants. Is that right?

A That is correct.

Q Is it fair to compare the projected book lives of other utilities' proposed combined cycle plants with FPL's actual plants?

A I don't believe that it is. For one specific instance, as I note here, you've got a combined cycle

one-on-one G.E. 7FA that's a pretty unique design. There's not many of those around, but independent of that, one of the things that is important to understand is the impact of the environment here in the state of Florida. We run a lot of combined cycle units on a coastal environment. We ingest a lot of chlorides. It's shown to be harmful to these units. So I think it's important to understand that it's very easy to put a book life on this right now, but when you look at FPL who has operated units, these advanced gas turbines longer than anyone else, we have an intimate knowledge of just what makes these units work, and it's our belief and our understanding and our experience that a 25-year life is appropriate on these.

Q And then thinking about some of the combined cycle plants you've talked about that the company's built in recent years which contributed to the fuel cost savings and things, you're familiar with all of those; right?

A Yes, I am.

Q And you're familiar with the fact that there were need determination proceedings before this commission with respect to every one of those, right?

A That is correct.

Q What service life did FPL use in the economics

supporting those decisions by the company and by the Commission to go ahead and build those to serve customers?

A When we go out for a need filing, we use 25 years as the design life and service life of these combined cycle facilities. Every one of the combined cycles that have been approved by this commission have had a 25-year service life.

Q Then turning to some questions Mr. McGlothlin asked you about the Plant Scherer up there in Georgia, is FPL's use of a 40-year service life for its unit reasonable and why?

A It is reasonable because that is the design life. The intent of depreciation is to recover the initial investment and -- over the service life of that particular investment, design life of that investment. That unit was built for 40 years, and the initial investment -- and that's what we're recovering over is that 40-year life. One of the things that is -- especially when it comes to coal, if you were to extend the depreciation life beyond that 40 years, given the uncertainties associated with coal technology today, the regulatory uncertainties associated with coal, I think that it is a very dangerous proposition to assume that you will run those units for 50 or 60 years. I think

the regulatory environment around coal which looked like to be years ago a very sound approach, and it certainly was a fuel source that was a domestic fuel source. It looked like the right alternative. I do not believe that it's prudent to assume that you will continue to make investments in coal technology for 60 years. In fact, this commission told FPL to seek alternatives to coal because of the uncertainties surrounding that technology and the regulatory climate around it, and I think that that was a prudent decision. Certainly today is looks to be even more prudent, and I think to assume that you will run this technology and that the business climate will support investments in this technology 30 and 40 years in the future is a reckless assumption.

Q Are you speaking mainly about carbon dioxide regulation?

A That's what we know today, but yes.

Q Do you know of any engineering technical reason that supports extending the estimate of service life for Plant Scherer beyond 40 years?

A No.

MR. ANDERSON: We have no further questions.

CHAIRMAN CARTER: Exhibits.

MR. WRIGHT: Mr. Chairman.

CHAIRMAN CARTER: Mr. Wright?

MR. WRIGHT: I would like to ask a couple of questions on recross.

CHAIRMAN CARTER: *Porquoi*, why?

MR. WRIGHT: He inquired about exhibits that I had introduced through Mr. Hardy.

MR. ANDERSON: That's not a basis for recross.

MR. WRIGHT: Clarifying questions regarding his redirect. He opened the door for additional examination, Mr. Chairman.

CHAIRMAN CARTER: Give me more, Mr. Wright, on where you're heading with this because --

MR. WRIGHT: Certainly. He asked about the Canaveral unit in the Ten-Year Site Plan. My proffer, as it were, what I want to ask him is: Isn't it true that FPL intends to keep the steam turbine generators in place and simply remove the steam -- the heat recovery -- the boilers from those units. And with regard to Exhibit 533, he tried to make the point that it is somehow not fair to compare these units to FPL's units. I want to make the point that the OUC unit and the FMPA units are G.E. 7FA combustion turbines in combined cycle configurations, and that all of those units are in fact located in Florida. The witness' answer in response to Mr. Anderson attempted to make some form of distinction regarding the environmental

conditions in Florida. All of these units are Florida utilities. They're all here.

CHAIRMAN CARTER: I'm thinking aloud, Mr. Wright, because I think that the Commissioners particularly can make a distinction based upon that. We know it was cross-examination, and I'm really struggling to get there with you. Mr. Teitzman, can you help me out, because I don't -- I don't see it yet.

Mr. Teitzman.

MR. WRIGHT: My point is that Mr. Anderson elicited additional testimony from the witness --

CHAIRMAN CARTER: Over and above what you asked him --

MR. WRIGHT: -- over and above what I asked him about, and I want to pursue that briefly as I just articulated.

CHAIRMAN CARTER: Most irregular, but I'll tell you what, I'll allow very, very brief, very, very brief, Mr. Wright.

MR. WRIGHT: I'm telling you the truth. The questions that I had are the ones I said.

CHAIRMAN CARTER: Brief questions now.

RECROSS EXAMINATION

BY MR. WRIGHT:

Q Mr. Hardy, with respect to the Canaveral power

plants that you discussed with Mr. Anderson in redirect examination, isn't it true that the company is repowering that unit?

A No, that is not true. We are leveling that site and we are building it back and we are not using the steam turbines as you indicated.

Q Thank you. With respect to Exhibit 533, isn't it true that all three of those units are in Florida?

A Yes, that's true, but that doesn't mean that they are subject to the same environmental conditions as you indicated.

Q Are you going to assert that the environmental conditions near Orlando are significantly different from the environmental conditions near Sanford?

A No. I think that they are somewhat similar, but I would also tell you that, if you look at -- one of the things that affects the -- these particular combustion turbines significantly is chlorides, primarily chlorides in the atmosphere. We map chlorides geographically in the state of Florida. If you look at the coastal units like at the Cape Canaveral facility and the amount of chlorides that are in the air there versus say someplace in south Georgia let's say, it's significantly different, and we know that that affects not only the gas turbines, but we also know that it

affects the -- just the -- our maintenance cost in maintaining the facility in general.

I think it's -- I guess an example would be, when you go to the beach and you're on the east coast of Florida and you park your car overnight, you wake up, you've got salt all over it. Well, that's the same scenario that we're referring to. The chloride content on the coast of Florida because of the prevailing winds on the east coast is very significant, and whatever the stipulations are that UOC uses to establish their book life, I'm not familiar with, but I'm very familiar with the consequences and the effects of the environment on our Sanford facility as well as all of our G.E. 7FAs.

Q Did you distinguish in --

CHAIRMAN CARTER: This the last one, Mr. Wright.

BY MR. WRIGHT

Q Yes, sir. Do you distinguish in your projected service lives for combined cycle units between your inland units, such as Martin and Sanford, and coastal combined cycle units?

A No, we do not, but we do recognize that there are significant differences, and we are taking steps to mitigate those that are in different geographic regions within the state.

MR. WRIGHT: Thank you, Mr. Chairman. Thank you, Mr. Hardy.

CHAIRMAN CARTER: Thank you, Mr. Wright. I think we allowed you to get what you needed to get on that.

Mr. Anderson, no re-redirect; correct?

MR. ANDERSON: That's right, sir.

CHAIRMAN CARTER: Thank you. Let's go, Commissioners, to page 20. Mr. Anderson.

MR. ANDERSON: FPL offers Exhibits 76 to 84 and 342 to --

CHAIRMAN CARTER: Hang on, whoa, whoa.

MR. ANDERSON: I'm sorry. My fault.

CHAIRMAN CARTER: Let's stay here on page 20 for now. Page 20, Exhibits 76 through 84, are there any objections.

Okay. Hearing none.

(Exhibit Nos. 76 through 84 admitted into the record.)

CHAIRMAN CARTER: Now let's go to page 40. Mr. Anderson, you're recognized.

MR. ANDERSON: Thank you, and I apologize for rushing it. 342 to 44 offered into evidence.

CHAIRMAN CARTER: Are any objections?

Without objection, show it done.

(Exhibit Nos. 342, 343 and 344 entered into the record.)

CHAIRMAN CARTER: Now let's go to the back pages. Mr. McGlothlin, Exhibit 530.

MR. McGLOTHLIN: I move 530 and 531.

CHAIRMAN CARTER: Are there any objections to 530 and 531?

MR. ANDERSON: No.

CHAIRMAN CARTER: Without objection, show it done.

(Exhibit Nos. 530 and 531 entered into the record.)

CHAIRMAN CARTER: Mr. Wright, 532 and 533.

MR. WRIGHT: I move them into evidence, Mr. Chairman.

CHAIRMAN CARTER: Are there any objections?

MR. ANDERSON: No.

CHAIRMAN CARTER: Without objection, show it done.

(Exhibit Nos. 532 and 533 entered into the record.)

CHAIRMAN CARTER: Staff, you're recognized.

MS. BENNETT: On Staff's Composite Exhibit, Comprehensive Exhibit, page 5, Item 11, Interrogatory No. 264 and 268; on Staff's Comprehensive Exhibit page

9, Item 37, Response to Interrogatory No. 34; on page 10, Item 41, Response to Interrogatory No. 109; and page 14, Item 68, POD No. 50.

CHAIRMAN CARTER: And just for the record, Ms. Bennett made a representation earlier that the parties had no objection. Are there any objections?

MR. ANDERSON: None.

CHAIRMAN CARTER: Okay. Without objection, show it done.

(Staff's Comprehensive Exhibit Item 11, Item 37, Item 41 and Item 68 entered into the record.).

CHAIRMAN CARTER: Staff, anything further on that?

MS. BENNETT: Nothing further.

CHAIRMAN CARTER: Anything further for this witness from any of the parties?

You have a tremendous bladder, sir. You may be excused.

THE WITNESS: I have reached my limit.

CHAIRMAN CARTER: Call your next witness.

MR. ANDERSON: FPL calls Mike Davis as its next witness.

CHAIRMAN CARTER: Mike Davis.

MR. BUTLER: Mr. Chairman.

CHAIRMAN CARTER: Hang on one second.

Yes, sir, Mr. Butler.

MR. BUTLER: I was just going to say that Mr. Davis has been previously sworn and he's appearing only on rebuttal testimony.

CHAIRMAN CARTER: Okay. Only on rebuttal. All right, excellent. So Mr. Davis is familiar with our lights, right? Mr. Davis --

MR. BUTLER: Are they working again?

CHAIRMAN CARTER: They are back on. Right, right, Chris?

Okay. Mr. Butler, you may proceed.

Whereupon,

K. MICHAEL DAVIS

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

DIRECT EXAMINATION

BY MR. BUTLER:

Q Thank you. Mr. Davis, would you please state your full name and business address for the record?

A My name is initial K. Michael Davis, business address, 700 University Boulevard, Juno Beach, Florida.

Q Thank you. And by whom are you employed and in what capacity?

A I'm employed by FPL Group as a Chief Account

-- as Controller and Chief Accounting Officer. I also serve as Vice-president and Chief Accounting Officer of Florida Power & Light Company.

Q Have you prepared and caused to be filed 33 pages of prefiled rebuttal testimony in this proceeding?

A Yes, I have.

Q Do you have any changes or corrections to make to your testimony?

A I have one typographical change, and, John, I will tell you that my page numbering is apparently different than yours, but on the version that you showed me, it's page 26, line 4, the word sited, s-i-t-e-d, should be cited, c-i-t-e-d.

MR. BUTLER: Mr. Chairman, do you have that as page 26, line 4? I just want to be sure there's no confusion. It starts out, "Intervenors have sited several Commission orders."

CHAIRMAN CARTER: The question beginning on line 4?

MR. BUTLER: That's right.

CHAIRMAN CARTER: So at the end of the sentence --

MR. BUTLER: Actually, the third word in should be c-i-t-e-d instead of s-i-t-e-d.

CHAIRMAN CARTER: Okay. Commissioners, on

page 26, the question beginning on line 4, the third word, instead of sited with an S, it should be with a C.

Okay. Mr. Butler.

BY MR. BUTLER:

Q With that change, Mr. Davis, if I asked you the questions contained in your testimony today, would your answers be the same?

A Yes, they would.

MR. BUTLER: Mr. Chairman, I'd ask that Mr. Davis' prefiled rebuttal testimony be inserted into the record as though read.

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

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY OF K. MICHAEL DAVIS

DOCKET NO. 080677-EI & NO. 090130-EI

AUGUST 6, 2009

Q. Please state your name and business address.

A. My name is K. Michael Davis. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida 33408-0420.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as Vice President and Chief Accounting Officer.

Q. Please outline your educational qualifications and experience.

A. I hold a Bachelor of Science degree in Business Administration, with a major in Accounting from the University of Florida. I was employed for approximately 18 years by Deloitte Haskins & Sells, Independent Public Accountants (presently Deloitte & Touche). In December 1988, I was employed by FPL and have served as its Chief Accounting Officer on a continuous basis since that date. I am a Certified Public Accountant in the state of Florida, and a member of the American Institute of Certified Public Accountants and the Florida Institute of Certified Public Accountants. I am a member and past chairman of the Accounting Executive Advisory Committee of the Edison Electric Institute (EEI). That group is composed of Chief

Accounting Officers from utilities that are members of EEI and oversees the activities of the various accounting committees of EEI and advises senior EEI committees on accounting issues.

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

A. Yes. I am sponsoring the following rebuttal exhibits:

- KMD-1, Effect of Theoretical Reserve Surplus on 2010 Revenue Requirements
- KMD-2, Revenue Requirement Impact of Proposed Amortization
- KMD-3, Comparison of Book Depreciation Reserve and Theoretical Reserve for Nuclear Uprates
- KMD-4, Stranded Investment Recovered from Customers in Other States

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to certain recommendations made by the Office of Public Counsel's (OPC's) witnesses Pous and Lawton, South Florida Hospital and Healthcare Association's (SFHHA's) witness Kollen, and Florida Industrial Power Users Group's (FIPUG's) witness Pollock related to depreciation expense. I will address the theoretical reserve surplus recommendations of these witnesses; FPL rebuttal witness Clarke will provide comments on the various depreciation parameter changes proposed by these witnesses. I will also address the appropriate use of capital recovery schedules within FPL's depreciation study.

My rebuttal testimony will demonstrate why FPL's proposed treatment of the depreciation reserve surplus and capital recovery schedules in this case is both consistent with Commission practice and, most importantly, in the best interest of FPL's customers. Specifically with regard to the depreciation reserve surplus I will demonstrate that the intervenor witnesses have painted an incomplete picture for the Commission by showing only the near term customer "savings" resulting from a rapid amortization of the surplus and ignoring the significant rate increase which would immediately follow. This rate increase would be a direct and unavoidable consequence of the rapid amortization and would exceed the short term savings recommended by the intervenor witnesses in both magnitude and duration.

SUMMARY

Q. Please summarize your rebuttal testimony.

A. The following is a summary of my rebuttal testimony:

1. Theoretical reserve surpluses and deficits only involve a question of when a customer is charged for use of the assets necessary to provide service, not whether the customer should be charged. As such it is a question of the timing of expense recognition.
2. FPL's current theoretical reserve surplus provides a benefit to customers.

- As shown in my Exhibit KMD-1, FPL's revenue requirements in this case are $216 million lower as a direct result of the theoretical reserve surplus.
- Theoretical reserve surpluses reduce revenue requirements because they reduce rate base. In contrast, rapid amortization of a reserve surplus (as recommended by the intervenors) would provide an artificial, unsustainable short term rate reduction and would rapidly increase rate base over the term of the amortization. The end result in FPL's case would be a rate shock to our customers that would significantly exceed the artificially lower rates in the short term.
- The theoretical reserve surplus lowers the risk of cost increases from premature retirements due to external factors, such as technological changes, climate legislation, hurricanes, etc. remaining in rate base and having to be collected after the customer is no longer benefiting from the asset.

3. The theoretical reserve surplus should be addressed through the Commission's long established policy of using the remaining life depreciation methodology. This approach promotes rate stability because the theoretical reserve surplus is returned over the remaining life of the asset at the same time that other risks to the affected assets decline.

4. Intervenor witnesses Pous, Lawton, Kollen and Pollock focus solely on short-term rate reductions and completely ignore the large rate increase of up to $478 million that would be necessary just a few years later, solely as a result of their recommendations. This assumes the amortization of the full $1.245 billion over four years. It should be noted that the effects of this rate increase will continue for an extended period of time. As can be seen from my Exhibit KMD-2, witness Pous' recommendation would result in a $233 million rate reduction in 2010, but that would become a $399 million rate *increase* starting in 2014; witness Pollock's recommendation would result in a 2010 rate reduction of $125 million followed by a $234 million increase starting in 2014; and witness Kollen's recommendation would decrease rates by $249 million in 2010 then increase them starting in 2015 by $415 million.
5. This would be a particularly poor result given that FPL will be adding more than $16 billion to rate base over the next five years.
6. The theoretical reserve surplus reflects actions benefiting customers.
    - The use of innovative depreciation accruals such as revenue based depreciation.
    - Rate agreements that left depreciation rates unchanged for an extended period.
    - An extension of the term of the operating licenses for FPL's nuclear plants.

- Life extensions for other operating assets.

7. Mr. Pous overstates the near term benefits of amortizing the theoretical reserve surplus over a short period because he failed to consider the effects the theoretical reserve surplus has on current depreciation rates.

THEORETICAL RESERVE

Q. Please explain the concept of a theoretical reserve.

A. A theoretical depreciation reserve is a *calculated* rather than an *actual* depreciation reserve. It is used as a guide in analyzing the status of the actual reserve. The actual depreciation reserve represents the total amount of depreciation accumulated on assets still in service from their in service date to the present. The theoretical reserve is not an exact measurement for determining the condition of the actual reserve. It is only a reference point calculated at a point in time, based on the proposed depreciation parameters and reflecting the Commission's required use of the prospective method. Also, the theoretical reserve gives no consideration to the manner in which the assets in question are being utilized or historical factors that affected the actual amount recorded in the depreciation reserve.

The theoretical depreciation reserve represents a snapshot look at where the accumulated provision for depreciation would be at a specific point in time, based on specific assumptions about the future. This is then compared with

the accumulated provision for depreciation actually reflected in the Company's books and records. The difference between these two amounts is known as the theoretical reserve surplus or deficit.

Since the theoretical reserve is a snapshot, it will change every time new depreciation rates are computed. These changes do not reflect errors. Rather, they reflect changes in the perception of the future based on the current depreciation parameters. Therefore it should be obvious that the theoretical reserve is narrowly focused on the present and does not consider either historical or uncertain future events.

THEORETICAL RESERVE SURPLUS

Q. Does the existence of a theoretical reserve surplus indicate that customers have been charged too much for the assets in question?

A. No. As I stated earlier, the theoretical reserve is only a snapshot or benchmark used to start an analysis. A theoretical reserve surplus could indicate that the customer was charged for use of the asset sooner than the snapshot assessment of the future indicates was necessary; however, it doesn't tell you why the early charge was made. Nor does it address the fundamental question of whether the customer should be charged for use of the asset. As such, it only involves a question of timing. Assuming the asset is used and useful, the customer will ultimately be charged for use of the asset.

Q. How does the Theoretical Reserve Surplus affect customers?

A. The theoretical reserve surplus reduces rate base and depreciation expense. As a result, the revenue requirements upon which customer rates are based are lower than they would be if the theoretical reserve surplus did not exist. As shown in my Exhibit KMD-1, the $1.245 billion theoretical reserve surplus reported by FPL results in annual revenue requirements that are $216 million less than they would be if the reserve did not exist. Thus, customers are receiving a current benefit through lower rates.

Q. How do you recommend the Commission address the theoretical reserve surplus?

A. I recommend that the Commission address the theoretical reserve surplus by continuing its long-standing reliance on the remaining life depreciation methodology. This method is self-adjusting and will address deficiencies and surpluses over the remaining useful life of the assets. Over that same period, the existence of any theoretical reserve surplus will continue to benefit customers by reducing revenue requirements as previously discussed while providing an effective hedge against uncertainties, such as early asset retirements due to events like hurricanes, technology changes, climate legislation, etc.

Q. Wouldn't customers benefit if the theoretical reserve surplus was reversed over a short period as suggested by intervenor witnesses Pous, Lawton, Kollen and Pollock?

A. Only in the short run. It is true that reversing the theoretical reserve surplus over a short period of time would artificially reduce revenue requirements during that period. However, it is also true that solely as a result of that short term benefit, customers would then face a substantial rate increase. The short term "benefit" is far outweighed by the longer term detriment to FPL's customers. As shown in my Exhibit KMD-2, annual revenue requirements would increase $478 million if the theoretical reserve surplus of $1.245 billion were amortized over four years and $415 million if it were amortized over five years. Unfortunately, the rate increase would not only be larger than the short-term reduction, it would persist over a much longer period and would compound the cumulative effect of the significant capital expenditures we anticipate in the near future. Such dramatic fluctuations in revenue requirements solely as a result of a short-term reduction in revenue requirements are not in our customer's long-term best interests.

Q. Would the intervenor witnesses' proposals to amortize the theoretical reserve surplus reduce or eliminate intergenerational inequities as suggested?

A. No. In fact, the effect is the opposite of what is suggested. A rapid amortization will create intergenerational inequities by providing customers during the next four years with an artificial benefit while requiring customers in future periods to pay significantly higher costs solely as a result of the short-term benefit having been provided. It is important to remember that at no time during the period that the theoretical reserve surpluses were

accumulated was there a general base rate increase. Consequently, there were no incremental rates paid by customers. In fact, rates decreased by $350 million in 1999 and another $250 million in 2002, as a result of settlement agreements to which most parties in this proceeding participated and which were approved by the Commission.

Q. Are there other events that the Commission should consider in determining how to address the theoretical reserve surplus?

A. Yes. The effects of future events that cannot be predicted with certainty such as the impact of climate legislation on fossil plant lives and the effect of hurricanes on all plant assets should be considered in determining how to best address the theoretical reserve surplus. In addition, we anticipate that FPL's nuclear uprate assets will, until the next depreciation study is approved, be under-depreciated by as much as $68 million. Computation of this amount is shown in my Exhibit KMD-3. This is due to the declining remaining life of the nuclear facilities at the same time the total investment is increased by the cost of the uprates and is a logical consequence of resetting depreciation rates once every four years. The Commission should carefully consider these events in making its decision regarding the theoretical reserve surplus.

Q. What would be the consequences of not considering these potential future events?

A. Failure to consider the potential effect of the uncertain future events mentioned above could result in unrecovered costs associated with plants being retired earlier than anticipated or in significant capital expenditures

being required. This would either increase the amount of unrecovered costs associated with retired assets or exacerbate the effects on rate base of the capital expenditures. For example, if the theoretical reserve surplus is eliminated, the undepreciated cost of distribution assets retired due to a hurricane would create a deficit because the potential for such losses is not considered in the parameters used to develop depreciation rates. Allowing the theoretical reserve surplus to be reduced over time through the remaining life methodology provides an offset to any such deficit. Similarly, if significant capital expenditures are required to comply with new environmental regulations, rate base would increase, putting upward pressure on base rates soon after customers suffered the rate shock of a significant base rate increase solely as a result of amortizing the surplus over a short period of time. Amortizing the theoretical surplus over the remaining life of the assets would help keep rates lower as the effects of the surplus reduce rate base and revenue requirements.

HISTORICAL FACTORS AFFECTING ACCUMULATED DEPRECIATION

Q. On page 8, Mr. Pous states: "It is useful to compare the actual reserve to the "theoretical reserve," or the reserve that would be necessary to enable the utility to remain "on course" to recoup its investment ratably over the

current estimate of life of the asset or assets in question at a given point in time." Do you agree with this statement?

A. Yes. However, I would like to address this issue of comparison more fully. This comparison by necessity includes an understanding of the issues that impacted past assumptions used in recording the actual amounts of depreciation that are reflected in the book depreciation reserve.

Q. Can you give some examples of issues that would have impacted assumptions from the past?

A. Yes. During the 1990's, the Florida legislature was investigating whether deregulation of the electric industry would benefit Florida and its citizens. This gave rise to concerns about stranded investment. FPL, with the approval of the Commission, (See Docket No. 950359-EI, Order No. PSC-96-0461-FOF-EI and Docket No. 970410-EI, Order No. PSC-98-0027-FOF-EI) addressed that risk using nontraditional depreciation methods such as revenue based depreciation that reduced the risk without increasing customer rates. There is ample evidence as shown in my Exhibit KMD-5 that significant amounts of stranded costs were borne by customers in states that did deregulate. This was a very real risk that would not be captured in the theoretical reserve process nor would it have been addressed through normal depreciation rates. I do not believe it is appropriate to characterize a well thought out and innovative approach to addressing stranded costs without a rate increase as an "overly aggressive depreciation practice" (Pous page 3 and 4).

In 2002 and 2003, FPL received approval from the Nuclear Regulatory Commission to extend the operating licenses for its nuclear units by 20 years. Prior to that, FPL had prepared its depreciation studies under the assumption that it would only operate the plants during the period of their initial operating license. When the license extension was received, FPL changed its remaining life assumption to reflect the extension. While customers will continue to receive low cost energy from these units, as discussed by Mr. Stall, FPL will continue to make significant capital expenditures to maintain and improve these units. None of these future costs are considered in determining the theoretical reserve.

Also, FPL continues to improve its maintenance practices and is making capital expenditures that affect the remaining service lives of its non-nuclear properties. Again, none of these future expenditures are reflected in the theoretical reserve computation.

Q. Will these types of events impact the future?

A. Yes. Although there is no current indication that deregulation will occur in Florida, there are other uncertainties that could have a similar effect. Environmental legislation is a good example. Climate change legislation, also known as cap-and-trade, could adversely affect the economics of coal plants and less efficient oil fired plants. I believe that the Commission should consider these possibilities in evaluating the appropriate lives of non-nuclear generating facilities. As an example, expanding the life of coal facilities to 60

years would create stranded investment (i.e. net book value remaining after retirement) if these plants could no longer be operated. In consideration of the prospect of climate legislation, 2010 would appear to be an ill advised time to increase the depreciable lives of FPL's coal and oil fired generating plants.

COMMENTS ON INTERVENOR WITNESS STATEMENTS

Q. On page 10, witness Pous states the following: "Generally speaking, it is in an electric utility's financial self-interest to collect more dollars from customers than fewer dollars, to collect those dollars sooner than later, and, once having collected dollars, to keep them rather than returning them to customers." Do you agree with this statement?

A. Absolutely not. Mr. Pous' implication that a utility operates under a "self-interest" mode ignores the fact that a utility is under an obligation to serve its customers and to do so at the lowest possible cost. Mr. Pous ignores the fact that a utility no longer receives a return on an investment once it has been depreciated.

Utilities are capital intensive by nature, that is, they require significant amounts of investment in order to continue to provide reliable electric service. Customers are much better off when a utility can generate sufficient funds from its operations and minimize the requirements for external financing. Therefore, the customer's interests and the Company's are aligned in this

regard – the longer the asset is in rate base earning a return, the greater the total cost to the customer. An appropriate balance must be struck, which the Commission does through the use of remaining life depreciation and its oversight authority.

Q. On page 9, Mr. Pous states, "FPL has built a massive depreciation reserve excess – so massive that the Commission should require FPL to return a portion of the excess to customers over a four year period." Do you agree with his statement?

A. Absolutely not. First, the Commission should consider how the theoretical reserve surplus arose. Given the reasons previously discussed, I believe the remaining life depreciation method, which this Commission has relied upon over many years, will properly correct any theoretical reserve imbalances for either deficits or surpluses. In the current depreciation study, this correction has the effect of reducing depreciation expense by $57 million from the amount it otherwise would have been without the theoretical reserve surpluses.

Q. On page 12, Mr. Pous states, "My analysis, based upon data, assumptions and rationales that I develop and support in detail, reveals that FPL has a current reserve excess of $2.75 billion." Do you agree with his assertion?

A. No. Mr. Pous' $2.75 billion is based on adjustments he has made that Mr. Clarke will show in his testimony are incorrect.

Q. On page 13, Mr. Pous states: "In my testimony I have not challenged or sought to disallow recovery of any of the investments in plant. My

proposed adjustments affect only the timing of the collections." Would you please comment on these statements?

A. Yes. Mr. Pous attempts to establish that his recommendation will benefit customers without harming FPL. This is not correct, as his recommendation would harm both FPL and our customers. Again, what he fails to address is the rate shock and the dramatic fluctuations in customer rates that will result from his recommendations. Specifically, he fails to address that the customers' base rates could solely as a result of his recommendation increase by 3.8%. I believe it is in the customer's best interest to continue the $216 million benefit currently reflected in rates and rely on the remaining life methodology to correct the surplus.

Q. On page 16, Mr. Pous states: "I recommend that the life spans for coal fired units be increased from the low 40-year range as proposed by the Company to 60 years as is now being recognized by other regulators and utilities. I further recommend that the minimum life span for large steam oil or gas fired generating facilities be set at a minimum of 50 years." Do you agree with his recommendations?

A. No. Mr. Clarke addresses the appropriate life spans for coal and large steam oil or gas fired capacity. However, I would ask the Commission to consider some additional thoughts I have on the recommendation.

With regard to large steam oil or gas-fired generating facilities, the Commission should consider whether the current use of these units justifies

the restoration of the net book value to the level indicated by the theoretical reserve. Because these units are less efficient and are dispatched less frequently than the more efficient combined cycle units, they should have less of their original cost remaining to be recovered.

Q. **On page 35, witness Pous states: "As previously noted, I do not believe most utilities allow identified imbalances of this magnitude to be created. Generally speaking, by revisiting the reserve situation with a comprehensive study every few years, one would reasonably expect the variance between the theoretical reserve and the book reserve to stay within reasonable bounds." Would you please respond to Mr. Pous' comments?**

A. Yes. Mr. Pous' comments imply that FPL and the Commission somehow have not been diligent in the review and development of FPL's depreciation rates. That is simply not the case. FPL's current depreciation study and its predecessors were prepared and filed in compliance with all of the Commission's requirements. Those studies were reviewed and approved by the Commission or else depreciation rates were left unchanged as a result of a Settlement Agreement, which was also approved by the Commission. The incredible interest in the theoretical reserve at this point in time appears to have more to do with reducing rates in the short term, and at any cost, than with appropriate depreciation accounting. Further evidence of this can be seen in Mr. Pous' failure (as identified in FPL witness Clarke's rebuttal testimony) to reset the depreciation reserve levels from the book reserve to the

theoretical reserve when he carved out the theoretical reserve surplus for amortization separate and apart from the depreciation study. This results in an overstatement of his depreciation reduction. The Commission should not be misled in the practical application of the theoretical reserve calculation and its proper use in determining future depreciation rates. As I have stated previously, there are many good reasons for why we are where we are today with respect to accumulated depreciation.

Q. On page 36, witness Pous states: "...that fairness compels a departure from FPL's "business as usual" remaining life approach so that current customers do not continue to subsidize future customers to such a large extent." Would you please comment on Mr. Pous statement?

A. Yes. I do not agree with Mr. Pous' comment about "business as usual" when it comes to addressing reserve excesses or deficiencies. The Commission approved method of addressing a reserve excess or deficiency is by using the remaining life methodology, which is a self-adjusting process. Even the use of capital recovery schedules is consistent with this approach, since it addresses the remaining undepreciated costs of an asset to be retired over a period that approximates its estimated useful life and which is consistent with the Commission's requirements for filing depreciation studies. The effect of changes in the remaining lives of depreciable assets should be reflected as a prospective change to depreciation rates over the remaining lives of the related assets. This Commission has consistently approved the application of the remaining life method for FPL in Docket Nos. 910081-EI, 931231-EI,

971660-EI, and Docket No. 050188-EI, the last four times new depreciation rates were established for FPL based on comprehensive depreciation studies, as well as for several individual plant depreciation studies filed by FPL.

I also take exception to Mr. Pous' view that current customers are subsidizing future customers. In fact, as previously stated, revenue requirements for the 2010 test year in this proceeding are $216 million lower as a direct result of the reserve surplus. This reduction has two components: lower return requirements due to lower rate base and lower depreciation expense due to lower unrecovered balances of plant in service. FPL's customers are receiving a very real and tangible benefit from the existence of the theoretical reserve surplus.

Q. On page 39 and continuing on page 40, Mr. Pous states: "My position is that there is no realistic basis or possibility that the excess reserve would turnaround and become a deficiency by the time of the next depreciation study is completed in four years." Do you agree with his statement?

A. No. I do not agree with Mr. Pous' estimate of the theoretical reserve surplus and as stated earlier in my testimony, Mr. Clarke will address this. Predicting where FPL will be from the standpoint of a theoretical reserve surplus or deficiency is very difficult. Making a statement such as Mr. Pous has implies that he knows everything about the future today. This is assuredly not the case. As a practical matter, things may change that cannot be anticipated. That is why four years from the March 2009 filing, FPL will be required to

file a new depreciation study. That study, based on the then-current view of future as well as historical events, will properly address reserve surpluses or deficiencies as of that point in time.

Q. **On page 40, Mr. Pous recommends that "$44,906,153 of unrecovered costs due to the early retirement of the Cape Canaveral and the Rivera stations be offset out of the $410 million of Company identified excess reserve for steam production investment" and on lines 11 through 13 that "$168,234,989 of unrecovered costs due to the nuclear uprates be offset out of the $377.5 million of Company identified excessive reserve for nuclear production investment" and on lines 13 through 15 "that $101,081,858 of unrecovered costs due to relating to Meters-Obsolete by AMI be offset out of the $340 million of Company identified excess reserve for the distribution function." Do you agree with his approach?**

A. No. The use of capital recovery schedules for certain assets that are anticipated to be retired over a relatively short period of time is consistent with previous Commission practice. The Florida Administrative Code Rule 25-6.0436, paragraph (10), subpart (a) states:

> Prior to the date of retirement of major installations, the Commission shall approve capital recovery schedules to correct associated calculated deficiencies where a utility demonstrates that (1) replacement of an installation or group of installations is prudent and (2) the associated investment will

not be recovered by the time of retirement through the normal depreciation process.

The Commission's rule is consistent with the concept that using capital recovery schedules helps to ensure that recovery of retired equipment occurs close to, or before, the new equipment costs begin to be included in rates. FPL has had several capital recovery schedules approved by the FPSC in the past and is currently in its last year of a 4-year capital recovery schedule for its retired St. Lucie Unit 2 steam generator and reactor vessel heads at all of its nuclear units. Capital recovery schedules have been approved in Docket No. 050188-EI, Order No. PSC-05-0902-S-EI, issued 9/14/05. Other capital recovery schedules approved by the FPSC are: Ft. Myers (3.5 years) and Sanford (5.5 years) repowering retirements in Docket No. 971660-EI, Order No. PSC-99-0073-FOF-EI, issued 1/8/99; and St. Lucie Unit 1 steam generator replacement (4.5 years), major overhaul and asbestos abatement projects (4 years), Cutler Unit 4 and Sanford Unit 1 (1 year), and pre-existing 10-year warranted silicone cable injection (8 years) in Docket No. 931231-EI, Order No. PSC-94-1199-FOF-EI, issued 9/30/94. As discussed above, what FPL has requested related to the nuclear uprates, AMI Meters, Cape Canaveral, and Riviera power plants is consistent with Commission rules and practices that span many years for assets that are being replaced. For AMI Meters, this is a change in technology that is anticipated to occur over the 2010 to 2013 period. This period coincides with the 4-year depreciation study

cycle and would result in the recovery of these deficiencies before the setting of the Company's next depreciation rates. The Commission should reject Mr. Pous' recommendation of applying the reserve excess to FPL's proposed capital recovery schedules and continue with its long-standing precedent for handling these large interim retirements.

Q. On page 53 and on page 54, in response to a question asking if the Commission should authorize depreciation over four years for the undepreciated costs of the Cape Canaveral and Riviera facilities, Mr. Kollen states: "No. The Commission should direct the Company to cease depreciation on these facilities, add the remaining net book value to the costs of the modernization, and then depreciate the costs along with the modernization costs over the estimated service lives of the modernized facilities." Do you agree with his proposal?

A. No. As discussed above in my testimony the Commission has a long-standing precedent and has contemplated how to properly recover these large interim retirements in its depreciation rule. The Commission should reject Mr. Kollen's proposal. His proposal would violate both Generally Accepted Accounting Principles (GAAP) and the Uniform System of Accounts (USOA) by adding an unrelated cost to the new asset.

Q. On page 55, in response to the question "Should the Commission authorize depreciation over a four year period for the nuclear uprate costs incurred through December 31, 2009," Mr. Kollen stated: "No. The

Commission should depreciate these costs over the remaining extended license life of the nuclear units." Do you agree with his proposal?

A. Mr. Kollen's position is not clear. If Mr. Kollen's position is that the nuclear uprate costs incurred through December 31, 2009 and those incurred after December 31, 2009 relating to plant in service additions should increase plant and be depreciated over the life of the asset, the Company agrees. These assets will increase the output of the units and improve the facilities and should be depreciated over the remaining life. However, if Mr. Kollen is recommending the deferral of the net book value of retirements and that the cost of removal should be recovered over the remaining extended license, then the Company disagrees. The cost of removal and the remaining net book value of the retirements should be deferred and recovered over a four year period as requested in the capital recovery schedule. The capital recovery schedule is consistent with the Commission rule on depreciation and the precedent it has established on these large interim retirements. As discussed above, there are numerous examples where the Commission has approved capital recovery schedules, such as those proposed by FPL.

Q. **On page 55, in answer to the question "Should the Commission authorize depreciation over a four year period for the existing meter investment?" Mr. Kollen replied: "No. The Commission should use the same depreciation or amortization rate for these costs as it adopts for the remaining existing meter investment that will not be replaced by AMI meters." Do you agree?**

A. No. The Company has requested a capital recovery schedule for the net book value related to the meters it is replacing with new AMI meters. This replacement is due to the new technology in the AMI meters and of which FPL witness Santos has described in detail in her direct testimony. The Company is not doubling up as Mr. Kollen is suggesting but rather has established a separate recovery schedule consistent with Commission depreciation rules and precedents for recovery of the net book related to the meters being replaced. As I have stated earlier in my testimony with regards to the remaining net book on the Cape Canaveral and Riviera units, Mr. Kollen's proposal would violate GAAP and the USOA by adding an unrelated cost to the new asset.

Q. On page 41, Mr. Pous recommends that "the remaining $931,137,145 of the Company identified excess reserves be returned to customers over the next 4-years." Do agree with his proposal?

A. No. Using the amortization period that Mr. Pous is proposing would provide current customers a windfall at the expense of future customers as I have already discussed in my testimony.

Q. On page 51, Mr. Kollen states: "I recommend that the Commission amortize the reserve surplus over five years in a manner similar to that which it approved in Order No. PSC-05-0902-S-EI approving the settlement in the Company's 2005 rate case." Do you agree with Mr. Kollen's proposal?

A. No. Mr. Kollen's proposal is very similar to that of Mr. Pous, although for a larger amount. The arguments that I put forth on why the Commission should reject this proposal are the same as for Mr. Pous' proposal. The only difference in the two proposals is that Mr. Kollen's proposal would produce a much larger rate shock in year six than Mr. Pous does in year five. My Exhibit KMD-2 demonstrates the impact of Mr. Kollen's proposal. For the same reasons that I have previously stated, the Commission should reject Mr. Kollen's recommendation.

CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC)

Q. Do you agree with Mr. Pous' assertion that amounts received from third parties should be classified as salvage rather than contributions in aid of construction (CIAC)?

A. No. Mr. Pous is merely looking for a way to increase salvage-related recoveries. In the case of reimbursable jobs, the Company agrees with Mr. Clarke that the effect of reimbursable jobs should not be considered in establishing depreciation rates. We believe that the objective of the depreciation study is to set parameters that are related to the economic lives of the assets. Therefore, events such as hurricanes, reimbursable jobs, and other unusual events should not be considered.

COMMISSION ORDERS CITED BY INTERVENOR WITNESSES AS PRECEDENT FOR THEIR RECOMMENDED ACTIONS

Q. Intervenors have sited several Commission Orders as a precedent for early amortization of the theoretical reserve surplus. Do you agree with the conclusions they have made regarding the various orders they site?

A. No. I will address each order they cite below.

Q. On page 31, witness Pous cites certain Commission orders related to "corrective reserve transferences" to support his recommended action. Do you agree that these orders are reflective of his proposed reserve adjustments in this docket?

A. No. In Docket No. 880053-EI, Order No. 19901, the Staff of the Commission proposed corrective reserve transfers related to a change in the assignment of depreciation rates. Such corrective reserve transfers are generally between accounts within functions. Gulf Power had previously assigned its depreciation rates for production by accounts and had changed to assigning them by plant site. In making this transformation, reserve surpluses and deficits can be created and the Commission authorized the reserve transfers to correct for this.

In Docket No. 010669-EI, Order No. PSC-01-2270-PAA-EI, the Commission made adjustments to correct for reserve imbalances created over time. The adjustments discussed in these orders are typical adjustments made during the

review of a company's depreciation study and a primary reason the Commission requires the periodic review of depreciation rates. The Commission, however, did not order any kind of an accelerated recovery but rather made the appropriate reserve transfers and changed rates on a prospective basis which is consistent with its remaining life approach.

In Docket 860868-EI, Order No. 19438, the Commission made a reserve adjustment related to the interest synchronization of investment tax credits. The reserve adjustment was prescribed by the Commission as a bottom line depreciation reserve rather than a refund. The amount of the reserve adjustment was made account specific at the utility's next depreciation represcription and was for the recovery of the Supervisory Control and Data Acquisition System scheduled for retirement. In that order, the Commission also approved a capital recovery schedule for PCB contaminated transformers consistent with its recognition of the recovery of large interim retirements.

There are three other orders that I would like to address that Mr. Pous has identified in which the Commission has amortized depreciation reserve differences. In Docket No. 840049-TL, Order No. 14929, the Commission established a five-year amortization for General Telephone and Electronics (Gentel) net reserve deficit in the amount of $32,138,000. In so doing, the Commission stated in its order, "since Gentel's last depreciation represcription there have been substantial developments in the areas of technology and

competition which we believe should be reflected in the depreciation rates." The Commission was addressing two issues with its order, one relating to technological changes, i.e., going from analog to digital equipment and competition. In Docket No. 890203-GU, Order No.22115, the Commission addressed reserve transfers between plastic and other gas mains. The Commission also approved the application of a $47,934 expense associated with the write-off of a historic deficit that had concluded in 1986 to the "prospective reserve deficit, which will correct the overstatement of the rate base in seven years, rather than the 19 years remaining under the present amortization pattern." This was also authorized during a time when base rates were not being reset. In Docket No. 970410-EI, Order No. PSC-97-0499-FOF-EI, the Commission approved the continuation of the earnings plan approved in Docket No. 950359-EI. This plan was agreed to by the Commission, Office of Public Counsel and FPL. The plan allowed FPL to continue to record additional retail expenses equal to "100% of the base rate revenues produced by actual retail sales between its low band and most likely sales forecast and at least 50% of the base rate revenues produced by actual retail sales above FPL's most likely sales forecast for 1996 as filed in Docket No. 950359-EI." The order stated that the first priority for application of the expenses would be to correct any depreciation reserve deficiency then any deficiencies related to fossil dismantlement and nuclear decommissioning reserves and any remaining amounts would be recorded to an unspecified reserve account. It is important to note that these agreements came about due

to concerns by the Commission and the Company that deregulation in Florida would lead to stranded investment and that mitigation of that risk was in the best interest of the customers of FPL. It is also important to point out that these agreements were made outside of a base rate proceeding. The Commission should not accept Mr. Pous' arguments that these orders are appropriate precedents for his accelerated amortization proposal. The adjustments reflected in these orders occurred as a result of proactive efforts on the part of the Commission and the Company and without a change to customer rates.

Q. **On page 32, Mr. Pous states: "The Commission has adopted the position that depreciation reserve differences should be recovered as fast as possible, unless such recovery prevents the Company from earning a fair and reasonable return on investment." (See order No. PSC-93-1839-FOF-EI). Is this accurate?**

A. It is accurate only to the extent that the order contains the quote found in witness Pous' testimony. However, the order does not support witness Pous' conclusions or recommendations in this case; rather, it supports FPL's request. This order relates to a depreciation study as of December 31, 1992, filed by the Marianna Electric Division of Florida Public Utilities Company. In this order the Commission did state "such deficiencies should be recovered as fast as possible, unless such recovery prevents the Company from earning a fair and reasonable return on its investments." However, a closer look at the Commission's application of this concept supports FPL's position on the use

of the remaining life method. This Company had negative reserve balances related to the Power Operated account and the Tools, Shop and Garage account, Accounts 396 and 394.1, respectively. There existed a reserve surplus in the Poles, Towers, and Fixtures account, Account 364, and the Commission used it to correct the deficiency. The Commission authorized a reserve transfer. As such, the deficiency was subsumed in Account 364 and the resulting decrease was recognized over its approved remaining life of 23 years. This is consistent with FPL's position of utilizing the remaining life to address reserve deficiencies or excesses. The Commission did not authorize an immediate amortization affecting rates, but instead realized that the transfer of the deficiency was appropriate, and the result in Account 364 should be recovered over the remaining useful life. It is interesting to note that in this same order the Commission authorized the use of a capital recovery schedule over a four year period. This is also consistent with FPL's request in this docket. This is a practice the Commission has employed many times in the past and is provided for in the depreciation rules.

Q. **On page 32, Mr. Pous states: "In another case, the Commission adopted a one-year write-off for a portion of a utility's reserve deficit by stating that "we believe that it [the deficit] should be written off as quickly as possible. " (Emphasis added). (See Order No. 13918) Will you please comment on Order No. 13918?**

A. Yes. This order was for the represcription of depreciation rates for the St. Joseph Telephone and Telegraph Company. This Company had a reserve

deficit that was broken into two components: a historic deficit and a prospective deficit. The Commission determined that the historic deficit should be written off over one year. In determining this short amortization period, the Commission reviewed the Company's projected 1984 earnings and determined that the Company could absorb the additional expense and still earn at least its *maximum* 16% return. This is very similar to the 1990's as I have addressed earlier in my testimony when FPL, due to its strong revenue growth and the threat of deregulation, was able to record additional depreciation expense. This is clearly not the case today.

Q. **On page 33, witness Pous states: "It is also worth noting that the Company's proposed "business as usual" approach differs from the settlement in the last case. In that settlement, all parties agreed to allow FPL to, at its option, reduce depreciation expense during a 4-year period at the rate $125 million per year." Would you please comment on Mr. Pous statement?**

A. Yes. The reduction in depreciation of $125 million per year was based on a Settlement Agreement entered into by all the parties including Office of Public Counsel and approved by the Commission. Settlement Agreements by nature are based on give and take in which all the parties agree to a compromise for the good of all. FPL agrees with the Commission's policy of making depreciation adjustment for both surpluses and deficits over the remaining useful lives of the assets from which the surpluses or deficits

originated. As part of the settlement agreement, FPL agreed to the bottom line depreciation expense reduction.

Q. On page 32, Mr. Pous states: "In yet another case, the Commission addressed the fairness issue as it relates to intergenerational inequity." He addresses Order No. 13427. Would you please comment on this order?

A. Yes. This order was a follow-up to Order No. 12356, in Docket No. 810100-EU, where the Commission ordered FPL to establish a funded decommissioning reserve. The issue in that docket was not depreciation, but a review of the correct method of accounting and ratemaking for the nuclear decommissioning funds. The Commission noted that by use of an unfunded reserve, the utility could use revenue for current operations. This method would provide a return to current customers of some of the dollars intended for decommissioning, while imposing on future ratepayers the risk of higher cost when decommissioning actually occurs. As stated in the order, "Fairness dictates that those receiving services and imposing costs be obligated to pay those costs, instead of placing the risk of recovery on other rate payers who may not get service from the nuclear units." This is consistent with the current methodology of remaining life, whereby the prior customers have paid for the depreciation costs based on rates approved by the Commission. As previously stated, the adjustment recommended by Mr. Pous would provide a short term benefit to current customers while imposing a risk to future customers.

Q. Does this conclude your testimony?

A. Yes.

CHAIRMAN CARTER: Mr. McGlothlin, are you going to use that photo anymore? It's okay, it's fine. You can leave it there if you wish.

MR. McGLOTHLIN: No, sir.

CHAIRMAN CARTER: Thank you, Mr. Davis.

Mr. Butler.

BY MR. BUTLER:

Q Mr. Davis, are you also sponsoring any exhibits to your rebuttal testimony?

A Yes, I am.

Q And were those prepared by you or under your direction, supervision and control?

A Yes, they were.

Q Do you have any changes or corrections to them?

A I do not.

MR. BUTLER: Okay. Thank you.

Mr. Chairman, I would note that these are KMD-1 through KMD-4 which have been premarked for identification as 359 through 362.

CHAIRMAN CARTER: On pages 41 and 42 of Staff's Comprehensive Exhibit list, Exhibits No. 359 through 362. Thank you, Mr. Butler.

BY MR. BUTLER:

Q Mr. Davis, would you please summarize your

rebuttal testimony?

A Yes, thank you.

Good afternoon, Commissioners. The purpose of my testimony is to explain why the theoretical depreciation reserve surplus exists, how it benefits our customers, and why accelerating amortization of the surplus over a short period of time is not in the best interests of our customers.

Before doing so, I think it's important for all of us to remember that depreciation is an accounting measure. It is not a cash account from which funds can be disbursed. The annual provision for depreciation represents an expense that is included in cost of service, and the accumulated depreciation amount shows the extent to which rate base has been reduced by those charges to expense. Reversing those charges will reduce the funds available to operate and reinvest in the business and will increase rate base requiring the company to borrow money or issue equity to support the increase.

The theoretical depreciation reserve surplus is the result of comparing a theoretical amount with the actual amount of accumulated depreciation reported by the company. I see it as the difference between the results achieved using the best information available

today versus the actual results achieved using the best information available at the time prior depreciation rates were recorded.

There are two distinct reasons why this comparison shows that the actual amount of accumulated depreciation exceeds the theoretical reserve. The first relates to actions proposed by the company and approved by the Commission in the past to reduce the net book value of utility plant without increasing rates charged to customers. The second relates to actions taken by the company that have enabled it to continue using its utility plant beyond their original design lives.

For the nuclear units, these actions led to NRC approval of a 20-year extension to the operating licenses and set the stage for the nuclear uprate projects which will increase the amount of low-cost energy provided by those units.

For the fossil units, it means we can continue to utilize those units providing greater flexibility in determining how to meet future generation needs. Both of these actions directly benefit our customers.

In addition to these future benefits, customers are benefitting today from the higher amount of accumulated depreciation represented by the theoretical surplus. Because accumulated depreciation

reduces rate base and the amount of plant and service remaining to be recovered, current revenue requirements are $216 million less than they would have been if the book depreciation reserve was as low as indicated by the theoretical reserve.

Finally, if the recommendations of the Intervenor witnesses are adopted, customers would initially see an unsupportable reduction in their rates followed immediately by an unavoidable and longer-lasting increase in revenue requirements of nearly $400 million. While the near-term reduction is very tempting, it would not be in the long-term best interests of our customers.

That concludes my summary.

CHAIRMAN CARTER: Thank you.

Mr. McGlothlin, I know, with his rebuttal and talking about rate base expense, there's no way you'll probably be finished by lunch. So what I'll do is I'll watch the clock and maybe look for a break point so I don't throw your rhythm off or anything like that, but if you can kind of find logical break point in the line, we'll go from there. Okay.

You're recognized, Mr. McGlothlin.

/ / / / /

/ / / / /

CROSS EXAMINATION

BY MR. McGLOTHLIN:

Q Mr. Davis, Joe McGlothlin with the Office of Public Counsel.

I want to first refer you to page 9 of your rebuttal testimony, and on page 9 -- I'll let you find it there first. You maintain at page 9 that OPC's recommendation or, rather, the recommendation of OPC witness Mr. Pous would create intergenerational inequities among certain groups of customers; do you not?

A Yes, I do.

Q Now, later during our conversation I'm going to test whether your characterization of that is an example of an intergenerational inequity, but for our immediate purposes, you do recognize that the application of a depreciation practice could have the effect of creating intergenerational inequities among customers; do you not?

A I would say that it has that opportunity, particularly in the instant case we are faced with right now, which is where rates -- both depreciation rates and customer rates are being changed. It's at that point in time that the customer is directly affected in terms of their pocketbook.

Q And by intergenerational inequity, you mean, do you not, that the potential for some groups of customers to subsidize other groups of customers?

A Either sub -- yes, either subsidize or to benefit at the expense of other customers.

Q So, in terms of defining intergenerational inequity more generally than the situation you address on page 9, would you agree with me that intergenerational inequity is something that, as a matter of policy, the Commission should avoid when it approves or oversees depreciation practices?

A As a general rule, I would agree. All customers should pay their fair share and pay it in relation to the benefits.

Q And that means that, for example, in terms of the application of depreciation policy, current customers should not subsidize future customers?

A Okay. Again I'm going to go back to -- you're leaving off the linkage I believe is important and that is changing the rates charged to the customers. In the case of -- if you arbitrarily set depreciation rates very high and embed that in rates and charge the customers, then certainly there is a subsidy issue there.

Q Well, that would be true generally, would it

not? As a general proposition, current customers should not subsidize customers?

A I think we agreed on that earlier.

Q And future customers should not subsidize current customers?

A I would agree.

Q With respect to depreciation policy and depreciation practices, you are familiar with the term "the matching principle," are you not?

A I am -- yes, I'm familiar with the accounting convention of so-called matching principle, matching revenues and expenses, matching benefits with costs.

Q And the latter of those two references is what I have in mind, that is, the matching over time of the benefits provided by an item of plant with the collection of costs related to that plant. Is that your understanding of how matching principle could apply to depreciation practice?

A Say that one more time. I got lost in terms of the plant.

Q Again, the context is depreciation policy and practice. Would you agree with me that, with respect to the matching principle -- both in an accounting sense and in the more specialized depreciation area, the matching principle holds that the customers who benefit

from the plant should also be the customers who pay for the fair share of the cost of that plant over time?

A I would agree with that, absolutely.

Q Now, depreciation expense is how an utility collects its capital investment from customers over time; is it not?

A I have some difficulty with the term "collect." It's -- depreciation is how the company will recognize its capital investment costs over a period of time that then goes into cost of service, and that's the point at which collection occurs, assuming the rates are set to cover that particular cost of service.

Q I think that the distinction you're making is that it's a two-step process: First, depreciation rates are prescribed and approved that have the effect of quantifying the amount of depreciation expense that should be identified for a particular period of time, and then that is rolled into the rates that customers pay. Am I correct?

A Through cost of service, yes.

Q So through that two-step process, the utility first quantifies the appropriate amount of expense associated with the plant for the period of time, and then, because that is rolled into the rates customers pay, it then collects that expense through revenues

generated by rates?

MR. BUTLER: I'm going to object to the form of the question. I think it's ambiguous and Mr. McGlothlin's reference to rolled into the rates customers pay --

CHAIRMAN CARTER: Hang on, hang, on hang on.

Rephrase, Mr. McGlothlin. You may proceed.

BY MR. McGLOTHLIN:

Q Is it true, Mr. Davis, that embedded within the base rates for service that customers pay the utility is an increment of cost that represents depreciation expense?

A That is correct. It's typically referred to as return of investment.

Q This Commission has specified that utilities subject to this regulation should apply straight-line depreciation when they collect the capital costs from customers over time, correct?

A Correct. The general methodology is based on the straight-line method. You do have instances where you have capital recovery schedules, still the straight-line method, but it's just a variation.

Q Now would you agree with me that ideally -- let me back up and pose one more question.

Perhaps it's obvious enough, but for purposes

of the following questions, is it true that the straight-line depreciation, as implemented by the Commission and as employed by the utilities, first identifies the service life of the asset and then quantifies the amount of expense to be collected on an annual basis such that over the -- by the time of the end of the service life, the utility will have collected 100 percent of its investment?

A I would agree with the basic premise. A couple of adjustments to it: One is salvage is a factor to be considered in there, and that's the main one.

Q Yes. When I speak more generally in terms of collecting the investment, I'm assuming that the appropriate adjustments to represent salvage has been taken into account?

A Okay. And I think -- you know, the Commission uses the straight-line method. You could start -- you know, there's various methods of straight-line depreciation. One method that this commission very wisely adopted and has used for as far as back as I am aware is the remaining-life methodology which is a self-correcting variation of that. Instead of having a whole life and sticking with a whole life, it uses a remaining life which focuses on how much net book value remains to be collected. So it's self-collecting and

ensures you get to zero at the end.

Q You make a fair point, and we're going to get to that, but in terms of starting out when an item of plant is placed into service, the utility attributes or assigns an expected service life to that piece of plant, item of plant, and, at least for beginning purposes, assumes it's going to recover that investment ratably over the service life; correct?

A Yes.

Q Now, would you agree with me that ideally the objective of the depreciation policy and practice is that the amount collected to date at any given point in time would be precisely the amount needed to collect the full cost ratably over the service life?

A You used precision in there which is not something I always associate with depreciation, but yes, the objective is to collect it over the service life, determine what the service life is. If it's 25 years, you want to collect 1/25th.

The problem is you make that judgment at year one when you put it in service. We come in -- every new plant, you know, we come in and we ask for rates based upon either specific knowledge of that plant or a comparable plant. Four years later or at least no more than four years later -- it depends on where it is in

the cycle -- we're back in and reassessing the estimates and they're being reviewed by Commission staff, estimates of the life.

Q Well, again, you're looking ahead to the implementation of the remaining-life method, but in terms of the objective, in terms of the attempt to identify the appropriate depreciation rates starting out, the ideal is that, if one projects a service life of 30 years and you're in year ten, you would have collected precisely one-third of the capital costs at that point in time; correct?

A That would be -- yes, that would be an objective. It would only exist in a perfect world.

Q Now, a couple of terms that are used to describe aspects of depreciation. There's the accumulated reserve for appreciation or the book reserve. You're familiar with that term?

A Yes, sir; I am.

Q And that is the -- that represents the actual amount of depreciation expense that had been collected to date, correct?

A Correct.

Q Then there's the theoretical reserve. You're familiar with that term?

A Yes, I am.

Q And that's the amount that would have been collected had the most recent and current parameters -- and by "parameters," I mean the service life and net salvage -- been in effect from day one to that point; correct?

A Correct, the best knowledge today versus the best knowledge at the time rates were set. I think I covered that in my summary.

Q Yes. And under the rules of this commission, the regulated utility is required to compare and compute -- to compare the theoretical reserve with the book reserve and identify whether there's a reserve surplus or reserve deficiency, correct?

A That is one of the rules, yes.

Q Now, you referred earlier to the remaining-life method, and I wanted to talk to you about how that comes into play. Would you agree with me that, under the PSC rules, the identification of either a reserve surplus or a reserve deficiency is a situation that calls for corrective action?

A I can't answer -- well, I'll answer your question. Does it call for corrective action? Yes, and the remaining-life methodology provides for that corrective action because, again, it's self-correcting and always takes you to zero at end of life.

Q Would you agree with me that the reason the identification of a reserve surplus or reserve deficiency calls for corrective action is that it represents a departure from this matching principle that we talked about earlier in that, if there is either a reserve surplus or a reserve deficiency, then that means some customers have been paying either too little or too much as measured by the most current parameters?

A As you have structured the question, the answer would be yes. In the real world, the question is -- I don't believe that the answer is yes. I think it's a resounding no because each time you do a depreciation study, you are going to take a very hard look at all of the past experience you have with that asset and comparable assets and perform that assessment, and in the theoretical reserve all you're doing is taking a snapshot at a point in time, which is -- I went to great length in my testimony to try to highlight the fact that it is a snapshot and therefore it is a starting point for analysis to understand why you are where you are, what are the circumstances that surround that and, as a result, that's where I have problems with saying it's an automatic cause for action, it's an automatic requirement to take action. You have to understand what's going on, both past, present and what

you expect in the future.

Q Well, what's going on is that each four years by rule the regulated utility performs a new and updated assessment of the parameters that guide depreciation expense and collection, correct, and that, in that each four years, the utility recalibrates and reassesses what it identifies as the correct service life and the correct net salvage value associated with that particular piece of plant?

A That is correct.

Q And each time that assessment is made, if it results -- is it true that each time the depreciation study is performed and that recalibration or that mid-course correction is made, the utility is required to again compare the new theoretical reserve with the accumulated reserve?

A That's correct.

Q And if at that point the utility identifies either a reserve surplus or a reserve deficiency, again corrective action is called for; correct?

A Not necessarily. I don't agree with that, no. I'm saying that the remaining-life methodology takes care of it. Let me give you an example of why I don't agree with that, or I'll just disagree and no example or give you an example.

Q Isn't it true that the remaining-life methodology takes into account either a surplus or deficiency in quantifying the amount of capital costs to be collected in the remaining life of the service?

A I believe, yes.

Q Isn't that a corrective action?

A Within the context of remaining-life methodology, yes, you will have -- let me back up.

The remaining-life methodology -- you seem to be crossing things, and I'm having trouble following. You're theoretical reserve is a separate calculation. It's an isolated calculation that says I'm 60-percent through the life of this asset, therefore I should have 60 percent recovered. If on the other hand my book reserve is at 70 percent, you would infer that I have a theoretical reserve surplus and I must take immediate action, and I'm saying no, remaining-life methodology would say that I only have a -- I forget my percentages now, but let's say 30 percent of the book value remaining, and that's what I have to recover over the remaining life. So it operates. It's not a separate adjustment. It's built into the remaining-life methodology. That's what I have -- keep having trouble with saying there's a corrective action.

Q I think we're actually talking past each

other.

A I apologize.

Q I would submit to you that the -- when the utility identifies -- and let's take, for example, a reserve surplus --

CHAIRMAN CARTER: Is this going to be a long one, Mr. McGlothlin?

MR. McGLOTHLIN: I don't think we're going to finish this --

CHAIRMAN CARTER: I'm saying the question, is it going to be long question, because, if so, we can kind of round it up now?

MR. McGLOTHLIN: We can break at any point you wish, sir.

CHAIRMAN CARTER: Let me do this, Commissioners, and also to the parties and to staff, we're going to take our usual 1:00 to 2:15, but I'm going to ask staff, Commissioners, to get with the parties. I'm going to give them some extra time so they can meet with the parties and then kind of collapse this because we will finish today, ladies and gentlemen. So a lot of the things that we need to do, you guys can talk about that. If there are some things that are redundant and unnecessary, we don't need to deal with that, but there is obviously -- so what we'll do,

instead of coming back at 2:15, we'll give staff an opportunity to meet with the parties and we'll come back at 2:30.

With that, we're on recess.

(The transcript continues in sequence with Volume 48.)

CERTIFICATE OF REPORTER

STATE OF FLORIDA)

COUNTY OF LEON)

I, RAY D. CONVERY, do hereby certify that I was authorized to and did stenographically report the foregoing proceedings at the time and place herein stated.

IT IS FURTHER CERTIFIED that the foregoing transcript is a true record of my stenographic notes.

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 28th day of October, 2009, at Tallahassee, Leon County, Florida.

RAY D. CONVERY