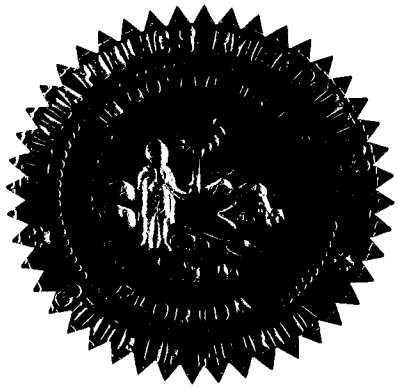
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060642-EI

In the Matter of:

PETITION FOR DETERMINATION OF NEED FOR EXPANSION OF CRYSTAL RIVER 3 NUCLEAR POWER PLANT, FOR EXEMPTION FROM BID RULE 25-22.082, F.A.C., AND FOR COST RECOVERY THROUGH FUEL CLAUSE, BY PROGRESS ENERGY FLORIDA, INC.
_____/



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PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN LISA POLAK EDGAR COMMISSIONER MATTHEW M. CARTER, II COMMISSIONER KATRINA J. TEW
DATE:	Thursday, January 18, 2007
TIME:	Commenced at 9:40 a.m. Concluded at 9:50 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR Official Commission Reporter (850)413-6732

APPEARANCES:

R. ALEXANDER GLENN, Progress Energy Service Co., LLC, P. O. Box 14042, St. Petersburg, Florida 33733-4042, appearing on behalf of Progress Energy Service Co., LLC.

PATRICIA CHRISTENSEN, ESQUIRE and JOE MCGLOTHLIN, ESQUIRE, Office of Public Counsel, c/o The Florida Legislature, 111 W. Madison St., #812, Tallahassee, Florida 32399-1400, appearing on behalf of the Citizens of Florida.

ROBERT SCHEFFEL WRIGHT, ESQUIRE and JOHN LAVIA, ESQUIRE, Young Law Firm, 225 South Adams Street, Suite 200, Tallahassee, Florida 32301, appearing on behalf of Florida Retail Federation.

LISA BENNETT, ESQUIRE and LORENA HOLLEY, ESQUIRE, FPSC General Counsel's Office, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, appearing on behalf of the Commission Staff.

I N D E X

WITNESSES

EXHIBITS

NUMBER:		ID.	ADMTD.
1	Comprehensive Exhibit List	65	65
2	Staff Consolidated Exhibit	65	65
3	JP-1	65	65
4	JP-2	65	65
5	JP-3	65	65
6	DLR-1	65	65
7	DLR-2	65	65
8	DLR-3	65	65
9	SSW-1	65	65
10	SSW-2	65	65

P R O C E E D I N G S

CHAIRMAN EDGAR: Good morning. I call this hearing to order. Welcome, everyone.

Ms. Bennett, will you please read the notice.

MS. BENNETT: Pursuant to notices sent to parties and published in the Florida Administrative Weekly and in the Citrus County Chronicle, this time and place was noticed for hearing in Docket Number 060642, petition for determination of need for expansion of Crystal River 3 nuclear power plant.

CHAIRMAN EDGAR: Thank you. And let's go ahead and take appearances.

MR. GLENN: Alex Glenn, G-L-E-N-N, on behalf of Progress Energy Florida.

MS. CHRISTENSEN: Patty Christensen on behalf of the Office of Public Counsel, and I would also like to put in an appearance for Joe McGlothlin.

MR. WRIGHT: Robert Scheffel Wright, and I would also like to enter an appearance for my partner, John T. LaVia, III, appearing on behalf of the Florida Retail Federation. Thank you.

CHAIRMAN EDGAR: Thank you.

Staff.

MS. BENNETT: Lisa Bennett and Lorena Holley on behalf of the Public Service Commission Staff.

CHAIRMAN EDGAR: Thank you. And I will note for the

record that Mr. McWhirter on behalf of FIPUG has been asked to be excused today.

Are there any preliminary matters?

MS. BENNETT: No, Madam Chair, there are no preliminary matters.

CHAIRMAN EDGAR: Okay.

This is, I think, going to be fairly short; however, there is also the opportunity for public testimony. And so, again I note, echoing the notice that Ms. Bennett has read to us, that before us at this time this morning is the request from Progress Energy Florida to expand their existing Crystal River 3 nuclear plant by 180 megawatts.

Is there anybody from the public who would like to give comment on this application? Okay.

Seeing none, Ms. Bennett.

MS. BENNETT: At this point we need to prepare the record. And I would ask that the witnesses' prefiled testimony be moved into the record. There has been no request for cross-examination, and the witnesses have previously been excused.

CHAIRMAN EDGAR: Thank you.

The prefiled testimony of the witnesses will be entered into the record as though read.

IN RE: PETITION FOR DETERMINATION OF NEED FOR EXPANSION OF AN ELECTRICAL POWER PLANT, FOR EXEMPTION FROM RULE 25-22.082, F.A.C., AND FOR COST RECOVERY THROUGH THE FUEL CLAUSE

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. _____

DIRECT TESTIMONY OF

JAVIER PORTUONDO

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Javier Portuondo. My business address is 410 South Wilmington Street, Raleigh, North Carolina, 27601.

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

A. I am employed by Progress Energy Service Company, LLC, as Director of Regulatory Planning.

Q. What is the scope of your duties?

A. Currently, I am responsible for regulatory planning, cost recovery, and pricing functions for both Progress Energy Florida ("PEF" or the "Company") and Progress Energy Carolinas.

Q. Please describe your educational background and professional experience.

A. I received a Bachelors of Science degree in Accounting from the University of South Florida. I began my employment with Florida Power Corporation in 1985. During my 21 years with Florida Power Corporation and PEF, I have held a number of financial and accounting positions. In 1993, I became Manager, Regulatory Services, and I recently became Director, Regulatory Planning.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's request for recovery of reasonably and prudently incurred costs of the Crystal River Unit 3 ("CR3") power uprate project. Specifically, I will explain why recovery of the power uprate costs, transmission-related project costs, and Point of Discharge ("POD") related project costs through the Fuel and Purchase Power Cost Recovery Clause ("Fuel Clause") is appropriate and consistent with established Commission policy.

Q. Are you sponsoring any Exhibits with your direct testimony?

A. Yes. I am sponsoring the following exhibits that were prepared under my supervision:

- Exhibit No. ___ (JP-1), which is an excerpt of Schedule B-13 of the Minimum Filing Requirements ("MFRs") submitted in Docket No. 050078-EI.

- Exhibit No. ___ (JP-2), which is an excerpt of Schedule B-2 of the MFR's submitted in Docket No. 050078-EI.
- Exhibit No. ___ (JP-3), which is an excerpt of Schedule B-1 of the MFR's submitted in Docket No. 050078-EI.

These exhibits are true and correct.

Q. Please summarize your testimony.

A. The CR3 power uprate project will provide PEF's customers substantial fuel savings expected to be in excess of $2.6 billion by the end of 2036 with an expected net present value of savings to costs of $327 million to the retail customer. The power uprate project achieves these savings by displacing fossil fuel generation capacity with additional nuclear generation capacity and, thus, enhancing fuel diversity on the Company's system. The Commission has long sought to encourage innovative utility projects and programs that reduce total customer costs by providing the incentive of cost recovery under the Fuel Clause for such projects and programs. Under well established Commission precedent, cost recovery under the Fuel Clause is authorized when the costs (1) were not anticipated and included in current base rates and (2) the costs generate fuel savings for customers. The costs of the CR3 power uprate project were not anticipated and they are not included in the Company's current base rates and the project costs generate substantial fuel savings for PEF's customers. As a result, under Commission precedent, the Commission should grant PEF's petition requesting that the Commission find that the CR3 power uprate costs are eligible for cost recovery under the Fuel Clause.

III. OVERVIEW OF THE PROJECT

Q. Please describe the CR3 power uprate project.

A. The CR3 power uprate project will increase the power output of CR3 by approximately 180 MWe, resulting in a capacity increase in the unit from about 900 MWe to 1,080 MWe. As discussed in more detail in the pre-filed testimony of Danny Roderick, the project has two major phases. The first part of the project will require modifications to the turbine line components to take advantage of greater steam efficiencies. The second part of the project will involve increasing the power or thermal megawatts ("MW's") produced in the reactor core by making changes to the core that will allow for use of more highly enriched uranium. The increase in CR3 capacity will require modifications to the transmission system and modifications to address POD thermal limit issues to reap the full benefit of the power uprate. The work required by the project will be completed during the CR3 fuel outages in the 2009 generator replacement and refueling outage and the 2011 refueling outage at CR3.

Q. What are the projected costs of the CR3 power uprate project?

A. As Mr. Roderick explains in his testimony, the project is estimated to cost approximately $381.8 million in total, with the power uprate itself requiring approximately $250 million and the modifications to the transmission system and to address the POD issues caused by the additional power and heat generated by the power uprate estimated at $89 million and $43 million, respectively. The Company

will continue to analyze the issues surrounding the CR3 power uprate project, in particular the transmission and POD impacts and available remedies, and refine its cost estimates as the time for work on the project draws closer.

Q. Why is the Company requesting Commission approval of the CR3 power uprate project at this time?

A. The Company must begin incurring expenditures in 2006 to ensure that work necessary for the power uprate itself can be done during the 2009 and 2011 scheduled refueling outages for the CR3 unit.

Q. Why has the Company proposed this project?

A. The primary purpose of the CR3 power uprate project is to reduce fuel costs to customers by displacing energy from higher cost fossil fuel with low cost nuclear fuel. The power uprate at CR3 is not needed to meet a need for additional power to ensure customers a continued supply of reliable power, although the uprate will increase the base load power available to the Company. Rather, the CR3 power uprate meets an economic need for cheaper power and greater fuel diversity as nuclear fuel from the power uprate displaces more expensive fossil fuels and purchased power on the Company's system. The CR3 power uprate project generates substantial fuel cost savings for the Company's customers. The Company is proposing the CR3 power uprate project to give its customers the benefit of these substantial fuel cost savings.

Q. What are the results of the fuel cost savings analysis?

A. The CR3 power uprate project is expected to produce approximately $2.6 billion in fuel savings by the end of year 2036. With the expected net present value ("NPV") of fuel savings to the retail customers of $630.4 million and a NPV of the costs of only $303.5 million, this will result in a NPV savings to the retail customer of almost $327 million. These fuel savings benefits are further explained in the testimony of Samuel S. Waters.

IV. COST RECOVERY FOR THE PROJECT

Q. Are the costs of the CR3 uprate project recovered through the Company's base rates?

A. No. The CR3 power uprate project was not anticipated when PEF's current base rates were established in Docket No. 050078-EI. The costs of the project, therefore, were not included when the Company submitted its MFRs in its most recent base rate proceeding in Docket No. 050078-EI in April 2005. This is demonstrated by Exhibit No.___ (JP-1), Exhibit No. ___ (JP-2), and Exhibit No. ___ (JP-3).

Exhibit No. __ (JP-1) is an excerpt (page 1) from MFR Schedule B-13. That schedule presented the construction work in progress ("CWIP") for the projected 2006 test year. The only project for nuclear production on this schedule is for the Crystal River 3 Steam Generator replacement. The $230 million shown on line 11 for this project does not include any costs associated with the planned uprate. Further, Exhibit No. ___ (JP-2) is an excerpt (page 1) from MFR Schedule B-2. That schedule shows rate base adjustments. On line 28 of this schedule an

adjustment is made to back out CWIP bearing an allowance for funds used during construction ("AFUDC"). The CWIP associated with the Steam Generator replacement is backed out of rate base on this line. Exhibit No. ___ (JP-3) is an excerpt (page 1) of MFR Schedule B-1. That schedule shows the adjusted rate base. It can be seen on line 31 of this schedule that the CWIP associated with the Steam Generator replacement is backed out of rate base for the 2006 test year. To summarize, the Crystal River uprate would have been associated with Nuclear Production. The only major project for nuclear production in the test year is the Steam Generator replacement. No costs associated with the CR3 power uprate project are included in the CWIP for the Steam Generator replacement. Even if there had been costs for the CR3 power uprate project on line 11 of MFR Schedule B-13, which is not the case, the entry on line 11 shows that all these costs were backed out of rate base on MFR Schedules B-1 and B-2, as I have explained above. With the approval of the rate case settlement agreement in Docket No. 050078-EI, the Commission approved the Company's MFRs for purposes of establishing the Company's baseline costs in its next base rate proceeding. Order No. PSC-05-0945-S-EI, Docket No. 050078-EI (Sept. 28, 2005), p. 2, Attachment A, ¶ 17.

Q. How does the Company propose to recover the costs of the project?

A. PEF proposes to recover through the Fuel Clause all capital costs incurred for the CR3 power uprate, necessary transmission system changes, and any costs incurred to offset the POD impact for the project, including a return on average investment and taxes, to the extent such costs do not exceed cumulative expected fuel savings over

the life of the project. The Company will not begin recovery through the Fuel Clause until the CR3 power uprate goes into commercial service. For phase one of the CR3 power uprate project, recovery is expected to commence at the beginning of 2010. For phase two, recovery is expected to begin at the end of 2011. Actual costs incurred for the CR3 power uprate project would be subject to Commission review for prudence and reasonableness as they are submitted for recovery through the Fuel Clause. PEF will submit follow-up testimony as the costs of the project become more firm to establish the proposed recovery under the Fuel Clause.

Q. Does Commission precedent support the recovery of the CR3 power uprate costs, transmission-related project costs, and POD-related project costs through the Fuel Clause?

A. Yes. There is a long line of Commission authority supporting the timely recovery through the Fuel Clause of costs that are necessary to reduce total costs and benefit customers. Beginning in 1981, in Order No. 9957 in Docket No. 810001-EU, the Commission granted Florida Power & Light Company's ("FPL") petition to revise the definition of costs which may be included within the Fuel Clause to allow the recovery of capacity costs associated with FPL's purchases of "coal-by-wire" from the Southern Company. Order No. 9957, Docket No. 810001-EU, 1981 Fla. PUC LEXIS 531 (April 20, 1981). FPL argued that such costs should be recovered through the Fuel Clause when they had the effect of lowering revenue requirements. Excluding such costs from recovery under the Fuel Clause, FPL further argued,

would penalize FPL's stockholders for making prudent management decisions that serve to reduce total costs. Order No. 9957, 1981 Fla. PUC Lexis 531, *3-*6.

The Commission agreed that the definition of recoverable costs under the Fuel Clause should be revised to permit the recovery of the capacity costs associated with FPL's economy purchases from the Southern Company when those transactions served to lower overall costs to ratepayers. The Commission noted that such purchases on many occasions "will have the effect of replacing expensive, oil-fired generation with cheaper "coal-by-wire", lessening the revenues required from ratepayers and also decreasing the need for imported oil." Order No. 9957, 1981 Fla. PUC Lexis 531, *5, *6. Accordingly, the Commission granted FPL's petition, recognizing that the capacity purchase costs were not recovered in FPL's base rates, and allowed FPL to recover the costs through the Fuel Clause.

Q. What policy did the Commission establish in Order No. 9957?

A. The Commission wanted everyone to understand that it intended to encourage innovative projects that reduced costs and benefited customers. As the Commission explained: "... [w]e wish to indicate that the underlying principle governing our decision --- that utilities must be encouraged to take innovative actions designed to benefit customers and to lower overall costs --- has application elsewhere." Order No. 9957, 1981 Fla. PUC LEXIS *7. (emphasis supplied). The Commission intended this principle to be broadly applied, i.e., by "application elsewhere", whenever necessary to ensure that utilities recovered their costs to provide savings to ratepayers. Indeed, the Commission pointed out that the subject of acquiring

inexpensive "coal-by-wire" on an economical basis was just an example of the type of innovative "ideas and programs" that the Commission hoped to encourage utilities to pursue to take advantage of the opportunity to lower costs to customers. Id.

Q. What conditions did regulated electric utilities face in the early 1980's?

A. Following the oil embargo and crises of the mid- and late 70's, regulated utilities and their customers faced rising fossil fuel costs and increasing interest rates by the late 70's and early 80's. At the same time, utilities were experiencing continued growth in customers and customer demand for energy in Florida. This situation led to the passage of the Florida Energy Efficiency and Conservation Act ("FEECA") in 1980. FEECA emphasized conservation measures to control the growth rate of peak demand and reduce energy consumption and to reduce the consumption of expensive fossil fuel resources. One such conservation measure adopted by the Commission was the Oil Backout Rule, which provided cost recovery to utilities for the economic displacement of oil generation in Florida. Former Rule 25-17.016, F.A.C. Both the Florida Legislature and the Commission recognized the need for greater fuel diversity and the reduction in customer energy costs.

Q. Do similar conditions exist today?

A. Yes, they do, although they are maybe not as extreme as the late 70's and early 80's. While population growth in Florida has abated from the peak years in the 80's, the State's population still continues to grow. Also, with this population growth,

utilities are continuing to experience growth in customer energy usage. And, while Florida utilities, especially PEF, have made great strides on fuel diversity, fossil fuel resources remain a necessary, significant source of fuel for energy production in Florida. Unfortunately, PEF and other regulated utilities are again faced with rising fossil fuel costs and interest rates. These conditions prompted the Governor to issue an Executive Order in late 2005 directing the Department of Environmental Protection ("DEP") to develop a comprehensive energy plan for the State of Florida. One of the directives in that order was the development of options for diversifying Florida's electric generation capacity. The Commission, regulated utilities in Florida, and others were invited to provide input in the development of that plan.

One of the principle recommendations in the Florida Energy Plan is the promotion of fuel diversity. To this end, the Florida legislature passed legislation in 2006 amending the Florida Electrical Power Plant Siting Act ("PPSA") to include fuel diversity as one criterion for the installation of electrical power plants. In this way, the Florida Energy Plan intended fuel diversity to be a high priority in the Commission's decision-making processes.

Q. Is the CR3 power uprate project consistent with the goals of the Florida Energy Plan and the recent legislation?

A. Yes, it is. The CR3 power uprate will increase the contribution of nuclear fuel to the mix of resources available to PEF thereby improving the Company's fuel diversity. Indeed, to the extent that the power uprate displaces higher cost fossil fuels with lower cost nuclear fuel the fuel diversity is only enhanced. This enhancement is

significant because, as I have noted, the total fuel savings from the CR3 power uprate project exceed $2.6 billion. Enhancement of PEF's fuel diversity will also enhance the fuel diversity state-wide, contributing to the goal established in the Florida Energy Plan and 2006 legislation.

Q. Is there any other Commission precedent for the recovery of the CR3 power uprate project costs through the Fuel Clause?

A. Yes. Both before and after Commission Order No. 9957 in 1981 the Commission has acted consistent with the principle laid down in Order No. 9957 by allowing cost recovery through the Fuel Clause for utility expenditures designed to benefit customers by reducing overall utility costs.

In early 1980 in Dockets Nos. 790898-EU and 74680-CI, the Commission allowed FPL to recover through the Fuel Clause capital, O&M, and fuel costs associated with an experimental project to determine the feasibility of burning a coal and oil mixture in a boiler originally designed to burn only oil in an effort to displace oil with other fuels. Order No. 9224, Dockets Nos. 790898-EU and 74680-CI, 1980 Fla. PUC LEXIS 519 (Jan. 30, 1980). Interestingly, the expected net savings to the customer from the project would be realized only if the modifications were successful. Id. at *3-*4. Yet, the Commission still granted FPL's petition, explaining that the Commission was "impressed by the initiative the company is taking in its search for more economical and more readily available sources of boiler fuel" and believed "the overwhelming importance of the task" of taking the

initiative to pursue more economical energy production for the benefit of the customer justified including the costs within the Fuel Clause. Id. at *5.

Likewise, in 1985 in Commission Order No. 14546, the Commission again recognized that certain, unanticipated costs are appropriate for recovery through the Fuel Clause when they result in fuel savings to customers. Specifically, the Commission recognized that, prospectively, proper charges under the Fuel Clause included "fossil fuel-related costs normally recovered through base rates but which were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers." Order No. 14546, Docket No. 850001-EI-B, 1985 Fla. PUC LEXIS 531, *11-*12 (July 8, 1985). In subsequent orders, the Commission repeatedly has approved the recovery of costs through the Fuel Clause when those expenditures resulted in significant savings to the utility's ratepayers. See, e.g., Order No. PSC-98-0412-FOF-EI, Docket No. 980001-EI, 1998 WL 173332 (March 20, 1998); Order No. PSC-97-0359-FOF-EI, Docket No. 970001-EI, 1997 WL 199376 (March 31, 1997); Order No. PSC-95-0450-FOF-EI, Docket No. 950001-EI, 1995 WL 220901 (April 6, 1995); and Order No. PSC-94-1106-FOF-EI, Docket No. 940391-EI, 1994 Fla. PUC LEXIS 1126 (Sept. 7, 1994).

Q. Did the Commission limit the costs that may be recovered through the Fuel Clause to fossil fuel-related costs in Order No. 14546?

A. No, the Commission did not, if the reference to "fossil fuel-related costs" is intended to mean costs associated only with fossil fuel units and their related equipment,

material, or facilities. Although the Commission used the term "fossil fuel-related costs" in its list of the proper future charges to the Fuel Clause, the Commission nowhere expressly limited the Fuel Clause recovery to costs associated with fossil fuel units and their related equipment, material, or facilities, that resulted in fuel savings to ratepayers.

Instead, the Commission's express finding approved the stipulation of the parties and adopted "the provisions therein as its own." Order No. 14546, 1985 Fla. PUC Lexis 531, *8. (emphasis supplied). In those provisions, the parties recommended a policy that "was flexible enough to allow for recovery through fuel adjustment clauses of expenses normally recovered through base rates when utilities are in a position to take advantage of a cost-effective transaction, the costs of which were not recognized or anticipated in the level of costs used to establish the utility's base rates." Id. at *8-*9. (emphasis supplied). In approving these provisions, then, the Commission's policy is a "flexible" one, allowing the recovery of "expenses" when they (1) were normally recovered in base rates but not anticipated and included in current base rates and (2) resulted in a "cost-effective transaction," i.e. generated fuel savings for ratepayers.

The reference to "fossil fuel-related costs" in the subsequent list of costs recoverable in the future might have come from the example the parties provided in the stipulation of an expense that met the test of a "cost-effective transaction" under the recommended flexible policy. They explained that "one example" was "the cost of an unanticipated short-term lease of a terminal to allow a utility to receive a shipment of low cost oil." Order No. 14546, 1985 Fla. PUC Lexis 531, *9. The

example, therefore, was a cost related to the fuel supply for a fossil fuel generating unit, but the parties' stipulation and the Commission's subsequent adoption of the provisions of that stipulation as its own makes clear it was just an example and not intended to be a limitation.

Indeed, any such limitation is inconsistent with the "underlying principle" encouraging cost-saving innovation that the Commission followed before and after Order No. 14546. As I have explained, the Commission intended to encourage utilities to take innovative action benefiting customers with lower costs by providing them the incentive of cost recovery through the Fuel Clause. Denying cost recovery through the Fuel Clause for costs other than "fossil" unit, facilities, equipment, or material costs, even though they result in fuel savings to customers, discourages – not encourages – innovative, cost-saving projects.

Additionally, it simply makes no sense for the Commission to draw a distinction about the type of cost incurred when the real issue is whether the costs incurred result in fuel savings to customers and were not addressed in determining current base rates. The more logical and thus reasonable construction of the reference to "fossil fuel-related costs" in the list of recoverable costs under the Fuel Clause in Order No. 14546, then, is a shorthand reference to all costs that result in the reduction in use of, or replacement of, fossil fuels. This construction of the term "fossil fuel-related costs" is consistent with the fundamental purpose of the order by providing for the recovery of all costs associated with the generation of fuel savings for the benefit of customers.

Q. Has the Commission actually limited cost recovery under the Fuel Clause to costs associated with fossil fuel units and their related equipment, material, or facilities that result in fuel savings to customers?

A. No. In 1996, the Commission in fact approved the recovery of costs associated with a power uprate of FPL's nuclear units at Turkey Point through the Fuel Clause. Order No. PSC-96-1172-FOF-EI, Docket No. 960001-EI (Sept. 19, 1996). FPL estimated that, at a cost of approximately $10 million, FPL could obtain a 31 MW increase in nuclear capacity that would result in estimated fuel savings of $198 million, or a net present value of $97 million to FPL's customers. The Commission noted that the "savings are due to the difference between low cost nuclear fuel replacing higher cost fossil fuel." Order No. PSC-96-1172-FOF-EI, 1996 WL 554613, p. 6. In approving FPL's request, the Commission expressly relied on Order No. 14546 allowing "a utility to recover fossil-fuel related costs which result in fuel savings when those costs were not previously addressed in determining base rates." Id. This Order confirms that "fossil fuel-related costs" means any cost or expense that generates fuel savings by reducing the use of, or replacing the use of, expensive fossil fuels.

Likewise, while most proceedings involving requests for cost recovery through the Fuel Clause of costs that resulted in fuel savings to customers have involved fossil fuel units or their related facilities, equipment, or material, the Commission has never said that only these specific types of costs can be recovered under the Fuel Clause. In fact, in 1994 when FPL sought to recover the cost of converting its Manatee oil units to burn Orimulsion rather than oil under the Oil

Backout Rule or, alternatively, the Fuel Clause under Order No. 14546, the Commission granted FPL's request for recovery under the Fuel Clause and made no reference to whether the costs were "fossil fuel-related costs." Rather, the Commission emphasized that Order No. 14546 authorized recovery through the Fuel Clause of "costs 'normally recovered through base rates but which were not recognized or anticipated in the cost levels used to determine current base rates and which, if expended, will result in fuel savings to customers.'" Order No. PSC-94-1106-FOF-EI, Docket No. 940391-EI, 1994 Fla. PUC LEXIS 1126, pp. *5-*6 (Sept. 7, 1994). Again, the Commission's emphasis was on whether the costs incurred resulted in fuel savings to customers and not on the exact type of costs that were incurred.

Q. Is the Company's cost recovery request in this proceeding consistent with the result in Docket No. 960001-EI involving FPL's nuclear uprate proceeding?

A. Yes, it is. FPL was permitted to recover through the Fuel Clause the cost of the thermal power uprate including a return on average investment at its current weighted average cost of capital as well as applicable taxes, subject to a true-up of original projections and to verify the prudence of the individual cost components for recovery. Order No. PSC-96-1172-FOF-EI, 1996 WL 554613, p. 7. PEF seeks a similar recovery here. The only difference is the magnitude of the thermal uprate and costs and the resulting fuel savings benefits to customers. While PEF's thermal uprate costs are higher, an estimated $381.8 million compared to FPL's $10 million for a 180 MWe versus a 31 MWe uprate, the fuel savings benefits are also more

substantial, over $2.6 billion in PEF's thermal uprate compared to $198 million in FPL's thermal uprate.

Q. Has the Commission recognized the fuel cost savings benefits of nuclear generation in other Fuel Clause matters before the Commission?

A. Yes, it has. Beginning with its Order No. PSC-01-2516-EI, the Commission has authorized the recovery of security expenditures incurred in response to the terrorist attacks of September 11, 2001 through the Fuel Clause even though security costs were traditionally and historically recovered through base rates. In granting this cost recovery the Commission explained that "[w]e find that recovery of this incremental cost through the fuel clause is appropriate in this instance because there is a nexus between protection of FPL's nuclear generation facilities and the fuel cost savings that result from the continued operation of those facilities." Order No. PSC-01-2516-EI, Docket No. 010001-EI, 2001 WL 1677492, p. 3 (Dec. 26, 2001). The Commission was willing to allow the recovery through the Fuel Clause of the non-fuel related additional security costs because the Commission understood the fuel savings value of nuclear operations.

PEF, through the CR3 power uprate project, is actually seeking to enhance its nuclear operations to generate even more fuel savings for customers than currently exist from the operation of CR3. The recovery of the CR3 power uprate costs, transmission-related project costs, and POD-related project costs through the Fuel Clause is consistent with the Commission's understanding of the fuel savings value of nuclear operations in general and PEF's nuclear facility in particular.

Q. Do you believe the Commission still supports the underlying principle from Order No. 9957 that utilities should be encouraged to take innovative action designed to benefit customers by lowering their costs?

A. Yes I do, because the Commission says it does. In the Commission's Mission Statement the Commission explains that its mission in relevant part is to emphasize "incentive-based approaches, where feasible" with respect to rate of return regulated utilities. The "underlying principle" in Order No. 9957, where the Commission encouraged innovation that benefited customers by allowing recovery through the Fuel Clause of a utility's costs because they resulted in significant fuel savings to customers, is fully consistent with the Commission's current Mission Statement. Further, as I have explained in my testimony, the Commission has consistently followed this "underlying principle" in Order No 14546 and its subsequent rulings applying that Order by rewarding utility efforts to generate fuel savings for ratepayers through cost recovery for those efforts under the Fuel Clause.

Q. Should the Commission grant PEF's request for recovery of the CR3 power uprate costs, transmission-related project costs, and POD-related project costs through the Fuel Clause?

A. Yes. The costs of the CR3 power uprate and potential transmission and POD modifications for the project including a return on average investment at our current weighted average cost of capital as well as applicable taxes, clearly qualify for recovery through the Fuel Clause under the policy set forth in Orders Nos. 9957 and

14546 and their progeny. For the estimated $381.8 million cost of the CR3 power uprate transmission, and POD modifications for the project, PEF's customers will receive over $2.6 billion in fuel savings and the State and PEF's customers will receive added fuel diversity from the additional, low cost, base load nuclear power.

Q. Does this conclude your testimony?

A. Yes, it does.

IN RE: PETITION FOR DETERMINATION OF NEED FOR EXPANSION OF AN ELECTRICAL POWER PLANT, FOR EXEMPTION FROM RULE 25-22.082, F.A.C., AND FOR COST RECOVERY THROUGH THE FUEL CLAUSE

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. _____

DIRECT TESTIMONY OF DANIEL L. RODERICK

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Daniel L. Roderick. My business address is Crystal River Energy Complex, Nuclear Administration 2C, 15760 West Power Line Street, Crystal River, Florida 34428.

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

A. I am employed by Progress Energy Florida ("PEF" or the "Company") in the Nuclear Generation Group and serve as the Director of Site Operations at Crystal River Unit 3 ("CR3"), PEF's nuclear plant.

Q. What are your responsibilities as the Director of Site Operations?

A. I am responsible for the safe, efficient, and reliable generation of electricity from the Company's nuclear plant. All plant functions, including the Plant General Manager, Engineering Manager, Training Manager, and Licensing, report to me and are under my supervision.

Q. Please summarize your educational background and work experience.

A. I have a Bachelor of Science and Master of Science degree in Industrial Engineering from the University of Arkansas and a Senior Reactor Operator License. I have been at CR3 since 1996, serving in my current position of Director Site Operations and, prior to that position, Plant General Manager, Engineering Manager, and Outage Manager, respectively. Prior to my employment with the Company, I was employed for twelve years with Entergy Corporation at its Arkansas Nuclear One plant in Russellville, Arkansas with responsibilities in Plant Operations and Engineering.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's request for a determination of need for the expansion of power capacity at CR3, for exemption from the bid rule, Rule 25-22.082, F.A.C., and for cost recovery through the fuel clause for the replacement and modification of equipment at CR3 to support an increase in reactor power from the nuclear plant.

Specifically, I will generally describe the current Crystal River site and CR 3. I will further explain the planned changes to the nuclear plant that are necessary to support the power uprate project. I will also

transmission system and thermal limits on the discharged cooling water that must be addressed to obtain the full benefits of the power uprate project at CR3. I will further present the Company's current cost estimates for the project, explain the procedures in place to ensure the costs incurred for the project are reasonable and prudent, and explain the economic need for the project because the project will provide additional, reliable base load capacity to customers while generating substantial fuel savings. Finally, I will explain the adverse consequences to the Company and its customers if the CR3 uprate project is delayed.

Q. Why is the Company considering the CR3 power uprate project?

A. The primary reason for this project is to reduce total fuel costs to customers over the extended life of CR3 by increasing low cost nuclear fuel generation and reducing or replacing generation from higher cost fuel power plants or purchased power obligations. The Company has performed studies to find innovative ways to reduce the total fuel cost to the customer by expanding existing nuclear generation and implementing new technological innovations. To illustrate, in preparing for the steam generator replacement and related work during the Company's upcoming 2009 nuclear refueling outages necessary to extend the remaining life of the nuclear unit, the Company determined that additional power can be generated through increased efficiencies from technological advancements and additional modifications to accommodate nuclear fuel enrichment at

the unit. The result of a power uprate at the nuclear unit from these additional technological efficiencies and fuel enrichment modifications will be increased generation capacity from the Company's lowest cost fuel source. This will allow PEF to replace or reduce higher cost generation from alternative fuel sources. The Company's need for the CR3 power uprate project is, therefore, economic because of the significant fuel savings for customers that will be realized from the project.

Q. Do you have any exhibits to your testimony?

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

- Exhibit No. ___ (DLR-1), an aerial view of the Crystal River complex, including CR3.
- Exhibit No. ___ (DLR-2), a picture of the primary plant configuration for the pressurized water reactor nuclear plant at CR3 that shows the major components of the nuclear reactor and primary coolant system.
- Exhibit No. ___ (DLR-3), a schematic of the major components in the primary system and the balance of the nuclear plant that shows the major components in the secondary systems, including the main turbine and main generator.

All of these exhibits are true and accurate.

Q. Please give an overview of the Company's presentation in this proceeding.

A. In addition to my own testimony, the Company will present the testimony of the following witnesses:

- Mr. Samuel Waters, who will explain the economic need for the CR3 power uprate by providing testimony regarding the significant fuel savings that will be realized from the project. Mr. Waters will explain how the project will increase the supply of adequate, reliable electricity at a reasonable cost and why the project is the most cost-effective alternative to the Company because it will result in a lower cost supply of electricity to the Company's customers. Mr. Waters will further generally describe the Company's existing facilities and other supply resources and the Company's Demand-Side Management resources (DSM), and explain why DSM resources cannot mitigate the economic need for the project.
- Mr. Javier Portuondo, who will generally discuss the costs of the CR3 power uprate project and the anticipated fuel savings including the net present value of the benefit to customers. Mr. Portuondo will further explain that the CR3 power uprate project costs were not anticipated in the Company's last base rate proceeding and are not recognized in the Company's base rates. Finally, Mr. Portuondo will explain that the significant fuel savings the Company's customers will realize from the project justify recovery of the power uprate project costs by the Company

through the Fuel and Purchase Power Cost Recovery Clause ("Fuel Clause").

Q. Please summarize your testimony.

A. The CR3 power uprate project is an innovative application of technological advancements and efficiencies during existing planned outages at CR3 to obtain increased nuclear fuel generation capacity. The result of this increased production with low cost nuclear fuel will be the reduction in or replacement of higher cost fossil fuel and purchased power generation resources, yielding substantial fuel savings at a net savings to the cost of the project for customers. No alternative generation option exists that can supply the benefits of additional, reliable, base load, nuclear generation at a net savings to PEF's customers. Also, the power uprate will increase the level of nuclear production in the fuel supply mix on PEF's system, increasing fuel diversity for PEF and the State of Florida. The CR3 power uprate project represents a unique opportunity to increase fuel diversity and reduce the reliance on fossil fuel generation at no net cost to customers, but rather at a net savings to customers.

To obtain the full benefit of the fuel savings generated by the power uprate project, however, PEF must timely commence material and equipment orders to meet the window of opportunity to perform the power uprate during the planned refueling outages at CR3. Any delay in the approval of PEF's Petition will delay and reduce the substantial fuel

savings benefits PEF's customers will receive as a result of the power uprate project.

III. THE CRYSTAL RIVER SITE AND CR3 UNIT

Q. Please describe the Crystal River site.

A. The Crystal River site is a 4,700 acre site located in Citrus County, Florida that contains four coal-fired generating units, one nuclear generating unit, and related support facilities, such as fuel transportation and storage facilities. The site generators are connected to a transmission substation. The Crystal River substation contains both 230 kv and 500 kv transmission lines that supply power generated at the site to the Company's transmission system. The four coal-fired and one nuclear power units at the site generate approximately 3,200 MWe. Exhibit No. ___ (DLR-1) is an aerial photograph that accurately depicts the Crystal River site, including CR3.

Q. Please describe the nuclear generating unit at the Crystal River site.

A. CR3, the nuclear generating unit, is a B&W pressurized water reactor that includes a Primary and Secondary System. The Primary System is located within the containment building and includes the reactor vessel, pressurizer, steam generators, primary coolant system, and related equipment. Exhibit No. ___ (DLR-2) is a picture of the major components

of the Primary System, including the nuclear reactor and the primary reactor coolant system.

The Primary System is a closed loop system. The nuclear reactor produces heat that eventually is turned into steam then into electricity. The heat is removed from the reactor by water in the primary coolant system that is continuously pumped around the Primary System. Heat transfers from the fuel cells to the surrounding metal fuel cladding which in turn heats the water flowing between and around the fuel rods. The heated water then travels from the core through pipes to the steam generators. In the steam generators, heat is transferred from the reactor primary coolant system to the physically separated secondary coolant system producing steam in the secondary system. The Primary System operates at about 600 degrees F and 2150 PSI. The high pressure prevents the water in the primary system from turning to steam.

The secondary water coolant system is under less pressure, operating at over 450 degrees F and 850 PSI, and when the water in the secondary coolant system is heated it turns to steam, which turns the turbine that powers the generator. The steam exiting the turbine is then condensed to water. The water is pumped back to the steam generators by a series of pumps and heat exchangers where it is once again converted to steam, thereby completing the cycle. Exhibit No. ___ (DLR-3) is a schematic of the major components of the Primary and Secondary Systems, including the main turbine and main generator. It also shows the

electricity produced in the generator passes through some transformers before being passed on to the switchyard at Crystal River, and then onto the transmission grid. The Company's transmission system is part of the peninsular Florida interconnected electrical grid of all transmission-owning electric utilities in the State and also part of the interface with the transmission facilities of utilities in the Southeastern United States at the Florida border.

CR3 was the third generating unit constructed at the site and it currently produces about 900 MWe. CR3 provides power into the 500 kv transmission system connected to the Crystal River site and uses the 230 kv system at the site for on-site backup power. CR3 supplies its own power needs during normal operation.

IV. THE CR3 POWER UPRATE PROJECT

Q. What is the CR3 power uprate project?

A. The power uprate project for CR3 increases the electrical power output from the plant from about 900 MWe by approximately 180 MWe to 1,080 MWe. The total cost for the uprate project is estimated at $381.8 million. Of this amount, approximately $250 million is for the power uprate itself. The additional costs address anticipated modifications to the transmission system to handle the additional power, estimated at $89 million, and anticipated modifications to address Point of Discharge ("POD") issues

caused by the additional heat generated by the power increase, which are preliminarily estimated at $43 million.

The power uprate project involves increasing the power or thermal MWs produced in the reactor core by making modifications to the design to allow for use of more highly enriched fuel. The costs associated with this are for making the physical changes needed to allow for use of this more highly enriched uranium in a safe and economical fashion, not the fuel itself. In addition, some modifications to supporting equipment are necessary to support the additional heat from the power increase to accommodate all designed accident conditions in the plant. The additional heat will raise the temperature exchange between the Primary and Secondary Systems and create more steam to turn the turbines.

In the design of these plants in the 1960's, the analytical modeling that exists today was not available, and the result was that the best designs of the time over-compensated for the available computer modeling with built-in assumptions having very large safety margins to ensure adequate protection was in place to accomplish all intended functions. Many of these initial safety margins, given today's analytical engineering tools and advanced testing capabilities, allow for an increase in reactor power with limited physical primary plant changes. Most of these primary system changes involve increasing Emergency Cooling Pump flow rates and the setpoints for actuation of safety systems.

The major modifications resulting from the power uprate involve the secondary system specifically, the turbine generator set, which has three parts, two low pressure and one high pressure rotors, and the generator, plus their supporting systems and equipment. The secondary system must be modified to accept the additional heat produced by the reactor core. This is accomplished by increasing the secondary system water flow to the steam generators. Increasing the flow requires larger pumping capacity than currently exists, which requires modification or replacement of some existing pumps and heat exchangers. A detailed pinch point study for these flows will define which pumps and motors will need to be upgraded or replaced based on the lowest cost required to achieve the necessary secondary system water flow.

In addition to the reactor power increase, design improvements to some major system components will allow for increased efficiencies, providing additional steam power beyond that obtained from the more enriched fuel. These design improvements to obtain the steam efficiencies are factored into the CR3 power uprate costs. For example, when the steam turbine high pressure rotor was designed in 1962, a multi-piece assembly was made. These multi-piece assemblies cause drag on the system, but better technology did not exist at the time. Since then, in the late 1990's, technological advancements have resulted in a single piece rotor blade that has less drag and, therefore, provides increased megawatt output for the same steam input.

The CR3 power uprate project, including all modifications and technological advancements, will generate an additional 180 MWe by the end of 2011. The power uprate project will make CR3 the largest single generating unit in Florida at 1,080 MWe. CR3 is currently licensed by the Nuclear Regulatory Commission ("NRC"). The Company plans to submit a licensed power change to the NRC for the CR3 uprate project in 2009 and NRC approval is expected in 2011.

Q. Has a power uprate of this kind ever been performed on a B&W pressurized water reactor?

A. While the innovative power uprate planned for CR3 has not been undertaken at any other B&W designed plant, similar power uprates have been accomplished and approved by the NRC at other nuclear plants designed by Westinghouse and General Electric. Initial discussions with the NRC indicate that a similar process to the one used for licensing power uprates at Westinghouse and General Electric designed plants would be used to license CR3 to the additional power level.

Q. What is the likelihood that the NRC will approve the license extension for CR3?

A. The power uprate project assumes that the ongoing activities to renew the license of CR3 will be successful and that the license now due to expire in 2016 will be extended to 2036. License renewal of nuclear power plants is

an ongoing nuclear industry process that requires technical information submitted by the applicant and approval by the NRC for the operating license to be extended for 20 years. License renewals have been granted for Progress Energy's Robinson and Brunswick Units 1 and 2 plants. In addition, four of the seven plants of a similar design to CR3 have already received approval for license renewal. No license extensions for plants have been rejected after a detailed NRC review and no utility has been told that it would not be able to renew its license. As a result, there is a high likelihood that the license renewal for CR3 will be granted by the NRC and therefore the 2036 date used in the economic model for the power uprate can be achieved.

Q. Are there any environmental benefits from the CR3 power uprate project?

A. Yes, there are. The CR3 power uprate will use nuclear fuel, which is the cleanest fuel source on PEF's system. During normal operations, there are no greenhouse gas emissions and no emissions of other pollutants common to other fuel sources for power production such as carbon monoxide, sulphur dioxide, aerosols, mercury, nitrogen oxides, and particulates or photochemical smog. Further, because the CR3 power uprate will displace higher cost fossil fuels with nuclear fuel there likely will also be a reduction in the greenhouse gas and other emissions from fossil fuel resources. From an environmental viewpoint, the CR3 power

uprate project is an attractive means of obtaining cost-effective generating capacity.

Q. What is the schedule for the CR3 uprate project?

A. The CR3 power uprate project is planned for the scheduled refueling outages for CR3 in 2009 and 2011. The plant currently has a steam generator replacement scheduled for the 2009 refueling outage. The duration for the steam generator replacement outage is currently estimated at approximately 75 days. To meet this schedule and ensure that the power uprate project is performed during the scheduled outages, PEF must begin ordering equipment and material.

Most of the physical modifications will be complete by 2009 during the scheduled steam generator replacement outage. The Company currently anticipates, for example, that all or at least part of the turbine and generator replacement can be completed during the 2009 outage. Other modifications and replacements will be evaluated for inclusion in the 2009 outage if the outage is not extended, appropriate resources are available to support the changes, and the impact of further modifications or replacements for the power uprate project on the duration of the scheduled 2011 refueling outage can be minimized.

The full power uprate is scheduled for 2011, when the remaining work necessary to provide the full 180 MWe power uprate will be completed. The CR3 power uprate project is expected to generate 40

additional MWe by the end of 2009 and then an additional 140 MWe by the end of 2011. The modifications and equipment changes necessary to support the uprate will be scheduled to minimize any plant outage time while assuring that appropriate resources are available to support the changes.

Q. Will the CR3 uprate project require changes to other units or the Crystal River site?

A. No. All changes necessary to generate the full power uprate are internal to the CR3 power block and switchyard. No changes to the Company's current plant siting are required. However, modifications to the transmission system and to address POD issues to accommodate the full 180 MWe power uprate may be necessary.

Q. Why may changes to the current transmission system be necessary as part of the CR3 power uprate project?

A. After the power uprate project is complete, CR3 will become the largest power generator on the Company's system. Changes may be necessary to the transmission system to accommodate the 1,080 MWe CR3 will generate following the uprate project. The Company is studying and will continue to study the impacts of this additional power to the transmission system and what modifications, if any, are necessary. The final study will not be completed until closer to the time that the power uprate project

commences because the transmission system changes periodically with transmission additions or modifications that are occasioned by other generators and users on the interconnected transmission grid, particularly within peninsular Florida, but also extending to the interface with the southeastern United States utility transmission systems. Current cost estimates of $89 million are preliminary, based on the existing transmission system and known transmission projects that are underway. The Company believes these cost estimates are reasonable and sufficient for the Company to proceed with the project. Refinements to the cost estimates, however, will be made over time to account for any changes to the transmission system or changes in labor, commodity, and land market conditions.

Q. What changes are anticipated to address the POD issues?

A. The power uprate from the project will generate additional heat and steam thereby increasing the water temperature of the cooling water for the CR3 unit. This additional heat will likely cause the Company to exceed the thermal permit requirements for the cooling water discharge. An optimal solution has not yet been identified but we have preliminarily assumed an estimated cost of $43 million to address the POD issues at the discharge canal associated with the uprate project. The Company will evaluate all reasonable options before making a final determination of how to address the POD issue. Whatever modifications are necessary to address the

thermal cooling water discharge limit, however, will accommodate the full power generated by CR3.

Q. Is the POD impact the only environmental issue associated with the CR3 power uprate?

A. Yes, we believe it is. CR3 is located at the Crystal River Energy Complex and is currently being operated under license from the NRC and necessary federal and state permits. The environmental issues associated with the Crystal River site have therefore been addressed and resolved under the prior license and permits. Because the CR3 power uprate project is limited to the CR3 power block and switchyard the project's impact on the site is minimal and most if not all of the current permit requirements for the operation of CR3 will not be affected by the power uprate project. The potential impact to the environment that we see from the project is the effect of the additional heat from the power uprate on the temperature of the discharge water.

V. NEED FOR THE CR3 POWER UPRATE PROJECT

Q. Is there a need for the CR3 power uprate project?

A. Yes, but it is an economic need. Although the power uprate project will provide the Company and its customers with additional, reliable base load power there is no reliability need for the project. The power uprate project

is not required to meet the Company's twenty percent Reserve Margin requirement or Loss of Load probability analysis. As discussed more fully in Messrs. Waters' and Portuondo's testimony, there are, however, clear economic benefits from the project. The power uprate for CR3 will provide additional base load generation from the lowest cost fuel currently on the Company's system, thereby displacing generation with higher priced fuel or higher cost purchased power. The result will be significant fuel savings to the Company's customers that far exceed the cost of the project. The fuel savings and net present value of the fuel savings are described in the testimony of Mr. Waters.

Q. Are the costs of the power uprate project reasonable and prudent?

A. Yes. The Company will conduct competitive bids for the purchase of major components for the power uprate project. This process involves a detailed review of designs and pricing to make sure the best quality for the price is obtained. In addition, benchmark comparison to power uprates performed at other plants in Progress Energy's system will be made to factor in the latest experience gained from those uprates. By incorporating a competitive bidding process and relying on efficiencies achieved from experience, the Company will ensure that the power uprate costs are reasonable and prudent.

VI. BENEFIT TO THE STATE

Q. Will the State benefit from the power uprate project?

A. Yes, it will. As discussed above, the power uprate provides the customers of Florida more electric power with the lowest cost fuel available for their electric consumption, at significant fuel savings. The power uprate project will also increase the Company's fuel diversity and fuel supply reliability with additional generation capacity from nuclear as opposed to fossil fuels. The reduction in the reliance on more expensive fossil fuels that are subject to supply interruptions and significant price volatility is a benefit not only to PEF's customers but also to the State economy as a whole. Finally, nuclear generation is environmentally friendly and it is a proven and safe technology, so the additional power comes at no additional environmental cost. All of these benefits demonstrate that the CR3 power uprate project serves the public welfare.

VII. CONSEQUENCES OF DELAY

Q. Are there any adverse consequences if the power uprate project is delayed?

A. Yes. The steam generator replacement scheduled for 2009 provides a unique window of opportunity for the large power uprate modifications to be made. If that window is missed, performing the power uprate later will

require another unplanned outage or an outage extension. That will require production of power during that additional outage time with higher priced fuels, reducing the benefits of the project.

In addition, the costs of construction and commodities are increasing, which will increase the cost of the uprate project if it is delayed beyond the 2009 outage. As the costs of the project rise over time the fuel savings will be delayed and reduced by the higher costs of the project.

Finally, delaying the power uprate project means delaying the fuel savings benefits to customers. While the project is delayed the power that would have been produced with low-cost nuclear fuel will be produced by higher priced fuel generation resources.

VIII. BID RULE EXEMPTION

Q. Can the Company also use a competitive bid process to determine if the power uprate project is the most cost effective alternative available to the Company?

A. No, it cannot. The power uprate project at CR3 will result in the lowest cost supply of electricity on PEF's system to the people of Florida. Specifically, the power uprate results in net savings to the Company's customers. The bid rule was established as a tool to determine the most cost-effective alternative to the Company's generation proposal. No power generation alternative is available that will provide base load

generating capacity at a net savings to customers comparable to the benefits of the CR3 power uprate project. All other potential suppliers of generation capacity would likely provide the additional capacity of the CR3 power uprate project – 180MWe – at a net cost to the Company's customers and without the environmental and fuel diversity benefits of nuclear power. Because the power uprate project provides customers with additional nuclear generation at a net savings, not a net cost, it is by definition the lowest cost supply of reliable electricity to customers and, therefore, the most cost effective alternative for the Company.

Q. Will the issuance of a Request For Proposals (RFP) for generation alternatives to the CR3 power uprate project have an adverse effect on the project?

A. Yes. An RFP process will take months from preparation of the RFP to the solicitation of bids, review and analysis of any responses, and making a final decision. To meet the current schedule to begin work on the CR3 project uprate during the 2009 CR3 outage PEF must commence ordering equipment and material now. Engaging in an RFP process, therefore, will delay equipment and material orders for the project and the Company will miss the window of opportunity to perform power uprate work during the 2009 outage. Such a delay, as I have already explained, will require a separate outage time for the power uprate project and result in increased equipment and material costs for the project reducing the fuel savings

benefits. Further, any remaining fuel savings benefits for customers would be delayed to the disadvantage of the customer.

There also is no benefit to PEF's customers from an RFP process. The CR3 power uprate project will take advantage of the cheapest fuel the Company has and a fuel that is not available in other supply side alternatives. Any potential bidder in an RFP necessarily must propose a different, higher price fuel source for the alternative generation. It necessarily follows that any alternative generation source will not generate the same fuel savings and other benefits of the CR3 power uprate on PEF's system. PEF, therefore, does not need to conduct an RFP process to know that the CR3 power uprate project will increase the reliable supply of electricity to PEF's customers at the lowest cost to and most benefit for PEF's customers.

Q. Does an RFP process for the CR3 power uprate project present a substantial hardship to PEF or its customers?

A. Yes, an RFP process to test an alternative generation option would be a substantial hardship to both PEF and its customers. Remember, the need for the CR3 project is an economic, not a reliability need. PEF has enough capacity to meet its customers' needs for reliable generation without the CR3 power uprate project, just at a higher total cost to the customer. The hardship to PEF's customers, then, if PEF is required to engage in an RFP process for potential alternative generation to the CR3 power uprate

project, is that they will lose the fuel savings benefits of the project. With fuel savings estimated at over $2.6 billion, as explained by Mr. Waters in his testimony, the hardship of the loss would be substantial.

PEF would also suffer a substantial hardship. PEF likewise has an interest in lowering the total costs of energy to its customers and PEF certainly has an interest in increasing fuel diversity on its system. Further, an RFP process imposes substantial technical requirements and cost on PEF to conduct the RFP process, all for a futile effort in the case of the CR3 power uprate project.

IX. CONCLUSION

Q. Please summarize the benefits of the CR3 power uprate project.

A. There is an economic need for the CR3 power uprate project. By undertaking and completing the project PEF will generate substantial fuel savings for its customers that will be a significant benefit to them and the Company. The Company will also increase fuel diversity to its benefit and the benefit of the state, all by providing additional, reliable base load generation from an environmentally friendly source. No additional base load generation source can provide additional, reliable electrical power at a net fuel savings to customers comparable to that provided by the CR3 power uprate project. We urge the Commission to approve the need for

the CR3 power uprate project, to waive all of the bid rule requirements, and to provide for cost recovery of the project through the Fuel Clause.

Q. Does this conclude your testimony?

A. Yes, it does.

IN RE: PETITION FOR DETERMINATION OF NEED FOR EXPANSION OF AN ELECTRICAL POWER PLANT, FOR EXEMPTION FROM RULE 25-22.082, F.A.C., AND FOR COST RECOVERY THROUGH THE FUEL CLAUSE

BY PROGRESS ENERGY FLORIDA

FPSC DOCKET NO. _____

DIRECT TESTIMONY OF

SAMUEL S. WATERS

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name, employer, and business address.

A. My name is Samuel S. Waters and I am employed by Progress Energy Carolinas ("PEC"). My business address is 410 S. Wilmington Street, Raleigh, North Carolina, 27602.

Q. Please tell us your position with PEC and describe your duties and responsibilities in that position.

A. I am Director of System Resource Planning for Progress Energy Florida ("PEF" or the "Company") and PEC. I am responsible for directing the resource planning process for both companies. Our resource planning process is an integrated approach to finding the most cost-effective alternatives to meet each company's obligation to

serve, in terms of long-term price and reliability. We examine both supply-side and demand-side resources available and potentially available to the Company over its planning horizon, relative to the Company's load forecasts. In my capacity as Director of System Resource Planning, I oversaw the completion of the Company's most recent Ten Year Site Plan ("TYSP") document filed in April 2006.

Q. Please summarize your educational background and employment experience.

A. I graduated from Duke University with a Bachelor of Science degree in Engineering in 1974. From 1974 to 1985, I was employed by the Advanced Systems Technology Division of the Westinghouse Electric Corporation as a consultant in the areas of transmission planning and power system analysis. While employed by Westinghouse, I earned a Masters Degree in Electrical Engineering from Carnegie-Mellon University.

I joined the System Planning department of Florida Power & Light Company ("FPL") in 1985, working in the generation planning area. I became Supervisor of Resource Planning in 1986, and subsequently Manager of Integrated Resource Planning in 1987, a position I held until 1993. In late, 1993, I assumed the position of Director, Market Planning, where I was responsible for oversight of the regulatory activities of FPL's Marketing Department, as well as tracking of marketing-related trends and developments.

In 1994, I became Director of Regulatory Affairs Coordination, where I was responsible for management of FPL's regulatory filings with the FPSC and the

Federal Energy Regulatory Commission ("FERC"). In 2000, I returned to FPL's Resource Planning Department as Director.

I assumed the position of Manager of Resource Planning with Progress Energy in January of 2004, and assumed my current position in October of 2005. I am a registered Professional Engineer in the states of Pennsylvania and Florida, and a Senior Member of the Institute of Electrical and Electronics Engineers, Inc. ("IEEE").

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. My primary purpose in this testimony is to present the fuel savings and overall cost effectiveness to customers of the proposed power uprate project at the Company's Crystal River Unit 3 ("CR3"), the Company's nuclear unit. A more detailed description of the CR3 power uprate project is provided in Mr. Roderick's testimony.

I will also generally describe the Company, its generation resources, including purchased power, its transmission and distribution systems, and CR3's place in the system. Finally, I will generally describe the Company's conservation measures and explain why conservation measures cannot mitigate the economic need for the CR3 power uprate project.

Q. Are you sponsoring any exhibits to your testimony?

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

- Exhibit No. ___ (SSW-1), a Summary of Annual Fuel Savings of the Proposed Power Upgrade to CR 3; and
- Exhibit No. ___ (SSW-2), a Summary of the Overall Cost Effectiveness of the Proposed Power Upgrade to CR 3 to the retail customer.

These exhibits to my testimony are true and correct.

Q. Please summarize your testimony.

A. There is an economic need for the CR3 power uprate resulting from the substantial fuel savings of over $2.6 billion that the power uprate will deliver customers for the extended life of CR3 and the enhanced fuel diversity on PEF's system and in Florida. The CR3 power provides retail customers an estimated net fuel savings benefit, when compared to the costs of the power uprate, of $327 million on a present value basis. In addition, PEF's customers receive additional, reliable base load capacity from the lowest cost fuel generation source available to PEF. No other generation supplier can provide additional base load capacity at a net savings to customers comparable to the CR3 power uprate, thus, the CR3 power uprate projects is the most cost effective option for PEF. All of these benefits demonstrate the clear value of the CR3 power uprate to PEF's customers and support the Company's request that the Commission grant its Petition.

III. OVERVIEW OF THE COMPANY AND THE PROJECT

Q. Please generally describe the Company.

A. PEF is an investor-owned public utility, regulated by the Florida Public Service Commission ("PSC"), with an obligation to provide electric service to approximately 1.6 million customers in its service area, which covers approximately 20,000 square miles in 35 of the state's 67 counties. PEF supplies electricity at retail to approximately 350 communities and at wholesale to 21 municipalities, utilities, and power agencies in the State of Florida.

PEF serves one of the faster growing areas of the country. Its forecasted annual customer growth is projected to be 1.7 percent over the next 10 years. Annual sales growth is projected to be approximately 2.5 percent during the same period.

Q. What are the Company's current supply-side generation resources?

A. PEF currently owns and operates a diverse mix of supply-side resources, consisting of generation from nuclear, coal, oil, and gas, along with purchases from other utilities and purchases from non-utility generators such as cogenerators. The existing generating capacity includes one 788 MW nuclear steam unit (reflecting the Company's ownership interest in CR3), four combined cycle units with a total capacity of 1,910 MW, 12 fossil steam units totaling 3,983 MW in capacity, and 3,069 MW of capacity in 47 combustion turbine units. The Company's existing total winter net generating capability is 9,750 MW.

PEF purchases over 1,400 MW of capacity from twenty qualifying facilities

and two investor-owned utilities. The qualifying facilities from which the Company purchases power are fueled by a variety of sources, including natural gas, wood waste, and municipal waste. PEF is also engaged in two long-term contracts for power. One contract is with The Southern Company, which sells the Company 414 MW from the coal-fired Miller and Scherer Plants. The other contract is for system power from Tampa Electric Company. This contract increased to 70 MW in 2005. Altogether, these purchased power resources account for approximately thirteen percent of PEF's generation resources.

Q. What is the Company's Demand-Side Management (DSM) Program?

A. To comply with the directives of the Florida Energy Efficiency and Conservation Act ("FEECA"), PEF must file with the PSC a DSM Plan to meet the conservation goals established by the PSC pursuant to FEECA. The PSC established conservation goals for PEF that span the ten-year period from 2000 through 2009 in Order No. PSC-99-1942-FOF-EG issued October 1, 1999 in Docket No. 971007-EG. Consistent with these conservation goals established by the PSC, the Company filed its DSM Plan on December 29, 1999. PEF's DSM Plan was approved by the PSC in Order No. PSC-00-0750-PAA-EG, Docket No. 991789-EG, issued on April 17, 2000.

PEF proposed new conservation goals for the ten year period from 2005 through 2014, as well as a new DSM Plan for meeting the proposed goals, in a filing with the Commission as part of Docket No. PSC-040031-EG. Over the five years from 2005 to 2009 the proposed conservation goals are generally lower than the existing set of goals, reflecting less available savings from demand-side resources.

The proposed new conservation goals were approved by the Commission in Order No. PSC-04-0769-PAA-EG, Docket No. PSC-040031-EG, on August 9, 2004. The new approved conservation goals will lead to an increase in PEF's firm winter and summer peak demand.

Approximately 345,000 customers participated in the Energy Management program in the Company's DSM plan at the end of 2005, contributing about 700,000 kW of winter peak-shaving capacity for use during high load periods.

Q. Can you please provide a general description of the Company's transmission and distribution facilities?

A. Yes. PEF is part of a nationwide interconnected power network that enables power to be exchanged between utilities. PEF has approximately 5,000 circuit miles of transmission lines including about 200 circuit miles of 500 kV lines and about 1,500 circuit miles of 230 kV lines. PEF has distribution lines of approximately 35,000 circuit miles, including about 13,000 circuit miles of underground cable. Distribution and transmission substations in service have a transformer capacity of approximately 45,000,000 kVA in 614 transformers. Distribution line transformers numbered 356,930 with an aggregate capacity of about 18,000,000 kVA.

Q. Please describe the CR3 unit.

A. CR3 is the Company's nuclear unit. It was the third unit built at the Crystal River site, which is a 4,700 acre site located in Citrus County, Florida. The other units located at the Crystal River site are all coal-fired units (Crystal River Units 1, 2, 4,

and 5). The CR3 unit is a pressurized water reactor that currently generates approximately 900 MWe. A more detailed description of the CR3 unit is provided in the testimony of Mr. Roderick.

Q. What is the CR3 power uprate project?

A. The CR3 power uprate project consists of two stages of modifications and efficiency enhancements that will increase the power output of CR3 from about 900 MWe by 180 MWe to 1,080 MWe. The CR3 power uprate project will be performed during the scheduled refueling outages for the CR3 unit in 2009 and 2011. Additional detail about the CR3 power uprate project is contained in the testimony of Mr. Roderick.

IV. BENEFITS OF THE CR3 POWER UPRATE PROJECT

Q. Please describe how the CR 3 power uprate will benefit PEF's customers.

A. There are two important ways that increasing the amount of nuclear energy available to PEF customers will provide benefits (1) decreased system fuel costs and (2) a lower need for new capacity in the future. By increasing the amount of power available from CR3, additional energy will be produced, and nuclear energy is the lowest cost energy available to the system. Additional energy from the unit will displace energy from other, higher cost, generation sources that would otherwise be used to meet the total demand for electricity, resulting in substantial fuel savings to the system, which translates to lower fuel charges to customers.

Q. Can you estimate the prospective fuel savings to PEF's customers?

A. Yes. Using a detailed production costing model, I have calculated the expected savings resulting from the combined uprates of 40 MW in December of 2009, and 140 MW in November of 2011. The results of the analysis are shown in my Exhibit No. ___ (SSW-1). As shown in this exhibit, the total nominal fuel savings for the years 2009 through 2025 are more than $1.4 billion. If we look out through 2036 (when the license extension will end), we expect nominal savings to exceed $2.6 billion.

Q. What are the costs associated with the increased rating to CR3?

A. There are three components to the costs associated with the proposed increase in rating. First, there are the costs associated with the power uprate itself, and Mr. Roderick has identified total costs of approximately $250 million. Second, there are the costs for additional cooling at the site, and the costs are estimated at $43 million, according to Mr. Roderick. Third, additional transmission requirements to accommodate the power increase will result in a cost of approximately $89 million, as explained by Mr. Roderick. The total costs to achieve the benefit of the full 180 MW power increase is estimated to be $381.8 million.

Q. Does the rating increase to CR3 provide savings to PEF customers?

A. Yes. I have compared the net present value of savings to costs in my Exhibit No. ___ (SSW-2), which shows a net benefit of approximately $327 million NPV to the retail customer.

Q. How does the increase in ratings reduce the need for new capacity in the future?

A. PEF plans to a 20 percent reserve margin, so each additional MW that is available from CR3 reduces the need for one MW of new capacity to maintain the same reserve margin. The 180 MW of "new" capacity that will be available therefore reduces the need for 180 MW of capacity beyond 2011.

Q. Have you quantified the value of the capacity benefit provided by the increase in rating?

A. No. To be conservative, I have not added these benefits, but there is no question that the additional capacity will reduce future needs. The 180 MW is roughly equivalent to one new combustion turbine eliminated from the future capacity plan. The real need for the CR3 power uprate project however, is economic, not reliability. As I have explained, the total nominal fuel savings will exceed $2.6 billion and the present value of net savings to retail customers will be approximately $327 million. There is no other generation alternative available to the Company that can provide an additional 180 MW of reliable, base load energy at a net savings to PEF's customers. The CR3 power uprate project is, therefore, cost effective even without consideration of the additional capacity benefits.

Q. Are there other benefits provided by the CR3 unit power uprate?

A. Yes. Not only is nuclear energy the lowest cost energy available to the system, history has shown that the nuclear fuel commodity (uranium) is more stable in price than gas or oil and lately even coal, and this stability will help to reduce the overall fuel price volatility to PEF's customers. Consider, for example, that a 10% change in nuclear fuel prices might result in a change in the energy delivered from a nuclear unit of 50 to 75 cents per MWh, while a 10% change in gas prices might result in a change in energy delivered from a combined cycle unit of 5 to 7.5 dollars, based on prices recently experienced. Beyond the impact that equal percentage changes in fuel prices may have on the customer bill, clearly oil and gas prices have been extremely volatile in recent times, with natural gas prices varying by as much as 50% just in the last year.

In addition to the cost impacts, there is also a value to increasing fuel diversity and lessening dependence on oil and gas in the Company's overall fuel mix. Even a relatively small increase in the nuclear capacity contributes to a decrease in the exposure of the system, and therefore customers, to interruption in natural gas, oil and coal supplies.

Q. Was the CR3 power uprate project included in the Company's most recent TYSP filed with the Commission in April 2006?

A. No, it was not. At the time the CR3 power uprate project was developed, during the Company's preparation for the steam generator replacement and related work during

the upcoming nuclear fuel outages, the Company's future capacity needs had already been identified for filing in the TYSP. The project, therefore, was not included in the Company's reserve margin requirements and for that reason it is not included in PEF's TYSP. As I have explained, the CR3 power uprate project is needed to achieve the economic benefits of substantial fuel savings for PEF's customers and to increase the Company's fuel diversity.

V. NEED FOR THE CR3 POWER UPRATE PROJECT

Q. Is there a need for the CR3 Power Uprate Project?

A. Yes, there is a clear economic need for the project. The CR3 power uprate is the most cost effective alternative for PEF customers, providing them with 180 MW of additional power at a net savings, not a net cost. The project further provides additional benefits in the form of additional, reliable base load capacity and improvement of fuel diversity on the PEF system.

Q. Can this economic need be met or exceeded by requests for proposals to other potential suppliers?

A. No. As I have explained, the CR3 power uprate project results in the lowest cost supply of electricity because it offers additional base load capacity at a net savings and not a net cost to the Company's customers. The bid rule was established to determine the most cost-effective alternative to the Company's generation proposal.

No other generation supplier can provide the generation benefits of the CR3 power uprate project at a net savings to customers. All other potential generation suppliers would likely provide additional capacity at a net cost to the customer, and they certainly would not be able to provide the environmental and fuel diversity benefits of nuclear generation. The CR3 power uprate project is by definition, then, the lowest cost supply of reliable electricity to customers and the most cost effective alternative for the Company.

Q. Is the CR3 power uprate project consistent with the needs of Peninsular Florida?

A. Yes, it is. The CR3 power uprate project will assist Peninsular Florida in attaining the 15 percent minimum level of planning reserves targeted for the FRCC region. It will also increase the fuel diversity in Florida by adding additional nuclear fuel capacity. This will advance the State's goal, recently expressed by the Florida legislature in the 2006 session energy legislation, of increasing fuel diversity and reducing the reliance on fossil fuels.

VI. CONSERVATION MEASURES

Q. Can the need for the CR3 power uprate be mitigated by the Company pursuing conservation measures reasonably available to it?

A. No. As I have explained, the need for the CR3 power uprate project is based on economics and supported by environmental and fuel diversity objectives. The significant net fuel savings to customers, fuel diversity benefits, and environmental benefits define the need for the project. The Company has identified and implemented a set of cost-effective DSM programs that have already successfully met the Commission-established goals. Additional conservation programs, if used to avoid the CR3 power uprate project, would be disadvantageous to customers. The CR3 uprate will produce more incremental energy into the system than an equivalent amount of conservation can save. Put another way, the energy produced by 180 MW of CR3 will be greater than the energy saved by 180 MW of conservation. This occurs because conservation generally saves energy in proportion to the participant's load factor, or less, making the energy savings equivalent to a 60% load factor or less, while CR3 would be expected to produce energy at a 90% capacity factor. The difference in energy would have to be made up by the remaining generating units on the system, increasing fossil-fired generation and system emissions compared to implementation of the uprate. If the comparison were to be done on equivalent energy alone, it would take more MW of conservation to save an amount of energy equivalent to the energy produced by the CR3 upgrade, which would result in higher costs to customers. In addition to these considerations, the CR3 uprate project is expected to produce more in production cost savings alone, without consideration of its capacity benefit, than its cost to implement, suggesting that deferral or avoidance of the project by any means would be a detriment to customers. For these reasons, I

believe that the CR3 uprate project could not be avoided by conservation measures that would be considered reasonably available.

Q. Does this conclude your testimony?

A. Yes.

MS. BENNETT: The next item to be entered into the record are the exhibits. We would ask that the Comprehensive Stipulated Exhibit List, which is Number 1, the Staff Consolidated Exhibit, as Number 2, and the prefiled exhibits numbered sequentially after that be moved into the record.

CHAIRMAN EDGAR: The exhibits will be moved into the record as numbered.

(Exhibits 1 through 10 marked for identification and admitted into the record.)

MS. BENNETT: And, finally, Issues 1 through 8, Progress and Staff have reached agreement on and have stipulated. FRF joins in, I believe, Issues 1, 2, and 8, and takes no position and no objection; and OPC and FIPUG also take no position and do not object to the stipulations for Issues 1 through 8.

Staff is ready to answer any questions from the Commissioners about these issues.

CHAIRMAN EDGAR: Commissioners, as you know, the issues, and as Ms. Bennett has described, have all been stipulated. The record is in order. We are in a procedural posture where we can go ahead and have a bench decision and vote today if we are all comfortable and ready to proceed. And I know that the staff and the parties are also able to answer any questions if there are any questions.

So let's start there, Commissioners. Any questions

on the application or the issues before us?

Seeing none, Ms. Bennett.

MS. BENNETT: Then you may either vote issue-by-issue or take all Issues 1 through 8, together.

CHAIRMAN EDGAR: Okay.

Commissioners, recognizing that there have been no questions, I think it is appropriate that we can take up all of the issues as a group, which would be, as Ms. Bennett said, Issues 1 through 8. If you are comfortable doing that, we are in a posture where we can proceed.

COMMISSIONER CARTER: Madam Chairman, I move that we approve the agreement as presented to us on Issues 1 through 8.

COMMISSIONER TEW: Second.

CHAIRMAN EDGAR: Any discussion? Okay. All in favor of the motion say aye.

(Unanimous affirmative vote.)

CHAIRMAN EDGAR: Show it adopted.

Ms. Bennett.

MS. BENNETT: The final order in this case will be issued by February 7th. There are no post-hearing procedures that need to be followed, other than the final order.

At this time the hearing is concluded, and it is appropriate, if you wish, to adjourn.

CHAIRMAN EDGAR: Okay. With that said, thank you all, and this hearing is adjourned.

We will be back at 10:30 for our next proceeding.

(Hearing concluded at 9:50 a.m.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk and Administrative Services, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 19th day of January, 2007.

JANE FAUROT, RPR
Official FPSC Hearings Reporter
FPSC Division of Commission Clerk and
Administrative Services
(850) 413-6732

Stipulated Comprehensive Exhibit List for Entry into Hearing Record

Hearing I.D. #	Witness	I.D. # As Filed	Exhibit Description	Entered
Staff				
1		Exhibit List- 1	Comprehensive Exhibit List	
2		Staff Consolidated Exhibit - 2	a. PEF's Responses to Interrogatories 1-27 of Staff's First Set of Interrogatories, including attachments 1-7. b. PEF's Responses to Interrogatories 39-48 of Staff's Third Set of Interrogatories. c. Notice of Newspaper Publication by PEF.	
Testimony Exhibit List				
PEF				
3	Javier Portuondo	JP-1	Excerpt of Schedule B-13 of Minimum Filing Requirement submitted in Docket No. 050078-EI.	
4	Javier Portuondo	JP-2	Excerpt of Schedule B-2 of Minimum Filing Requirement submitted in Docket No. 050078-EI.	
5	Javier Portuondo	JP-3	Excerpt of Schedule B-1 of Minimum Filing Requirement submitted in Docket No. 050078-EI.	
6	Daniel L. Roderick	DLR-1	Aerial view of Crystal River Complex, including CR3.	

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 060642-EI Exhibit No. 1
Company/ FPSC Staff
Witness: Exhibit List-1
Date: 01-18-07

Stipulated Comprehensive Exhibit List for Entry into Hearing Record				
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Exhibit Description**	**Entered**
7	Daniel L. Roderick	DLR-2	Photo of primary plant configuration for pressurized water reactor nuclear plant at CR3 that shows major components of nuclear reactor and primary coolant system.	
8	Daniel L. Roderick	DLR-3	Schematic of major components in primary system and balance of nuclear plant that shows major components in secondary systems, including main turbine and main generator.	
9	Samuel S. Waters	SSW-1	Summary of Annual Fuel Savings of Proposed Power Upgrade to CR3.	
10	Samuel S. Waters	SSW-2	Summary of Overall Cost Effectiveness of the Proposed Power Upgrade to CR3 to the retail customer.	

Hearing Exhibit List				
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Exhibit Description**	**Entered**

Hearing Exhibit List

Hearing I.D. #	Witness	I.D. # As Filed	Exhibit Description	Entered

Hearing Exhibit List				
Hearing I.D. #	**Witness**	**I.D. # As Filed**	**Exhibit Description**	**Entered**

EXHIBIT NO. _____

DOCKET NO: 060642-EI - PETITION FOR DETERMINATION OF NEED FOR EXPANSION OF CRYSTAL RIVER 3 NUCLEAR POWER PLANT, FOR EXEMPTION FROM BID RULE 25-22.082, F.A.C., AND FOR COST RECOVERY THROUGH FUEL CLAUSE, BY PROGRESS ENERGY FLORIDA, INC.

DESCRIPTION: STAFF'S COMPREHENSIVE EXHIBITS

DOCUMENTS:

1. PROGRESS ENERGY OF FLORIDA INC.'S RESPONSES TO STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1-27) INCLUDING ATTACHMENTS 1-7.

2. PROGRESS ENERGY OF FLORIDA INC.'S RESPONSES TO STAFF'S THIRD SET OF INTERROGATORIES (NOS. 39-48).

3. NOTICE OF NEWSPAPER PUBLICATION BY PROGRESS ENERGY FLORIDA INC.

PROFFERED BY: STAFF

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 060642-EI Exhibit No. 2
Company/ FPSC Staff
Witness: Staff's Consolidated Exhibit -2
Date: 01-18-07

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Petition for determination of need for expansion of Crystal River 3 nuclear power plant, for exemption from Bid Rule 25-22.082, F.A.C., and for cost recovery through fuel clause, by Progress Energy Florida, Inc.	DOCKET NO. 060642-EI DATED: DECEMBER 1, 2006

PROGRESS ENERGY FLORIDA, INC.'S RESPONSE TO STAFF'S FIRST SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 1-35)

Progress Energy Florida, Inc. ("PEF"), responds to Staff's First Set of Interrogatories to Progress Energy Florida, Inc. (Nos. 1-35), as follows:

INTERROGATORIES

1. For each of the two cases evaluated by PEF (180 MW CR3 Uprate and No Uprate), please estimate the percentage of total reward or penalty dollars attributed to CR3 under the Generating Performance Incentive Factor (GPIF).

PEF did not perform an analysis to directly assess the impact of the proposed uprate. For the purposes of this interrogatory, a rough estimate was performed, the results of which indicated the percentage of total reward or penalty dollars attributed to CR3 under the GPIF would increase in the range of approximately 4% to 8%. It should be noted however that the maximum reward or penalty is established as a function of the average common equity, revenue expansion factor, and the jurisdictional separation factor, and would be unaffected by the CR3 power uprate.

2. As a condition of PEF recovering all capital costs of the proposed CR3 uprate project through the fuel adjustment clause, please discuss whether any adjustments should be made to rewards or penalties under the GPIF.

Assuming the CR3 power uprate moves forward, as the effective year of the uprate approaches, the GPIF target setting process would take into account the contribution of the uprate to the system (i.e., lower fuel costs) and the associated rewards or penalties associated with the uprate would be allocated in appropriate proportion to expected benefit. For GPIF target setting purposes, it is anticipated that the CR3 availability and heat rate would be assumed to be unaffected by the uprate, i.e., that history would remain a valid indicator of expected performance. If specific design or engineering information becomes available to refine these assumptions, such information would be considered and if appropriate, submitted in the target setting process.

3. Please identify the differences between the proposed CR3 steam generator replacement and the item that appears in line 11 of Exhibit JP-1 to Witness Portuondo's September 22, 2006, prefiled direct testimony in this docket. Include any differences in project scope, cost, or schedule.

The Steam Generator Replacement project is independent of the proposed CR3 Power Uprate and is not part of PEF's petition. The CR3 Power Uprate has no bearing on the scope, schedule, or cost of the Steam Generator Replacement project.

4. Please provide the data contained in Exhibit SSW-2 to Witness Waters' September 22, 2006, prefiled direct testimony in this docket for each year from 2026 through 2036.

PEF assumes that Staff intended to direct its questions to Exhibit SSW-1, not Exhibit SSW-2. With respect to Exhibit SSW-1, annual production cost savings resulting for the up-rate were modeled through 2025. Those savings totaled $1,444,373,714. The $2,664,166,852 total gross savings through 2036 was derived by trending the data. There is no annual data for the years 2026-2036.

PEF revised its short-term fuel price forecast for the purposes of estimating fuel costs for 2007. The revision to the short-term fuel price forecast does not impact the period (December, 2009 and beyond) for which fuel savings resulting from the CR3 uprate project are presented. Therefore, no revision to the fuel savings presented in Mr.. Waters' testimony are necessary.

PEF further notes that the CR3 uprate project, although it generates new MW, does not generate additional sales. The additional MW from the CR3 uprate project are simply displacing existing MW that are generated or purchased with higher cost fuel.

5. Please provide a detailed breakdown of the $2,664,166,852 fuel savings value contained in Exhibit SSW-2 to Witness Waters' September 22, 2006, prefiled direct testimony as follows:
   a. Differential energy generated for each capacity type (steam-coal, steam-oil/gas, steam-combined cycle, combustion turbine, nuclear, cogen, purchased power, and any others); and
   b. Differential dollar value and energy generated for each individual generating unit.

   a. *Please see Attachment 1. The data presented in Attachment 1 is through 2025 only (please see the answer to Interrogatory No. 4). The annual savings shown in Attachment 1 sum to the total $1,444,373,714.*

   b. *Please see Attachment 2.*

6. For both of the cases evaluated by PEF to determine the $2,664,166,852 fuel savings value, please provide the annual average capacity factor for each individual generating unit for each year of the study period.

The annual average capacity factor for each individual generating unit for each year

Between 2009 and 2025 (the period for which modeled data is available) is included in Attachment 3.

7. For both of the cases evaluated by PEF to determine the $2,664,166,852 fuel savings value, please provide the projected level of off-system sales for each year of the study period. Provide both the amount of energy and dollar amounts.

Attachment 4 contains the Economy Sales energy assumed in the determination of the total production cost through 2025. Our production cost model does not produce a "cost of economy sales" value. Similarly, the model does not produce a "cost of residential sales." The output is the cost for all sales.

8. For both of the cases evaluated by PEF, please provide the annual nominal, as well as annual and cumulative present worth revenue requirements. Please break down these values for each year using the following major categories: power uprate, additional cooling, additional transmission requirements, and fuel savings.

Please see Attachment 5.

9. Please discuss whether PEF plans to include the 180 MW of capacity from the proposed CR3 uprate project in future Ten-Year Site Plan filings.

PEF does plan to include the CR3 uprate project in future Ten-Year Site Plan Filings. The additional capacity will be reflected as changes to the summer and winter ratings of the existing unit as the phases of the uprate are completed, with an eventual net increase of 180 MW.

10. At page 10, lines 10-11 of his September 22, 2006, prefiled direct testimony, Witness Waters' notes that PEF did not evaluate potential capacity deferral benefits associated with the proposed CR3 uprate project. Please explain whether the project will cause PEF to defer the in-service date of the two proposed coal units shown in PEF's 2006 Ten-Year Site Plan.

The addition of the CR3 Uprate alone is unlikely to change the projected in-service dates of the coal units identified in the 2006 Ten Year Site Plan, identified as having in-service dates of 2013 and 2014. All other factors remaining the same, the additional 180 MW of capacity may defer some capacity additions, but since the CR3 Uprate will be completed by 2011, it is more likely the CR3 Uprate may defer capacity that comes into service before the coal units, specifically the combustion turbines or combined cycle identified in the 2006 Ten Year Site Plan as coming in service in the years 2010-2012, or displace some purchased power.

As indicated in the response to item 9, PEF does plan to include the CR3 uprate project in future Ten-Year Site Plan Filings. The additional capacity will be reflected as changes to the summer and winter ratings of the existing unit as the phases of the uprate are completed, with an eventual net increase of 180 MW.

11. Please discuss the status of the CR3 life extension process with the Nuclear Regulatory Commission. Include an indication of the term of the proposed life extension.

Progress Energy notified the NRC a license renewal application would be submitted in the January-March 2009 time frame [Serial: PE&RAS 03-003, February 20, 2003]. The current CR3 operating license expires December 3, 2016. The extension would be for an additional 20 years of operation. The efforts necessary to support that application are currently on schedule to meet that date. The application review process typically takes from 22 months to 30 months. CR3 expects to receive a renewed license that will allow operation for an additional 20 years, by early 2011.

12. Please discuss the capacity and cost impacts, if any, on the state's spinning reserve allocation due to the proposed CR3 uprate project.

At present the FRCC spinning reserve requirement for the FRCC Reserve Sharing Group is set at twenty-five percent of the largest contingency for the region which is FP&L's St. Lucie #2 nuclear unit (i.e. 910MWs, summer gross rating). Hence, the current spinning reserve requirement for the region is 228MWs (i.e. 25% of 910MWs). Overall, operating reserves (i.e. 25% spinning and 75% non-spinning) for the region must equate to no less than 910MWs. Since the FRCC members participate in a reserve sharing arrangement, the total operating reserve requirement is shared among the reserve sharing members and is divided amongst the members based on size of each member's largest unit and peak load. The following table from the current FRCC Operating Reserve Policy (rev. May 2006) shows the current reserve allocation among FRCC reserve sharing members

Balancing Authority	2000 Peak Hour NEL MW	Capability Largest Unit Gross MW	Operating Reserve Allocation Percentage	Total Operating Reserve MW	Required Minimum Non-spinning Reserve MW	Minimum Spinning Reserve MW
FMPP	2950	500	10.40%	98.9	74.2	24.7
FPL	17808	846	32.01%	291.3	218.5	72.8
GVL	425	235	3.14%	28.6	21.5	7.2
HST	67	9	0.18%	1.7	1.3	0.4
JEA	2614	518	9.06%	82.5	61.9	20.6
LWU	85	33	0.47%	0.0	0.0	0.0
NSB	88	4	0.16%	1.4	1.1	0.4
PEF	8694	804	19.96%	181.7	136.2	45.4
RC	68	38	0.51%	4.6	3.5	1.2
SEC	2553	694	10.94%	99.5	74.6	24.9
TAL	550	250	3.47%	31.6	23.7	7.9
TEC	3435	480	9.69%	88.1	66.1	22.0
TOTAL	39387	4511	100.00%	910	683	228

Table 1

Assuming the current reserve sharing methodology remains the same; the uprate of CR3 will result in a gross summer rating for the unit of 930MWs. Hence, the largest contingency for the region will now increase by 20MWs (i.e. exceeds the gross summer output of St. Lucie Unit #2). The additional 20MWs (i.e. 5MWs spinning reserve, 15MWs non-spinning reserve) will be allocated amongst the FRCC reserve sharing members starting around December of 2009. Around November of 2011, the final phase of the uprate will be complete resulting in an additional 140MWs of gross output and creating a contingency that is 160MWs greater than the current largest contingency. Once this final phase of the project is complete, the region will have to pick up an additional 40MWs of spinning reserve and 120MWs of non-spinning reserve compared to the current operating reserve requirement. Allocation of this additional operating margin will again be based on each member's peak load and largest unit assuming the current reserve sharing methodology is employed and no other contingencies surpass that of CR#3 in the coming year. The costs of these additional operating reserves will be somewhat dependent on each member's available operating resources, assuming a continuation of the present reserve sharing agreement. For example, additional non-spinning reserve requirements may not result in any additional cost if the existing supply system already contains sufficient non-spinning resources (e.g., fast-start combustion turbines) to meet the new requirement. Installed reserve requirements are not impacted by the increase in unit capability, i.e., the PEF target reserve margin is currently 20% and will remain at 20% after the upgrade is completed. Additional spinning reserve requirements affect the system dispatch and may alter system fuel costs.

13. Please identify all proposed equipment additions or modifications that comprise the $250 million estimate that appears on page 4, lines 19-23 of Witness Portuondo's September

Please see the Attached Table in Attachment 6. The cost estimates in Attachment 6 are based upon a Feasibility study only; a final engineering study has not yet been performed. The identified equipment modifications, costs, and the associated cash flow will differ depending upon the outcome of the final engineering pinch point study to be completed in 2007.

14. Please identify the proposed transmission additions or modifications that comprise the $89 million estimate that appears on page 4, lines 19-23 of Witness Portuondo's September 22, 2006, prefiled direct testimony. Itemize the costs of each addition or modification.

In reviewing this additional capacity of the unit uprate, a realistic transmission scenario was included as a placeholder for potential transmission upgrades. The formal studies have yet to be completed that identify specific transmission upgrades required by the project. In general, the scenario includes potential upgrades such as additional transformation, additional transmission line capacity, and other associated modifications. Formal studies are expected to be undertaken in 2007.

15. Please identify all expected contingencies that trigger the need for additions or modifications to PEF's transmission system as a result of the proposed CR3 uprate project.

Please see the Company's answer to interrogatory number 14. Formal studies are expected to be undertaken in 2007 and will include expected contingencies that trigger the need for additions or modifications to the transmission grid resulting from the CR3 upgrade.

16. Please identify the proposed point of discharge (POD) additions or modifications that comprise the $43 million estimate that appears on page 4, lines 19-23 of Witness Portuondo's September 22, 2006, prefiled direct testimony. Itemize the costs of each addition or modification.

The $43 million estimate for a cooling solution to offset the impact of the CR3 Uprate is a high level estimate based on the cost of the permanent cooling towers installed in 1993. This cost was then inflated to 2011 dollars and adjusted based on the expected needed flowrate to offset the uprate impact vs. the actual flowrate of the original towers. In general PEF expects to need some form of additional cooling to offset the thermal impact of the uprate to CR3. This will likely include some type of tower or tower upgrade as well as additional pumping capacity to increase the total flowrate of cooling water. As the project progresses PEF will refine these estimates.

17. Please discuss whether PEF expects the amount of uranium used for electricity generation to increase because of the proposed CR3 uprate project.

PEF expects the amount of uranium to increase because of the proposed CR3 uprate project. The amount of uranium used for electricity generation is roughly proportional to the length of the reactor operating cycle and the reactor power level. The current operating cycle length for CR3 is not expected to change because of the proposed power uprate. However, the increased power level will require an increase in the amount of uranium loaded into the reactor for each operating cycle. The cost of this increase is not included in PEF's petition. The cost of the increase in the fuel at CR3 from the CR3 uprate will flow through the fuel costs as burned following in-service of this project.

18. Please describe the term "nuclear fuel enrichment" that appears on page 3, line 23 of Witness Roderick's September 22, 2006, prefiled direct testimony in this docket. Include specific information on activities or processes that take place during this process.

The term "nuclear fuel enrichment" refers to the percentage of the fissile uranium isotope U235 in all uranium isotopes in a given quantity of uranium. An increase in the nuclear fuel enrichment is expected for the power uprate. The nuclear fuel assembly design process will determine the precise nuclear fuel enrichment (level) and the number of fresh fuel assemblies required for each cycle of operation.

19. Please explain all changes to "nuclear fuel enrichment" that are expected to occur after completion of the proposed CR3 uprate project compared with what currently occurs. Include the differential fuel costs, time intervals between refueling outages, and unit performance.

After the power uprate, the typical CR3 nuclear fuel enrichment (level) on a per fuel assembly basis will be higher than what currently occurs. The differential fuel cost on a cash flow basis for a reload will be approximately 20% higher than current fuel cost. Fuel costs on a KWh basis, however, are not expected to increase with the more highly enriched fuel. In any event, fuel costs have not been included in PEF's petition, these costs will naturally flow through the fuel adjustment clause as burned following in-service of this project. The time interval between refueling outages is expected to remain 24 months and unit performance, expressed as capacity factor is not expected to change in any material way.

20. At page 10 of its Petition, at paragraph 17, PEF states that "the supply of nuclear fuel is relatively plentiful and stable in price." Please explain whether this statement is also true for the more highly enriched uranium fuel proposed for use in CR3 after completion of the proposed uprate project.

Nuclear fuel is the end product of a multi-stage process, beginning with uranium ore, continuing through chemical conversion processes, uranium enrichment and nuclear fuel design and fabrication. For the proposed power uprate project, each of the stages will be accomplished using the same suppliers, processes and contracts as for the current nuclear fuel supply. The final cost of a nuclear fuel assembly is the sum of the costs of all these steps. The more highly enriched fuel to be used by CR3 after the uprate is not a unique and different product than today's nuclear fuel assemblies; each assembly will merely have a higher quantity of enrichment than today, with a proportional increase in the cost of the enrichment and the required additional uranium. The costs of the more highly enriched fuel used after the CR3 uprate have not been included in PEF's petition, rather these costs will naturally flow through the fuel adjustment clause as burned following in-service of this project. Fuel costs on a KWh basis, however, are not expected to increase with the more highly enriched fuel.

21. At page 12, line 11 of Witness Roderick's September 22, 2006, prefiled direct testimony, the witness states that "the innovative power uprate planned for CR3 has not been undertaken at any other B&W designed plant . . .." Please identify whether B&W or another party is responsible for the engineering design for the proposed CR3 uprate project.

Progress Energy (CR3) currently has an agreement with AREVA which is the parent company of the former B&W Company. AREVA will evaluate the necessary changes required to support incremental power increases. AREVA and CR3 are evaluating impacted systems and modifications needed for the power level uprate to 3010MWth in the year 2011.

While AREVA did most of the plant's original design over the years, the CR3 staff has taken over most of the Design Basis information and can use other vendors. They will be solicited based on technical competence and competitive cost pricing to evaluate the design to improve the steam plant efficiencies and the required modifications to the Turbine Generator and the Balance of Plant equipment to support the 2009 outage and the goal of a combined increase of 40 MW over the current output capacity. These evaluations and modifications in 2009 will support the future power level upgrade to 3010 MWth in 2011 for a combined capacity increase of 180 MWe total.

22. Please provide the monthly capacity factor of CR3 since the last refueling outage.

Monthly Capacity Factors	
Jan-06	75.21%
Feb-06	102.70%
Mar-06	67.94%
Apr-06	102.19%
May-06	101.60%
Jun-06	100.61%
Jul-06	98.44%
Aug-06	83.18%
Sep-06	99.90%
Oct-06	101.17%

Planned transformer replacement

Planned FW Repair Outage

23. Please describe all CR3 unit outages that have occurred since the last refueling outage. Include the reasons for, and duration of, each outage.

Please see the attached table at Attachment 7 for outages since cycle start up.

24. Please identify the financial and performance security that PEF will obtain from equipment vendors for the proposed CR3 uprate project.

Contracts are typically negotiated with penalties and/or withholdings depending upon post implementation performance and guarantees. These penalties and performance guarantees are typically a percentage of total contract. These performance assurances will address cost, schedule performance, and production of additional electrical generation.

25. Please explain why PEF chose the 2009 refueling outage to perform the CR3 steam generator replacement.

The CR3 steam generator replacement is a distinct and independent project from the CR3 power uprate that is the subject of the Company's petition. *The steam generator replacement project was scheduled and put in motion long before the uprate project was planned for the 2009 refueling outage.*

CR3 is the last Progress Energy plant to replace its steam generator. The tube material used in the original steam generators have exhibited corrosion and cracking phenomena that has necessitated an increase in the refueling interval tube inspections and repair scope. As a nuclear industry this impact has resulted in an increase in refueling outage cost, radiation dose, and duration and scrutiny of the Nuclear Regulatory Commission. This degradation phenomenon cannot be arrested and is expected to accelerate, ultimately impacting safety limits of the steam generator because of the number of tubes plugged. The date was selected based on a technical assessment that considers economic factors as well as technical concerns.

26. Please explain in detail whether the reasons for replacing the steam generator at CR3 are due to age, damage, normal O&M, or other causes.

As explained previously in answer to interrogatory number 25, the CR3 steam generator replacement project is a distinct and independent project from the CR3 power uprate that is the subject of the Company's petition. *The reasons for replacing the steam generator at CR3 have nothing to do with the reasons for the CR3 power uprate project.*

The CR3 Steam Generators are not being replaced due to age, damage, or normal O&M. The CR3 steam generators are being replaced because of existing and projected corrosion mechanisms associated with the tubing material. The tube material is made from a stainless steel alloy called Alloy 600 and was stress relieved with a specific heat treatment process for Once-Through Steam Generators (OTSG). The material was expected to provide good protection against specific corrosion types such as general intergranular attack (IGA). However, while this material has minimized IGA corrosion, other corrosion mechanisms such as stress corrosion cracking (SCC) have affected many tubes. Any indication of SCC or IGA found anywhere in the tube will result in the tube having to be repaired and may require additional eddy-current inspections during that outage. The existing condition of the two steam generators at CR3 is such that extensive inspections are required during each refueling outage. The most limiting damage mechanism is known as freespan IGA. Each inspection is significant in terms of outage cost, radiation exposure, and duration. The extent of the steam generator inspections typically result in longer outages.

27. Please describe the equipment that PEF would remove from service during the CR3 steam generator replacement outage. Include a description of the associated plant in service with installed cost, age or estimated remaining life, and accumulated reserve.

As explained previously in answer to interrogatories numbers 25 and 26, ***the CR3 steam generator replacement project is a distinct and independent project from the CR3 power uprate that is the subject of the Company's petition.*** *The removal of equipment from service during the CR3 steam generator replacement outage for the steam generator replacement has nothing to do with the CR3 power uprate project.*

CR3 will be in an outage for approximately 70 days to replace the steam generators. During that time the steam generators will be removed from the Reactor Building and new ones installed. The removed steam generators will be retired from service and any NBV remaining charged to FERC account 108 "Accumulated Reserve for Depreciation". The new steam generator will be capitalized to FERC account 101 "Electric Plant in Service" which will then be depreciated over the remaining extended life of the plant. (PEF in its last depreciation study assumed a successful license extension application and therefore set the retirement date of CR3 to 2036)

AFFIDAVIT

STATE OF NORTH CAROLINA)
)
COUNTY OF WAKE)

I hereby certify that on this 1st day of December, 2006, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Javier Portuondo, who is personally known to me, and he acknowledged before me that the answers to the STAFF'S FIRST SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 1-35) in Docket No. 060642-EI were provided by the following individuals:

Interrogatory Nos. 1, 2	Mark Oliver
Interrogatory Nos. 3, 11, 13, 14, 15, and 17 through 35	Daniel Roderick
Interrogatory Nos. 4 through 10 and 12	Samuel Waters
Interrogatory No. 16	Thomas Lawery
Interrogatory Nos. 28, 29, 32, 33	Javier Portuondo and Daniel Roderick

and that the responses are true and correct based on his/her personal knowledge.

Javier Portuondo

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 1st day of December, 2006.

Patricia W. McDonald 12/1/2

Notary Public
State of North Carolina, at Large
My Commission Expires:

My Commission Expires 1-22-201

GWH

Uprate minus Base

StationGroup	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cogen	(1.1)	0.0	(0.9)	(2.8)	0.5	(1.8)	(1.5)	(2.8)	(1.4)	(8.6)	(15.0)	(10.1)	(10.2)	(14.0)	(18.7)	(15.5)	(13.9)
CT	(0.1)	(6.2)	(7.7)	(41.0)	(20.6)	(30.5)	(35.2)	(20.2)	(39.0)	(18.5)	(21.9)	(32.1)	(43.1)	(12.6)	(20.2)	(20.5)	(31.8)
DSM	0.0	(0.2)	(0.2)	(0.5)	(0.6)	(0.5)	(1.4)	(0.3)	(1.3)	(0.0)	(0.0)	(1.7)	0.0	0.0	(0.4)	0.0	(0.6)
Nuclear	11.2	339.9	415.9	1533.8	1416.6	1529.6	1416.6	1533.8	1402.2	1493.3	1389.8	1506.3	1387.9	1457.7	1345.8	1459.3	1360.2
Steam-CC	(10.5)	(231.6)	(310.6)	(929.9)	(923.6)	(910.1)	(847.6)	(950.0)	(811.3)	(884.7)	(873.2)	(927.6)	(703.3)	(890.5)	(816.2)	(848.6)	(828.2)
Steam-Coal	1.3	(36.9)	(32.7)	(192.4)	(240.8)	(358.6)	(344.9)	(378.0)	(370.5)	(505.1)	(385.3)	(417.1)	(467.4)	(458.4)	(403.8)	(472.9)	(368.6)
Steam-Oil	1.5	(32.2)	(19.7)	(201.9)	(88.4)	(125.6)	(80.6)	(76.4)	(91.0)	(62.5)	(66.9)	(79.9)	(124.8)	(51.0)	(46.5)	(58.8)	(66.9)
Purc(Econ+Firm+E.N.S)	(2.2)	(32.9)	(44.6)	(163.7)	(143.6)	(99.0)	(104.7)	(103.7)	(86.5)	(6.6)	(20.4)	(20.2)	(21.6)	(11.0)	(14.4)	(15.5)	(22.8)
TranEcon-Sale + Dump	(0.0)	(0.0)	0.5	(1.5)	0.5	(3.6)	(0.6)	(2.4)	(1.3)	(7.4)	(7.1)	(17.7)	(17.7)	(20.3)	(25.6)	(27.5)	(27.3)

No Uprate - July GFF Base

StationGroup	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cogen	4,551.4	5,312.2	5,314.6	5,332.9	5,314.2	5,311.6	5,309.4	5,328.0	5,312.4	5,296.0	5,295.9	5,308.2	5,296.8	5,262.6	5,275.8	5,280.5	5,276.6
CT	1,670.5	1,596.4	1,674.7	1,611.7	1,580.3	1,568.5	1,665.1	1,550.5	1,691.5	1,580.3	1,560.5	1,641.6	1,661.5	1,534.8	1,542.4	1,564.6	1,631.9
DSM	5.6	4.4	4.7	0.5	2.6	0.7	3.3	0.3	3.8	0.0	0.0	8.9	3.7	-	0.8	0.7	2.7
Nuclear	5,089.1	6,636.4	6,143.5	6,654.5	6,143.1	6,636.4	6,143.9	6,654.5	6,735.7	14,796.3	14,304.9	14,842.5	14,956.2	22,754.3	22,307.5	22,843.7	22,341.6
Steam-CC	15,223.5	15,820.7	18,609.3	20,158.4	19,112.3	17,745.6	18,355.5	16,255.4	17,356.2	13,389.4	15,057.4	15,478.8	16,200.9	12,830.4	13,666.3	14,098.3	15,487.9
Steam-Coal	15,260.6	16,168.3	16,620.9	15,801.8	19,418.7	21,400.0	22,395.4	26,363.4	25,975.8	24,692.4	24,770.6	24,902.4	25,266.8	22,857.7	23,548.6	23,896.4	23,942.7
Steam-Oil	3,611.7	2,940.7	3,021.7	3,099.0	2,678.0	2,895.3	2,857.8	2,740.1	2,924.3	2,685.7	2,761.1	2,856.7	2,958.3	2,523.4	2,687.9	2,628.4	2,827.6
Purc(Econ+Firm+E.N.S)	5,777.2	4,688.2	2,775.7	2,776.2	2,516.9	2,371.8	2,510.5	1,705.2	1,875.4	798.8	814.6	855.0	867.0	793.2	804.7	812.5	835.7
TranEcon-Sale + Dump	(389.6)	(386.3)	(387.5)	(385.8)	(386.2)	(390.9)	(391.1)	(389.7)	(388.1)	(403.6)	(403.0)	(402.4)	(410.6)	(453.3)	(431.0)	(443.0)	(442.0)

Uprate - CR3 180MWs Study

StationGroup	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cogen	4,550.3	5,312.2	5,313.7	5,330.1	5,314.7	5,309.8	5,307.9	5,325.2	5,310.9	5,287.4	5,280.9	5,298.1	5,286.6	5,248.5	5,257.2	5,265.0	5,262.7
CT	1,670.4	1,590.2	1,667.0	1,570.6	1,559.7	1,538.0	1,629.9	1,530.3	1,652.4	1,561.8	1,538.6	1,609.5	1,618.5	1,522.3	1,522.1	1,544.1	1,600.1
DSM	5.6	4.2	4.4	0.0	2.1	0.2	1.9	0.1	2.5	0.0	-	7.2	3.7	-	0.5	0.7	2.1
Nuclear	5,100.3	6,976.3	6,559.4	8,188.3	7,559.7	8,166.0	7,560.5	8,188.3	8,137.9	16,289.6	15,694.7	16,348.8	16,344.1	24,212.0	23,653.3	24,303.0	23,701.7
Steam-CC	15,212.9	15,589.1	18,298.7	19,228.4	18,188.7	16,835.5	17,507.9	15,305.4	16,544.8	12,504.7	14,184.1	14,551.1	15,497.6	11,939.9	12,850.1	13,249.8	14,659.7
Steam-Coal	15,261.9	16,131.5	16,588.2	15,609.4	19,177.9	21,041.4	22,050.4	25,985.4	25,605.3	24,187.3	24,385.3	24,485.2	24,799.5	22,399.4	23,144.7	23,423.5	23,574.1
Steam-Oil	3,613.2	2,908.4	3,002.0	2,897.0	2,589.6	2,769.8	2,777.2	2,663.7	2,833.3	2,623.1	2,694.1	2,776.8	2,833.5	2,472.4	2,641.4	2,569.6	2,760.7
Purc(Econ+Firm+E.N.S)	5,775.0	4,655.3	2,731.1	2,612.5	2,373.3	2,272.9	2,405.8	1,601.4	1,788.9	792.2	794.2	834.8	845.5	782.2	790.3	797.0	812.9
TranEcon-Sale + Dump	(389.7)	(386.4)	(387.1)	(387.3)	(385.7)	(394.5)	(391.7)	(392.1)	(389.4)	(411.0)	(410.1)	(420.1)	(428.3)	(473.6)	(456.6)	(470.4)	(469.3)

PEF CR3 Uprate
Uprate minus Base
GWh

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	11	340	416	1,534	1,417	1,530	1,417	1,534	1,404	1,530	1,417	1,534	1,417	1,530	1,417	1,534	1,417
NUC Future 1	0	0	0	0	0	0	0	0	-2	-36	-27	-27	-25	-28	-32	-33	-25
NUC Future 2	0	0	0	0	0	0	0	0	0	0	0	0	-4	-44	-39	-41	-31
Nuclear, Total	11	340	416	1,534	1,417	1,530	1,417	1,534	1,402	1,493	1,390	1,506	1,388	1,458	1,346	1,459	1,360
Steam-Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal 1	1	-9	-9	-51	-44	-59	-57	-45	-46	-53	-46	-52	-49	-50	-48	-47	-42
Crystal 2	0	-15	-10	-52	-73	-71	-76	-59	-56	-67	-49	-53	-53	-62	-51	-60	-46
Crystal 4	0	-7	-7	-40	-62	-83	-81	-82	-85	-96	-66	-75	-98	-82	-74	-87	-70
Crystal 5	1	-6	-6	-49	-54	-85	-76	-83	-89	-95	-67	-76	-95	-81	-76	-83	-64
PV COAL 1	0	0	0	0	-8	-60	-49	-51	-46	-92	-75	-82	-81	-93	-78	-90	-72
PV COAL 2	0	0	0	0	0	0	-7	-57	-48	-102	-82	-79	-92	-91	-77	-105	-75
Steam-Coal, Total	1	-37	-33	-192	-241	-359	-345	-378	-370	-505	-385	-417	-467	-458	-404	-473	-369
Steam-Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anclote 1	0	-14	-11	-94	-27	-51	-40	-23	-34	-45	-35	-49	-46	-26	-33	-31	-32
Anclote 2	2	-16	-4	-94	-34	-53	-31	-45	-45	-15	-28	-28	-68	-23	-9	-28	-30
BARTOW 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTOW 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTOW 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUWANNEE 1	0	-1	0	-3	-4	-6	-5	-2	-1	0	-1	-1	-2	1	-3	1	-1
SUWANNEE 2	0	0	1	-2	-3	-4	-2	-6	-3	-1	0	-1	-1	0	-4	-2	-1
SUWANNEE 3	0	-1	-5	-10	-20	-12	-3	-1	-7	-2	-3	0	-7	-2	2	2	-2
Steam-Oil, Total	2	-32	-20	-202	-88	-126	-81	-76	-91	-63	-67	-80	-125	-51	-46	-59	-67
Steam-CC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTOW CC REP 1	-21	-24	-110	-496	-346	-322	-374	-260	-230	-237	-218	-226	-213	-201	-259	-243	-184
CCF 1	0	0	-66	-119	-143	-134	-148	-144	-156	-189	-158	-194	-126	-192	-103	-176	-171
HINES 1	-2	-15	17	-77	-32	-38	-52	-38	-51	-17	-29	-54	-34	-48	-88	-51	-96
HINES 2	-4	-19	-80	-89	-156	-112	-94	-63	-197	-148	-81	-142	-77	-100	-130	-90	-98
HINES 3	-5	-32	-26	-91	-141	-133	-92	-145	-101	-103	-137	-97	-118	-155	-109	-141	-112
HINES 4	18	-117	-71	-66	-52	-138	-104	-232	-26	-98	-201	-144	-100	-190	-114	-122	-146
TIGERBAY 1	3	-24	25	8	-53	-33	16	-67	-50	-92	-50	-70	-34	-4	-12	-26	-20
Steam-CC, Total	-11	-232	-311	-930	-924	-910	-848	-950	-811	-885	-873	-928	-703	-890	-816	-849	-828
CT, Total	0	-6	-8	-41	-21	-30	-35	-20	-39	-18	-22	-32	-43	-13	-20	-21	-32
Tran-Purc, Total	-2	-33	-45	-164	-144	-99	-105	-104	-86	-7	-20	-20	-22	-11	-14	-16	-23
Cogen, Total	-1	0	-1	-3	0	-2	-1	-3	-1	-9	-15	-10	-10	-14	-19	-15	-14
Sales	0	0	0	-1	1	-4	-1	-2	-1	-7	-7	-18	-18	-20	-26	-27	-27
DSM	0	0	0	0	-1	0	-1	0	-1	0	0	-2	0	0	0	0	-1
Total Load	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

000013

PEF CR3 Uprate
July 2006 Generation & Fuel Forecast - Florida
GWh

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	5,089	6,636	6,143	6,655	6,143	6,636	6,144	6,655	6,089	6,636	6,143	6,655	6,144	6,636	6,143	6,655	6,143
NUC Future 1									646	8,160	8,162	8,188	8,169	8,095	8,116	8,133	8,130
NUC Future 2													643	8,023	8,048	8,056	8,068
Nuclear, Total	5,089	6,636	6,143	6,655	6,143	6,636	6,144	6,655	6,736	14,796	14,305	14,842	14,956	22,754	22,308	22,844	22,342
Steam-Coal																	
Crystal 1	2,500	2,395	2,679	2,404	2,257	2,461	2,364	2,240	2,404	2,031	2,110	2,210	2,133	1,789	2,101	1,984	2,071
Crystal 2	2,870	3,069	2,892	2,709	3,117	2,851	2,863	2,810	2,758	2,446	2,624	2,535	2,369	2,417	2,379	2,366	2,563
Crystal 4	5,309	5,553	5,398	5,386	5,310	5,125	5,449	4,894	4,643	4,723	4,549	4,597	4,873	4,236	4,365	4,604	4,413
Crystal 5	4,581	5,151	5,652	5,303	5,237	5,053	5,370	4,811	4,570	4,639	4,472	4,515	4,800	4,184	4,261	4,527	4,325
PV COAL 1					3,498	5,910	5,883	5,846	5,829	5,461	5,551	5,571	5,603	5,166	5,271	5,257	5,338
PV COAL 2							467	5,763	5,771	5,393	5,465	5,474	5,489	5,066	5,171	5,158	5,232
Steam-Coal, Total	15,261	16,168	16,621	15,802	19,419	21,400	22,395	26,363	25,976	24,692	24,771	24,902	25,267	22,858	23,549	23,896	23,943
Steam-Oil																	
Anclote 1	1,451	1,503	1,574	1,569	1,289	1,457	1,454	1,381	1,456	1,368	1,391	1,466	1,479	1,237	1,368	1,348	1,423
Anclote 2	1,084	1,114	1,095	1,169	1,035	1,091	1,051	1,040	1,118	1,003	1,040	1,046	1,137	974	1,007	939	1,074
BARTOW 1	195																
BARTOW 2	179																
BARTOW 3	327																
SUWANNEE 1	88	81	89	85	82	86	82	76	80	76	81	82	82	77	77	78	79
SUWANNEE 2	102	93	101	98	96	96	98	94	100	89	90	98	95	88	86	96	92
SUWANNEE 3	184	150	164	178	176	166	173	149	170	149	159	165	165	148	149	168	160
Steam-Oil, Total	3,612	2,941	3,022	3,099	2,678	2,895	2,858	2,740	2,924	2,686	2,761	2,857	2,958	2,523	2,688	2,628	2,828
Steam-CC																	
BARTOW CC REP 1	3,441	5,094	6,077	6,195	5,413	4,864	5,017	4,184	4,556	3,006	3,569	3,643	3,899	2,827	3,080	3,236	3,551
CCF 1			1,576	2,724	2,621	2,369	2,414	2,077	2,276	1,641	1,878	1,971	2,023	1,530	1,611	1,693	1,873
HINES 1	2,851	3,142	2,886	3,094	3,244	3,080	3,075	2,968	3,232	2,794	2,913	2,816	2,891	2,764	2,833	2,959	3,020
HINES 2	2,644	2,251	2,424	2,369	2,300	2,105	2,309	2,114	2,220	1,837	1,866	2,132	2,173	1,738	1,850	1,946	2,147
HINES 3	2,399	2,137	2,151	2,039	2,139	2,179	2,196	1,945	2,134	1,641	1,976	1,972	2,090	1,580	1,725	1,841	2,026
HINES 4	2,699	2,144	2,542	2,528	2,149	2,131	2,178	1,945	2,130	1,488	1,863	1,836	2,070	1,519	1,588	1,590	1,859
TIGERBAY 1	1,190	1,052	954	1,210	1,247	1,016	1,166	1,022	808	981	992	1,108	1,054	872	980	833	1,013
Steam-CC, Total	15,223	15,821	18,609	20,158	19,112	17,746	18,355	16,255	17,356	13,389	15,057	15,479	16,201	12,830	13,666	14,098	15,488
CT																	
AVON PK 1	13	12	13	12	13	12	12	12	13	12	12	13	12	12	12	12	13
AVON PK 2	3	4	4	3	3	3	3	3	4	3	3	4	3	3	3	3	3
BARTOW 1	2	1	1	0	1	0	1	0	1	0	0	1	1	0	0	0	1
BARTOW 2	9	3	4	2	2	1	3	1	4	2	1	3	2	1	1	1	3
BARTOW 3	2	1	1	0	1	0	1	0	1	0	0	1	1	0	0	0	1
BARTOW 4	7	4	5	2	3	2	2	1	5	2	1	3	3	2	1	1	3
BAYBORO 1	11	11	12	11	10	10	11	10	12	10	10	11	11	10	10	10	11
BAYBORO 2	11	12	12	11	11	11	12	11	12	11	10	12	11	11	10	11	11
BAYBORO 3	13	13	14	13	12	12	13	12	14	12	12	14	12	12	12	12	13
BAYBORO 4	13	13	14	13	13	12	13	12	14	12	12	13	13	12	12	12	13
CTBar 1	39																
CTBar 2	31																
CTFG 1		19	39	35	20	25	34	10	39	19	19	34	38	10	12	16	29
CTFG 2		14	27	25	16	14	28	12	28	16	12	28	29	9	11	15	23

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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CTFG 3		9	23	17	10	13	21	9	20	9	10	20	20	6	9	9	18
CTFG 4				3	9	9	14	7	14	9	5	8	14	6	6	7	14
DEBARY 1	10	10	10	9	9	9	9	9	10	9	9	10	9	9	9	9	10
DEBARY 2	8	8	9	8	8	8	8	8	9	8	7	9	8	7	8	8	8
DEBARY 3	9	9	9	8	8	8	9	8	9	8	8	10	8	8	8	8	9
DEBARY 4	9	9	9	8	8	8	8	8	9	8	8	9	8	8	8	8	9
DEBARY 5	8	8	8	7	8	7	8	7	8	8	7	9	8	7	7	7	8
DEBARY 6	7	7	8	7	7	7	7	7	8	7	7	9	7	7	7	7	7
DEBARY 7	90	90	91	88	89	89	90	89	92	88	88	88	90	83	89	88	89
DEBARY 8	91	90	94	90	90	90	91	90	91	90	89	91	91	88	90	89	90
DEBARY 9	88	86	88	86	86	86	88	78	87	85	85	86	86	85	84	85	85
DEBARY 10	29	30	30	29	29	29	29	29	30	29	29	30	29	29	29	29	29
HIGGINS 1	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
HIGGINS 2	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
HIGGINS 3	15	14	14	14	14	14	14	14	14	14	14	15	14	14	14	14	14
HIGGINS 4	11	11	11	11	11	11	11	11	11	11	10	11	11	10	10	11	11
INT CITY 1	9	9	9	8	8	8	8	8	9	8	8	9	8	8	8	8	8
INT CITY 2	12	12	12	12	12	11	11	11	12	11	11	12	11	11	11	11	12
INT CITY 3	12	12	12	12	12	11	12	11	13	11	11	13	12	11	11	11	12
INT CITY 4	13	13	14	13	13	13	13	13	14	13	13	13	13	13	13	13	13
INT CITY 5	14	14	15	14	14	13	14	13	15	13	13	15	14	13	13	13	14
INT CITY 6	10	10	10	10	9	9	10	9	11	9	9	10	10	9	9	9	10
INT CITY 7	65	63	65	62	63	62	63	62	64	62	58	64	63	62	62	61	63
INT CITY 8	70	70	72	68	69	68	69	68	67	68	67	70	70	68	67	67	69
INT CITY 9	63	59	63	59	58	58	60	59	61	57	57	60	60	58	58	57	60
INT CITY 10	65	64	67	64	63	63	64	64	66	63	63	65	64	63	63	63	64
INT CITY 11	30	30	32	30	30	30	29	29	31	29	28	32	30	29	29	29	30
INT CITY 12	91	90	90	90	88	86	89	88	89	87	87	90	90	87	87	87	89
INT CITY 13	90	90	90	87	85	87	88	86	89	87	86	88	89	86	87	86	87
INT CITY 14	95	91	93	90	89	89	90	90	91	89	89	91	90	88	89	89	89
RIO PINAR 1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
SUWANNEE 1	35	33	34	35	33	33	34	32	34	30	31	32	33	29	32	31	33
SUWANNEE 2	20	20	22	20	19	19	20	20	21	19	19	21	20	19	19	19	20
SUWANNEE 3	43	40	39	43	40	38	43	39	39	36	37	37	41	33	37	36	39
TURNER 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TURNER 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TURNER 3	13	13	15	13	12	12	13	12	13	13	12	14	13	12	12	12	13
TURNER 4	10	11	12	10	10	10	10	10	11	10	10	11	10	9	9	10	10
U OF FL 1	363	346	339	340	347	338	364	348	364	361	362	336	361	357	341	358	358
CT, Total	1,671	1,596	1,675	1,612	1,580	1,568	1,665	1,550	1,691	1,580	1,561	1,642	1,662	1,535	1,542	1,565	1,632
C P & Lime	988	989															
Econpurc offp	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332
Econpurc peak	422	422	422	421	421	421	421	421	421	421	421	423	421	421	421	421	421
Osceola 158 Purc	3																
OUC 150 Purc																	
Shady Hills	89	120	121	153	84	70	139	56	133	45	61	99	113	40	51	59	82
SoCo Franklin		742	1,294	1,315	1,134	1,020	1,088	896	988								
SoCo Scherer		330	557	554	545	529	530										
Southern UPS	3,567	1,456															
TEA 50 Purc																	

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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Teco Purc	376	295	50														
Tran-Purc, Total	5,777	4,688	2,776	2,776	2,517	2,372	2,511	1,705	1,875	799	815	855	867	793	805	812	836
As Avail	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
Auburn(As Avail)	37	38	37	38	38	38	38	38	38	37	38	38	37	38	37	37	37
Bay County																	
Biomass Energy	68	828	830	832	829	828	828	831	828	821	820	821	822	807	812	810	814
Cargill																	
Dade County	312	313	313	314	313	312	312	314	312	311	311	312	311	307	308	308	308
DTE Biomass	21	21	21	22	21	21	21	21	21	21	21	21	21	21	21	21	21
El Dorado (APP)	475	474	473	477	475	473	473	476	474	474	474	476	475	474	474	476	474
G2 Energy	77	77	77	78	77	77	77	77	77	76	77	76	76	75	76	76	76
Lake Cogen	433	433	433	436	433	433	433	433	434	433	433	434	433	432	433	435	434
Lake County	80	80	80	80	80	80	80	80	80	79	79	80	79	79	79	79	79
LFC (APP)	82	81	82	82	81	81	81	82	81	82	82	82	81	81	81	82	81
Mulberry	383	383	383	384	383	383	383	384	383	383	383	384	383	383	383	384	383
Orange Cogen	378	378	378	379	378	378	378	379	378	378	378	379	378	378	378	379	378
Orlando Cogen	647	647	647	649	647	647	647	649	647	647	647	649	647	647	647	649	647
Pasco Cogen	629	628	629	631	628	629	629	631	629	628	629	630	629	629	628	630	628
Pasco County	173	173	173	174	173	173	173	173	173	172	171	172	171	168	169	169	169
Pinellas County	336	336	336	337	336	336	336	337	336	334	334	334	334	327	330	328	330
Ridge Gen St	246	246	246	247	246	246	245	246	245	244	244	244	244	241	242	242	242
Royster	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
Cogen, Total	4,551	5,312	5,315	5,333	5,314	5,312	5,309	5,328	5,312	5,296	5,296	5,308	5,297	5,263	5,276	5,281	5,277
Sales	-390	-386	-388	-386	-386	-391	-391	-390	-388	-404	-403	-402	-411	-453	-431	-443	-442
DSM	6	4	5	0	3	1	3	0	4	0	0	9	4	0	1	1	3
Total Load	50,800	52,781	53,777	55,049	56,380	57,539	58,850	60,208	61,487	62,835	64,162	65,492	66,801	68,103	69,403	70,682	71,905

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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	5,100	6,976	6,559	8,188	7,560	8,166	7,560	8,188	7,494	8,166	7,560	8,188	7,561	8,166	7,560	8,188	7,560
NUC Future 1									644	8,124	8,135	8,160	8,144	8,067	8,084	8,100	8,105
NUC Future 2													639	7,979	8,009	8,015	8,036
Nuclear, Total	**5,100**	**6,976**	**6,559**	**8,188**	**7,560**	**8,166**	**7,560**	**8,188**	**8,138**	**16,290**	**15,695**	**16,349**	**16,344**	**24,212**	**23,653**	**24,303**	**23,702**
Steam-Coal																	
Crystal 1	2,501	2,386	2,670	2,353	2,213	2,402	2,307	2,195	2,358	1,978	2,065	2,158	2,084	1,739	2,052	1,937	2,029
Crystal 2	2,870	3,054	2,881	2,656	3,044	2,780	2,788	2,751	2,702	2,379	2,575	2,482	2,315	2,355	2,329	2,305	2,517
Crystal 4	5,309	5,547	5,390	5,346	5,248	5,041	5,368	4,812	4,558	4,627	4,482	4,522	4,776	4,155	4,291	4,517	4,343
Crystal 5	4,582	5,145	5,646	5,254	5,183	4,968	5,294	4,728	4,481	4,543	4,405	4,439	4,706	4,103	4,185	4,445	4,261
PV COAL 1					3,490	5,849	5,835	5,794	5,783	5,369	5,475	5,489	5,522	5,073	5,193	5,167	5,267
PV COAL 2							459	5,705	5,723	5,291	5,383	5,395	5,397	4,975	5,094	5,053	5,157
Steam-Coal, Total	**15,262**	**16,131**	**16,588**	**15,609**	**19,178**	**21,041**	**22,050**	**25,985**	**25,605**	**24,187**	**24,385**	**24,485**	**24,799**	**22,399**	**23,145**	**23,423**	**23,574**
Steam-Oil																	
Anclote 1	1,450	1,488	1,563	1,475	1,261	1,407	1,414	1,358	1,422	1,323	1,356	1,417	1,433	1,211	1,336	1,317	1,390
Anclote 2	1,086	1,099	1,090	1,075	1,001	1,038	1,021	995	1,072	988	1,012	1,018	1,069	950	998	911	1,044
BARTOW 1	195																
BARTOW 2	179																
BARTOW 3	327																
SUWANNEE 1	88	80	88	82	79	80	77	74	79	76	80	81	80	77	74	79	78
SUWANNEE 2	102	92	101	96	92	92	96	88	97	88	89	96	94	88	82	94	91
SUWANNEE 3	184	150	158	169	157	154	170	148	163	148	157	165	158	146	151	169	157
Steam-Oil, Total	**3,613**	**2,908**	**3,002**	**2,897**	**2,590**	**2,770**	**2,777**	**2,664**	**2,833**	**2,623**	**2,694**	**2,777**	**2,834**	**2,472**	**2,641**	**2,570**	**2,761**
Steam-CC																	
BARTOW CC REP 1	3,421	5,070	5,967	5,699	5,067	4,543	4,643	3,923	4,326	2,769	3,351	3,418	3,686	2,627	2,821	2,993	3,366
CCF 1			1,510	2,605	2,477	2,235	2,267	1,933	2,120	1,453	1,720	1,777	1,897	1,338	1,508	1,517	1,702
HINES 1	2,849	3,127	2,903	3,017	3,212	3,043	3,023	2,930	3,181	2,777	2,884	2,762	2,857	2,716	2,745	2,908	2,924
HINES 2	2,640	2,232	2,344	2,280	2,144	1,993	2,214	2,051	2,023	1,689	1,785	1,990	2,096	1,638	1,719	1,856	2,049
HINES 3	2,394	2,106	2,125	1,947	1,998	2,046	2,104	1,800	2,033	1,538	1,839	1,875	1,972	1,424	1,616	1,701	1,913
HINES 4	2,717	2,027	2,471	2,462	2,097	1,993	2,075	1,713	2,104	1,390	1,662	1,692	1,970	1,329	1,474	1,468	1,713
TIGERBAY 1	1,193	1,028	979	1,218	1,193	983	1,182	955	758	889	943	1,038	1,020	868	968	807	992
Steam-CC, Total	**15,213**	**15,589**	**18,299**	**19,228**	**18,189**	**16,836**	**17,508**	**15,305**	**16,545**	**12,505**	**14,184**	**14,551**	**15,498**	**11,940**	**12,850**	**13,250**	**14,660**
CT																	
AVON PK 1	13	12	13	12	12	12	12	12	12	12	12	13	12	12	12	12	13
AVON PK 2	3	4	4	3	3	3	3	3	3	3	3	4	3	3	3	3	3
BARTOW 1	2	1	1	0	0	0	1	0	1	0	0	1	1	0	0	0	0
BARTOW 2	9	3	4	1	2	1	3	1	3	1	1	2	2	1	1	1	2
BARTOW 3	2	1	1	0	0	0	0	0	1	0	0	1	1	0	0	0	0
BARTOW 4	7	3	5	1	2	1	2	1	5	2	1	3	2	1	0	1	2

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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
BAYBORO 1	11	11	12	10	10	10	11	10	12	10	10	11	11	10	10	10	10
BAYBORO 2	11	12	12	11	11	10	11	10	12	11	10	11	11	11	10	11	11
BAYBORO 3	13	13	14	12	12	12	13	12	14	12	12	13	12	12	12	12	12
BAYBORO 4	13	13	14	12	12	12	13	12	14	12	12	13	13	12	12	12	13
CTBar 1	39																
CTBar 2	31																
CTFG 1		18	36	24	16	19	27	7	33	16	15	28	26	9	11	11	23
CTFG 2		12	25	19	11	10	21	9	22	13	9	23	22	8	9	12	18
CTFG 3		8	22	11	9	10	17	8	15	7	8	16	16	5	7	6	14
CTFG 4				2	7	7	11	6	12	6	3	7	12	5	5	6	11
DEBARY 1	10	10	10	9	9	9	9	9	10	9	9	10	9	9	9	9	9
DEBARY 2	8	8	9	8	8	8	8	7	8	8	7	9	8	7	7	8	8
DEBARY 3	9	9	9	8	8	8	8	8	8	8	8	9	8	8	8	8	9
DEBARY 4	9	9	9	8	8	8	8	8	9	8	8	9	8	8	8	8	8
DEBARY 5	8	8	8	7	8	7	7	7	8	7	7	8	8	7	7	7	8
DEBARY 6	7	7	8	7	7	7	7	7	8	7	7	8	7	7	7	7	7
DEBARY 7	90	89	91	88	89	88	89	89	91	88	88	87	89	83	88	88	89
DEBARY 8	91	90	93	90	89	89	91	89	91	90	89	91	90	88	89	89	90
DEBARY 9	88	86	88	85	85	85	87	77	86	85	84	85	86	85	84	84	85
DEBARY 10	29	30	30	29	29	29	29	29	29	29	29	30	29	29	29	29	29
HIGGINS 1	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
HIGGINS 2	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
HIGGINS 3	15	14	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14
HIGGINS 4	11	11	11	10	11	11	11	11	11	11	10	11	11	10	10	11	11
INT CITY 1	9	9	9	8	8	8	8	7	9	8	7	9	8	8	8	8	8
INT CITY 2	12	12	12	11	11	11	11	11	12	11	11	12	11	11	11	11	11
INT CITY 3	12	12	12	12	12	11	11	11	12	11	11	12	12	11	11	11	12
INT CITY 4	13	13	14	13	13	13	13	12	14	13	13	13	13	13	13	13	13
INT CITY 5	14	14	15	13	13	13	14	13	14	13	13	14	14	13	13	13	13
INT CITY 6	10	10	10	10	9	9	9	9	10	9	9	10	9	9	9	9	9
INT CITY 7	65	63	65	62	62	62	63	62	64	62	59	63	63	61	61	61	63
INT CITY 8	70	70	72	68	68	67	69	68	66	68	66	69	69	67	67	67	68
INT CITY 9	63	59	63	58	58	58	59	58	60	57	56	59	58	56	56	57	59
INT CITY 10	65	64	67	63	63	63	64	64	65	63	63	65	63	63	63	62	63
INT CITY 11	30	30	32	30	30	30	28	29	30	29	28	31	30	29	29	29	30
INT CITY 12	91	90	90	89	88	84	89	88	88	87	87	89	89	87	87	87	88
INT CITY 13	90	89	89	88	85	86	88	86	88	86	86	88	88	86	86	86	86
INT CITY 14	95	91	94	90	89	88	91	89	90	89	88	90	89	88	88	88	89
RIO PINAR 1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
SUWANNEE 1	35	33	35	33	31	31	33	31	34	30	30	32	32	29	31	30	32
SUWANNEE 2	20	20	22	19	19	19	20	19	21	19	18	21	20	19	18	19	20
SUWANNEE 3	43	40	39	40	39	37	41	37	38	35	35	35	38	32	37	34	38
TURNER 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TURNER 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

PEF CR3 Uprate
CR3 Uprate (180MW full ownership, July 06 GFF base) – Florida
GWh
ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TURNER 3	13	13	14	12	12	12	13	12	13	13	12	14	13	12	12	12	13
TURNER 4	10	11	12	10	10	10	10	9	10	10	10	11	10	9	9	10	10
U OF FL 1	362	346	338	339	347	337	363	347	363	359	360	334	359	355	339	357	356
CT, Total	1,670	1,590	1,667	1,571	1,560	1,538	1,630	1,530	1,652	1,562	1,539	1,609	1,618	1,522	1,522	1,544	1,600
C P & Lime	988	989															
Econpurc offp	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332
Econpurc peak	422	422	422	421	421	421	421	421	421	421	421	423	421	421	421	421	421
Osceola 158 Purc	3																
OUC 150 Purc																	
Shady Hills	89	110	112	106	58	43	108	42	110	39	41	80	92	29	37	44	60
SoCo Franklin		723	1,258	1,204	1,024	956	1,023	806	926								
SoCo Scherer		330	557	549	538	521	521										
Southern UPS	3,566	1,457															
TEA 50 Purc																	
Teco Purc	375	292	50														
Tran-Purc, Total	5,775	4,655	2,731	2,613	2,373	2,273	2,406	1,601	1,789	792	794	835	845	782	790	797	813
As Avail	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
Auburn(As Avail)	37	38	37	38	38	38	38	38	38	37	38	38	37	38	37	37	37
Bay County																	
Biomass Energy	68	828	829	831	830	827	827	831	828	818	813	818	817	801	806	804	808
Cargill																	
Dade County	312	313	313	313	313	312	313	313	312	309	309	310	310	304	305	306	306
DTE Biomass	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
El Dorado (APP)	475	474	473	477	475	473	473	476	474	474	474	476	475	474	474	476	474
G2 Energy	77	77	77	77	77	77	77	77	77	76	76	76	76	74	75	75	75
Lake Cogen	433	433	433	435	433	433	432	433	434	433	433	434	432	431	433	434	433
Lake County	80	80	80	80	80	80	80	80	80	79	79	80	79	79	79	79	79
LFC (APP)	82	81	82	81	81	81	81	82	81	81	82	82	81	81	81	82	81
Mulberry	383	383	383	384	383	383	383	384	383	383	383	384	383	383	383	384	383
Orange Cogen	378	378	378	379	378	378	378	379	378	378	378	379	378	378	378	379	378
Orlando Cogen	647	647	647	649	647	647	647	649	647	647	647	649	647	647	647	649	647
Pasco Cogen	629	628	629	631	628	629	629	631	629	628	629	630	629	629	628	630	628
Pasco County	173	172	173	173	173	173	173	173	172	171	170	171	170	167	167	167	168
Pinellas County	336	336	336	337	336	336	336	337	336	333	331	332	333	325	325	325	327
Ridge Gen St	245	246	246	246	246	245	245	246	245	243	243	243	242	240	240	240	241
Royster	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
Cogen, Total	4,550	5,312	5,314	5,330	5,315	5,310	5,308	5,325	5,311	5,287	5,281	5,298	5,287	5,249	5,257	5,265	5,263
Sales	-390	-386	-387	-387	-386	-395	-392	-392	-389	-411	-410	-420	-428	-474	-457	-470	-469
DSM	6	4	4	0	2	0	2	0	3	0	0	7	4	0	0	1	2
Total Load	50,800	52,781	53,777	55,049	56,380	57,539	58,850	60,208	61,487	62,835	64,162	65,492	66,801	68,103	69,403	70,682	71,905

PEF CR3 Uprate
Uprate minus Base
$000

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	59	1,813	2,250	8,561	7,949	8,899	8,287	9,302	8,560	9,670	9,004	10,121	9,401	10,534	9,809	11,019	10,235
NUC Future 1	0	0	0	0	0	0	0	0	-13	-245	-182	-193	-176	-205	-232	-254	-190
NUC Future 2	0	0	0	0	0	0	0	0	0	0	0	0	-28	-320	-286	-312	-240
Nuclear, Total	59	1,813	2,250	8,561	7,949	8,899	8,287	9,302	8,547	9,425	8,822	9,928	9,198	10,009	9,291	10,454	9,805
Steam-Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crystal 1	17	-282	-286	-1,683	-1,478	-2,054	-2,036	-1,673	-1,748	-2,025	-1,834	-2,045	-2,064	-2,181	-2,039	-2,103	-1,968
Crystal 2	-5	-467	-331	-1,744	-2,364	-2,425	-2,662	-2,140	-2,088	-2,541	-1,841	-2,143	-2,217	-2,507	-2,119	-2,722	-2,128
Crystal 4	8	-162	-183	-1,040	-1,638	-2,262	-2,291	-2,353	-2,486	-2,875	-2,063	-2,367	-3,161	-2,725	-2,556	-3,071	-2,540
Crystal 5	16	-136	-148	-1,265	-1,432	-2,308	-2,116	-2,383	-2,617	-2,884	-2,071	-2,422	-3,064	-2,731	-2,622	-2,908	-2,330
PV COAL 1	0	0	0	0	-186	-1,407	-1,172	-1,274	-1,179	-2,385	-2,039	-2,239	-2,270	-2,650	-2,295	-2,745	-2,222
PV COAL 2	0	0	0	0	0	0	-169	-1,414	-1,235	-2,524	-2,181	-2,152	-2,558	-2,598	-2,264	-3,179	-2,342
Steam-Coal, Total	36	-1,046	-948	-5,733	-7,098	-10,456	-10,446	-11,236	-11,353	-15,235	-12,029	-13,368	-15,334	-15,392	-13,894	-16,727	-13,531
Steam-Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anclote 1	89	-1,159	-1,027	-8,403	-2,596	-4,501	-3,644	-2,214	-3,677	-4,764	-4,049	-5,842	-5,828	-3,323	-4,316	-4,440	-4,561
Anclote 2	115	-1,297	-470	-8,458	-3,216	-4,821	-3,013	-4,416	-4,734	-1,731	-3,418	-3,616	-8,453	-3,041	-1,389	-3,864	-4,190
BARTOW 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTOW 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTOW 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUWANNEE 1	-13	-108	-41	-356	-454	-708	-629	-298	-204	-81	-132	-213	-348	153	-491	144	-212
SUWANNEE 2	0	-47	72	-242	-403	-525	-204	-746	-422	-120	-51	-251	-250	31	-646	-371	-266
SUWANNEE 3	0	-44	-564	-1,007	-2,101	-1,203	-306	-117	-891	-204	-372	53	-1,094	-347	301	281	-351
Steam-Oil, Total	191	-2,655	-2,030	-18,466	-8,770	-11,760	-7,796	-7,791	-9,928	-6,899	-8,023	-9,869	-15,974	-6,527	-6,540	-8,250	-9,580
Steam-CC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BARTOW CC REP 1	-1,716	-1,450	-7,001	-32,768	-22,673	-21,366	-25,543	-19,182	-17,785	-19,533	-19,228	-20,540	-20,391	-19,260	-25,130	-24,027	-18,945
CCF 1	0	0	-3,920	-7,524	-9,059	-8,577	-9,877	-10,443	-11,828	-15,317	-13,445	-17,557	-11,576	-18,386	-9,570	-17,117	-17,336
HINES 1	-112	-802	940	-4,597	-1,881	-2,126	-3,153	-2,424	-3,456	-1,233	-2,156	-4,471	-2,755	-4,149	-7,895	-4,623	-8,716
HINES 2	-344	-1,150	-5,890	-6,098	-11,518	-7,935	-6,965	-5,462	-17,109	-13,354	-7,230	-14,384	-7,591	-10,629	-13,738	-10,239	-10,909
HINES 3	-480	-2,264	-1,903	-7,007	-10,877	-9,793	-7,188	-11,868	-9,099	-10,156	-13,085	-10,665	-12,921	-16,572	-12,041	-15,431	-12,708
HINES 4	1,615	-7,646	-4,804	-4,557	-3,754	-9,807	-7,482	-18,500	-1,689	-8,843	-18,638	-14,416	-10,083	-19,351	-12,368	-12,531	-15,676
TIGERBAY 1	329	-1,612	1,652	963	-3,564	-2,030	1,431	-4,910	-4,076	-7,952	-4,438	-6,774	-3,144	-211	-885	-2,725	-1,736
Steam-CC, Total	-708	-14,923	-20,926	-61,588	-63,326	-61,634	-58,778	-72,789	-65,042	-76,387	-78,220	-88,807	-68,461	-88,558	-81,627	-86,691	-86,028
CT, Total	-4	-734	-869	-5,221	-2,725	-3,765	-4,646	-2,987	-6,020	-2,770	-3,513	-5,537	-7,025	-2,080	-3,839	-3,588	-6,101
Tran-Purc, Total	-85	-2,451	-3,241	-12,946	-10,550	-7,758	-8,614	-8,490	-8,087	-1,198	-3,088	-3,591	-3,660	-1,779	-2,368	-2,737	-3,894
Cogen, Total	-77	-226	-91	-1,121	-787	-1,765	-1,981	-1,948	-1,519	-3,255	-2,523	-2,452	-3,069	-3,568	-2,812	-4,955	-4,285
NH3	0	-4	-5	-31	-43	-78	-73	-95	-94	-135	-103	-111	-131	-125	-111	-134	-104
CaCO3	0	-11	-12	-85	-120	-223	-213	-278	-280	-407	-315	-345	-413	-400	-361	-442	-348
Total Cost	(587.3)	(20,237.8)	(25,870.9)	(96,630.0)	(85,470.8)	(88,538.8)	(84,260.4)	(96,311.5)	(93,775.4)	(96,862.1)	(98,991.0)	(114,151.3)	(104,868.6)	(108,419.6)	(102,262.2)	(113,069.5)	(114,066.6)

PEF CR3 Uprate
July 2006 Generation & Fuel Forecast Base - Florida
$000

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	24,003	35,402	32,966	37,139	34,469	38,607	35,939	40,353	37,120	41,948	39,045	43,908	40,776	45,699	42,539	47,806	44,386
NUC Future 1									4,352	54,955	55,361	57,399	57,663	59,059	59,634	61,745	62,184
NUC Future 2													4,691	58,534	59,144	61,157	61,698
Nuclear, Total	24,003	35,402	32,966	37,139	34,469	38,607	35,939	40,353	41,473	96,904	94,406	101,308	103,130	163,292	161,317	170,708	168,267
Steam-Coal																	
Crystal 1	77,516	77,815	90,132	83,496	80,651	90,839	89,904	87,883	96,842	84,643	90,171	96,694	95,497	83,447	100,032	96,981	103,781
Crystal 2	87,026	97,102	94,882	92,048	108,438	102,526	106,131	107,448	108,441	99,370	109,285	108,300	104,024	109,441	110,662	112,956	125,355
Crystal 4	153,019	146,950	145,187	149,113	151,015	150,574	164,937	152,643	148,709	156,474	154,274	159,765	173,326	156,514	165,396	179,166	176,236
Crystal 5	134,640	136,847	152,171	147,210	149,115	148,793	162,995	150,374	146,735	154,038	152,026	157,174	171,394	154,912	161,862	176,556	173,134
PV COAL 1					86,930	151,596	155,333	158,379	162,094	156,814	162,925	167,480	172,662	165,157	172,905	177,547	184,563
PV COAL 2							12,346	156,564	160,655	154,957	160,701	164,854	169,513	162,626	169,997	174,153	181,266
Steam-Coal, Total	452,201	458,715	482,373	471,867	576,149	644,328	691,646	813,292	823,476	806,295	829,381	854,267	886,416	832,097	880,854	917,358	944,336
Steam-Oil																	
Anclote 1	147,444	125,402	137,235	144,256	118,220	131,972	136,859	138,509	155,068	154,308	166,308	184,436	190,229	162,270	183,356	184,514	198,070
Anclote 2	130,926	97,106	100,278	112,181	99,077	102,925	102,919	108,679	123,759	118,351	129,918	137,902	152,074	133,846	141,009	134,104	155,802
BARTOW 1	24,979																
BARTOW 2	23,274																
BARTOW 3	39,600																
SUWANNEE 1	14,606	9,199	10,548	10,551	10,269	10,599	10,565	10,401	11,673	11,753	13,151	14,068	14,419	13,710	14,109	14,587	15,026
SUWANNEE 2	17,039	10,722	12,155	12,361	12,053	12,052	12,733	13,043	14,631	13,908	14,816	16,984	16,848	15,964	15,922	18,140	17,837
SUWANNEE 3	26,633	15,010	17,081	19,452	19,178	17,958	19,437	18,035	21,640	20,149	22,737	24,718	25,290	23,300	23,887	27,379	26,652
Steam-Oil, Total	424,501	257,439	277,297	298,801	258,797	275,507	282,512	288,667	326,771	318,469	346,929	378,108	398,859	349,090	378,282	378,724	413,387
Steam-CC																	
BARTOW CC REP 1	268,371	346,360	421,543	447,874	393,247	355,857	378,454	340,089	386,694	282,785	344,622	367,644	398,816	303,592	332,944	354,291	392,595
CCF 1			112,204	202,219	194,147	176,626	185,333	171,933	196,078	155,633	183,762	200,865	208,712	166,562	176,614	187,760	209,030
HINES 1	168,943	178,635	192,838	214,400	222,728	210,844	217,874	223,636	255,145	236,853	258,058	262,726	273,841	268,568	279,097	296,003	306,383
HINES 2	236,058	172,691	193,450	197,046	192,007	175,236	197,596	193,982	213,160	190,900	201,944	239,069	247,151	206,447	222,115	237,033	262,955
HINES 3	224,449	163,075	170,030	169,986	174,972	175,833	183,941	173,060	200,206	165,866	205,673	216,436	232,605	182,103	200,686	217,122	242,118
HINES 4	245,081	158,657	191,637	198,888	170,428	167,760	177,036	169,157	193,846	148,498	191,159	197,944	224,873	172,775	183,038	185,757	218,269
TIGERBAY 1	100,912	73,341	69,650	90,601	92,974	76,161	89,673	84,207	71,537	91,307	96,798	113,239	109,358	93,841	106,340	92,925	113,425
Steam-CC, Total	1,243,814	1,092,758	1,351,351	1,521,015	1,440,503	1,338,316	1,429,908	1,356,064	1,516,665	1,271,842	1,482,015	1,597,923	1,695,355	1,393,887	1,500,834	1,570,893	1,744,775
CT																	
AVON PK 1	2,709	2,216	2,309	2,376	2,387	2,275	2,421	2,530	2,728	2,829	2,955	3,251	3,169	3,215	3,217	3,337	3,441
AVON PK 2	1,237	784	789	808	809	814	862	894	985	1,002	1,044	1,180	1,167	1,129	1,183	1,209	1,256
BARTOW 1	842	159	185	86	125	58	155	34	241	108	39	344	211	20	31	52	197
BARTOW 2	2,432	1,053	1,173	960	875	815	1,151	809	1,349	876	825	1,146	1,090	866	897	845	1,164
BARTOW 3	810	160	160	81	123	54	154	22	232	90	31	331	170	14	31	59	213
BARTOW 4	1,987	1,089	1,333	965	968	823	964	774	1,539	894	822	1,269	1,132	999	860	882	1,320
BAYBORO 1	3,084	2,037	2,210	2,096	2,001	1,977	2,229	2,201	2,810	2,402	2,523	2,932	2,952	2,760	2,827	2,978	3,143
BAYBORO 2	3,181	2,095	2,245	2,220	2,136	2,121	2,440	2,330	2,888	2,643	2,690	3,155	3,027	2,985	2,985	3,167	3,251
BAYBORO 3	3,929	2,418	2,670	2,496	2,456	2,408	2,764	2,740	3,288	2,984	3,027	3,662	3,450	3,357	3,528	3,655	3,885
BAYBORO 4	3,903	2,449	2,686	2,566	2,512	2,486	2,818	2,771	3,329	3,076	3,129	3,627	3,595	3,463	3,538	3,706	3,903
CTBar 1	8,634																
CTBar 2	7,721																
CTFG 1		5,387	9,924	9,752	8,306	8,797	9,789	7,453	10,696	8,617	8,718	10,765	11,417	7,803	8,090	8,727	10,506
CTFG 2		4,880	8,873	8,855	7,916	7,740	9,160	7,613	9,448	8,246	7,938	10,053	10,318	7,651	7,910	8,546	9,614
CTFG 3		4,436	8,510	8,031	7,401	7,599	8,470	7,331	8,613	7,524	7,654	9,015	9,065	7,259	7,642	7,632	8,908
CTFG 4				3,971	7,262	7,243	7,830	7,100	7,958	7,425	7,002	7,393	8,335	7,172	7,253	7,448	8,355
DEBARY 1	3,341	2,071	2,211	2,121	2,187	2,202	2,357	2,386	2,767	2,743	2,784	3,296	3,083	3,026	3,111	3,153	3,407
DEBARY 2	2,781	1,797	1,939	1,801	1,838	1,822	1,998	1,988	2,367	2,276	2,292	2,868	2,584	2,508	2,575	2,691	2,884
DEBARY 3	3,265	2,085	2,140	2,137	2,170	2,182	2,326	2,381	2,680	2,716	2,772	3,302	3,040	3,049	3,094	3,173	3,369

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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DEBARY 4	3,198	2,018	2,089	2,080	2,118	2,138	2,254	2,327	2,648	2,633	2,697	3,161	2,951	2,946	3,010	3,084	3,320
DEBARY 5	2,906	1,839	1,910	1,887	1,946	1,914	2,018	2,093	2,304	2,402	2,430	2,902	2,654	2,668	2,753	2,779	2,982
DEBARY 6	2,498	1,521	1,758	1,596	1,619	1,630	1,794	1,802	2,102	2,060	2,089	2,632	2,245	2,286	2,337	2,421	2,599
DEBARY 7	14,525	12,073	12,755	12,921	12,895	12,770	13,290	13,999	15,114	15,442	16,219	16,868	17,520	16,559	18,029	18,203	18,662
DEBARY 8	15,002	12,335	13,230	13,351	13,167	13,088	13,689	14,288	15,283	15,878	16,593	17,700	18,037	17,750	18,502	18,634	19,138
DEBARY 9	14,460	11,843	12,519	12,817	12,698	12,550	13,247	12,524	14,668	15,198	15,847	16,832	17,246	17,361	17,413	17,853	18,312
DEBARY 10	8,551	5,293	5,650	5,678	5,686	5,824	6,070	6,368	6,880	7,103	7,423	8,111	8,046	8,124	8,296	8,491	8,715
HIGGINS 1	1,806	1,519	1,580	1,618	1,615	1,589	1,643	1,711	1,832	1,886	1,962	2,170	2,102	2,118	2,168	2,192	2,299
HIGGINS 2	1,803	1,524	1,581	1,614	1,624	1,580	1,652	1,711	1,832	1,897	1,965	2,169	2,038	2,127	2,175	2,199	2,260
HIGGINS 3	3,006	2,471	2,597	2,634	2,615	2,578	2,672	2,796	3,015	3,125	3,248	3,560	3,516	3,521	3,587	3,658	3,792
HIGGINS 4	2,500	1,988	2,053	2,099	2,094	2,061	2,178	2,227	2,418	2,510	2,571	2,849	2,793	2,791	2,830	2,885	2,995
INT CITY 1	2,779	1,717	1,905	1,811	1,749	1,696	1,883	1,880	2,386	2,131	2,146	2,645	2,499	2,384	2,474	2,574	2,757
INT CITY 2	3,681	2,333	2,553	2,511	2,542	2,486	2,602	2,726	3,140	3,118	3,176	3,622	3,376	3,499	3,591	3,703	3,862
INT CITY 3	3,789	2,359	2,545	2,580	2,554	2,467	2,655	2,744	3,252	2,986	3,143	3,668	3,552	3,508	3,532	3,565	3,889
INT CITY 4	4,051	2,513	2,790	2,757	2,779	2,721	2,862	2,939	3,460	3,291	3,467	3,679	3,835	3,806	3,901	4,000	4,153
INT CITY 5	4,409	2,785	3,058	2,885	2,939	2,824	3,150	3,177	3,720	3,540	3,649	4,224	4,129	3,945	4,137	4,082	4,424
INT CITY 6	3,126	2,019	2,072	2,070	1,992	1,973	2,215	2,216	2,675	2,437	2,489	2,977	2,901	2,794	2,869	2,975	3,089
INT CITY 7	8,929	8,834	9,415	9,461	9,430	9,258	9,717	10,192	11,062	11,311	11,167	12,757	12,876	12,812	13,171	13,203	13,799
INT CITY 8	9,586	9,714	10,343	10,309	10,285	10,112	10,607	11,123	11,490	12,265	12,741	13,851	14,258	13,992	14,177	14,354	14,953
INT CITY 9	8,850	8,500	9,230	9,152	8,974	8,931	9,401	9,865	10,683	10,657	11,131	12,166	12,361	12,276	12,495	12,566	13,292
INT CITY 10	9,161	9,246	9,928	9,913	9,739	9,679	10,113	10,646	11,537	11,816	12,267	13,225	13,460	13,342	13,711	13,792	14,284
INT CITY 11	7,628	4,682	5,109	4,997	5,052	5,075	5,101	5,557	6,123	6,090	6,157	7,277	6,967	7,002	7,119	7,309	7,629
INT CITY 12	11,869	12,074	12,522	13,057	12,692	12,259	13,179	13,798	14,686	15,265	16,119	17,254	17,667	17,472	17,800	18,125	18,737
INT CITY 13	10,867	11,007	11,470	11,664	11,282	11,469	11,949	12,415	13,459	13,869	14,560	15,587	15,959	15,781	16,270	16,358	16,774
INT CITY 14	11,472	11,333	11,978	12,149	11,897	11,823	12,381	13,061	13,930	14,459	15,162	16,254	16,455	16,374	16,791	17,099	17,436
RIO PINAR 1	599	386	396	399	415	401	415	442	477	492	509	587	568	558	577	580	616
SUWANNEE 1	10,642	5,991	6,445	6,869	6,592	6,778	7,264	7,256	8,084	7,577	8,257	8,863	9,364	8,491	9,406	9,432	10,120
SUWANNEE 2	6,011	3,616	4,089	3,823	3,795	3,766	4,175	4,261	4,884	4,671	4,737	5,536	5,516	5,314	5,435	5,529	5,976
SUWANNEE 3	12,671	6,998	7,114	8,201	7,699	7,485	8,667	8,466	8,861	8,644	9,425	9,658	10,901	9,068	10,453	10,345	11,529
TURNER 1	273	183	183	172	180	173	190	191	232	221	215	284	257	236	252	255	267
TURNER 2	390	254	263	255	255	252	282	280	312	315	316	397	372	350	364	370	393
TURNER 3	3,765	2,370	2,633	2,417	2,419	2,406	2,636	2,609	3,053	3,094	2,975	3,733	3,455	3,341	3,396	3,493	3,801
TURNER 4	3,034	1,958	2,163	1,916	1,918	1,963	2,096	2,101	2,526	2,480	2,507	3,046	2,810	2,678	2,706	2,861	3,093
U OF FL 1	19,048	18,538	30,984	32,402	32,767	31,714	35,138	35,649	39,346	41,161	43,398	42,548	46,328	46,740	45,621	48,614	49,482
CT, Total	**276,741**	**218,947**	**256,269**	**261,388**	**259,493**	**256,848**	**277,072**	**276,800**	**311,394**	**308,473**	**319,003**	**350,381**	**356,817**	**341,290**	**350,122**	**358,845**	**378,243**
C P & Lime	48,882	49,236															
Econpurc offp	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017
Econpurc peak	49,009	48,852	48,872	48,453	48,453	48,453	48,453	48,453	48,527	48,453	48,453	49,561	48,563	48,453	48,453	48,453	48,501
Osceola 158 Purc	1,768																
OUC 150 Purc																	
Shady Hills	42,468	42,483	43,251	47,912	39,670	41,822	51,522	42,394	52,498	41,357	44,511	50,432	53,233	41,269	43,572	45,249	49,319
SoCo Franklin		63,736	113,946	119,241	106,740	98,780	105,947	96,601	107,610								
SoCo Scherer		16,115	27,763	28,112	28,189	28,101	28,587										
Southern UPS	143,923	60,078															
TEA 50 Purc																	
Teco Purc	27,904	23,615	3,954														
Tran-Purc, Total	**337,972**	**328,132**	**261,802**	**267,736**	**247,069**	**241,173**	**258,526**	**211,465**	**232,653**	**113,827**	**116,981**	**124,010**	**125,813**	**113,739**	**116,042**	**117,719**	**121,838**
As Avail	1,844	1,510	1,625	1,686	1,573	1,594	1,597	1,595	1,787	1,534	1,739	1,803	1,902	1,683	1,908	1,900	2,027
Auburn(As Avail)	3,214	2,514	2,591	2,704	2,653	2,546	2,737	2,754	3,038	2,770	3,091	3,162	3,351	3,019	3,248	3,427	3,574
Bay County																	
Biomass Energy	4,201	52,186	51,185	50,651	50,641	50,731	51,449	52,354	52,902	53,278	53,979	54,646	55,452	55,376	56,522	57,225	58,325
Cargill																	
Dade County	25,913	26,828	28,326	29,566	29,673	19,693	20,252	20,252	20,986	19,677	20,551	21,140	21,723	20,515	21,459	21,767	22,787
DTE Biomass	1,815	1,603	1,549	1,516	1,514	1,519	1,545	1,581	1,605	1,617	1,670	1,846	1,897	1,916	1,979	2,025	2,084
El Dorado (APP)	52,835	55,548	57,940	60,674	63,193	37,658	38,575	39,391	40,709	39,978	41,263	42,148	43,179	42,328	44,110	44,698	46,319

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	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
G2 Energy	3,843	3,871	3,898	3,932	3,944	3,968	3,991	4,032	4,045	4,041	4,086	4,109	4,134	4,117	5,385	5,445	5,687
Lake Cogen	54,520	57,451	60,037	62,953	52,462	34,450	35,453	35,842	37,219	36,274	37,769	38,568	39,352	38,662	40,171	40,985	42,412
Lake County	9,263	9,736	10,239	10,791	11,364	8,646	5,329	5,339	5,541	5,251	5,493	5,591	5,715	5,505	5,696	5,821	6,062
LFC (APP)	9,803	10,304	10,838	11,417	12,031	6,176	6,350	6,439	6,643	6,501	6,757	6,887	7,061	6,874	7,168	7,278	7,572
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Mulberry	47,724	50,246	52,582	55,114	57,627	60,354	63,229	66,213	69,293	72,492	75,907	79,484	83,157	87,028	91,191	75,277	35,636
Orange Cogen	42,603	44,809	46,808	46,113	48,121	50,278	52,586	54,920	57,374	59,736	62,496	65,320	68,232	71,118	74,496	77,882	81,532
Orlando Cogen	52,929	55,018	57,356	59,952	62,317	64,791	67,363	70,023	72,705	75,504	78,461	81,575	84,630	88,094	91,649	44,531	46,531
Pasco Cogen	47,230	42,644	43,882	44,399	43,730	43,151	44,291	44,440	46,165	44,010	45,898	46,848	48,194	46,581	48,261	49,067	51,137
Pasco County	17,449	18,304	19,228	20,230	21,272	22,339	23,497	24,730	26,070	27,376	28,892	30,531	32,212	33,822	35,759	37,792	12,531
Pinellas County	39,628	41,653	43,825	46,172	48,648	51,194	53,927	56,863	60,011	63,110	66,732	70,569	74,594	78,447	83,042	87,830	25,475
Ridge Gen St	18,883	19,437	19,770	20,143	20,318	20,584	20,842	21,127	21,354	21,531	21,794	22,053	22,262	22,455	22,804	18,757	19,653
Royster	16,489	11,222	11,309	11,509	11,406	11,288	11,582	11,754	12,158	11,882	12,333	12,599	12,879	12,597	13,127	13,325	13,858
Cogen, Total	**450,187**	**504,884**	**522,988**	**539,522**	**542,487**	**490,959**	**504,594**	**519,650**	**539,603**	**546,562**	**568,910**	**588,880**	**609,925**	**620,138**	**647,974**	**595,032**	**483,203**
NH3	3,611	4,066	4,119	3,940	5,181	5,948	6,397	8,024	7,894	7,783	7,765	7,855	8,154	7,441	7,656	7,916	7,876
CaCO3	1,098	10,389	10,959	10,860	14,462	16,913	18,492	23,392	23,390	23,429	23,712	24,407	25,739	23,828	24,894	26,158	26,407
Total Cost	**3,214,129**	**2,910,732**	**3,200,124**	**3,412,267**	**3,378,609**	**3,308,600**	**3,505,086**	**3,537,707**	**3,823,319**	**3,493,585**	**3,789,102**	**4,027,139**	**4,210,207**	**3,844,802**	**4,067,973**	**4,143,351**	**4,288,333**

PEF CR3 Uprate

CR3 Uprate (180MW full ownership, July 06 GFF base) - Florida

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ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	24,063	37,215	35,215	45,700	42,417	47,506	44,225	49,654	45,680	51,618	48,049	54,029	50,177	56,233	52,348	58,825	54,621
NUC Future 1									4,339	54,711	55,180	57,207	57,488	58,854	59,401	61,491	61,993
NUC Future 2													4,663	58,214	58,858	60,846	61,458
Nuclear, Total	**24,063**	**37,215**	**35,215**	**45,700**	**42,417**	**47,506**	**44,225**	**49,654**	**50,020**	**106,329**	**103,229**	**111,236**	**112,328**	**173,301**	**170,607**	**181,162**	**178,072**
Steam-Coal																	
Crystal 1	77,533	77,533	89,846	81,813	79,173	88,784	87,868	86,211	95,094	82,618	88,337	94,649	93,433	81,266	97,993	94,878	101,813
Crystal 2	87,021	96,636	94,551	90,304	106,074	100,102	103,469	105,309	106,352	96,828	107,444	106,157	101,807	106,934	108,543	110,235	123,227
Crystal 4	153,027	146,788	145,005	148,073	149,378	148,312	162,646	150,290	146,223	153,598	152,211	157,398	170,165	153,789	162,840	176,095	173,696
Crystal 5	134,656	136,711	152,023	145,945	147,683	146,485	160,879	147,991	144,118	151,154	149,955	154,752	168,330	152,180	159,240	173,647	170,805
PV COAL 1					86,744	150,189	154,161	157,105	160,915	154,429	160,885	165,241	170,391	162,507	170,610	174,802	182,340
PV COAL 2							12,177	155,150	159,420	152,433	158,520	162,702	166,955	160,028	167,733	170,974	178,925
Steam-Coal, Total	**452,237**	**457,668**	**481,425**	**466,134**	**569,051**	**633,872**	**681,200**	**802,056**	**812,123**	**791,060**	**817,351**	**840,900**	**871,082**	**816,704**	**866,959**	**900,632**	**930,806**
Steam-Oil																	
Anclote 1	147,533	124,243	136,208	135,853	115,624	127,471	133,215	136,295	151,391	149,544	162,259	178,594	184,400	158,947	179,040	180,074	193,509
Anclote 2	131,041	95,809	99,808	103,722	95,861	98,104	99,906	104,263	119,025	116,620	126,500	134,286	143,621	130,805	139,620	130,241	151,612
BARTOW 1	24,979																
BARTOW 2	23,274																
BARTOW 3	39,600																
SUWANNEE 1	14,593	9,091	10,507	10,195	9,815	9,891	9,936	10,103	11,469	11,672	13,019	13,854	14,071	13,863	13,619	14,731	14,814
SUWANNEE 2	17,039	10,675	12,227	12,119	11,650	11,526	12,528	12,297	14,209	13,789	14,764	16,733	16,597	15,995	15,276	17,769	17,570
SUWANNEE 3	26,633	14,966	16,517	18,445	17,077	16,755	19,131	17,918	20,749	19,944	22,365	24,771	24,196	22,953	24,188	27,659	26,301
Steam-Oil, Total	**424,692**	**254,784**	**275,268**	**280,334**	**250,026**	**263,747**	**274,716**	**280,876**	**316,843**	**311,570**	**338,907**	**368,240**	**382,886**	**342,563**	**371,742**	**370,474**	**403,807**
Steam-CC																	
BARTOW CC REP 1	266,655	344,910	414,542	415,107	370,574	334,492	352,911	320,906	368,908	263,253	325,394	347,104	378,425	284,332	307,815	330,264	373,650
CCF 1			108,284	194,695	185,089	168,048	175,456	161,491	184,250	140,316	170,317	183,308	197,136	148,176	167,044	170,644	191,694
HINES 1	168,831	177,834	193,777	209,803	220,847	208,718	214,720	221,212	251,689	235,621	255,902	258,256	271,086	264,419	271,202	291,381	297,667
HINES 2	235,713	171,541	187,560	190,948	180,489	167,301	190,631	188,520	196,051	177,546	194,714	224,685	239,559	195,818	208,377	226,795	252,045
HINES 3	223,969	160,811	168,128	162,979	164,095	166,041	176,753	161,192	191,107	155,710	192,588	205,771	219,684	165,531	188,645	201,691	229,410
HINES 4	246,696	151,011	186,833	194,331	166,673	157,953	169,554	150,657	192,157	139,655	172,521	183,527	214,789	153,423	170,669	173,227	202,592
TIGERBAY 1	101,241	71,729	71,301	91,564	89,410	74,131	91,105	79,297	67,461	83,355	92,360	106,465	106,214	93,629	105,455	90,200	111,689
Steam-CC, Total	**1,243,106**	**1,077,834**	**1,330,425**	**1,459,427**	**1,377,177**	**1,276,682**	**1,371,130**	**1,283,275**	**1,451,623**	**1,195,455**	**1,403,796**	**1,509,116**	**1,626,894**	**1,305,329**	**1,419,207**	**1,484,202**	**1,658,747**
CT																	
AVON PK 1	2,709	2,211	2,314	2,366	2,364	2,275	2,415	2,536	2,696	2,819	2,955	3,246	3,168	3,215	3,217	3,337	3,441
AVON PK 2	1,237	779	790	802	816	811	874	894	982	992	1,044	1,175	1,160	1,129	1,183	1,209	1,236
BARTOW 1	842	155	152	59	82	46	115	17	158	70	13	288	181	20	31	30	130
BARTOW 2	2,432	1,040	1,160	813	850	726	1,051	731	1,207	827	728	977	1,051	778	711	739	985
BARTOW 3	810	149	157	40	83	41	108	17	165	44	13	282	158	14	31	39	135
BARTOW 4	1,987	1,048	1,284	810	935	712	835	752	1,373	919	732	1,098	1,085	800	674	823	1,109
BAYBORO 1	3,084	2,043	2,234	2,027	1,966	1,935	2,177	2,139	2,657	2,345	2,487	2,791	2,870	2,760	2,764	2,922	3,037
BAYBORO 2	3,181	2,101	2,235	2,108	2,099	2,100	2,353	2,282	2,722	2,598	2,690	3,052	2,967	3,014	2,906	3,168	3,208
BAYBORO 3	3,929	2,403	2,678	2,403	2,405	2,357	2,721	2,663	3,195	2,986	3,004	3,543	3,335	3,337	3,431	3,587	3,730
BAYBORO 4	3,903	2,424	2,692	2,459	2,457	2,451	2,757	2,710	3,244	3,035	3,089	3,618	3,507	3,440	3,492	3,657	3,829
CTBar 1	8,634																
CTBar 2	7,721																
CTFG 1		5,316	9,716	8,709	7,967	8,202	9,070	7,139	10,025	8,288	8,200	10,001	9,848	7,661	7,924	8,018	9,708
CTFG 2		4,758	8,732	8,241	7,506	7,384	8,519	7,384	8,864	7,888	7,530	9,387	9,340	7,428	7,624	8,032	8,980
CTFG 3		4,402	8,415	7,519	7,235	7,308	8,043	7,209	8,027	7,272	7,374	8,517	8,510	7,096	7,383	7,289	8,421
CTFG 4				3,874	7,087	7,105	7,535	6,992	7,755	7,122	6,832	7,259	8,001	7,032	7,096	7,208	8,013
DEBARY 1	3,341	2,067	2,203	2,114	2,185	2,189	2,309	2,384	2,642	2,716	2,769	3,226	3,059	3,026	3,093	3,153	3,361
DEBARY 2	2,781	1,778	1,917	1,776	1,802	1,816	1,929	1,964	2,258	2,254	2,284	2,829	2,580	2,508	2,566	2,676	2,833
DEBARY 3	3,265	2,070	2,114	2,128	2,178	2,174	2,283	2,374	2,575	2,687	2,764	3,212	3,037	3,049	3,094	3,155	3,340

PEF CR3 Uprate
CR3 Uprate (180MW full ownership, July 06 GFF base) - Florida
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ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DEBARY 4	3,198	1,982	2,062	2,071	2,116	2,102	2,226	2,318	2,546	2,601	2,697	3,105	2,956	2,946	3,010	3,084	3,216
DEBARY 5	2,906	1,835	1,908	1,878	1,928	1,886	1,992	2,099	2,268	2,318	2,430	2,834	2,666	2,668	2,753	2,779	2,946
DEBARY 6	2,498	1,516	1,729	1,590	1,619	1,630	1,754	1,800	2,057	2,040	2,081	2,555	2,245	2,286	2,328	2,421	2,553
DEBARY 7	14,525	12,023	12,758	12,931	12,847	12,672	13,231	13,934	15,031	15,435	16,162	16,814	17,434	16,559	17,927	18,200	18,637
DEBARY 8	15,002	12,338	13,199	13,262	13,057	13,002	13,663	14,206	15,247	15,896	16,511	17,626	17,869	17,728	18,369	18,621	19,060
DEBARY 9	14,460	11,823	12,560	12,762	12,610	12,447	13,181	12,502	14,617	15,168	15,811	16,761	17,127	17,310	17,373	17,817	18,257
DEBARY 10	8,551	5,284	5,582	5,685	5,686	5,824	6,070	6,368	6,818	7,091	7,423	8,018	8,009	8,124	8,296	8,481	8,715
HIGGINS 1	1,806	1,515	1,571	1,604	1,617	1,581	1,637	1,711	1,822	1,872	1,962	2,130	2,116	2,118	2,168	2,192	2,268
HIGGINS 2	1,803	1,522	1,581	1,604	1,612	1,580	1,642	1,711	1,830	1,895	1,965	2,161	2,052	2,127	2,175	2,194	2,237
HIGGINS 3	3,006	2,494	2,614	2,612	2,594	2,569	2,639	2,796	2,983	3,105	3,241	3,545	3,493	3,521	3,587	3,658	3,783
HIGGINS 4	2,500	1,973	2,038	2,074	2,077	2,054	2,147	2,227	2,386	2,487	2,561	2,832	2,788	2,791	2,828	2,884	2,986
INT CITY 1	2,779	1,704	1,891	1,700	1,728	1,650	1,763	1,789	2,322	2,096	2,079	2,500	2,407	2,379	2,377	2,537	2,641
INT CITY 2	3,681	2,325	2,552	2,452	2,514	2,477	2,578	2,726	3,078	3,098	3,164	3,572	3,379	3,499	3,559	3,682	3,802
INT CITY 3	3,789	2,345	2,552	2,499	2,514	2,442	2,617	2,699	3,154	2,981	3,123	3,619	3,491	3,498	3,492	3,540	3,807
INT CITY 4	4,051	2,513	2,775	2,688	2,757	2,712	2,812	2,931	3,362	3,280	3,438	3,672	3,824	3,816	3,861	3,980	4,095
INT CITY 5	4,409	2,771	3,048	2,856	2,880	2,814	3,083	3,128	3,631	3,480	3,629	4,192	4,075	3,974	4,086	4,072	4,383
INT CITY 6	3,126	1,968	2,035	2,022	1,969	1,965	2,141	2,136	2,618	2,405	2,480	2,940	2,809	2,793	2,810	2,985	3,016
INT CITY 7	8,929	8,824	9,453	9,386	9,388	9,237	9,673	10,190	11,002	11,257	11,238	12,675	12,794	12,743	13,000	13,203	13,723
INT CITY 8	9,586	9,692	10,357	10,233	10,241	9,990	10,612	11,050	11,349	12,244	12,665	13,798	14,063	13,844	14,078	14,354	14,846
INT CITY 9	8,850	8,499	9,246	9,032	8,957	8,883	9,355	9,671	10,530	10,666	11,040	11,993	12,156	12,013	12,179	12,544	13,075
INT CITY 10	9,161	9,191	9,900	9,876	9,766	9,614	10,054	10,654	11,458	11,773	12,253	13,228	13,266	13,355	13,597	13,776	14,242
INT CITY 11	7,628	4,682	5,082	4,957	5,026	5,064	5,074	5,528	6,008	6,090	6,157	7,191	6,967	7,002	7,100	7,309	7,584
INT CITY 12	11,869	12,072	12,500	12,936	12,680	12,080	13,145	13,790	14,586	15,277	16,064	17,178	17,547	17,488	17,767	18,125	18,687
INT CITY 13	10,867	10,965	11,386	11,678	11,277	11,307	11,886	12,381	13,353	13,791	14,470	15,528	15,880	15,733	16,040	16,292	16,730
INT CITY 14	11,472	11,335	12,018	12,104	11,897	11,756	12,403	12,955	13,783	14,476	15,041	16,104	16,284	16,358	16,686	17,001	17,436
RIO PINAR 1	599	386	399	391	410	398	415	441	476	483	509	598	575	558	577	580	610
SUWANNEE 1	10,642	6,017	6,565	6,575	6,321	6,411	7,046	6,938	7,952	7,499	7,939	8,691	9,003	8,437	9,279	9,150	9,667
SUWANNEE 2	6,011	3,582	4,066	3,748	3,723	3,674	4,090	4,177	4,814	4,625	4,651	5,454	5,375	5,214	5,241	5,449	5,809
SUWANNEE 3	12,671	7,002	7,010	7,675	7,479	7,227	8,227	8,050	8,576	8,470	8,975	9,271	10,324	8,870	10,461	9,916	11,199
TURNER 1	273	178	191	170	178	167	187	184	223	205	215	282	257	236	252	255	273
TURNER 2	390	256	259	248	252	247	275	273	312	302	316	398	369	350	364	370	393
TURNER 3	3,765	2,368	2,606	2,391	2,384	2,394	2,595	2,614	2,977	3,036	2,971	3,667	3,456	3,341	3,396	3,478	3,724
TURNER 4	3,034	1,958	2,144	1,892	1,883	1,930	2,038	2,082	2,405	2,406	2,463	2,991	2,756	2,678	2,706	2,839	3,025
U OF FL 1	19,044	18,533	30,970	32,335	32,766	31,666	35,083	35,565	39,258	40,995	43,259	42,416	46,121	46,544	45,341	48,446	49,224
CT, Total	276,737	218,214	255,401	256,167	256,767	253,083	272,426	273,813	305,374	305,703	315,490	344,844	349,792	339,211	346,282	355,257	372,143
C P & Lime	48,873	49,223															
Econpurc offp	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017	24,017
Econpurc peak	49,009	48,852	48,822	48,453	48,453	48,453	48,453	48,453	48,453	48,453	48,453	49,200	48,453	48,453	48,453	48,453	48,453
Osceola 158 Purc	1,768																
OUC 150 Purc																	
Shady Hills	42,468	41,381	42,331	42,523	36,589	38,559	47,661	40,365	49,275	40,159	41,423	47,202	49,683	39,491	41,204	42,511	45,474
SoCo Franklin		62,572	111,675	111,849	99,496	94,517	101,477	90,140	102,821								
SoCo Scherer		16,096	27,765	27,947	27,964	27,870	28,305										
Southern UPS	143,902	60,089															
TEA 50 Purc																	
Teco Purc	27,849	23,450	3,951														
Tran-Purc, Total	337,887	325,681	258,561	254,790	236,520	233,415	249,912	202,976	224,566	112,629	113,893	120,418	122,153	111,961	113,674	114,981	117,944
As Avail	1,843	1,497	1,632	1,621	1,562	1,539	1,557	1,551	1,733	1,483	1,694	1,756	1,845	1,633	1,851	1,822	1,979
Auburn(As Avail)	3,214	2,489	2,583	2,566	2,581	2,473	2,656	2,617	2,963	2,670	3,057	3,028	3,203	2,932	3,220	3,317	3,480
Bay County																	
Biomass Energy	4,180	52,192	51,153	50,595	50,666	50,700	51,399	52,304	52,876	53,083	53,552	54,441	55,190	55,064	56,151	56,848	57,965
Cargill																	
Dade County	25,919	26,801	28,313	29,423	29,519	19,404	19,955	20,004	20,745	19,332	20,219	20,779	21,324	20,041	21,067	21,332	22,480
DTE Biomass	1,814	1,603	1,549	1,513	1,514	1,515	1,540	1,577	1,603	1,611	1,657	1,839	1,888	1,905	1,962	2,010	2,071
El Dorado (APP)	52,835	55,548	57,940	60,674	63,193	37,350	38,250	39,055	40,520	39,347	40,938	41,827	42,752	41,788	43,809	44,183	45,938

PEF CR3 Uprate
CR3 Uprate (180MW full ownership, July 06 GFF base) - Florida
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ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
G2 Energy	3,840	3,870	3,899	3,925	3,944	3,962	3,986	4,025	4,041	4,022	4,063	4,092	4,115	4,097	5,299	5,342	5,609
Lake Cogen	54,516	57,451	60,027	62,943	52,395	34,221	35,136	35,526	36,977	35,733	37,485	38,282	38,905	38,215	39,861	40,498	42,034
Lake County	9,262	9,738	10,237	10,783	11,364	8,591	5,263	5,271	5,467	5,159	5,415	5,501	5,613	5,408	5,617	5,719	5,986
LFC (APP)	9,803	10,305	10,838	11,418	12,031	6,122	6,299	6,381	6,608	6,395	6,698	6,829	6,982	6,775	7,104	7,186	7,506
Mulberry	47,724	50,247	52,582	55,117	57,629	60,352	63,228	66,207	69,283	72,456	75,892	79,466	83,128	86,985	91,150	75,065	35,345
Orange Cogen	42,603	44,806	46,808	46,103	48,113	50,259	52,560	54,889	57,340	59,633	62,451	65,274	68,156	71,006	74,418	77,777	81,488
Orlando Cogen	52,929	55,018	57,356	59,952	62,317	64,791	67,363	70,023	72,705	75,504	78,461	81,575	84,630	88,094	91,649	43,691	45,900
Pasco Cogen	47,203	42,505	43,862	43,887	43,300	42,670	43,721	43,965	45,751	43,309	45,342	46,284	47,502	45,742	47,699	48,270	50,577
Pasco County	17,447	18,303	19,223	20,215	21,271	22,322	23,485	24,710	26,053	27,336	28,852	30,482	32,169	33,749	35,696	37,736	12,323
Pinellas County	39,623	41,660	43,819	46,150	48,646	51,156	53,905	56,838	59,987	63,040	66,647	70,479	74,524	78,317	82,895	87,696	25,091
Ridge Gen St	18,878	19,438	19,769	20,136	20,316	20,570	20,832	21,110	21,346	21,502	21,732	22,005	22,200	22,396	22,701	18,424	19,399
Royster	16,476	11,187	11,309	11,378	11,338	11,199	11,479	11,650	12,084	11,692	12,231	12,490	12,729	12,423	13,014	13,160	13,745
Cogen, Total	450,111	504,659	522,897	538,401	541,699	489,195	502,613	517,703	538,083	543,307	566,387	586,428	606,856	616,570	645,162	590,076	478,917
NH3	3,612	4,062	4,115	3,909	5,139	5,870	6,324	7,929	7,801	7,648	7,662	7,744	8,023	7,316	7,545	7,783	7,772
CaCO3	1,098	10,378	10,947	10,775	14,342	16,691	18,279	23,114	23,110	23,022	23,397	24,062	25,325	23,429	24,532	25,716	26,059
Total Cost	**3,213,541**	**2,890,494**	**3,174,253**	**3,315,637**	**3,293,139**	**3,220,061**	**3,420,826**	**3,441,395**	**3,729,543**	**3,396,723**	**3,690,111**	**3,912,987**	**4,105,339**	**3,736,383**	**3,965,711**	**4,030,282**	**4,174,266**

PEF CR3 Uprate

July 2006 Generation & Fuel Forecast Base - Florida

CAPACITY FACTOR

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	75.5	98.5	91.2	98.5	91.2	98.5	91.2	98.5	90.4	98.5	91.2	98.5	91.2	98.5	91.2	98.5	91.2
NUC Future 1									79.0	84.7	84.7	84.7	84.8	84.0	84.2	84.2	84.4
NUC Future 2													78.6	83.3	83.5	83.4	83.7
Nuclear	75.5	98.5	91.2	98.5	91.2	98.5	91.2	98.5	89.2	90.4	87.4	90.4	87.0	87.5	85.8	87.6	85.9
Crystal 1	75.3	72.1	80.7	72.2	68.0	74.1	71.2	67.3	72.4	61.2	63.6	66.4	64.2	53.9	63.3	59.6	62.4
Crystal 2	67.4	72.1	67.9	63.5	73.2	67.0	67.3	65.8	64.8	57.5	61.6	59.4	55.6	56.8	55.9	55.4	60.2
Crystal 4	84.6	90.8	88.3	87.9	86.8	83.8	89.1	79.8	75.9	77.2	74.4	75.0	79.7	69.3	71.4	75.1	72.2
Crystal 5	74.7	84.6	92.8	86.9	86.0	83.0	88.2	78.8	75.1	76.2	73.4	74.0	78.8	68.7	70.0	74.2	71.0
PV COAL 1	-	-	-	-	90.8	89.9	89.5	88.7	88.7	83.1	84.5	84.6	85.3	78.6	80.2	79.8	81.3
PV COAL 2	-	-	-	-	-	-	83.6	87.5	87.8	82.1	83.2	83.1	83.5	77.1	78.7	78.3	79.6
Steam-Coal	76.3	81.7	84.0	79.7	82.2	81.2	83.2	79.9	78.9	75.0	76.2	76.4	76.8	69.4	71.5	72.4	72.7
Anclote 1	33.3	34.4	36.1	35.9	29.5	33.4	33.3	31.6	33.4	31.4	31.9	33.5	33.9	28.4	31.4	30.8	32.6
Anclote 2	25.0	25.7	25.2	26.9	23.9	25.2	24.2	23.9	25.8	23.1	24.0	24.1	26.2	22.5	23.2	21.6	24.8
BARTOW 1	44.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BARTOW 2	41.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BARTOW 3	44.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUWANNEE 1	31.6	28.8	31.6	30.1	29.4	30.5	29.3	27.0	28.7	27.2	28.8	29.2	29.4	27.3	27.5	27.8	28.1
SUWANNEE 2	37.5	34.1	37.1	35.9	35.2	35.4	36.0	34.5	36.6	32.8	33.1	35.9	35.0	32.4	31.7	35.2	34.0
SUWANNEE 3	26.3	21.4	23.4	25.4	25.2	23.6	24.6	21.3	24.3	21.3	22.8	23.4	23.5	21.1	21.3	23.8	22.8
Steam-Oil	31.2	29.6	30.4	31.1	26.9	29.1	28.7	27.5	29.4	27.0	27.7	28.6	29.7	25.4	27.0	26.3	28.4
BARTOW CC REP 1	57.8	50.2	59.9	60.9	53.3	47.9	49.4	41.1	44.9	29.6	35.1	35.8	38.4	27.8	30.3	31.8	35.0
CCF 1	-	-	64.5	65.1	62.8	56.8	57.9	49.7	54.6	39.4	45.0	47.1	48.5	36.7	38.6	40.5	44.9
HINES 1	67.5	74.4	68.3	73.1	76.8	73.0	72.8	70.1	76.5	66.2	69.0	66.5	68.5	65.5	67.1	69.9	71.5
HINES 2	58.5	49.8	53.6	52.3	50.9	46.6	51.1	46.6	49.1	40.6	41.3	47.0	48.1	38.4	40.9	42.9	47.5
HINES 3	54.7	48.7	49.0	46.3	48.7	49.6	50.0	44.2	48.6	37.4	45.0	44.8	47.6	36.0	39.3	41.8	46.2
HINES 4	66.8	53.1	62.9	62.4	53.2	52.8	53.9	48.0	52.7	36.9	46.1	45.3	51.3	37.6	39.3	39.3	46.0
TIGERBAY 1	65.6	58.0	52.6	66.5	66.8	56.0	64.3	56.2	44.6	54.1	54.7	60.9	58.1	48.1	54.1	45.8	55.8
Steam-CC	61.1	54.3	58.9	60.4	57.4	53.3	55.1	48.7	52.1	40.2	45.2	46.3	48.6	38.5	41.0	42.2	46.6
AVON PK 1	5.6	5.5	5.5	5.4	5.5	5.3	5.4	5.4	5.5	5.4	5.4	5.7	5.4	5.4	5.3	5.4	5.5
AVON PK 2	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.4	1.5	1.5	1.5
BARTOW 1	0.5	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.2	0.1	0.0	0.3	0.2	0.0	0.0	0.0	0.1
BARTOW 2	2.3	0.8	1.0	0.6	0.4	0.4	0.9	0.3	1.0	0.4	0.3	0.7	0.6	0.3	0.3	0.3	0.6
BARTOW 3	0.5	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.2	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.2
BARTOW 4	1.6	0.8	1.2	0.6	0.6	0.4	0.6	0.3	1.3	0.4	0.3	0.8	0.6	0.5	0.3	0.3	0.8
BAYBORO 1	2.6	2.8	3.0	2.7	2.5	2.5	2.7	2.5	3.0	2.5	2.5	2.7	2.7	2.5	2.5	2.5	2.6
BAYBORO 2	2.7	2.9	3.0	2.8	2.7	2.6	2.9	2.6	3.1	2.7	2.6	2.9	2.7	2.6	2.6	2.7	2.7
BAYBORO 3	3.3	3.3	3.6	3.1	3.1	3.0	3.3	3.1	3.5	3.0	2.9	3.4	3.1	2.9	3.0	3.1	3.2
BAYBORO 4	3.2	3.3	3.6	3.2	3.1	3.1	3.3	3.1	3.5	3.1	3.0	3.3	3.2	3.0	3.0	3.1	3.2
CTBar 1	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTBar 2	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTFG 1	-	2.3	2.8	2.5	1.4	1.8	2.4	0.7	2.8	1.3	1.3	2.4	2.7	0.7	0.9	1.2	2.1
CTFG 2	-	1.6	1.9	1.8	1.1	1.0	2.0	0.8	2.0	1.1	0.9	2.0	2.1	0.7	0.8	1.1	1.6
CTFG 3	-	1.0	1.6	1.2	0.7	0.9	1.5	0.6	1.4	0.7	0.7	1.4	1.4	0.4	0.6	0.6	1.3
CTFG 4	-	-	-	0.4	0.6	0.6	1.0	0.5	1.0	0.6	0.3	0.5	1.0	0.4	0.4	0.5	1.0
DEBARY 1	2.0	2.0	2.1	1.9	1.9	1.9	2.0	1.9	2.1	2.0	1.9	2.2	2.0	1.9	1.9	1.9	2.0
DEBARY 2	1.7	1.8	1.9	1.6	1.6	1.6	1.7	1.6	1.8	1.7	1.6	1.9	1.7	1.6	1.6	1.6	1.7
DEBARY 3	1.8	1.9	1.9	1.7	1.8	1.7	1.8	1.7	1.9	1.8	1.7	2.0	1.8	1.7	1.7	1.7	1.8
DEBARY 4	1.8	1.8	1.9	1.7	1.8	1.8	1.8	1.7	1.9	1.8	1.7	2.0	1.8	1.7	1.7	1.7	1.8
DEBARY 5	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.6	1.6	1.6
DEBARY 6	1.5	1.5	1.7	1.4	1.5	1.4	1.5	1.4	1.6	1.5	1.4	1.8	1.5	1.4	1.4	1.5	1.6
DEBARY 7	13.1	13.1	13.4	12.9	13.0	13.0	13.1	13.0	13.4	12.9	12.9	12.8	13.1	12.1	13.0	12.9	13.0
DEBARY 8	13.4	13.2	13.7	13.2	13.2	13.2	13.3	13.1	13.4	13.1	13.1	13.3	13.3	12.9	13.2	13.0	13.2
DEBARY 9	12.8	12.6	12.8	12.5	12.6	12.5	12.8	11.3	12.7	12.5	12.4	12.5	12.6	12.5	12.3	12.3	12.5
DEBARY 10	4.3	4.4	4.5	4.3	4.3	4.3	4.3	4.3	4.4	4.3	4.3	4.5	4.4	4.3	4.3	4.3	4.3
HIGGINS 1	3.4	3.3	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.5	3.3	3.3	3.3	3.3	3.4
HIGGINS 2	3.4	3.4	3.4	3.3	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.5	3.2	3.3	3.3	3.3	3.3
HIGGINS 3	4.9	4.8	4.8	4.7	4.7	4.7	4.7	4.6	4.7	4.7	4.6	4.9	4.7	4.6	4.6	4.6	4.7
HIGGINS 4	3.8	3.6	3.6	3.5	3.6	3.6	3.6	3.5	3.7	3.6	3.5	3.7	3.6	3.5	3.5	3.5	3.6
INT CITY 1	2.0	2.0	2.2	2.0	1.9	1.8	1.9	1.8	2.2	1.9	1.8	2.1	1.9	1.8	1.8	1.9	2.0
INT CITY 2	2.7	2.7	2.9	2.7	2.7	2.6	2.6	2.6	2.8	2.7	2.6	2.8	2.6	2.6	2.6	2.6	2.7
INT CITY 3	2.8	2.8	2.9	2.8	2.7	2.6	2.7	2.6	3.0	2.6	2.6	2.9	2.7	2.7	2.6	2.6	2.8
INT CITY 4	3.1	3.0	3.3	3.1	3.1	3.0	3.0	2.9	3.2	2.9	3.0	3.0	3.1	3.0	3.0	3.0	3.0
INT CITY 5	3.3	3.3	3.5	3.1	3.2	3.0	3.2	3.1	3.4	3.1	3.1	3.4	3.2	3.0	3.1	3.0	3.2
INT CITY 6	2.3	2.4	2.4	2.3	2.2	2.1	2.3	2.2	2.5	2.2	2.1	2.4	2.3	2.1	2.2	2.2	2.2

PEF CR3 Uprate
July 2006 Generation & Fuel Forecast Base - Florida
CAPACITY FACTOR

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
INT CITY 7	9.3	9.0	9.3	8.9	8.9	8.8	9.0	8.9	9.2	8.9	8.3	9.1	9.0	8.8	8.9	8.7	9.0
INT CITY 8	10.1	10.0	10.3	9.7	9.8	9.7	9.9	9.7	9.6	9.7	9.5	9.9	10.0	9.6	9.6	9.5	9.8
INT CITY 9	9.0	8.4	8.9	8.4	8.3	8.3	8.5	8.4	8.7	8.2	8.1	8.5	8.5	8.3	8.2	8.1	8.5
INT CITY 10	9.2	9.2	9.5	9.1	9.0	9.0	9.1	9.1	9.4	9.1	8.9	9.2	9.2	8.9	9.0	8.9	9.1
INT CITY 11	3.6	3.6	3.8	3.6	3.6	3.5	3.4	3.5	3.7	3.5	3.4	3.8	3.6	3.5	3.5	3.5	3.6
INT CITY 12	12.4	12.3	12.2	12.2	12.0	11.7	12.1	11.9	12.1	11.8	11.9	12.1	12.2	11.8	11.9	11.8	12.1
INT CITY 13	12.3	12.2	12.2	11.8	11.6	11.9	12.0	11.7	12.1	11.8	11.7	12.0	12.1	11.7	11.8	11.7	11.8
INT CITY 14	12.9	12.4	12.7	12.2	12.1	12.1	12.3	12.2	12.4	12.1	12.1	12.3	12.3	12.0	12.1	12.1	12.1
RIO PINAR 1	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.4	1.4	1.6	1.5	1.4	1.4	1.4	1.5
SUWANNEE 1	7.3	6.8	7.1	7.2	6.8	6.9	7.1	6.7	7.2	6.3	6.5	6.7	6.9	6.1	6.6	6.5	6.9
SUWANNEE 2	4.3	4.3	4.7	4.2	4.1	4.0	4.3	4.1	4.5	4.1	3.9	4.4	4.3	4.0	4.0	4.0	4.3
SUWANNEE 3	8.9	8.3	8.1	8.9	8.2	8.0	8.9	8.1	8.1	7.5	7.8	7.6	8.4	6.8	7.7	7.4	8.2
TURNER 1	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.5	0.7	0.6	0.5	0.6	0.5	0.6
TURNER 2	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.8	0.8	1.0	0.9	0.8	0.8	0.8	0.8
TURNER 3	2.3	2.4	2.6	2.2	2.2	2.2	2.2	2.1	2.4	2.3	2.1	2.5	2.2	2.1	2.1	2.1	2.3
TURNER 4	1.8	2.0	2.1	1.8	1.8	1.8	1.8	1.7	2.0	1.8	1.8	2.1	1.8	1.7	1.7	1.8	1.9
U OF FL 1	92.0	87.7	85.9	85.9	88.0	85.8	92.4	87.9	92.4	91.5	91.7	84.9	91.5	90.5	86.6	90.6	90.9
CT	7.2	6.5	6.4	5.9	5.7	5.7	6.0	5.6	6.1	5.7	5.6	5.9	6.0	5.5	5.6	5.6	5.9
As Avail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auburn(As Avail)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bay County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biomass Energy	78.9	81.5	81.7	81.7	81.6	81.4	81.5	81.6	81.5	80.8	80.7	80.6	80.9	79.4	79.9	79.5	80.1
Cargill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dade County	82.9	83.0	83.0	83.0	83.0	82.9	82.9	83.0	82.9	82.5	82.6	82.6	82.5	81.4	81.8	81.6	81.7
DTE Biomass	81.4	81.5	81.6	81.6	81.5	81.6	81.3	81.5	81.3	80.3	80.7	80.2	80.6	79.1	79.7	79.2	79.7
El Dorado (APP)	47.4	47.4	47.3	47.5	47.5	47.3	47.3	47.4	47.4	47.4	47.4	47.5	47.5	47.4	47.4	47.4	47.4
G2 Energy	80.0	80.1	80.2	80.2	80.1	80.0	79.9	80.1	79.9	79.0	79.5	79.1	79.1	77.8	78.9	78.3	78.4
Lake Cogen	44.9	45.0	44.9	45.1	44.9	44.9	44.9	44.8	45.1	44.9	45.0	45.0	44.9	44.8	45.0	45.0	45.0
Lake County	71.0	71.0	71.0	71.1	71.1	71.0	71.0	71.0	71.1	70.8	70.9	70.8	70.8	70.5	70.6	70.6	70.6
LFC (APP)	54.8	54.7	54.8	54.6	54.7	54.6	54.7	54.7	54.6	54.7	54.8	54.7	54.6	54.7	54.6	54.7	54.6
Mulberry	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
Orange Cogen	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
Orlando Cogen	93.2	93.2	93.3	93.2	93.2	93.3	93.3	93.2	93.3	93.2	93.2	93.2	93.3	93.3	93.3	93.2	93.3
Pasco Cogen	65.8	65.8	65.9	65.9	65.8	65.9	65.8	65.9	65.8	65.8	65.8	65.8	65.9	65.8	65.8	65.8	65.8
Pasco County	85.7	85.7	85.9	85.9	85.9	85.9	85.7	85.8	85.9	85.1	84.9	85.0	84.9	83.5	84.0	83.5	83.9
Pinellas County	70.0	70.0	70.1	70.0	70.1	70.1	69.9	70.1	70.0	69.5	69.5	69.3	69.5	68.2	68.7	68.2	68.7
Ridge Gen St	70.8	70.9	70.9	70.9	70.8	70.8	70.7	70.8	70.7	70.3	70.3	70.2	70.2	69.5	69.8	69.5	69.8
Royster	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
Cogen	64.1	66.2	66.2	66.2	66.2	66.2	66.1	66.2	66.2	66.0	66.0	66.9	66.0	65.6	65.7	65.6	65.7
C P & Lime	84.8	84.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Osceola 158 Purc	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OUC 150 Purc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shady Hills	2.1	2.9	2.9	3.6	2.0	1.7	3.3	1.3	3.2	1.1	1.5	2.4	2.7	1.0	1.2	1.4	2.0
SoCo Franklin	-	42.2	43.2	43.8	37.8	34.1	36.3	29.8	33.0	-	-	-	-	-	-	-	-
SoCo Scherer	-	90.6	89.5	88.9	87.7	85.0	85.2	-	-	-	-	-	-	-	-	-	-
Southern UPS	98.3	97.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TEA 50 Purc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teco Purc	61.3	48.2	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PEF Emissions Study

CR3 Uprate (180MW full ownership, July 06 GFF base) - Florida

CAPACITY FACTOR

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CR NUC 3	75.4	98.4	90.0	98.2	90.9	98.2	90.9	98.2	90.1	98.2	90.9	98.2	90.9	98.2	90.9	98.2	90.9
NUC Future 1									78.7	84.3	84.4	84.5	84.5	83.7	83.9	83.8	84.1
NUC Future 2													78.1	82.8	83.1	82.9	83.4
Nuclear	**75.4**	**98.4**	**90.0**	**98.2**	**90.9**	**98.2**	**90.9**	**98.2**	**89.1**	**90.8**	**87.4**	**90.8**	**87.1**	**87.8**	**85.7**	**87.9**	**85.9**
Crystal 1	75.3	71.9	80.4	70.7	66.7	72.4	69.5	65.9	71.0	59.6	62.2	64.8	62.8	52.4	61.8	58.2	61.1
Crystal 2	67.4	71.7	67.7	62.2	71.5	65.3	65.5	64.5	63.5	55.9	60.5	58.1	54.4	55.3	54.7	54.0	59.1
Crystal 4	84.6	90.7	88.2	87.2	85.8	82.4	87.8	78.5	74.5	75.7	73.3	73.8	78.1	68.0	70.2	73.7	71.0
Crystal 5	74.7	84.5	92.7	86.1	85.1	81.6	87.0	77.4	73.6	74.6	72.4	72.7	77.3	67.4	68.7	72.8	70.0
PV COAL 1	-	-	-	-	90.6	89.0	88.8	88.0	88.0	81.7	83.3	83.3	84.0	77.2	79.0	78.4	80.2
PV COAL 2	-	-	-	-	-	-	82.3	86.6	87.1	80.5	81.9	81.9	82.1	75.7	77.5	76.7	78.5
Steam-Coal	**76.4**	**81.6**	**83.9**	**78.7**	**81.2**	**79.9**	**81.9**	**78.7**	**77.8**	**73.6**	**74.1**	**74.2**	**75.3**	**68.0**	**70.3**	**71.0**	**71.6**
Anclote 1	33.2	34.1	35.8	33.7	28.9	32.2	32.4	31.0	32.6	30.3	31.1	32.4	32.8	27.8	30.6	30.1	31.9
Anclote 2	25.0	25.3	25.1	24.7	23.1	23.9	23.5	22.9	24.7	22.8	23.3	23.4	24.7	21.9	23.0	20.9	24.1
BARTOW 1	44.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BARTOW 2	41.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BARTOW 3	44.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUWANNEE 1	31.5	28.5	31.5	29.0	28.1	28.4	27.5	26.2	28.2	27.0	28.5	28.8	28.7	27.6	26.6	28.1	27.7
SUWANNEE 2	37.5	34.0	37.3	35.2	34.0	33.8	35.3	32.5	35.6	32.5	33.0	35.4	34.5	32.4	30.4	34.5	33.5
SUWANNEE 3	26.3	21.4	22.6	24.0	22.3	22.0	24.2	21.1	23.3	21.1	22.4	23.5	22.5	20.8	21.5	24.1	22.5
Steam-Oil	**31.3**	**29.2**	**30.2**	**29.0**	**26.0**	**27.8**	**27.9**	**26.7**	**28.5**	**26.4**	**27.1**	**27.8**	**28.6**	**24.8**	**26.6**	**25.8**	**27.7**
BARTOW CC REP 1	57.5	49.9	58.8	56.0	49.9	44.7	45.7	38.5	42.6	27.3	33.0	33.6	36.3	25.9	27.8	29.4	33.2
CCF 1	-	-	61.8	62.3	59.4	53.6	54.4	46.2	50.8	34.8	41.3	42.5	45.5	32.1	36.2	36.3	40.8
HINES 1	67.5	74.1	68.7	71.3	76.1	72.1	71.6	69.2	75.3	65.8	68.3	65.2	67.7	64.3	65.0	68.7	69.2
HINES 2	58.4	49.4	51.9	50.3	47.4	44.1	49.0	45.2	44.8	37.4	39.5	43.9	46.4	36.2	38.0	40.9	45.3
HINES 3	54.5	48.0	48.4	44.3	45.5	46.6	47.9	40.9	46.3	35.0	41.9	42.6	44.9	32.5	36.8	38.6	43.6
HINES 4	67.3	50.2	61.2	60.8	51.9	49.3	51.4	42.3	52.1	34.4	41.2	41.8	48.8	32.9	36.5	36.2	42.4
TIGERBAY 1	65.8	56.7	54.0	67.0	65.8	54.2	65.2	52.5	41.8	49.0	52.0	57.1	56.2	47.9	53.4	44.4	54.7
Steam-CC	**61.0**	**53.5**	**57.9**	**57.6**	**54.6**	**50.5**	**52.6**	**45.8**	**49.7**	**37.5**	**42.6**	**43.6**	**46.5**	**35.8**	**38.6**	**39.7**	**44.0**
AVON PK 1	5.6	5.5	5.5	5.4	5.4	5.3	5.4	5.4	5.4	5.4	5.4	5.7	5.4	5.4	5.3	5.4	5.5
AVON PK 2	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.4	1.5	1.5	1.5
BARTOW 1	0.5	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1
BARTOW 2	2.3	0.8	0.9	0.4	0.4	0.2	0.7	0.2	0.8	0.3	0.2	0.5	0.6	0.2	0.1	0.2	0.4
BARTOW 3	0.5	0.2	0.2	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.1
BARTOW 4	1.6	0.8	1.1	0.3	0.5	0.2	0.4	0.2	1.0	0.4	0.2	0.6	0.6	0.3	0.1	0.3	0.6
BAYBORO 1	2.6	2.8	3.0	2.6	2.5	2.4	2.6	2.4	2.9	2.4	2.4	2.6	2.6	2.5	2.4	2.5	2.5
BAYBORO 2	2.7	2.9	3.0	2.7	2.6	2.6	2.8	2.6	2.9	2.6	2.6	2.8	2.7	2.7	2.5	2.7	2.7
BAYBORO 3	3.3	3.3	3.6	3.0	3.0	2.9	3.2	3.0	3.4	3.0	2.9	3.2	3.0	2.9	2.9	3.0	3.1
BAYBORO 4	3.2	3.3	3.6	3.1	3.0	3.0	3.2	3.0	3.4	3.1	3.0	3.3	3.1	3.0	3.0	3.1	3.1
CTBar 1	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTBar 2	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CTFG 1	-	2.2	2.6	1.7	1.2	1.4	1.9	0.5	2.3	1.1	1.0	2.0	1.9	0.7	0.8	0.8	1.7
CTFG 2	-	1.5	1.8	1.4	0.8	0.7	1.5	0.7	1.6	0.9	0.6	1.6	1.6	0.5	0.6	0.8	1.3
CTFG 3	-	1.0	1.6	0.8	0.6	0.7	1.2	0.5	1.1	0.5	0.6	1.2	1.1	0.4	0.5	0.4	1.0
CTFG 4	-	-	-	0.3	0.5	0.5	0.8	0.4	0.9	0.4	0.2	0.5	0.9	0.3	0.4	0.4	0.8
DEBARY 1	2.0	2.0	2.1	1.9	1.9	1.9	2.0	1.9	2.0	2.0	1.9	2.2	2.0	1.9	1.9	1.9	2.0
DEBARY 2	1.7	1.8	1.9	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.9	1.7	1.6	1.6	1.6	1.7
DEBARY 3	1.8	1.9	1.8	1.7	1.8	1.7	1.8	1.7	1.8	1.8	1.7	2.0	1.8	1.7	1.7	1.7	1.8
DEBARY 4	1.8	1.8	1.8	1.7	1.8	1.7	1.8	1.7	1.8	1.7	1.7	1.9	1.8	1.7	1.7	1.7	1.8
DEBARY 5	1.6	1.7	1.7	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.6	1.6	1.6
DEBARY 6	1.5	1.5	1.7	1.4	1.5	1.4	1.5	1.4	1.6	1.5	1.4	1.7	1.5	1.4	1.4	1.5	1.5
DEBARY 7	13.1	13.0	13.4	12.9	13.0	12.9	13.0	13.0	13.3	12.9	12.9	12.8	13.0	12.2	12.9	12.9	13.0
DEBARY 8	13.4	13.2	13.7	13.1	13.0	13.1	13.3	13.1	13.3	13.2	13.0	13.2	13.2	12.9	13.1	13.0	13.1
DEBARY 9	12.8	12.5	12.9	12.5	12.5	12.4	12.8	11.3	12.7	12.5	12.3	12.5	12.5	12.4	12.3	12.3	12.5
DEBARY 10	4.3	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.4	4.3	4.3	4.4	4.3	4.3	4.3	4.3	4.3
HIGGINS 1	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.3	3.3	3.3	3.3	3.3
HIGGINS 2	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.5	3.2	3.3	3.3	3.3	3.3
HIGGINS 3	4.9	4.8	4.9	4.6	4.7	4.6	4.6	4.6	4.7	4.6	4.6	4.8	4.7	4.6	4.6	4.6	4.7
HIGGINS 4	3.8	3.6	3.6	3.5	3.6	3.5	3.6	3.5	3.6	3.6	3.5	3.7	3.6	3.5	3.5	3.5	3.6
INT CITY 1	2.0	2.0	2.1	1.8	1.9	1.8	1.8	1.7	2.1	1.8	1.7	2.0	1.9	1.8	1.8	1.8	1.9
INT CITY 2	2.7	2.7	2.9	2.6	2.7	2.6	2.6	2.6	2.8	2.7	2.6	2.8	2.6	2.6	2.6	2.6	2.7
INT CITY 3	2.8	2.8	2.9	2.7	2.7	2.6	2.7	2.6	2.9	2.6	2.6	2.9	2.7	2.6	2.6	2.6	2.7
INT CITY 4	3.1	3.0	3.2	3.0	3.0	3.0	2.9	2.9	3.2	2.9	2.9	3.0	3.0	3.0	2.9	3.0	3.0
INT CITY 5	3.3	3.3	3.5	3.1	3.1	3.0	3.2	3.0	3.3	3.1	3.0	3.4	3.2	3.0	3.1	3.0	3.1
INT CITY 6	2.3	2.3	2.3	2.2	2.1	2.1	2.2	2.1	2.4	2.1	2.1	2.4	2.2	2.1	2.1	2.2	2.2

PEF Emissions Study
CR3 Uprate (180MW full ownership, July 06 GFF base) - Florida
CAPACITY FACTOR

ANNUAL

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
INT CITY 7	9.3	9.0	9.3	8.8	8.9	8.8	8.9	8.9	9.1	8.8	8.4	9.0	9.0	8.8	8.8	8.7	8.9
INT CITY 8	10.1	9.9	10.3	9.6	9.8	9.6	9.9	9.7	9.5	9.7	9.5	9.9	9.9	9.5	9.5	9.5	9.7
INT CITY 9	9.0	8.4	9.0	8.2	8.3	8.3	8.5	8.2	8.6	8.2	8.0	8.4	8.3	8.0	8.0	8.1	8.4
INT CITY 10	9.2	9.1	9.5	9.0	9.0	8.9	9.1	9.1	9.3	9.0	8.9	9.2	9.0	8.9	8.9	8.9	9.1
INT CITY 11	3.6	3.6	3.8	3.5	3.5	3.5	3.4	3.5	3.6	3.5	3.4	3.7	3.6	3.5	3.5	3.5	3.6
INT CITY 12	12.4	12.2	12.2	12.1	11.9	11.4	12.1	11.9	12.0	11.9	11.8	12.1	12.2	11.8	11.8	11.8	12.0
INT CITY 13	12.3	12.1	12.1	11.9	11.6	11.7	11.9	11.7	12.0	11.7	11.7	11.9	12.0	11.6	11.7	11.6	11.7
INT CITY 14	12.9	12.4	12.7	12.2	12.1	12.0	12.3	12.1	12.2	12.1	12.0	12.2	12.1	12.0	12.0	12.0	12.1
RIO PINAR 1	1.5	1.5	1.6	1.4	1.5	1.4	1.4	1.4	1.5	1.4	1.4	1.6	1.5	1.4	1.4	1.4	1.5
SUWANNEE 1	7.3	6.8	7.3	6.8	6.5	6.5	6.9	6.4	7.0	6.2	6.2	6.5	6.6	6.0	6.5	6.3	6.5
SUWANNEE 2	4.3	4.3	4.7	4.1	4.0	3.9	4.2	4.0	4.4	4.0	3.9	4.3	4.2	4.0	3.9	4.0	4.1
SUWANNEE 3	8.9	8.3	8.0	8.3	8.0	7.7	8.4	7.7	7.9	7.3	7.3	7.3	7.9	6.6	7.7	7.1	7.9
TURNER 1	0.6	0.6	0.7	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.5	0.7	0.6	0.5	0.6	0.5	0.6
TURNER 2	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8
TURNER 3	2.3	2.3	2.5	2.2	2.2	2.1	2.2	2.1	2.3	2.2	2.1	2.4	2.2	2.1	2.1	2.1	2.2
TURNER 4	1.8	2.0	2.1	1.7	1.7	1.7	1.8	1.7	1.9	1.8	1.7	2.0	1.8	1.7	1.7	1.7	1.8
U OF FL 1	91.9	87.7	85.6	85.7	88.0	85.6	92.2	87.7	92.2	91.0	91.3	84.6	91.0	90.0	86.0	90.2	90.3
CT	7.2	6.5	6.3	5.8	5.6	5.6	5.9	5.5	6.0	5.6	5.6	5.8	5.9	5.5	5.6	5.6	5.8
As Avail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Auburn(As Avail)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bay County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biomass Energy	78.5	81.5	81.6	81.6	81.6	81.4	81.4	81.5	81.4	80.5	80.0	80.3	80.4	78.9	79.3	78.9	79.6
Cargill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dade County	82.9	83.0	83.0	83.0	83.1	82.9	83.0	82.9	82.9	82.0	82.2	82.1	82.2	80.7	81.0	81.0	81.2
DTE Biomass	81.4	81.5	81.6	81.4	81.5	81.4	81.1	81.3	81.2	79.9	80.0	79.8	80.1	78.5	78.9	78.5	79.1
El Dorado (APP)	47.4	47.4	47.3	47.5	47.5	47.3	47.3	47.4	47.4	47.4	47.4	47.5	47.5	47.4	47.4	47.4	47.4
G2 Energy	79.9	80.1	80.2	80.1	80.1	79.9	79.8	79.9	79.8	78.5	78.8	78.6	78.6	77.3	78.3	77.9	78.0
Lake Cogen	44.9	45.0	44.9	45.1	44.9	44.9	44.9	44.8	45.1	44.9	45.0	45.0	44.9	44.8	44.9	44.9	45.0
Lake County	71.0	71.0	71.0	71.0	71.1	71.0	71.0	71.0	71.0	70.7	70.8	70.7	70.7	70.4	70.5	70.5	70.5
LFC (APP)	54.8	54.7	54.8	54.6	54.7	54.6	54.7	54.7	54.6	54.7	54.7	54.6	54.6	54.7	54.6	54.6	54.6
Mulberry	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
Orange Cogen	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
Orlando Cogen	93.2	93.2	93.3	93.2	93.2	93.3	93.3	93.2	93.3	93.2	93.2	93.2	93.3	93.3	93.3	93.2	93.3
Pasco Cogen	65.8	65.8	65.9	65.9	65.8	65.9	65.8	65.9	65.8	65.8	65.8	65.8	65.9	65.8	65.8	65.8	65.8
Pasco County	85.6	85.6	85.8	85.7	85.9	85.8	85.6	85.6	85.6	84.7	84.3	84.4	84.3	82.9	83.0	82.8	83.3
Pinellas County	69.9	70.0	70.1	70.0	70.1	70.0	69.9	70.0	69.9	69.3	69.0	69.0	69.3	67.8	67.8	67.5	68.1
Ridge Gen St	70.8	70.9	70.9	70.8	70.8	70.8	70.7	70.7	70.7	70.1	70.0	69.9	69.9	69.2	69.3	69.1	69.5
Royster	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
Cogen	64.1	66.2	66.2	66.2	66.2	66.1	66.1	66.1	66.1	65.9	65.8	65.8	65.8	65.4	65.6	65.4	65.6
C P & Lime	84.8	84.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Osceola 158 Purc	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OUC 150 Purc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shady Hills	2.1	2.6	2.7	2.5	1.4	1.0	2.6	1.0	2.6	0.9	1.0	1.9	2.2	0.7	0.9	1.0	1.4
SoCo Franklin	-	41.2	42.0	40.1	34.2	31.9	34.1	26.8	30.9	-	-	-	-	-	-	-	-
SoCo Scherer	-	90.4	89.5	88.0	86.5	83.8	83.8	-	-	-	-	-	-	-	-	-	-
Southern UPS	98.3	97.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TEA 50 Purc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teco Purc	61.2	47.7	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PEF CR3 Uprate

Economy Sales GWH

Uprate minus Base

Plant_Name	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Econsale offp	(0.05)	(0.03)	0.49	(1.49)	0.53	(3.64)	(0.63)	(2.37)	(1.26)	(7.37)	(7.07)	(17.65)	(17.68)	(20.26)	(25.59)	(27.48)	(27.30)
Econsale peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grand Total	(0.05)	(0.03)	0.49	(1.49)	0.53	(3.64)	(0.63)	(2.37)	(1.26)	(7.37)	(7.07)	(17.65)	(17.68)	(20.26)	(25.59)	(27.48)	(27.30)

No Uprate Base

Plant_Name	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Econsale offp	(314.86)	(311.58)	(312.79)	(311.01)	(311.49)	(316.14)	(316.33)	(314.95)	(313.34)	(328.85)	(328.29)	(327.65)	(335.84)	(378.57)	(356.25)	(368.20)	(367.25)
Econsale peak	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)
Grand Total	(389.62)	(386.33)	(387.55)	(385.77)	(386.25)	(390.90)	(391.09)	(389.71)	(388.10)	(403.60)	(403.05)	(402.41)	(410.60)	(453.33)	(431.01)	(442.96)	(442.01)

Uprate

Plant_Name	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Econsale offp	(314.91)	(311.61)	(312.31)	(312.50)	(310.96)	(319.79)	(316.97)	(317.32)	(314.60)	(336.22)	(335.37)	(345.30)	(353.52)	(398.83)	(381.84)	(395.68)	(394.56)
Econsale peak	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)	(74.76)
Grand Total	(389.67)	(386.37)	(387.06)	(387.25)	(385.72)	(394.54)	(391.73)	(392.08)	(389.36)	(410.97)	(410.12)	(420.06)	(428.27)	(473.59)	(456.59)	(470.43)	(469.31)

CR3 Uprate Estimated Revenue Requirements & Fuel Savings System Basis

Phase 1 Uprate	EST 2006	EST 2007	EST 2008	EST 2009	EST 2010	EST 2011	EST 2012	EST 2013	EST 2014	EST 2015	EST 2016	EST 2017	EST 2018	EST 2019	EST 2020	EST 2021	EST 2022	EST 2023	EST 2024	EST 2025	EST 2026	EST 2027	EST 2028	EST 2029	EST 2030	EST 2031	EST 2032	EST 2033	EST 2034	EST 2035	EST 2036
Depreciation	-	-	-	0.77	9.26	9.26	9.26	9.26	9.26	9.26	9.26	9.26	9.26	8.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment				1.01	11.50	10.28	9.06	7.84	6.62	5.39	4.17	2.95	1.73	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Annual Nominal Return & Depr	-	-	-	1.78	20.76	19.54	18.32	17.09	15.87	14.65	13.43	12.21	10.99	9.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Annual Return & Depr NPV (2006 $'s)	-	-	-	1.30	14.06	12.24	10.62	9.17	7.87	6.72	5.70	4.79	3.99	3.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Cumulative Return & Depr NPV (2006 $'s)	-	-	-	1.30	15.37	27.61	38.23	47.40	55.27	61.99	67.70	72.49	76.48	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52	79.52
Phase 2 Uprate																																
Depreciation	-	-	-	-	-	3.07	18.44	18.44	18.44	18.44	18.44	18.44	18.44	18.44	18.44	15.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment						3.99	22.71	20.26	17.84	15.41	12.98	10.54	8.11	5.68	3.24	1.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Nominal Return & Depr	-	-	-	-	-	7.06	41.15	38.72	36.28	33.85	31.42	28.98	26.55	24.12	21.68	16.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Return & Depr NPV (2006 $'s)	-	-	-	-	-	4.42	23.86	20.76	18.00	15.53	13.34	11.38	9.65	8.11	6.74	4.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cumulative Return & Depr NPV (2006 $'s)	-	-	-	-	-	4.42	28.28	49.04	67.04	82.58	95.92	107.30	116.94	125.05	131.79	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50	136.50
Point of Discharge																																
Depreciation	-	-	-	-	-	0.80	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.79	3.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment						1.04	5.90	5.27	4.64	4.00	3.37	2.74	2.11	1.48	0.84	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Nominal Return & Depr	-	-	-	-	-	1.83	10.69	10.06	9.43	8.79	8.16	7.53	6.90	6.27	5.63	4.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Return & Depr NPV (2006 $'s)	-	-	-	-	-	1.15	6.20	5.39	4.68	4.04	3.47	2.96	2.51	2.11	1.75	1.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cumulative Return & Depr NPV (2006 $'s)	-	-	-	-	-	1.15	7.35	12.74	17.42	21.46	24.92	27.88	30.38	32.49	34.24	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47	35.47
Transmission																																
Depreciation	-	-	-	-	-	1.64	9.82	9.82	9.82	9.82	9.82	9.82	9.82	9.82	9.82	8.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Return on Investment						2.12	12.10	10.80	9.51	8.21	6.91	5.62	4.32	3.02	1.73	0.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Nominal Return & Depr	-	-	-	-	-	3.76	21.92	20.62	19.33	18.03	16.74	15.44	14.14	12.85	11.55	8.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual Return & Depr NPV (2006 $'s)	-	-	-	-	-	2.36	12.71	11.06	9.59	8.28	7.11	6.06	5.14	4.32	3.59	2.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cumulative Return & Depr NPV (2006 $'s)	-	-	-	-	-	2.36	15.07	26.13	35.71	43.99	51.10	57.16	62.30	66.61	70.21	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72	72.72
Other Revenue Requirements																																
Ann. Nominal Misc Other Rev Req's (O&M, Aux Pwr..)	-	-	-	(0.20)	0.02	(0.40)	1.57	1.64	1.79	1.99	2.08	2.23	2.27	2.34	2.04	1.84	0.36	0.36	0.58	0.85	1.09	1.41	1.46	1.51	1.55	1.77	1.98	2.03	2.08	2.13	2.18
Ann. Misc Other Rev Req's NPV (2006 $'s)	-	-	-	(0.15)	0.02	(0.25)	0.91	0.88	0.89	0.91	0.88	0.88	0.82	0.79	0.64	0.53	0.10	0.09	0.13	0.18	0.21	0.25	0.24	0.23	0.22	0.23	0.24	0.23	0.22	0.21	0.19
Cumulative Misc Other Rev Req's NPV (2006 $'s)	-	-	-	(0.15)	(0.13)	(0.38)	0.53	1.41	2.30	3.21	4.09	4.97	5.80	6.58	7.22	7.75	7.84	7.93	8.06	8.24	8.45	8.71	8.95	9.18	9.41	9.64	9.88	10.11	10.33	10.53	10.73
Fuel Savings																																
Annual Nominal Fuel Savings	-	-	-	(0.59)	(20.24)	(25.87)	(96.63)	(85.47)	(88.54)	(84.26)	(96.31)	(93.78)	(96.86)	(98.99)	(114.15)	(104.87)	(108.42)	(102.26)	(113.07)	(114.07)	(108.31)	(108.92)	(109.49)	(110.02)	(110.53)	(111.01)	(111.47)	(111.90)	(112.32)	(112.72)	(113.10)
Annual Fuel Savings NPV (2006 $'s)	-	-	-	(0.43)	(13.71)	(16.21)	(56.02)	(45.84)	(43.92)	(38.67)	(40.89)	(36.83)	(35.19)	(33.27)	(35.49)	(30.16)	(28.85)	(25.17)	(25.74)	(24.02)	(21.10)	(19.63)	(18.25)	(16.97)	(15.77)	(14.65)	(13.61)	(12.64)	(11.74)	(10.89)	(10.11)
Cumulative Fuel Savings NPV (2006 $'s)	-	-	-	(0.43)	(14.14)	(30.35)	(86.37)	(132.21)	(176.13)	(214.80)	(255.69)	(292.52)	(327.71)	(360.98)	(396.47)	(426.63)	(455.47)	(480.64)	(506.38)	(530.41)	(551.51)	(571.14)	(589.39)	(606.36)	(622.13)	(636.79)	(650.40)	(663.03)	(674.77)	(685.67)	(695.78)
Total Project Summary																																
Annual Project Revenue Requirements	-	-	-	1.58	20.78	31.79	93.65	88.13	82.70	77.31	71.83	66.39	60.85	54.62	40.91	31.20	0.36	0.36	0.58	0.85	1.09	1.41	1.46	1.51	1.55	1.77	1.98	2.03	2.08	2.13	2.18
Annual Fuel Savings	-	-	-	(0.59)	(20.24)	(25.87)	(96.63)	(85.47)	(88.54)	(84.26)	(96.31)	(93.78)	(96.86)	(98.99)	(114.15)	(104.87)	(108.42)	(102.26)	(113.07)	(114.07)	(108.31)	(108.92)	(109.49)	(110.02)	(110.53)	(111.01)	(111.47)	(111.90)	(112.32)	(112.72)	(113.10)
Annual Project Rev Req's Net of Fuel Savings	-	-	-	1.00	0.54	5.92	(2.98)	2.66	(5.84)	(6.95)	(24.48)	(27.38)	(36.01)	(44.38)	(73.24)	(73.67)	(108.06)	(101.90)	(112.49)	(113.21)	(107.23)	(107.51)	(108.03)	(108.52)	(108.98)	(109.24)	(109.48)	(109.87)	(110.24)	(110.59)	(110.92)
Annual Project Rev Req's Net of Fuel Savings NPV (2006 $'s)	-	-	-	0.73	0.37	3.71	(1.73)	1.43	(2.90)	(3.19)	(10.39)	(10.75)	(13.06)	(14.91)	(22.77)	(21.19)	(28.75)	(25.08)	(25.61)	(23.84)	(20.89)	(19.38)	(18.01)	(16.74)	(15.55)	(14.42)	(13.37)	(12.41)	(11.52)	(10.69)	(9.92)
Cumulative Project Rev Req's Net of Fuel Savings NPV (2006 $'s)	-	-	-	0.73	1.10	4.81	3.08	4.51	1.61	(1.57)	(11.97)	(22.72)	(35.80)	(50.72)	(73.49)	(94.67)	(123.42)	(148.50)	(174.11)	(197.96)	(218.85)	(238.23)	(256.24)	(272.97)	(288.52)	(302.94)	(316.31)	(328.72)	(340.24)	(350.93)	(360.84)

MUR in 2007, LP in 2009, HP 2011
(3010 MWt – Cash Flow)

Major Task	Totals	Comments
Phase 1		
Thermal Upgrades		Power level to 2609 MWt
MUR	4.9	
Erosion Corrosion	0.1	
Operator training	0.3	
Circ Water Pumps	5	
MSR Belly Drains	2.1	
LP Turbine	38	
NRC Fee	0.3	
Stability Analysis	0.1	
	0	
Plant Mods to Support Thermal Upgrades	0	
Step-up Transformers (costs deleted)	0	
POD	0	
Simulator Upgrades	0.2	
Replace MSRs	16	
Plant Mods to Support 3010	0	
Scoping Design Effort for 3010	0.7	
Replace MFW Pump Impellers	1	
Contingency/Risk	2	
Total (Phase 1)	**70.7**	

Major Task	Totals	Comments
Phase 2 (3010 MWt)		Power to 3010 MWt
Power Uprate		
Fuel	0	
NSSS Analysis	17	
NRC Fees	2.7	
RCS Relief Valves	1	
HPI Pump/Impeller	7.4	
EF System	3.5	
Main Steam	0.0	Valves – Risk for Relief Valves
Condensate System	0	
Condenser	0.5	Staking
Condensate Polishing Demineralizers	3.5	
Replace Cond Booster Pumps.	4.5	
EDG	3	
Feedwater	0.6	Valves
Feedwater Heaters	33	
Booster Pumps	5	
HP Turbine	19.8	
	0	
Extraction Steam	0.5	Most In Heater Numbers
Heater Drain System	0.5	Most In Heater Numbers
DH Closed Cycle Cooling	4	
NS Closed Cycle Cooling	7	
NS & DH Seawater	3	
SS Closed Cycle Cooling	2	
Main RB Fans	1	
Main Generator	16	
Generator Gas	0.3	
Generator Isolated Phase Bus	0.3	
Aux Transformer	5	
Motor Feeders/Switchgear	0.5	
DC System	0	
Boron Precipitation	4.5	
Stability Analysis	0.3	
Program Reviews	0.3	
Operator Training	0.3	
Procedure Revisions	0.4	
Instrumentation Upgrades	3	
Erosion Corrosion	0.1	
Simulator Upgrades	0.3	
Calculation Upgrades	2.5	
Project Administration and Support	10	
Control Complex Chillers	4	
Contingency/Risk	12	
Total (Phase 2)	**179.3**	
Totals Phase 1 and 2	**250**	

Start Rampdown for Outage	Return to 100% Power	Duration (Hours)	Description Of Event	"Output" Breakers Open	Closed	Duration (Hrs)
12/28/2005 18:50	1/10/2006 0:28	293.63	The plant came off-line to replace the "B" main step-up transformer after experiencing an increasing trend in combustible gasses within the transformer.	12/28/2005 18:50	1/8/2006 23:00	268.17
3/17/2006 20:00	3/29/2006 2:19	270.32	The plant came off-line to replace the "B" main step-up transformer after experiencing an increasing trend in combustible gasses within the transformer.	3/18/2006 3:00	3/28/2006 0:29	237.48
8/18/2006 21:00	8/24/2006 16:22	139.37	Planned outage to repair seal weld leak from radiography plug on the FW line going to RCSG-1A.	8/19/2006 2:06	8/23/2006 16:50	110.73

BEFORE THE PUBLIC SERVICE COMMISSION

In re: Petition for determination of need for expansion of Crystal River 3 nuclear power plant, for exemption from Bid Rule 25-22.082, F.A.C., and for cost recovery through fuel clause, by Progress Energy Florida, Inc.	DOCKET NO. 060642-EI DATED: January 10, 2007

PROGRESS ENERGY FLORIDA, INC.'S RESPONSE TO STAFF'S THIRD SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 39-48)

Progress Energy Florida, Inc. ("PEF"), responds to Staff's Third Set of Interrogatories to Progress Energy Florida, Inc. (Nos. 39-48), as follows:

INTERROGATORIES

39. For each year between 2002 and 2006, provide a comparison of PEF's annual numeric demand-side management (DSM) goals to actual demand and energy savings achieved.

Answer:

A table is provided below to depict a comparison of actual demand and energy savings achieved in each year above. Please note a new DSM Plan was approved in 2004 and accomplishments below reflect the new plan beginning in 2005. The 2006 results are anticipated year end results.

Residential									
	Winter Peak MW Reduction			Summer Peak MW Reduction			* Annual GWh Energy Reduction		
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2000	35	30	17%	17	10	70%	21	15	40%
2001	72	64	13%	29	20	45%	42	32	31%
2002	111	102	9%	43	32	34%	65	50	30%
2003	152	142	7%	59	45	31%	90	69	30%
2004	186	185	1%	74	58	28%	114	88	30%
2005	48	43	12%	18	13	42%	29	21	39%
2006	99	75	31%	37	21	77%	58	35	67%

Commercial/Industrial									
	Winter Peak MW Reduction			Summer Peak MW Reduction			* Annual GWh Energy Reduction		
Year	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance	Total Achieved	Commission Approved Goal	% Variance
2000	12	4	200%	12	4	200%	6	2	200%
2001	17	7	143%	18	8	125%	9	4	125%
2002	24	11	118%	28	11	155%	14	6	133%
2003	29	15	93%	35	15	133%	18	8	125%
2004	52	18	189%	59	19	211%	21	10	110%
2005	6	3	100%	8	4	100%	3	3	0%
2006	12	7	72%	16	7	130%	9	6	58%

*Represents only the annual energy contribution not the total cumulative energy savings over the life of the measures.

40. Describe all DSM programs that have been implemented or modified since the Commission approved PEF's current DSM plan.

Answer:

In Docket 040031 Progress Energy petitioned for approval of numeric conservation goals for the period 2005 through 2014. These goals were approved by the FPSC in PAA Order Number: PSC-04-0769-PAA-EG. Although Progress Energy was not scheduled to submit a request for a DSM Plan until 2009, the Company initiated several requests for modifications to its approved programs on behalf of its customers to greatly expand DSM offerings to enhance implementation of conservation measures. Those modifications are summarized in the table below:

Docket	Program Name	Description	Approval Order
050512	Low Income Weatherization	Added 4 new measures to program	PSC-05-1139-CO-EI
060048	Home Energy Improvement Residential New Construction Low Income Weatherization Better Business Com New Construction	To motivate and assist customers to implement efficiency measures, increased incentives were requested and approved by the FPSC	PSC-06-0650-CO-EG
060647	Home Energy Improvement Residential New Construction Res Energy Management Better Business Com New Construction Standby Generation Neighborhood Energy Saver Renewable Energy Program	Petition requested modification to six programs and addition of two new programs.	PSC-06-1018-TRF-EG

41. For each year between 2007 and 2012, identify the additional incremental demand and energy savings that result from these new and modified programs.

Answer:

A table is provided below to depict the demand and energy savings associated with DSM activities for each year between 2007 and 2012.

	2004 DSM Plan			2006 Expansion Petition			Combined Total		
	WMW*	SMW**	GWh	WMW	SMW	GWh	WMW	SMW	GWh
2007	36.9	12.7	23.85	94.3	70.6	39.09	131.2	83.3	62.94
2008	37.4	12.8	21.89	91.8	74.6	42.56	129.2	87.4	64.44
2009	38.5	12.8	26.97	78.6	71.6	43.47	117.1	84.4	70.44
2010	40.4	13.2	31.96	64.1	63.2	43.29	104.5	76.4	75.25
2011	44.5	14.7	36.80	48.8	54.8	43.25	93.3	69.5	80.05
2012	44.2	14.3	41.35	46.4	53.0	43.17	90.6	67.3	84.52
Totals	241.9	80.5	158.98	424.0	387.8	254.83	665.9	468.3	413.82

* Winter MW reduction (WMW)
** Summer MW reduction (SMW)

42. Describe all ongoing efforts by PEF to gain additional DSM program savings above current DSM goals levels. Include descriptions of promising new programs, potential program modifications, and pilot programs.

Answer:

Progress Energy has demonstrated a long history of commitment to pursuing the research, development and demonstration projects to further support the increased efficiency of the electric systems and consumption within Florida. In early 2006, the Company launched a pilot program: The Neighborhood Energy Saver (NES) to assist low-income families with escalating energy costs; one household at a time, to an entire neighborhood. This program includes education pertaining to energy efficiency techniques to promote behavior changes to help customers control their energy usage. This pilot will become a DSM Program offering in 2007. Additionally, the company recently conducted a wall insulation pilot and a solar thermal water heating pilot. Both pilots were developed into DSM measures for the 2006 expansion petition and will result in DSM program offerings in 2007. The Solar Water Heater with Energy Management measure provides a $450 rebate to residential customers for installing a solar thermal water heating system and participating in the Year-Round Energy Management program. The Solar Thermal pilot resulted in an added benefit of creating the new Renewable Energy Program. With the establishment of this program an additional innovative measure was created, Solar Photovoltaics with Energy Management. This new measure will promote renewable energy and renewable energy education through the installation of solar photovoltaic arrays on schools throughout the

Progress Energy Florida service territory. A summary table of additional DSM activities is provided below:

Docket 050512	Docket 060048	Docket 060647
Low Income Weatherization	Home Energy Improvement Residential New Construction Low Income Weatherization Better Business Commercial New Construction	Home Energy Improvement Residential New Construction Residential Energy Management Better Business Commercial New Construction Standby Generation Neighborhood Energy Saver Renewable Energy Program
Added: compact fluorescent lights, low flow showerheads, faucet aerators, and refrigerator coil brushes to the existing measures	Included increased incentives to 20 measures within 5 programs	Includes 39 new measures to existing programs and two new program additions (below is a list of the new measures and programs)

Docket 060647 – 2006 DSM Expansion Petition list of new measures and programs:

Home Energy Improvement Program

- Attic Insulation R15 to R30 - $75 per residence; if greater than 1500 sq. ft. 7¢ per sq. ft. for every ft. above 1500 sq. ft.
- Spray-In Wall Insulation - will be 20¢ per sq. ft. for insulation added to block wall area adjacent to conditioned space (maximum incentive of $300)
- Central Electric Air Conditioning with Existing Non-Electric Heat - $50 per unit equal to or greater than 14 SEER
- Supply and Return Plenum Duct Seal - $50 per system with SEER rating of 14 or greater
- Proper sizing of High Efficiency Air Conditioner - $75 per system
- HVAC Commissioning - $50 per system based upon software evaluation and completion of specified recommendation
- Reflective Roof Manufactured Homes - $40 for roof coating per residence
- Reflective Roof Single Family Homes - 15¢ per sq. ft. with a maximum of $150 for light colored roofs per residence
- Window Film & Window Screen - 1/2 of cost up to $100 for window film and window screen per residence
- Replacement Windows - $1 per sq. ft. per window area with maximum incentive of $250 per residence

Residential New Construction Program

- HVAC Commissioning - $50 per system based upon software evaluation and completion of specified recommendation
- Window Film & Window Screen - Incentive $100 per residence
- Reflective Roof Single Family - $100 for reflective roof material per residence
- Attic Spray-on Foam Insulation - $100 per residence
- Wall Insulation - $200 per residence for insulation to block wall area adjacent to conditioned space
- Conditioned Space Air Handler - $50 per air handler
- Energy Recovery Ventilation - $150 per residence

Neighborhood Energy Saver Program

This program includes the following measures:

- Compact fluorescent bulb
- Water heater wrap and insulation for water pipes
- Water heater temperature check and adjustment
- Low flow faucet aerators
- Low flow showerhead
- Water closet leak detection tablets
- Refrigerator coil brush
- Refrigerator thermometer
- Wall plate thermometer
- HVAC winterization kit
- HVAC filters
- Change filter calendar
- Weatherization Measures

Renewable Energy Program

- Solar Water Heater with Energy Management - $450 per residence plus energy management program credit
- Solar Photovoltaics with Energy Management - A fund to promote environmental stewardship and renewable energy education

Residential Year Round Energy Management Program

- Year Round Energy Management

Dispatchable Stand By Generation Program

- Stand By Generation - Incentive will be $2.30 per kW per month plus an additional compensation of 5¢ per kWh

Better Business Program

- Roof Insulation Upgrade - 7¢ per sq. ft. with a maximum of $5,000 per building
- Thermal Energy Storage w/Time-of-Use Rate (TES w/TOU) - $300 per kW of reduced cooling load at peak times
- Green Roof - 25¢ per sq. ft. for the installation of an approved Green Roof
- Efficient Compressed Air System - $50 per kW reduction
- Occupancy Sensors - $50 per kW of lighting load controlled
- Roof Top Unit recommission - $15 per ton
- HVAC Steam Cleaning - $15 per unit one-time
- Efficient Indoor Lighting - $50 per kW reduced, minimum of 1kW lighting reduction per incentive application
- Demand Control Ventilation - $50 per ton reduction
- Efficient Motors - $1.75 - $2.75 per hp based upon motor size, minimum number of motors 25 hp and smaller
- Window film - 75¢ per sq. ft. of window film installed per building, exception incentives for facilities with multiple rooms, up to $55 maximum per room

Commercial/Industrial New Construction

- Roof Insulation - 7¢ per sq. ft. with a maximum of $5,000 per building
- Thermal Energy Storage with Time-of-Use Rate - $300 per kW of reduced cooling load at peak times
- Green Roof - 25¢ per sq. ft. for the installation of an approved Green Roof
- Efficient Compressed Air System - $50 per kW reduction
- Occupancy Sensors - $50 per kW of lighting load controlled
- Efficient Indoor Lighting - $50 per kW reduced, minimum of 1kW lighting reduction per incentive application
- Demand Control Ventilation - $50 per ton reduction
- Efficient Motors - $1.75 - $2.75 per hp based upon motor size, minimum number of motors 25 hp and smaller
- Window film - 75¢ per sq. ft. of window film installed per building, exception incentives for facilities with multiple rooms, up to $55 maximum per room

43. Reconcile the $79.52 million cumulative present value amount for the Phase 1 Uprate, given in Attachment 5, page 1 of 1, of PEF's Response to Staff Interrogatory #8, with the $70.7 million amount in Attachment 6, page 1 of 2, of PEF's Response to Staff Interrogatory #13.

Answer:

The $70.7 million amount is not an NPV figure. It represents the expected cost of the Phase 1 upgrades, not inclusive of AFUDC, as of the in service date. It does represent a change from the original estimate of $86 million shown in Attachment 8 of the response to Staff's 2nd Set of Interrogatories. This is due to a shift in the split of the makeup between Phase 1 and Phase 2 of the project. The total for both phases is still $250 million. The $79.52 million is an NPV estimate as requested by the commission and represents the present value cost of the revenue requirements for return and depreciation, inclusive of AFUDC in 2006 dollars. The calculations can be seen in documents submitted in response to Staff's 1st Set of POD's numbers 1 and 2.

44. Reconcile the $136.5 million cumulative present value amount for the Phase 2 Uprate, given in Attachment 5, page 1 of 1, of PEF's Response to Staff Interrogatory #8, with the $179.3 million amount in Attachment 6, page 2 of 2, of PEF's Response to Staff Interrogatory #13.

Answer:

The $179.3 million amount is not an NPV figure. It represents the expected cost of the Phase 2 upgrades, not inclusive of AFUDC, as of the in service date. It does represent a change from the original estimate of $164 million shown in Attachment 8 of the response to Staff's 2nd Set of Interrogatories. This is due to a shift in the split of the makeup between Phase 1 and Phase 2 of the project. The total for both phases is still $250 million. The $136.5 million is an NPV estimate as requested by the commission and represents the present value cost of the revenue requirements for return and depreciation, inclusive of AFUDC in 2006 dollars. The calculations can be seen in documents submitted in response to Staff's 1st Set of POD's numbers 1 and 2.

45. Reconcile the $35.47 million cumulative present value amount for Point of Discharge upgrades, given in Attachment 5, page 1 of 1, of PEF's Response to Staff Interrogatory #8, with the $43 million estimate that appears on page 4, lines 19-23 of Witness Portuondo's September 22, 2006, prefiled direct testimony.

Answer:

The $43 million given in witness Javier Portuondo's testimony is not a NPV figure. It represents the estimated cost of the Point of Discharge upgrades not inclusive of AFUDC as of the in service date in 2011. The $35.47 million is an NPV estimate as requested by the commission and represents the present value cost of the revenue requirements for return and depreciation, inclusive of AFUDC in 2006 dollars. The calculations can be seen in documents submitted in response to Staff's 1st Set of POD's numbers 1 and 2.

46. Reconcile the $72.72 million cumulative present value amount for Transmission upgrades, given in Attachment 5, page 1 of 1, of PEF's Response to Staff Interrogatory #8, with the $89 million estimate that appears on page 4, lines 19-23 of Witness Portuondo's September 22, 2006, prefiled direct testimony.

Answer:

The $89 million given in witness Javier Portuondo's testimony is not a NPV figure. It represents the estimated cost of the Transmission upgrades not inclusive of AFUDC as of the in service date in 2011. The $72.72 million is an NPV estimate as requested by the commission and represents the present value cost of the revenue requirements for return and depreciation, inclusive of AFUDC in 2006 dollars. The calculations can be seen in documents submitted in response to Staff's 1st Set of POD's numbers 1 and 2.

47. Explain why PEF proposes to amortize the capital costs of the proposed CR3 Uprate over a ten-year period rather than over a period ending in 2036, which covers the proposed remaining life of CR3.

Answer:

PEF requests recovery of the uprate project costs consistent with past Commission precedent and policy. As Staff explained in their recommendation regarding the uprate of Turkey Point Units 3 & 4, Order No. 14546 allows a utility to recover fossil-fuel related costs which result in fuel savings when those costs were not previously addressed in determining base rates. In Order Nos. 96-1100-PHO-EI and 96-1172-FOF-EI, Staff Recommended and the Commission approved recovery of the costs of the Turkey Point Unit 3 & 4 uprate costs over a 2 year period because the fuel savings over this period were expected to exceed the project cost. Similarly, from 2010 through 2021 the fuel savings associated with the CR 3 uprate project are expected to significantly exceed the costs, therefore, PEF should be able to recover the costs of the uprate through its fuel clause over this period.

48. In its Response to Staff Interrogatory #14, PEF referred to a "realistic transmission scenario" as a placeholder for potential transmission upgrades. Given the understanding that formal transmission studies have not yet been completed, identify the components that PEF relied on to conclude that $89 million is a reasonable estimate for transmission. In responding to this interrogatory, identify each component of the transmission upgrade estimate. Include the cost of these components that comprise PEF's $89 million estimate for proposed transmission projects.

Answer:

The CR3 Uprate will make the plant the largest generator in the state and therefore we must have reserve capacity for its loss. Several concepts were considered for budgetary estimating that were identified as most likely. The place holder was based on the installation or upgrade of about 35 miles of 230KV lines in northern Florida to gain system flexibility for transporting additional power if the Crystal River 3 Generator was forced off line.

AFFIDAVIT

STATE OF NORTH CAROLINA)
)
COUNTY OF WAKE)

I hereby certify that on this 10th day of January, 2007, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Javier Portuondo, who is personally known to me, and he acknowledged before me that the answers to the STAFF'S THIRD SET OF INTERROGATORIES TO PROGRESS ENERGY FLORIDA, INC. (NOS. 39-48) in Docket No. 060642-EI were provided by the following individuals:

Interrogatory Nos. 39, 40, 41, 42, 43, 44, 45 and 46	Samuel Waters
Interrogatory No. 47	Javier Portuondo
Interrogatory No. 48	Daniel Roderick

and that the responses are true and correct based on his personal knowledge.

Javier Portuondo

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 10th day of January, 2007.

Notary Public
State of North Carolina, at Large
My Commission Expires:

My Commission Expires 1-22-2011

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: PEF's Petition for Determination of Need for Expansion of an Electrical Power Plant, for Exemption from Rule 25-22.082, F.A.C., and for Cost Recovery through the Fuel Clause	)	Docket No.: 060642 Submitted for Filing: January 4, 2007

PROGRESS ENERGY FLORIDA INC.'S NOTICE OF FILING
PROOF OF PUBLICATION

Progress Energy Florida Inc. ("PEF"), by and through its undersigned attorneys, hereby serves notice that the Notice of Commencement of Proceeding for Determination of Need for Proposed Power Plant for electrical power plant in Citrus County by Progress Energy Florida Inc. was published in the Citrus County Chronicle on December 4, 2006, in compliance with Order No. PSC-06-1060-PCO-EI (December 22, 2006) at pg. 2, and Section 403.519(2), Florida Statutes (2006). Attached are an Affidavit and a published copy serving as proof of publication of the Notice.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Notice has been furnished to all counsel of record and interested parties as listed below via electronic mail where indicated by * and U.S. Mail this 11th day of January, 2007.

Attorney

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AFFIDAVIT OF INSERTION

STATE OF _____**Florida**_____)

COUNTY OF ____**Citrus**_____)

CITY OF ____**Crystal River**_____)

I, ___**Terri Norton**__, being duly sworn on oath now and during all times herein stated, have been the publisher and designated agent of the publication known as,

___**Citrus County Chronicle**_____("Publication")

and have full knowledge of the fact herein stated as follows:

The inserts for _**Progress Energy**___ ("Ad/Advertiser") with Insertion Order No. **007923**__
as distributed to the Publication's full circulation on the __**4th**__day of **December,** 2006.

By: Terri Norton

Subscribed and sworn to before me
this 20th day of December, 2006.

Notary Seal:

Nancy A Parke
Notary Public

NANCY A. PARKE
Comm# DD0244089
Expires 8/24/2007
Bonded thru (800)432-4254
Florida Notary Assn., Inc

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

NOTICE OF COMMENCEMENT OF PROCEEDING FOR DETERMINATION OF NEED FOR PROPOSED ELECTRICAL POWER PLANT

TO

PROGRESS ENERGY FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AND

ALL OTHER INTERESTED PERSONS

DOCKET NO. 060642-EI

PETITION FOR DETERMINATION OF NEED FOR ELECTRICAL POWER PLANT IN CITRUS COUNTY BY PROGRESS ENERGY FLORIDA, INC

ISSUED: October 6, 2006

NOTICE is hereby given pursuant to Rule 25-22.080(3), Florida Administrative Code, that the Florida Public Service Commission has received the petition of Progress Energy Florida ("PEF") for a determination of need for its proposed expansion of the steam generating capacity of its existing Crystal River 3 ("CR3") nuclear power plant in Citrus County. PEF proposes an uprate that would increase the power output at CR3 by approximately 180 megawatts ("MW") from about 900 MW to 1,080 MW. Progress proposes to complete this uprate in two phases. The first phase of the uprate would occur during a planned 2009 refueling outage and would increase the output at CR3 by 40 MW. The second phase would occur during a planned 2011 refueling outage and would increase the output at CR3 by an additional 140 MW. This matter has been assigned Commission Docket No. 06042-EI.

Copies of the petition and supporting documentation are available for public inspection during normal business hours at the following location:

Florida Public Service Commission
Division of Commission Clerk and Administrative Services
Room 110, Betty Easley Conference Center
4075 Esplanade Way
Tallahassee, Florida

The final hearing in this docket has been scheduled for January 18, 2007.

By DIRECTION of the Florida Public Service Commission this 6th day of October, 2006.

BLANCA S. BAYÓ, Director
Division of the Commission Clerk
and Administrative Services

By: /s/ Hong Wang, Supervisor
Case Management Review Section

692396

000054

DOCKET NO. _____
PROGRESS ENERGY FLORIDA
EXHIBIT NO. ____ (JP-1)
PAGE 1 OF 1

SCHEDULE B-13

CONSTRUCTION WORK IN PROGRESS

FLORIDA PUBLIC SERVICE COMMISSION

Company: PROGRESS ENERGY FLORIDA INC.

Docket No. 050078-EI

Explanation: For each major construction project whose cost of completion exceeds exceeds 0.2 percent (.002) of gross plant, and for smaller projects within each category shown taken as a group, provide the requested data concerning projects for the test year.

Type of Data Shown:

XX Projected Test Year Ended 12/312006
__ Prior Year Ended 12/312005
__ Historical Test Year Ended 12/312004

Witness: Portuondo / Williams / Young / McDonald / DeSouza / Slusser

Line No.	(A) Project No.	(B) Project Description	(C) Year End CWIP Balance	(D) Estimated Additional Project Costs	(E) Total Cost of Completion	(F) Initial Project Budget Per Construction Bid	(G) Date Construction Started	(H) Expected Completion Date	(I) Percent Complete (C)/(E)	(J) Amount of AFUDC Charged	(K) 13 Month Average Balance	(L) Jurisdictional Factor	(M) Jurisdictional Amount
1													
2		STEAM PRODUCTION											
3		Major Projects:											
4		Crystal River Coal Yard Upgrade	34,252	51,418	85,670	85,670	Mar-05	Dec-07	40.0%	0	16,142		
5													
6		Minor Projects:	12,471								11,251		
7		Total Steam Projects	46,723	51,418	85,670	85,670				-	27,393		
8													
9		NUCLEAR PRODUCTION											
10		Major Projects:											
11		CR3 Steam Generator Replacement	57,986	172,364	230,350	170,000				0	47,117		
12													
13		Minor Projects:	3,168								3,367		
14		Total Nuclear Projects	61,155	172,364	230,350	170,000				-	50,484		
15													
16		HYDRAULIC PRODUCTION											
17		none											
18													
19		OTHER PRODUCTION											
20													
21		Hines unit 3	597	-	247,500	226,500	Jan-02	Dec-05	100.0%	-	524		
22		Hines unit 4	145,190	76,310	221,500	221,500	Jun-04	Dec-07	65.5%	7,667	98,266		
23		Subtotal Major Projects	145,787	76,310	469,000	448,000				7,667	98,790		
24													
25		Minor Projects:	8,903								7,848		
26		Total Other Projects	154,690	76,310	469,000	448,000				7,667	106,638		
27													

Supporting Schedules:

Recap Schedules:

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060642-EI Exhibit No. 3
Company/ PEF
Witness: Javier Portuondo - (JP-1)
Date: 01-18-07

DOCKET NO. _____
PROGRESS ENERGY FLORIDA
EXHIBIT NO. ____ (JP-2)
PAGE 1 OF 1

SCHEDULE B-2

RATE BASE ADJUSTMENTS

FLORIDA PUBLIC SERVICE COMMISSION

Company: PROGRESS ENERGY FLORIDA INC.

Docket No. 050078-EI

Explanation: List and explain all proposed adjustments to the 13-month average rate base for the test year, the prior year and the most recent historical year. List the adjustments included in the last case that are not proposed in the current case that are not proposed in the current case and the reasons for excluding them.

Type of Data Shown:

X Projected Test Year Ended 12/31/2006
__ Prior Year Ended 12/31/2005
__ Historical Test Year Ended 12/31/2004
Witness: Portuondo / Slusser

Line No.	(A) Adjustment Title	(B) Reason for Adjustment or Omission (provide supporting schedule)	(C) Adjustment Amount (000)	(D) Jurisdictional Factor	(E) Jurisdictional Amount of Adjustment (1) x (2) (000)
1	**Adjustments to System Per Books:**				
2	Remove ARO	(1)	$352,555	N/A	
3	Remove ECCR	(2)	7,749	N/A	
4	Remove ECRC	(3)	(19,265)	N/A	
5	Remove Fuel	(4)	(44,574)	N/A	
6	Remove SCRC	(5)	(139,000)	N/A	
7	Remove NUP	(6)	(8,094)	N/A	
8	Remove Above Market Affiliate Transfer	(7)	(23,361)	N/A	
9	Remove Job Orders	(8)	26,567	N/A	
10	Remove Sebring	(9)	(9,684)	N/A	
11	Remove Nucl Decom Trust Unreal Gains	(10)	83,101	N/A	
12	Remove A/D Nuc Decom-Funded	(11)	61,897	N/A	
13	Remove Other Special Funds (128)	(12)	(476,913)	N/A	
14	Misc Adjustment	(13)	(34)	N/A	
15			($189,058)		
16	**Company/FPSC Adjustments:**				
17	Company Adjustment - Distrib Enhancement Projects	(14)	$8,521	0.99757	$8,500
18	Company Adjustment - Transm Enhancement Projects	(15)	7,439	0.71418	5,313
19	Company Adjustment - End of Life Nuclear M&S	(16)	409	1.00000	409
20	Company Adjustment - Charging Practices	(17)	(51,468)	0.99760	(51,345)
21	Company Adjustment - Fossil Dismantlement	(18)	(5,606)	0.88972	(4,988)
22	Company Adjustment - Last Core Nuclear Fuel	(19)	168	1.00000	168
23	Company Adjustment - Mobile Meter Reading	(20)	55,554	1.00000	55,554
24	Company Adjustment - Organization Realignment	(21)	(51,174)	0.92422	(47,296)
25	Company Adjustment - Progress Fuels Corp	(22)	28,387	0.91126	25,868
26	Company Adjustment - Rate Case	(23)	2,250	1.00000	2,250
27	Company Adjustment - Storm Reserve	(24)	(22,000)	0.96945	(21,328)
28	CWIP - AFUDC	(25)	(145,815)	0.92471	(134,837)
29	Gain/loss on sale of plant	(26)	(127)	0.93176	(118)
30	Nuc. Decom. Unfunded - Wholesale	(27)	2,286	1.00000	2,286
31	RTO Start-up Costs	(28)	(4,173)	0.90843	(3,791)
32	Section 1341 Income Tax Adj	(29)	1,407	0.92577	1,303
33			($173,942)		($162,051)
34	Note: Differences are due to rounding				

Supporting Schedules:

Recap Schedules:

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 060462-EI Exhibit No. 4
Company/ PEF
Witness: Javier Portuondo (JP-2)
Date: 01-18-07

DOCKET NO. _____
PROGRESS ENERGY FLORIDA
EXHIBIT NO. ____ (JP-3)
PAGE 1 OF 1

SCHEDULE B-1

ADJUSTED RATE BASE

FLORIDA PUBLIC SERVICE COMMISSION

Company: PROGRESS ENERGY FLORIDA INC.

Docket No. 050078-EI

Explanation: Provide a schedule of the 13-month average adjusted rate base for the test year, the prior year and the most recent historical year. Provide the details of all adjustments on Schedule B-2.

Type of Data Shown:

X Projected Test Year Ended 12/31/2006
_ Prior Year Ended 12/31/2005
_ Historical Test Year Ended 12/31/2004
Witness: Portuondo / Slusser

Line No.		(A) Plant in Service	(B) Accumulated Provision for Depreciation & Amortization	(C) Net Plant in Service (A-B)	(D) CWIP - No AFUDC	(E) Plant Held for Future Use	(F) Nuclear Fuel - No AFUDC (Net)	(G) Net Utility Plant	(H) Working Capital Allowance	(I) Other Rate Base Items	(J) Total Rate Base
1	System Per Books (B-3)	$9,197,606	$4,490,733	$4,706,873	$244,471	$7,921	$63,933	$5,023,196	$443,248		$5,466,446
2	Adjustments to System Per Books:										
3	Remove ARO	(77,065)	(43,697)	(33,368)				(33,368)	385,922		352,555
4	Remove ECCR	(409)	(13)	(395)				(395)	8,144		7,749
5	Remove ECRC	(2,372)	(151)	(2,221)				(2,221)	(17,044)		(19,265)
6	Remove Fuel	(1,032)	0	(1,032)				(1,032)	(43,542)		(44,574)
7	Remove SCRC	0	0	0				0	(139,000)		(139,000)
8	Remove NUP	(19,042)	(10,948)	(8,094)				(8,094)			(8,094)
9	Remove Above Market Affiliate Transfer	(23,361)		(23,361)				(23,361)			(23,361)
10	Remove Job Orders			0				0	26,567		26,567
11	Remove Sebring			0				0	(9,684)		(9,684)
12	Remove Nucl Decom Trust Unreal Gains			0				0	83,101		83,101
13	Remove A/D Nuc Decom-Funded		(61,897)	61,897				61,897			61,897
14	Remove Other Special Funds (128)			0				0	(476,913)		(476,913)
15	Misc Adjustment			0				0	(34)		(34)
16	Adjusted System per Books	9,074,325	4,374,026	4,700,299	244,471	7,921	63,933	5,016,624	260,764	0	5,277,387
17	Jurisdictional Factors	0.92671	0.93960	0.91472	0.88897	0.76430	0.89802	0.91301	0.85238		0.91002
18	Jurisdictional Per Books	8,409,264	4,109,825	4,299,439	217,327	6,054	57,413	4,580,233	222,270	0	4,802,503
19	Jurisdictional Company/FPSC Adjustments:										
20	Company Adjustment - Distrib Enhancement Projects	7,281	105	7,176	1,324	0	0	8,500	0		8,500
21	Company Adjustment - Transm Enhancement Projects	4,533	44	4,489	824	0	0	5,313	0		5,313
22	Company Adjustment - End of Life Nuclear M&S	0	0	0	0	0	0	0	409		409
23	Company Adjustment - Charging Practices	(50,601)	(1,789)	(48,812)	(2,533)	0	0	(51,345)	0		(51,345)
24	Company Adjustment - Fossil Dismantlement	0	4,988	(4,988)	0	0	0	(4,988)	0		(4,988)
25	Company Adjustment - Last Core Nuclear Fuel	0	0	0	0	0	0	0	168		168
26	Company Adjustment - Mobile Meter Reading	(3,386)	(58,940)	55,554	0	0	0	55,554	0		55,554
27	Company Adjustment - Organization Realignment	(3,858)	0	(3,858)	0	0	0	(3,858)	(43,438)		(47,296)
28	Company Adjustment - Progress Fuels Corp	0	0	0	0	0	0	0	25,868		25,868
29	Company Adjustment - Rate Case	0	0	0	0	0	0	0	2,250		2,250
30	Company Adjustment - Storm Reserve	0	0	0	0	0	0	0	(21,328)		(21,328)
31	CWIP - AFUDC	0	0	0	(134,837)	0	0	(134,837)	0		(134,837)
32	Gain/loss on sale of plant	0	0	0	0	0	0	0	(118)		(118)
33	Nuc. Decom. Unfunded - Wholesale	0	(2,286)	2,286	0	0	0	2,286	0		2,286
34	RTO Start-up Costs	0	0	0	0	0	0	0	(3,791)		(3,791)
35	Section 1341 Income Tax Adj	0	0	0	0	0	0	0	1,303		1,303
36	Total Adjustments	(46,031)	(57,879)	11,848	(135,222)	0	0	(123,374)	(38,677)	0	(162,051)
37	Jurisdictional Adjusted Rate Base	$8,363,233	$4,051,946	$4,311,287	$82,105	$6,054	$57,413	$4,456,859	$183,593	$0	$4,640,452
38	Note: Differences are due to rounding										

Supporting Schedules:

Recap Schedules:

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 060642-EI Exhibit No. 5
Company/ PEF
Witness: Javier Portuondo (JP-3)
Date: 01-18-07

Exhibit 1
General Site Layout

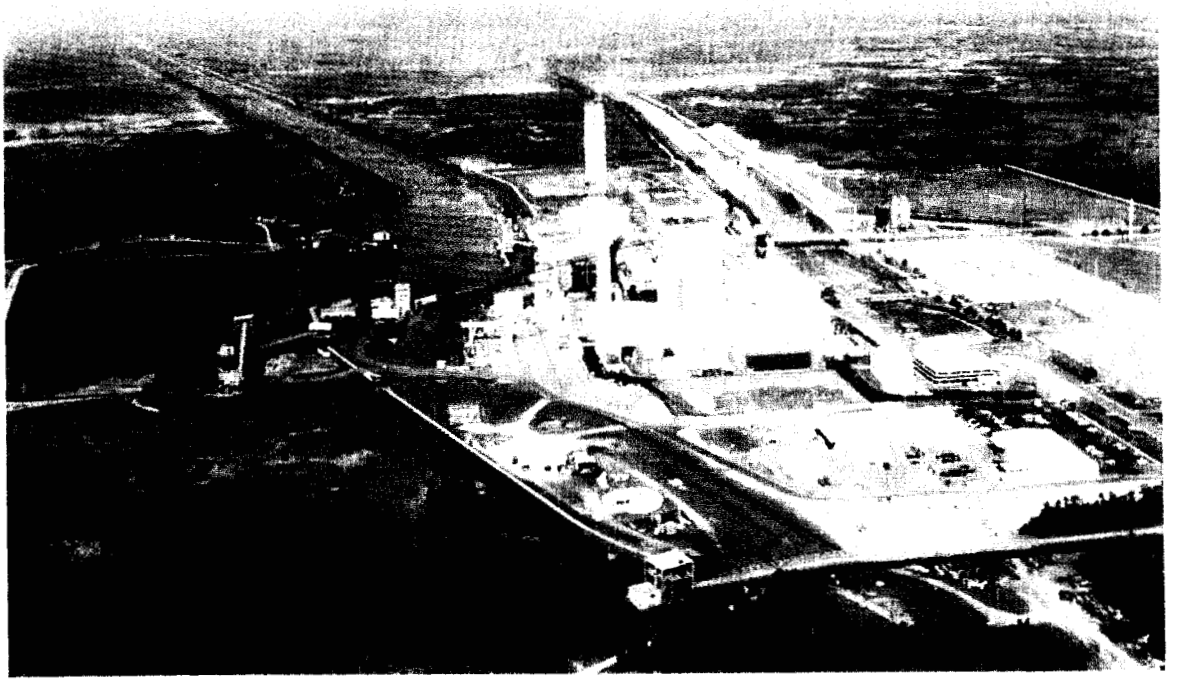
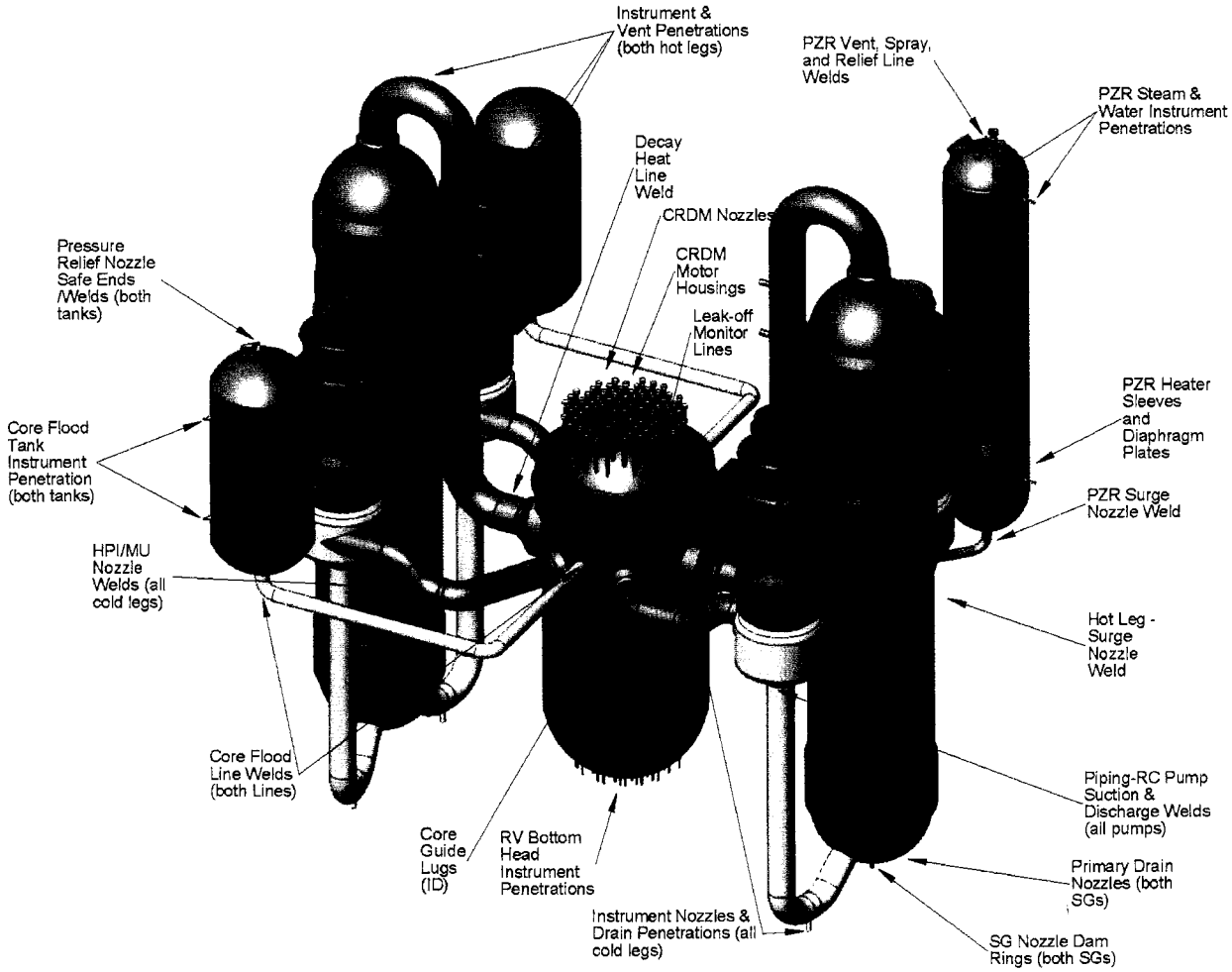


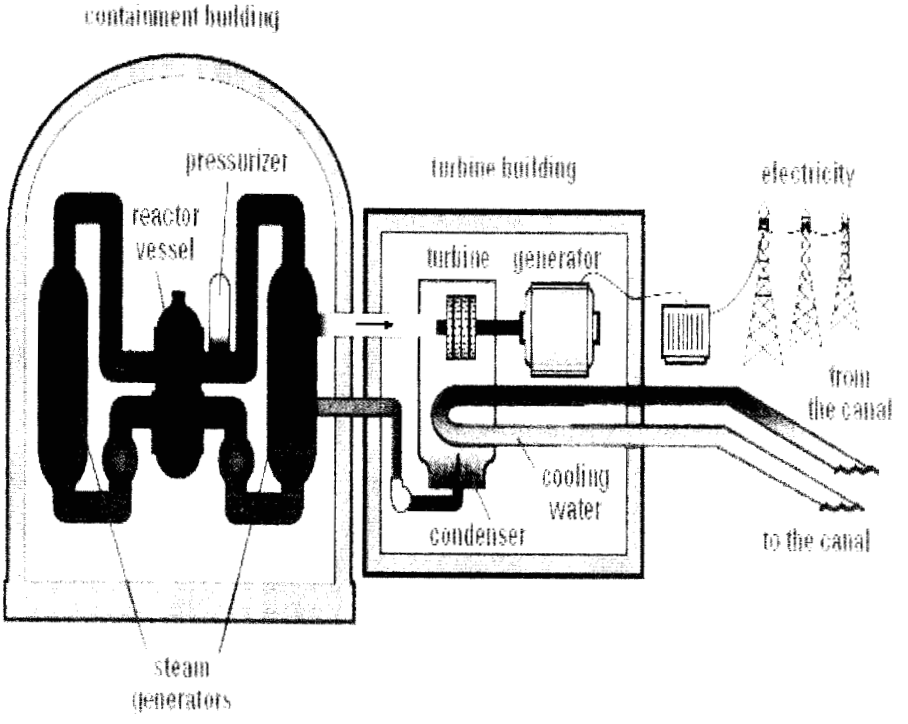
Exhibit 2

Primary Plant Configuration



FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060642-EI **Exhibit No.** 7
Company/ PEF
Witness: Daniel L. Roderick (DLR-2)
Date: 01-18-07

Exhibit 3
Secondary Plant Interface



FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 060642-EI Exhibit No. 9
Company/ PEF
Witness: Samuel S. Waters (SSW-1)
Date: 01-18-07

Exhibit No. _____(SSW-1)
Summary of Expected Annual Fuel Savings Due to the Proposed Uprate to Crystal River Unit 3 (System Basis)

PRODUCTION COST - NO UPRATE
July 2006 Generation & Fuel Forecast - Florida

Annual

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Fuel																	
Steam-Coal	452,201,421	458,714,726	482,372,702	471,866,842	576,148,977	644,328,435	691,646,114	813,291,855	823,475,802	806,295,425	829,380,939	854,267,444	886,415,940	832,096,525	880,853,792	917,358,012	944,336,299
Steam-Oil	424,501,058	257,438,849	277,297,035	298,800,706	258,796,788	275,506,509	282,512,322	288,667,035	326,770,949	318,469,059	346,929,421	378,108,213	398,859,322	348,089,708	378,282,017	378,723,604	413,387,117
Steam-CC	1,243,813,724	1,092,757,781	1,351,350,740	1,521,014,994	1,440,502,994	1,338,315,975	1,429,907,508	1,356,063,581	1,516,665,004	1,271,842,434	1,482,015,247	1,597,823,456	1,695,354,913	1,393,886,781	1,500,834,205	1,570,892,532	1,744,775,159
CT	276,741,152	218,947,290	256,269,410	261,387,920	259,492,800	256,847,996	277,072,241	276,799,602	311,394,055	308,473,037	319,002,643	350,381,164	356,816,625	341,290,088	350,121,511	358,844,909	378,243,328
Nuclear	24,003,315	35,402,007	32,965,672	37,139,235	34,468,628	38,607,030	35,938,746	40,352,868	41,472,893	98,903,525	94,406,433	101,307,516	103,129,570	163,291,949	161,316,722	170,707,904	168,267,039
Fuel Sub-Total	2,421,260,671	2,063,260,653	2,400,255,559	2,590,209,697	2,569,409,987	2,553,805,944	2,717,076,931	2,775,174,942	3,019,778,703	2,801,983,480	3,071,734,683	3,281,987,792	3,440,576,370	3,079,655,050	3,271,408,249	3,396,526,962	3,649,008,953
NH3	3,611,243	4,066,308	4,119,150	3,939,519	5,181,268	5,948,184	6,396,978	6,024,030	7,894,221	7,783,016	7,764,748	7,854,788	8,153,742	7,441,142	7,655,641	7,916,296	7,875,546
CaCO3	1,097,713	10,389,108	10,958,897	10,859,563	14,461,986	16,913,468	18,491,855	23,392,313	23,389,627	23,429,143	23,711,725	24,406,957	25,738,678	23,828,422	24,893,599	26,157,611	26,407,342
Pur Pwr																	
Cogen	450,187,054	504,884,151	522,987,867	539,522,120	542,486,721	490,859,375	504,594,212	519,650,142	539,602,740	546,562,196	568,909,689	588,679,617	609,925,477	620,138,388	647,973,969	595,031,554	483,202,534
Tran-Purc	337,972,117	328,132,018	261,802,331	267,735,782	247,069,404	241,173,165	258,526,016	211,465,363	232,853,443	113,827,016	116,980,833	124,009,563	125,812,887	113,739,446	116,041,938	117,718,827	121,838,242
Pur Pwr Sub-Total	788,159,171	833,016,168	784,790,197	807,257,912	789,556,125	732,132,540	763,120,228	731,115,505	772,256,182	660,389,212	685,890,522	712,689,180	735,738,364	733,877,833	764,015,907	712,750,381	605,040,776
TOTAL EXPECTED FUEL COST W/OUT UPRATE	3,214,126,796	2,910,732,237	3,200,123,804	3,412,286,690	3,378,609,365	3,308,600,134	3,505,085,992	3,537,706,790	3,823,318,734	3,483,584,851	3,789,101,678	4,027,138,717	4,210,207,152	3,844,802,448	4,067,973,396	4,143,351,250	4,288,332,618

PRODUCTION COST - 180MW CR3 UPRATE
Based on July 2006 Generation & Fuel Forecast - Florida

Annual

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Fuel																	
Steam-Coal	452,237,002	457,668,230	481,424,948	466,134,327	569,051,047	633,872,055	681,200,156	802,055,798	812,123,154	791,060,131	817,351,459	840,899,768	871,081,965	816,704,054	865,959,318	900,631,510	930,805,555
Steam-Oil	424,692,356	254,783,678	275,267,515	280,334,402	250,026,430	263,746,701	274,715,992	280,875,947	316,843,042	311,569,856	338,906,849	368,239,597	382,885,755	342,562,616	371,742,166	370,473,847	403,606,640
Steam-CC	1,243,105,816	1,077,834,349	1,330,424,989	1,459,426,672	1,377,177,151	1,276,682,273	1,371,129,674	1,283,274,674	1,451,623,410	1,195,455,319	1,403,795,615	1,509,116,136	1,626,893,737	1,305,328,649	1,419,207,273	1,484,201,558	1,658,747,286
CT	276,736,670	218,213,679	255,400,695	256,166,674	256,767,127	253,082,921	272,426,180	273,812,528	305,374,296	305,702,842	315,489,838	344,843,797	349,792,045	339,210,506	346,282,162	355,257,086	372,142,506
Nuclear	24,062,657	37,215,459	35,215,195	45,699,896	42,417,150	47,506,290	44,225,294	49,654,377	50,019,714	106,328,586	103,228,769	111,235,980	112,327,638	173,301,168	170,607,278	181,161,671	178,071,918
Fuel Sub-Total	2,420,834,700	2,045,715,395	2,377,733,342	2,507,761,970	2,495,438,905	2,474,890,240	2,643,697,296	2,689,673,323	2,935,983,616	2,710,116,713	2,978,772,529	3,174,335,278	3,342,981,140	2,977,106,992	3,174,798,196	3,291,725,671	3,543,573,906
NH3	3,611,573	4,061,887	4,114,563	3,908,612	5,138,649	5,870,269	6,323,730	7,929,345	7,800,660	7,648,082	7,661,578	7,743,897	8,023,139	7,316,456	7,544,761	7,782,571	7,771,744
CaCO3	1,097,920	10,377,818	10,946,699	10,774,899	14,342,015	16,690,853	18,279,043	23,114,322	23,109,758	23,022,330	23,396,563	24,061,842	25,325,239	23,428,717	24,532,297	25,715,791	26,058,857
Pur Pwr																	
Cogen	450,110,525	504,658,513	522,896,958	538,401,433	541,699,297	489,194,592	502,613,440	517,702,537	538,083,299	543,306,979	566,386,601	586,427,989	606,856,275	616,570,178	645,162,313	590,076,265	478,917,073
Tran-Purc	337,886,781	325,680,792	258,581,354	254,789,569	236,518,700	233,415,403	249,912,115	202,975,747	224,566,047	112,628,600	113,893,254	120,418,415	122,152,784	111,960,535	113,673,604	114,981,480	117,944,397
Pur Pwr Sub-Total	787,997,305	830,339,305	781,478,312	793,191,002	778,218,997	722,609,996	752,525,554	720,678,284	762,649,346	655,935,578	680,280,055	706,846,403	729,009,059	728,530,713	758,835,917	705,057,745	596,861,471
TOTAL EXPECTED FUEL COST W/ UPRATE	3,213,541,499	2,890,494,404	3,174,252,917	3,315,636,882	3,293,138,566	3,220,081,358	3,420,825,623	3,441,395,275	3,729,543,380	3,396,722,703	3,690,110,725	3,912,987,421	4,105,338,577	3,736,382,879	3,965,711,172	4,030,281,777	4,174,295,978
EXPECTED FUEL SAVINGS DUE TO UPRATE	$567,298	$20,237,833	$25,870,887	$96,630,008	$85,470,799	$88,538,776	$84,260,369	$96,311,515	$93,775,354	$96,862,148	$98,990,953	$114,151,296	$104,868,576	$108,419,569	$102,262,224	$113,069,473	$114,066,638

TOTAL GROSS SAVINGS THROUGH 2025 $1,444,373,714

TOTAL GROSS SAVINGS THROUGH 2036 $2,664,166,852

Exhibit No.___(SSW-2)

Summary of Overall Cost Effectiveness of the Proposed Upgrade to Crystal River Unit 3 to the Retail Customer

NPV Costs, (000's) in 2006 $'s	$303,450
NPV Benefits, (000's) in 2006 $'s	$630,375
Net Benefit to Retail Customers, (000's) in 2006 $'s	$326,925