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July 16, 2002

-VIA HAND DELIVERY-

Ms. Blanca S. Bayó
Division of the Commission Clerk
and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket Nos. 020262-EI and 020263-EI

Dear Ms. Bayó:

On March 22, 2002, Florida Power & Light Company ("FPL") filed a Petition for Determination of Need for an Electrical Power Plant - Martin Unit 8 and a Petition for Determination of Need for an Electrical Power Plant - Manatee Unit 3. FPL's two petitions were assigned Docket Nos. 020262-EI and 020263-EI, respectively.

On April 22, 2002, FPL moved to hold both proceedings in abeyance to allow FPL to undertake a Supplemental Request for Proposals (Supplemental RFP). On April 29, 2002, FPL filed an emergency motion for waiver of Rule 25-22.080(2), F.A.C., to allow deferral of the hearing schedule if, as a result of the Supplemental RFP, Martin Unit 8 and Manatee Unit 3 were determined to be the most cost-effective alternatives to meet FPL's 2005 and 2006 need. By Order No. PSC-02-0571-PCO-EI, Commissioner Deason, acting as prehearing officer, substantially granted FPL's emergency motion to hold both proceedings in abeyance, and by Order No. PSC-02-0703-PCO-EI, the Commission granted FPL's emergency waiver of Rule 25-22.080(2).

AUS
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OTH 1 to each file

FPL has completed its Supplemental RFP. FPL's analysis shows that Martin Unit 8 and Manatee Unit 3 are the most cost-effective options to meet FPL's 2005 and 2006 need for capacity. Consequently, FPL is now prepared, consistent with Order Nos. PSC-02-0571-PCO-EI

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and PSC-02-0703-PCO-EI, for the Commission to proceed with its evaluation of the need for those two units in Docket Nos. 020262-EI and 020263-EI. The documents enclosed herewith, as described below, provide the information required for that evaluation.

Enclosed for filing on behalf of FPL in Docket Nos. 020262-EI and 020263-EI are the original and fifteen copies of:

(1) FPL's Motion for Leave to Amend Petitions for Determination of Need

(2) FPL's Amended Petition for Determination of Need for an Electrical Power Plant-Martin Unit 8

(3) FPL's Amended Petition for Determination of Need for an Electrical Power Plant-Manatee Unit 3

Because the same analysis supported FPL's assessment of its 2005 and 2006 capacity needs and its determination that Martin Unit 8 and Manatee Unit 3 were the most cost-effective alternatives to meet the needs, FPL previously filed a motion to consolidate both dockets. Consistent with its motion to consolidate, FPL filed along with its original Need Determination petitions a single Need Study for Electrical Power Plant and a single set of Need Study Appendices, as well as a common set of testimony for both dockets. FPL continues to seek consolidation of these dockets for hearing.

In support of its amended Petitions for Determination of Need for Martin Unit 8 and Manatee Unit 3, FPL is filing the original and 15 copies of the following documents:

(1) Need Study For Electrical Power Plant, 2005-2006

(2) Need Study Appendices A - D

(3) Need Study Appendices E - J

(4) Need Study Appendices K - O

(5) Direct Testimony of Dr. William E. Avera

(6) Direct Testimony of C. Dennis Brandt

(7) Direct Testimony of Moray P. Dewhurst

(8) Direct Testimony of Leonardo E. Green

(9) Direct Testimony of Rene Silva

(10) Direct Testimony of Dr. Steven R. Sim

(11) Direct Testimony of Donald R. Stillwagon

(12) Direct Testimony of Alan S. Taylor

(13) Direct Testimony of William L. Yeager

(14) Direct Testimony of Gerard Yupp

These documents reflect the results of FPL's Supplemental RFP and supercede the Need Study and Appendices and its Direct Testimony filed on March 22, 2002, in support of its initial Petitions for Determination of Need. Therefore, FPL hereby withdraws the March 22 Need Study and Appendices and the March 22 Direct Testimony.

Copies of the enclosed documents, are being provided to counsel for all parties of record. Under separate cover letter, FPL is filing its confidential appendices to the Need Study and a Request for Confidential Classification for the confidential appendices.

With the interruption of these proceedings for the Supplemental RFP, it is important that FPL's need determination proceedings be heard expeditiously. Prior to the Commission's granting of FPL's Emergency Motion To Hold The Proceedings In Abeyance, the parties had agreed to a schedule that would result in a hearing on October 2-4, 2002, a Commission decision on November 19, 2002, and a final order no later than December 4, 2002. FPL needs to preserve this schedule in order to meet its scheduled in-service date of June 2005 for both Martin Unit 8 and Manatee Unit 3. To facilitate this schedule, FPL has: (a) included more detailed data in the enclosed Need Study and Appendices than is required by Commission rule; (b) filed its direct testimony along with its amended petitions; (c) worked out with the intervenors free access to the primary analytical tools used in conducting the economic analysis of the Supplemental RFP; (d) agreed to a Confidentiality Agreement and process to allow intervenor access to most confidential data; and (e) agreed to expedited discovery. FPL will continue to work with the Commission and the parties to facilitate the Commission's prompt consideration of these proceedings.

Any delay in these proceedings would place at risk the in-service dates of Martin Unit 8 and Manatee Unit 3. In the event of delay, FPL would not achieve its 20 percent reserve margin criteria (or even a 15 percent reserve margin) in the summer of 2005. Without purchases of capacity to replace these facilities, an option which may not be available for the full capacity of these units, the reliability of FPL's system could be significantly adversely impacted to the detriment of FPL's customers. In the event of a delay, if FPL were to attempt to purchase capacity and energy to replace these units, FPL likely would pay higher costs than the costs it would incur if these units had met their in-service dates. Thus, delay also would adversely impact the costs paid by FPL's customers.

Because a delay would cause adverse impacts upon FPL's customers, FPL respectfully requests that these proceedings be processed according to the previously agreed schedule and that an Order on Procedure be issued. Such an order should place reasonable limits on discovery, encourage intervenors to coordinate discovery as they have previously agreed to do,

expedite discovery as previously agreed and set forth the agreed-to schedule, thereby facilitating the administration of these proceedings.

Respectfully submitted,

Charles A. Guyton

R. Wade Litchfield
Charles A. Guyton

Attorneys for Florida Power
& Light Company

CAG/gc
Enclosures

cc: Counsel for Parties of Record

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BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NOS. 020262-EI, 020263-EI
FLORIDA POWER & LIGHT COMPANY

JULY 16, 2002

IN RE: PETITION FOR DETERMINATION OF NEED FOR PROPOSED ELECTRICAL POWER PLANT IN MARTIN COUNTY OF FLORIDA POWER & LIGHT COMPANY

IN RE: PETITION FOR DETERMINATION OF NEED FOR PROPOSED ELECTRICAL POWER PLANT IN MANATEE COUNTY OF FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY & EXHIBITS OF:

STEVEN R. SIM

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF STEVEN R. SIM

DOCKET NOS. 020262-EI, 020263-EI

JULY 16, 2002

Q. Please state your name and business address.

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

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

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

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

A. I supervise a group that is responsible for determining the magnitude and timing of FPL's resource needs and then developing the integrated resource plan with which FPL will meet those resource needs.

Q. Please describe your education and professional experience.

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

in Environmental Science and Engineering from the University of California at Los Angeles (UCLA) in 1979.

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

In 1979 I joined FPL. From 1979 until 1991 I worked in various departments including Marketing, Energy Management Research, and Load Management where my responsibilities concerned the development, monitoring, and cost-effectiveness of demand side management (DSM) programs. In 1991 I joined my current department, then named the System Planning department, as a Supervisor whose responsibilities included the cost-effectiveness analyses of a variety of individual supply and DSM options. In 1993 I assumed my present position.

Q. Are you sponsoring an exhibit in this case?

A. Yes. It consists of the following documents:

SRS-1, Projection of FPL's 2005 and 2006 Capacity Needs;

SRS-2, List of Organizations Submitting Outside Proposals;

SRS-3, Summary of Eligible Outside Proposals;

SRS-4, FPL (EGEAS) Rankings of Individual Outside Proposals (June 4, 2002);

SRS-5, Summary of Best Plans: with EGEAS and One FPL Unit Only Adjustment Costs (June 18, 2002);

SRS–6, Capacity Plans Selected for Transmission Integration Cost Calculation;

SRS-7, Summary of Best Plans: with Total Costs (June 18, 2002)

SRS-8, Summary of Best Plans: with Total Costs (Final)

Q. Are you sponsoring any part of the Need Study and Appendices in this proceeding?

A. Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor Appendices C, D, E, F, J, and K, and cosponsor Appendices M and N, to the Need Study.

Q. What is the purpose of your testimony?

A. My testimony has six main points. First, I discuss FPL's resource planning process. Second, I identify FPL's additional resource needs for the 2005 and 2006 time frame and explain how these needs were determined. Third, I describe FPL's Supplemental Request for Proposals (Supplemental RFP) for

meeting its resource needs in 2005 and 2006. Fourth, I discuss the outside proposals that FPL received in response to its Supplemental RFP. Fifth, I explain the process FPL used in analyzing the outside proposals and FPL construction options. Sixth, I present the results of these analyses.

I. FPL's Resource Planning Process

Q. What is the objective of FPL's resource planning process?

A. FPL's integrated resource planning (IRP) process was developed in the early 1990's and has been used since then to determine three things: 1) when new resources are needed, 2) what the magnitude (MW) of the needed resources are, and 3) what type of resources should be added. The determination of what type of resources should be added is based on which resources result in the lowest average electric rates for FPL's customers. (Note that when only power plants or power purchases are the resources in question, the determination can be made on the basis of lowest total costs. The lowest total cost perspective in these cases is the same as the lowest average electric rate perspective since the number of kilowatt-hours over which the costs are distributed does not change as is the case when demand side management resources are being examined.)

Q. Please provide an overview of this resource planning process.

A. The IRP process has 4 main tasks. These 4 tasks are as follows:

- Task 1: Determine the magnitude and timing of FPL's new resource needs.
- Task 2: Identify which resource options and resource plans are eligible to meet the determined magnitude and timing of FPL's resource needs (i.e., identify the eligible competing options and resource plans).
- Task 3: Determine the economics for the total utility system with each of the eligible competing options and resource plans.
- Task 4: Select a resource plan and commit, as needed, to near-term options.

As previously mentioned, FPL has used this basic resource planning approach for its major resource decisions since the early 1990's.

Q. Was this resource planning approach also used for the Supplemental RFP evaluation?

A. Yes. FPL first determined the timing and magnitude of its resource needs. Then it determined which resource options were eligible to meet those needs and, using the eligible options, developed competing resource plans with which to address the resource needs. The economics of these competing resource needs were then determined, and a decision was made as to the best resource plan for FPL's customers.

II. FPL's Resource Needs for 2005 and 2006

Q. How did FPL decide it needed additional resources for the 2005 – 2006 time frame, and what were the magnitude of these resource needs?

A. FPL uses two basic analytical approaches in its reliability analyses to determine the timing and magnitude of its future resource needs. The first approach is to project reserve margins for both winter and summer peak hours for future years. A minimum reserve margin criterion of 15% is used to judge the projected reserve margins through the winter of 2004. Then, starting with the projected reserve margin for the summer of 2004, and for all projected winter and summer reserve margins for subsequent years, the minimum criterion increases to 20%. This increase in the reserve margin criterion is due to a Commission approved stipulation by FPL, Florida Power Corporation, and Tampa Electric Company to adopt a 20% reserve margin standard.

The second approach is a Loss-of-Load-Probability (LOLP) evaluation. Simply stated, LOLP is an index of how well a generating system may be able to meet its demand (i.e., a measure of how often load may exceed available resources). In contrast to the reserve margin approach, the LOLP approach looks at the daily peak demands for each year, while taking into consideration the probability of individual generators being out of service due to scheduled maintenance or forced outages. LOLP is typically expressed in units of "numbers of times per year" that the system demand could not be served.

FPL's LOLP criterion is a maximum of 0.1 days per year. This LOLP criterion is generally accepted throughout the electric utility industry.

For a number of years now, FPL's projected need for additional resources has been driven by the summer reserve margin criterion. In other words, the summer reserve margin criterion is projected to be violated before either the winter reserve margin or LOLP criterion are violated. This again was the case in FPL's reliability analysis that was the basis for FPL's projected 2005 and 2006 capacity needs. The additional MW are needed to meet both the 2005 and 2006 summer reserve margin criterion of 20%. The additional MW needed by the summer of 2005 are projected to be 1,122 MW. Another 600 MW are projected to be needed by the summer of 2006. In total, an additional 1,722 MW of new resources are needed for these two years. This projection is shown in Document SRS-1. This projection relies upon FPL's load forecast that is addressed by Dr. Leo Green in his testimony.

Q. Could FPL have met this 1,722 MW total need for 2005 and 2006 with additional demand side management (DSM)?

A. No. Mr. Dennis Brandt addresses specific DSM information in his testimony. I will address the question from a planning perspective as well.

In regard to additional DSM, there is not enough additional cost-effective DSM to meet this large resource need in the time frame in question. There are several bases for this conclusion.

First, the sheer size of the need (1,722 MW) is more than double the size of the latest DSM Goals amount of 765 MW. Stated differently, the entire DSM Goals amount is only 44% of the total capacity needed.

However, even if one were to consider the smaller of the two units FPL plans to add (the 789 MW of incremental capacity from the Martin Conversion project), and account for a 20% reserve margin requirement, 658 MW of additional, cost-effective DSM would be needed to avoid this capacity addition. This amount of additional DSM equates to 86% of the entire 765 MW DSM Goals value. In other words, FPL would need to almost double its DSM implementation to avoid the need for the Martin Conversion project, even though the Commission has already found that FPL's current DSM goals are all that can be achieved on a cost-effective basis.

Second, this 765 MW DSM Goals value is to be achieved over a 10-year period, but there are only 3 years (mid-2002 to mid-2005) before the need must be filled. This time period is less than 1/3 of the DSM Goals 10-year period. Assume for a moment that somehow there was another 658 MW amount of reasonably achievable, cost-effective DSM out there. It is

completely unrealistic to believe that this amount of DSM could be implemented in 3 years. This becomes even more unlikely as one factors in the several months, at least, that would be needed to successfully petition the Commission for approval to offer new programs and/or increase incentives for existing programs before these changes could be implemented. This would likely shrink the 3 year period to 2½ years at most.

Third, it is unreasonable to assume that there even is a significant amount of additional reasonably achievable, cost-effective DSM available to be captured. Recall that the DSM Goals are based on all of the cost-effective DSM available to the utility at the time the Goals are set. There was no challenge to FPL's DSM goals as being too low. Therefore, there is no basis to assume that suddenly there is another vast amount of cost-effective DSM to be obtained.

Consequently, I do not believe that additional, cost-effective DSM could meet the need planned to be filled by either of the new FPL generating units discussed in these dockets.

III. The Supplemental RFP

Q. Please describe the objective of FPL's Supplemental Request for Proposals.

A. FPL had one primary objective in issuing its Supplemental RFP. That was to solicit outside proposals for meeting FPL's capacity needs for 2005 and 2006. The submitted proposals would be compared to FPL's construction options to determine the best approach for meeting FPL's 2005 and 2006 capacity needs.

Q. How did the Supplemental RFP differ from the RFP FPL initially issued on August 13, 2001?

A. Aside from the changes in the key dates associated with the evaluation and decision steps that would subsequently take place, there were several key changes.

First, the Supplemental RFP forms were changed to make it easier to distinguish between cost and performance data for the different operational modes (base operation, duct firing, etc.) of combined cycle generating units that were expected to be the bases for many of the proposals. (These different operational modes, when "activated," typically allow a generating unit to produce more MW while changing the overall heat rate of the unit.)

Second, the fee structure was changed to allow bidders to the initial RFP to submit the same number of proposals for Supplemental RFP evaluation without having to incur any additional evaluation fees. These "repeat" bidders who wanted to submit a greater number of bids, or new bidders submitting a bid for the first time, were charged a one-time $10,000 Supplemental RFP

evaluation fee rather than separate fees (that totaled to $10,000) for registering for the initial RFP, for submitting a Notice of Intent to Bid, and for evaluating the proposal.

Third, FPL's 5 "next planned generating units" that were published in the initial RFP were replaced in the Supplemental RFP with two FPL generating units: a new 4x1 combined cycle unit at Manatee (Manatee CC unit) and a conversion of two existing combustion turbine units at Martin into a similar 4x1 combined cycle unit (Martin Conversion project). Since at the time of issuing the initial RFP (August 2001) FPL had not yet determined from its 2001 planning studies what the most cost-effective capacity options were, it provided 5 capacity additions that had been identified in the 2000 planning studies as the most cost-effective choices for FPL's 2005 and 2006 needs.

The Manatee CC unit and the Martin Conversion project were subsequently identified as the most cost-effective options in the 2001 planning work and were used in the initial RFP evaluation work. Consequently, FPL included only these two units as the "next planned generating units" in the Supplemental RFP.

Finally, several other changes were made in response to comments made by bidders to the initial RFP. Although none of these issues had been serious enough to prevent FPL from receiving 80 eligible bids in response to the

initial RFP, FPL chose to change several potentially contentious items in the Supplemental RFP. These included: allowing natural gas "tolling" proposals (in which FPL would be responsible for securing gas for the project in question) that were previously disallowed, reducing the requirement to hold proposals (and their prices) firm from 390 days to 120 days, softening the "regulatory out" language from the possibility of terminating contracts to reducing payments to cost recoverable levels, and removing the "legislative out" language.

Q. Please describe the Supplemental RFP process from the time of issuing the Supplemental RFP to the date the proposals were received.

A. The Supplemental RFP document was announced on April 26, 2002, in an advertisement in the Wall Street Journal and in news releases to numerous newspapers throughout Florida. Additional Supplemental RFP advertisements subsequently appeared in Florida newspapers. (Copies of these advertisements and news releases appear as Appendix J in the Need Study.) On April 26, 2002, FPL sent by overnight mail a copy of the Supplemental RFP to all of the parties who had submitted a bid to FPL's initial RFP. FPL later received a number of requests for the Supplemental RFP from parties who had not submitted a bid to the initial RFP, and these parties were then sent a copy of the Supplemental RFP document by overnight mail. (A copy of the Supplemental RFP appears as Appendix F in the Need Study.)

FPL informed each Supplemental RFP document recipient that a special FPL website was set up to post questions from potential bidders that concerned how to submit a bid and the cost and performance specifications for FPL's two "next planned generating units" that were included in the Supplemental RFP. Answers to those questions were published on the website. This website, which was designed to be available only to parties who had received the Supplemental RFP, allowed questions to be posed until one week before bids were due. A copy of the questions and answers posted on FPL's Supplemental RFP website are included as Appendix K to the Need Study.

The due date for these proposals was May 24, 2002. On that date, FPL received proposals from 16 organizations that, in the aggregate, offered over 12,500 MW of capacity for the 2005 and 2006 time frame.

IV. Overview of the Outside Proposals

Q. Please provide a general description of the proposals that FPL received in response to the Supplemental RFP.

A. As previously mentioned, FPL received proposals from 16 organizations (bidders). A listing of the bidders that submitted proposals is presented in Document SRS-2. This document also lists the type of proposal(s) submitted and the technology on which the proposal(s) was based. In summary, proposals were received from 13 non-utility bidders, 2 Florida utilities, and 1

non-Florida utility. The majority of the proposals were power purchase offerings rather than "turnkey" proposals. The vast majority of the proposals were based on combined cycle technology, while a few were based on existing utility system units or on combustion turbine technology.

Q. How many proposals did FPL actually receive for its evaluation?

A. These 16 bidders originally submitted 53 proposals. However, by the time the proposals were ready to be evaluated, the number of proposals found to be eligible for evaluation had been reduced to 31.

Q. What led to the reduction in the number of proposals that FPL evaluated?

A. There were several reasons for the reduction. First, one bidder who had submitted 12 proposals to FPL's initial RFP submitted 16 proposals in response to the Supplemental RFP. The evaluation fees paid for the evaluation of 12 proposals in the initial RFP covered the evaluation of 12 proposals in the Supplemental RFP. When this bidder was contacted and it was explained that it could either pay an additional evaluation fee to cover the additional 4 proposals or withdraw 4 of its 16 proposals, the bidder chose to withdraw 4 specific proposals. Consequently, the number of proposals was reduced from 53 to 49.

Second, there were three bidders who were determined to be ineligible to participate in the Supplemental RFP. Mr. Rene Silva addresses the reasons for FPL's decisions in regard to these three bidders in his testimony. As a result of these decisions, all of the proposals from these three bidders, 18 proposals in total, were ineligible for evaluation. This further reduced the number of proposals eligible to be evaluated from 49 to 31.

A summary of the eligible outside proposals is given in Document SRS–3.

Q. Did the proposals clearly provide the information FPL requested for its evaluations so that FPL could immediately begin its evaluations?

A. No. Although the quality of the responses to the Supplemental RFP in terms of completeness of information was decidedly better than that provided in response to FPL's initial RFP, problems still existed. FPL reviewed all proposals that had been received on May 24, 2002. By May 26, FPL had marked up the "problem" pages from the proposals regarding basic technical and/or price information and faxed them back to the respective bidders. The bidders then had several days in which to provide corrected/complete data on revised pages. All of the bidders who received such a fax on May 26 complied with this request and provided revised basic technical/price information.

V. Overview of the Economic Evaluation Process

Q. What was the general approach used in the economic evaluation work?

A. FPL conducted its own evaluation of all of the outside proposals and the two FPL construction options. In addition, separate analyses of these options were performed by an independent consultant, Mr. Alan Taylor of Sedway Consulting, Inc. Since Mr. Taylor's testimony addresses his analysis, I will focus on FPL's evaluation.

FPL first ensured that its analyses of the outside proposals, and those performed by Mr. Taylor, were "blind." In other words, the analyses of the outside proposals were conducted without organizational names or project locations attached to the proposals. FPL's construction options could not be evaluated "blind" because these two options, the Manatee CC unit and the Martin Conversion project, were unchanged from the initial RFP evaluation work and were, therefore, easily recognizable.

FPL then used what I will describe as a 4-step evaluation approach to determine the economics of the proposals. This approach is based on creating capacity expansion plans that utilize either the outside proposals only, the FPL construction options only, or a combination of these two types of capacity options to meet FPL's 2005 and 2006 capacity needs. For 2007 and beyond, greenfield "filler" units are added as needed to maintain FPL's reserve margin.

FPL uses the Electric Generation Expansion and Analysis System (EGEAS) model in its analyses. This model was designed by Stone & Webster for the Electric Power Research Institute (EPRI) some years ago, and FPL has used it since its development.

The 4-step evaluation approach that uses the EGEAS model can be summarized as follows:

Step 1: Individual Rankings of Outside Proposals:

This involved economic analyses of each individual outside proposal and then a ranking of these results. One ranking was made for all outside proposals with a 2005 starting date and another separate ranking was made for all outside proposals with a 2006 starting date.

Step 2: Creation of Two "Tiers" of Outside Proposals:

Based on the results of the individual rankings of the 2005-start-date outside proposals and the 2006-start-date outside proposals, all of the outside proposals were then separated into two "tiers," Tier 1 and Tier 2.

Tier 1 included a number of outside proposals that were the highest ranked (i.e., had the lowest costs in the individual rankings) for each "start year" and Tier 2 contained the remaining outside proposals for each start year. In a number of cases, a bidder would submit several proposals that were identical

except for the proposed length of service; 10 years, 15 years, etc. These similar proposals often would appear closely bunched in the individual rankings. In such cases, only the highest ranked proposal would be named to Tier 1 and the rest of the similar proposals would be placed in Tier 2.

Step 3: Expansion Plan Analyses (Using Tier 1 Starting Points and Tier 2 "Challenges"):

The two FPL construction options, the Manatee CC unit and the Martin Conversion project, had emerged from the initial RFP analyses as the most cost-effective options. Therefore, these two FPL options were carried over into the Supplemental RFP analyses to compete with the new outside proposals. The individual outside proposals and two FPL construction options were then used to create 5 "types" of capacity plans designed to meet FPL's 2005 and 2006 capacity needs.

The 5 types of capacity plans were designed to maximize each option's opportunity to combine within a capacity plan that would be economically competitive. These 5 types of capacity plans were:

1) All Outside Plan (outside proposals only for both the 2005 and 2006 capacity needs);

2) Combination Plan with Manatee Only (outside proposals combined with FPL's Manatee unit that could start in either 2005 or 2006);

3) Combination Plan with Martin Only (outside proposals combined with FPL's Martin project that could start in either 2005 or 2006);

4) Combination Plan with Manatee and Martin Separated (Manatee and Martin starting in different years with one or more outside proposal completing the remaining capacity needs for 2005 since neither the Martin nor Manatee units alone are sufficient to meet FPL's 2005 capacity needs); and,

5) All FPL Plan (Martin Conversion project and Manatee CC unit both starting in 2005).

A large number of plans of each of these 5 types (except the All-FPL self build plan) were developed and analyzed. The most economic plans of each type were then carried forward for further analysis. This resulted in a number of the 3 combination plan types, plus several All Outside plans and the All FPL Plan, being carried forward to capture two types of additional costs in order to obtain a picture of the total costs of each of these plans.

Step 4: Total Cost Analyses: After identifying the most economic plans from the Step 3 analyses, additional cost information not included in the Step 3

analyses was incorporated. The two additional costs are transmission integration costs and the costs that would be incurred by FPL as a result of entering into additional power purchases ("equity penalty" costs). These two costs for each plan were calculated and added to each plan's costs that were developed in Step 3. The sum of these costs was the total cost of each plan. The results of this total cost analysis of the plans were then compared to determine the most cost-effective plan. This most cost-effective plan, in turn, identified the most cost-effective individual options.

Q. Please explain how the Tier 1 and Tier 2 groupings were used and the "challenges" concept in Step 2 of the analysis.

A. The "tier" approach was suggested by Mr. Taylor and used by both FPL and Mr. Taylor in the Supplemental RFP evaluation. This approach is an alternative to completely dropping a number of outside proposals after the initial ranking evaluation work. It allowed all of these proposals to stay in the evaluation and ensured them a number of opportunities at being selected in a capacity plan. It is perhaps best explained by describing how the All Outside plan analysis was carried out.

Once the Tier 1 outside proposals were named, FPL's EGEAS model that had been used in FPL's individual ranking evaluation was again used to determine the best All Outside plan that used only Tier 1 proposals. The entire group of Tier 1 proposals was used as a starting point from which the most economical

subset of Tier 1 proposals to meet FPL's 2005 and 2006 capacity needs was selected. Once that plan was determined, each of the Tier 2 proposals "challenged" this plan one at a time in a challenge "run." In a challenge run, a specific Tier 2 proposal was "fixed" into the plan in its appropriate starting year by requiring EGEAS to select it in that year. Then EGEAS would optimize a new plan "around" the fixed proposal considering all of the Tier 1 proposals that were not mutually exclusive to the "fixed" Tier 2 proposal. Once EGEAS had selected the best possible plan from this mix, this best All Outside plan and its costs were noted.

At that point the specific Tier 2 proposal was removed and the next highest ranked Tier 2 proposal was "fixed" into the plan and the process was repeated. This continued until all the Tier 2 proposals had participated in a challenge run. The best All Outside plans from each challenge run were then compared and the lowest cost plan from the original Tier 1 case and all the Tier 2 challenge runs became the best All Outside plan.

Q. The example given above described how the best All Outside plan was developed. Was a similar process used to determine other types of capacity plans?

A. Yes. This process was followed with each Tier 2 proposal having an opportunity to compete for a spot in the All Outside plan, the Combination Plans with Manatee Only, and the Combination Plans with Martin Only. In

these two types of combination plans, the FPL unit in question was also "fixed" into the plan. First, a best plan was determined with this fixed FPL unit and the Tier 1 outside proposals. Second, one Tier 2 proposal at a time would also be fixed, along with the one FPL unit, and the plan would be optimized around these two fixed units using the Tier 1 proposals. Then this challenge run process would be repeated using each of the remaining Tier 2 proposals.

For the other two types of plans, the All-FPL self build plan and Combination Plans with Manatee and Martin Separated, this process was not followed for various reasons. For the All FPL Plan, there were no outside proposals included in this plan by definition so no challenges from Tier 2 proposals were possible. For Combination Plans with Manatee and Martin Separated, the fact that either Manatee or Martin would come in-service in 2006 meant that there was no need for additional capacity in 2006. Therefore, none of the 2006 start date Tier 2 proposals challenged. As for the 2005 start date proposals, since FPL's need in 2005 was relatively small (i.e., 15 MW if Manatee came in-service in 2005 or 333 MW if Martin came in-service in 2005), only the best outside proposals were considered likely 2005 candidates. Therefore, only the Tier 1 proposals with a 2005 start date challenged for this type of combination plan.

Q. Why didn't FPL simply optimize an expansion plan using all of the options at the same time?

A. There were simply too many options for such a direct approach to be used. The number of outside proposals, even without the two FPL construction options, made this approach unworkable. Perhaps the best way to explain this is through an example of a more "typical" FPL analysis of generation options.

FPL's annual IRP work includes an economic evaluation of a number of FPL construction options in order to determine what type of unit(s) FPL should build to meet future needs. The evaluation is also conducted using the EGEAS model. In a more typical year, FPL evaluates a list of FPL construction options in its IRP work. In recent years, the number of construction options on this list has ranged from approximately 6 to 16. FPL "loads" all of these options into EGEAS at the same time, and, in one computer run, can determine the most economic expansion plan. Such a run typically can be made in a matter of hours using FPL's main frame computer in a time-sharing mode.

However, the EGEAS model has a direct limitation in the number of options it can evaluate in one run and an indirect limitation in regard to the time it takes to complete an evaluation. In other words, the more options there are to evaluate and/or the longer the time period addressed in the analysis, the longer the computing time. The absolute limitation on the number of options EGEAS

can evaluate in one run is 50. However, from a practical standpoint in a 30-year analysis, one must limit the number of options (or option "slots" in EGEAS) to less than half of 50 in order to get results in hours instead of a day or more.

A major factor in deciding the size of these groups is EGEAS run time. The run time, in turn, is primarily dictated by the number of options being evaluated. In addition, many of the options, both outside proposals and the two FPL construction options, had a duct firing or power augmentation operational mode for the generating unit in question in addition to the units' base operational mode. To be properly modeled, each of those operational modes is treated as a separate "unit" that is "linked" to the generating unit's base operation mode (that is also modeled as a separate unit). In other words, if the EGEAS model selects the base operation "unit," it must also select the associated duct firing or power augmentation "unit" as well if the generating unit in question has duct firing or power augmentation capability. This means that one generating unit proposal can take two option slots in an EGEAS run if it has two operational modes. Taking these considerations into account, FPL decided on a practical limitation of approximately 20 option slots that would be included in any one run.

Q. Why is it appropriate to perform these evaluations based on the costs of an expansion plan?

A. It is not only appropriate to do this, but also necessary if one is to capture all of the impacts an option will have on FPL's system, and on costs to be incurred by FPL's customers, in a given year and over time. For example, assume we are comparing Option A and Option B. Option A has a heat rate of 7,000 Btu/kWh and is offered to FPL for 5 years while Option B has an 8,000 Btu/kWh heat rate and is offered for 10 years. Evaluating these options from an expansion plan perspective allows one to capture the economic impacts of both the heat rate and term-of-service differences. The lower heat rate of Option A will allow it to be dispatched more than Option B, thus reducing the run time of FPL's existing units more than will Option B. This results in greater production cost savings for Option A. However, Option B's longer term-of-service means that it defers the need for the future generation that will be needed when its term-of-service ends longer than will Option A. Therefore, Option B will get capacity avoidance benefits for more years. Only by taking a multi-year, expansion plan approach to the evaluation will factors such as these be captured.

Q. Why are the "filler" units needed in the evaluation?

A. The "filler" units are needed in an expansion plan analysis to meet FPL's capacity needs for 2007 and beyond. In this way one can ensure that the expansion plans being compared all meet FPL's reliability criteria for each year in the analysis period. By using these filler units, the expansion plans

being compared are valid (i.e., they meet the reliability criteria), and the results of the comparison are meaningful.

Q. What type of "filler" units were assumed in the evaluation?

A. Two types of filler units were used: a 4x1 combined cycle (CC) unit and a combustion turbine (CT). The CC option was used to meet FPL's capacity needs for the 2007 – 2018 time frame, while the CT was used from 2019 – 2030.

Based on results of the initial RFP analyses and the expedited time frame of the Supplemental RFP process, only one unit (either the CC unit or the CT unit) was the available filler unit option in EGEAS for each year in the 2007 - 2030 time frame. Although a CC unit is generally a more economic choice for FPL's system than a CT, if the CC unit is added in the later years of an analysis time period, there are not enough remaining years in the analysis period over which the fuel savings of the CC unit can overcome its higher capital costs. Therefore, the CT unit becomes the economic unit addition in the later years (2019 – 2030) to meet FPL's reserve margin.

VI. The Results of the Analyses

Q. What were the results of the individual rankings of the outside proposal analyses carried out in the Step 1 analysis?

A. Using the EGEAS results, FPL developed an individual ranking of the outside proposals that had a 2005 start date and an individual ranking of the outside proposals that had a 2006 start date. Document SRS-4 presents the results of FPL's individual rankings as of June 4, 2002 when the Tier 1 and Tier 2 group selections were made.

Q. In Step 2 of the analysis, which of the 31 individual proposals were placed in Tier 1 and which were placed in Tier 2?

A. Based on the individual rankings that had been performed by June 4, 2002 by FPL and Mr. Taylor, 11 of the 31 proposals were placed in Tier 1. Of these, 7 had a 2005 start date and 4 had a 2006 start date.

A greater number of 2005 start date proposals (7) than 2006 start date proposals (4) were selected for Tier 1 because FPL's 2005 capacity need (1,122 MW) is greater than its 2006 capacity need (600 MW). These Tier 1 proposals were:

	With a 2005 start date:	With a 2006 start date:
1)	P32	P42
2)	P5	P44
3)	P26	P33
4)	P20	P28
5)	P3	
6)	P50	
7)	P1	

All of the remaining 20 outside proposals were placed in the Tier 2 grouping. (See Document SRS-3 for a listing and description of all proposals.)

Continued refinement of the outside proposals carried out after these June 4, 2002 selections were made altered these individual rankings somewhat. However, the Tier 2 "challenge" aspect of the approach ensured that all outside proposals, regardless of whether the proposals were in the Tier 1 or Tier 2 groups, were repeatedly analyzed for inclusion in the All Outside and combination plans as previously discussed. Therefore, this subsequent change in the individual rankings did not affect the results of these analyses.

Q. In Step 3 of the analysis, what was the most economic All Outside plan and what were its costs?

A. The most economic All Outside plan as determined in Step 3 of FPL's analyses was as follows:

For 2005: P5, P20, and P32

For 2006: P42

The EGEAS cost in cumulative present value of revenue requirements (CPVRR) of this best All Outside plan is $41,975 million. (All costs described throughout the remainder of this testimony are given in terms of 2001 – 2030 costs in 2001 dollars.)

The EGEAS cost of this plan, and of all of the plans that will be discussed in the remainder of this testimony, includes the proposed total payments to each of these outside proposals (including startup costs), the costs of the necessary filler units from 2007-on, and the costs of fuel for the entire FPL system over the time period. The proposed startup costs for each outside proposal were included in the EGEAS optimization evaluations for the Supplemental RFP. The startup cost calculations utilized the proposed "cold" startup costs and an assumed number of annual startups of 6 per CC unit and 100 per CT unit. (This is the same calculation that was performed in the initial RFP evaluation work, but it is being calculated as part of the EGEAS optimization for the Supplemental RFP analysis instead of separately from the EGEAS work, then added to the EGEAS results, as was the case in the initial RFP analysis.)

Q. How does the cost of the most economic All Outside plan compare to the costs of the most economic plans of the other 4 types of capacity plans evaluated?

A. A comparison of a number of the most economic plans of each of the 5 types of capacity plans is shown in Document SRS-5. Results as of June 18, 2002 for 36 capacity plans are shown in this document. These results include the EGEAS results plus a cost adjustment to the FPL construction option if only one of the two FPL construction options is built. (The costs presented in the Supplemental RFP document for FPL's "next planned generating units" accurately portray the total costs if both projects are built with these total costs

apportioned to each project. However, because both projects are very similar – a 4x1 CC unit is the end result of both projects – the two projects will share certain items such as engineering design, spare parts, etc. and will be able to take advantage of bulk material purchase discounts. This results in cost savings that benefit both projects. However, if only one of the two projects is built, these cost savings disappear and greater costs will be borne by the one project to be built. Consequently, a cost adjustment is needed to combination plans in which only one FPL project is built. At this stage of the work, the assumption was that a "Manatee only" plan would incur $14 million (CPVRR) of extra costs while a "Martin only" plan would incur no such extra costs.)

The Document SRS–5 results show that a combination plan with only one FPL unit (Martin) has the lowest total of the EGEAS cost plus the "one FPL unit only" adjustment cost: $41,603 million (CPVRR). This plan is then followed by numerous other combination plans and the All-FPL self build plan. Finally, the two best All Outside plans are presented and are shown to be significantly more expensive than any of the other plans since the lowest cost All Outside plan has a cost of $41,975 million (CPVRR), which is more than $370 million more expensive than the lowest cost combination plan at this point.

Q. What conclusion can be drawn from these Step 3 analysis results?

A. It is clear from these results that even the most economic capacity plans made up solely of outside proposals (i.e., the All Outside plans) are not competitive with either combination plans made up of at least one FPL construction option or with the All-FPL self build plan.

The decision as to whether a combination plan or the All-FPL self build plan is most economical would be made only after the remaining costs not included in the Step 3 calculations were incorporated in Step 4 of the analysis.

Q. What remaining costs were incorporated in the Step 4 analysis?

A. Step 4 incorporates two types of costs: transmission integration costs and the costs that would be incurred by FPL as a result of entering into additional power purchases (equity penalty costs). These two types of costs were calculated and added to the costs previously developed in Step 3.

Q. How would you describe these two type of costs and how was each type of cost calculated?

A. I will give a description of each type of cost and an explanation of how these costs were calculated.

1) Transmission integration costs: All of the outside proposals and the two FPL construction options included a cost for interconnecting the unit with the FPL system. The interconnection cost can be thought of as the transmission capital cost needed to simply interconnect that unit

with the electrical grid. However, the Supplemental RFP directions called for no inclusion of proposed/projected transmission integration costs. If one thinks of the interconnection costs as being the transmission capital expenditures necessary to get a unit's power to the grid, the integration costs can be thought of as the transmission capital costs necessary to deliver that unit's power output throughout the grid to the customers.

A transmission assessment for 28 capacity plans was performed under the direction of Mr. Donald Stillwagon. Document SRS-6 presents these 28 plans that had been selected for further analysis. The selection of these 28 plans was designed to develop transmission integration costs that would be representative for all 36 plans previously presented in Document SRS-5.

Estimates of the transmission integration direct construction costs for the 28 plans were provided by Mr. Stillwagon. These direct construction cost values were given in monthly cash flows in 2002 dollars. These values were escalated as appropriate for the years in which they were to be incurred, then these values had AFUDC (Allowance for Funds Used During Construction) costs added to them (except for the All Outside Plan). Next, this new subtotal of integration costs with AFUDC were converted into annual revenue requirements.

Finally, the cumulative present value of revenue requirements (CPVRR) of these transmission integration costs, discounted to 2001 dollars, was then added to the previously calculated costs from Step 3 for each of the 36 capacity plans. Appendix M to the Need Study document provides detail on the transmission integration cost calculations.

2) Equity Penalty Costs: Equity penalty costs are applicable only to outside power purchase proposals, not to FPL construction or outside turnkey project options. The cost of the equity needed to support FPL's own construction projects or turnkey projects is already reflected in the CPVRR values for these options.

Equity penalty cost calculations for each of the outside power purchase proposals that appeared in the 36 plans carried forward were reviewed by FPL's Finance Department and Dr. William Avera. The testimonies of Dr. Avera and Mr. Moray Dewhurst address the appropriateness and methodology of these calculations. The cumulative present value of these annual equity penalty costs for each of these outside proposals was then calculated and summed for the groups of outside proposals making up each of these 36 plans. This total net present value of the equity penalty costs for each group was then added to the other costs described above to derive a total cost estimate for each of the 36 plans.

The total CPVRR costs for the 36 plans were then compared at the end of the Step 4 analyses.

Q. What were the economic results after incorporating the costs described above?

A. The total cost results as of June 18, 2002 are presented in Document SRS-7. The format for this document is identical to that of Document SRS-5 with the addition of the transmission integration and equity penalty costs.

Q. What conclusions can be drawn from these results?

A. Four main conclusions can be drawn. First, the relative rankings of a number of the plans changed. Second, the changes did not improve the relative economics of the best All Outside plan. In fact, when total costs are accounted for, the best All Outside plan is $471 million (CPVRR) more expensive than the most economical plan. Third, the second best plan includes both FPL's Manatee and Martin projects, coming in-service one year apart, with a small, short-term purchase also added in 2005. This second best plan is $21 million (CPVRR) more expensive than the most economical plan. The fourth, and most important, conclusion is that the All FPL Plan is the most economical capacity plan. Consequently, the Manatee CC unit and the Martin Conversion project are the two most cost-effective options with which to meet FPL's 2005 and 2006 capacity needs.

Q. Were the results of the total cost analyses used as a basis for selecting bidders for the Short List?

A. Yes. Mr. Silva addresses this in his testimony.

Q. Did FPL make any changes to the values shown in Document SRS –7 after the Short List was announced?

A. Yes. Four changes were subsequently made to these values. Two of these changes were to the "one FPL unit only" cost adjustment that had been made. When combination plans with only one FPL unit were introduced to the analysis, the previously stated assumption was that "Manatee Only" combination plans would need their cost adjusted upwards by approximately $14 million (CPVRR) while no adjustment would be needed for "Martin Only" combination plans. Further analysis showed that the "Manatee Only" plans should be adjusted by $16 million (instead of by $14 million) (CPVRR) and the "Martin Only" plans should be adjusted by $15 million (CPVRR) instead of no adjustment being needed.

A third change was to the cash flows of four of the transmission integration cases. These revised cash flows were developed by Mr. Stillwagon after his review of the integration calculations was completed. New AFUDC and revenue requirements calculations were then performed for these four cases. The net effect of the changes to these transmission integration cases was

relatively small; a change of less than $1 million for three of the four cases and a change (an increase) of approximately $3 million for the fourth case.

A fourth change was to the equity penalty calculations for two outside proposals, P4 and P25. The original calculations for these two proposals had inadvertently been carried out for more years than their proposals called for. Correcting these calculations reduced the equity penalties for two plans that included the P4 proposal by $5 million and for another two plans that included the P25 proposal by $2 million.

The impact of all four of these changes on the total costs of the 36 plans is presented in Document SRS–8.

Q. Did these changes significantly affect the results of the analyses?

A. No. The All-FPL self build plan was the most economical plan before these changes were made by $21 million (CPVRR) and by $58 million (CPVRR) over the 2nd best and 3rd best plans, respectively. After the changes were made the ranking of these 3 plans stayed the same. The All-FPL self build plan remained the most economical plan with no change in its economic advantage over the 2nd best plan and with an increase of $1 million (CPVRR) in its economic advantage over the 3rd best plan (i.e., the $58 million advantage had increased to $59 million).

In addition, the two bidders named to the Short List based on their proposals being included in the 2nd and 3rd best plans before these changes were made were still the top bidders after the changes were made (i.e., their proposals were still included in the 2nd and 3rd best plans).

Q. Did the negotiations result in either of the short-listed bidders lowering their price?

A. No. Mr. Silva addresses the negotiations in some detail in his testimony. As he testifies, the prices increased as a result of the negotiations.

Q. What was the magnitude of this increased cost on your economic analysis?

A. A look at the 3rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was $59 million (CPVRR) more expensive than the All-FPL self build plan before FPL was informed of the increased cost factors by the bidder. These factors increased the cost of this plan by $24 million (CPVRR) so that this plan was now $83 million (CPVRR) more expensive than the All-FPL self build plan.

Q. Please summarize your testimony.

A. FPL's 2001 resource planning work determined that FPL had a need for additional resources in 2005 and 2006. In order to meet FPL's summer reserve

margin criterion of 20% for those years, FPL needed 1,122 MW by mid-2005 and another 600 MW by mid-2006.

Because the types of new power plants that FPL would build (CC units) to meet these needs are those that would require a determination of need, in mid-August of 2001 FPL issued a Request for Proposals for new capacity to meet these 2005 and 2006 needs. The evaluation of the proposals received in response to this initial RFP ended with the decision that FPL's Manatee CC unit and the Martin Conversion project were the most economic choices.

Subsequently, FPL issued a Supplemental RFP on April 26, 2002. Sixteen organizations, including both utilities and non-utilities, submitted 53 separate proposals for meeting FPL's 2005 and 2006 capacity needs. Thirty-one of these proposals were found to be eligible for evaluation versus FPL's two construction options, the Manatee CC unit and the Martin Conversion project.

Step 1 of the evaluation of the 31 eligible outside proposals initially established a ranking of the most economic individual outside proposals with a 2005 start date and a ranking of the most economic individual outside proposals with a 2006 start date. Using these rankings, Step 2 of the evaluation grouped all of the 31 outside proposals into two "tiers." Tier 1 contained 11 of the most economic outside proposals. All remaining outside proposals were placed in Tier 2.

In Step 3 of the evaluation, 5 types of capacity plans to meet FPL's 2005 and 2006 capacity needs were developed and analyzed. These analyses initially used the Tier 1 group of outside proposals followed by "challenge" runs in which Tier 2 proposals were "fixed" into the plan one at a time and a new capacity plan was optimized. In this way, all of the outside proposals had a chance to combine with other outside proposals, and with one or both of FPL's two construction options, to create a competitive capacity plan. All of the work described to this point was carried out with FPL's EGEAS model. Thirty-six competing plans emerged from Step 3 of the analysis and were carried forward for further analysis.

Once work was completed in Step 3, two additional costs that had not been included in the Step 3 work were applied in Step 4 to these 36 plans. These additional costs were transmission integration costs and equity penalty costs. These costs were added in order to develop a total cost picture of these capacity plans.

The final total cost picture that resulted from Step 4 showed that an All-FPL self build plan consisting of the Manatee CC unit and the Martin Conversion project both being added in 2005 was the most economical plan by $21 million (CPVRR) over the 2nd best plan. This 2nd best plan consisted of both FPL's Manatee and Martin projects plus a small, short-term purchase. All other plans were at least $59 million (CPVRR) more expensive than the All-

FPL self build plan. Subsequent negotiations with the bidder whose proposals were the most competitive, P42 and P44 (See Document SRS-3), resulted in costs for these proposals increasing so that the 3rd best plan was now $83 million rather than $59 million (CPVRR) more expensive than the All-FPL self build plan.

Therefore, the results of FPL's analyses show that FPL's Martin Conversion project and new 4x1 CC unit at Manatee are the most cost-effective alternatives and the best choices for meeting FPL's 2005 and 2006 capacity needs.

Q. Does this conclude your testimony?

A. Yes.

Projection of FPL's 2005 and 2006 Capacity Needs
(without Capacity Additions in those years)

Summer

	(1)	(2)	(3) = (1)+(2)	(4)	(5)	(6)=(4)-(5)	(7)=(3)-(6)	(8)=(7)/(6)	(9)=((6)*1.20)-(3)
August of the Year	Projections of FPL Unit Capability (MW)	Projections of Firm Purchases (MW)	Projection of Total Capacity (MW)	Peak Load Forecast (MW)	Summer DSM Forecast * (MW)	Forecast of Firm Peak (MW)	Forecast of Summer Reserves (MW)	Forecast of Summer Res. Margins w/o Additions (%)	MW Needed to Meet 20% Reserve Margin (MW)
2005	19,135	2,625	21,760	20,719	1,651	19,068	2,692	14.1%	1,122
2006	19,135	2,491	21,626	21,186	1,729	19,457	2,169	11.1%	1,722

Winter

	(1)	(2)	(3) = (1)+(2)	(4)	(5)	(6)=(4)-(5)	(7)=(3)-(6)	(8)=(7)/(6)	(9)=((6)*1.20)-(3)
January of the Year	Projections of FPL Unit Capability (MW)	Projections of Firm Purchases (MW)	Projection of Total Capacity (MW)	Peak Load Forecast (MW)	Winter DSM Forecast * (MW)	Forecast of Firm Peak (MW)	Forecast of Winter Reserves (MW)	Forecast of Winter Res. Margins w/o Additions (%)	MW Needed to Meet 20% Reserve Margin (MW)
2005	20,369	3,487	23,856	20,418	1,738	18,680	5,176	27.7%	(1,440)
2006	20,369	2,591	22,960	20,854	1,786	19,068	3,892	20.4%	(78)

* DSM values shown represent cumulative load management and incremental conservation capability.

List of Organizations Submitting Outside Proposals

	Organization	Type of Proposal	Technology
1)	ABB Equity Ventures	Purchased Power	CC
2)	AES	Purchased Power	CC & CT
3)	Bright Star (Enron)	Purchased Power & Turnkey	CC
4)	Calpine	Purchased Power & Turnkey	CC
5)	Cogentrix	New Resource	CC
6)	Competitive Power Ventures	Purchased Power & Turnkey	CC
7)	Constellation	Purchased Power	CC
8)	Dynegy	Purchase Power	CC & CT
9)	El Paso	Purchased Power & Turnkey	CC
10)	Florida Power Corporation	System Sale	Utility System
11)	Mirant	Purchased Power	CC
12)	PG&E NEG	Purchased Power	CC
13)	Sempra	Purchased Power	CC
14)	Southern Company	Purchased Power	CC
15)	TECO	System Sale	Utility System
16)	Tractabel	Purchased Power	CC

Summary of Eligible Outside Proposals

Outside Proposal Code Number	Location (County)	Incremental Summer Capacity (MW)	Start Date (Year)	Term of Service (No. of Years)
P1	Northwest Hardee	800	2005	15
P2	Northwest Hardee	800	2006	15
P3	Company System	200	2005	7
P4	Company System	200	2006	6
P5	Company System	50	2005	3
P6	Company System	50	2005	5
P19	Company System	200	2003	9
P20	St. Lucie	608	2005	15
P21	St. Lucie	1216	2005	15
P24	Indian River	250	2005	10
P25	Indian River	250	2005	15
P26	Indian River	250	2005	25
P27	Indian River	611	2006	10
P28	Indian River	611	2006	15
P29	Indian River	611	2006	25
P30	Indian River	611	2006	Turnkey
P31	Okeechobee	506	2005	10
P32	Okeechobee	506	2005	20
P33	Palm Beach	550	2006	25
P37	Palm Beach	567	2006	20
P39	Bradford	576	2005	10
P40a	Osceola	170	2005	9
P40b	Osceola	170	2005	1
P40c	Osceola	248	2006	8
P41a	Osceola	170	2005	26
P41b	Osceola	170	2005	1
P41c	Osceola	248	2006	25
P42	Palm Beach	708	2006	25
P43	Palm Beach	708	2006	Turnkey
P44	Manatee	699	2006	25
P45	Manatee	699	2006	Turnkey
P50	Manatee	230	2005	20
P51a	Manatee	230	2005	1
P51b	Manatee	730	2005	21
P52	Manatee	92	2006	Turnkey
P53	Muscogee (Georgia)	230	2005	25

Note: "Missing" outside proposal code numbers in the P1 through P 53 listing above are due to either those proposals being withdrawn by the Bidder or by that Bidder's proposals being ineligible for evaluation.

FPL (EGEAS) Rankings of Individual Outside Proposals
(as of June 4, 2002)

2005 Start Date Projects:

Rank	Bidder #		CPVRR ($millions)	Difference CPVRR ($millions)	Comments
1	P	32	41,779	0	---
2	P	5	41,841	62	---
3	P	6	41,843	64	Mutually exclusive to P 5
4	P	26	41,856	77	---
5	P	24	41,866	87	Mutually exclusive to P 26
6	P	31	41,888	109	Mutually exclusive to P 32
7	P	20	41,893	114	---
8	P	25	41,896	117	Mutually exclusive to P 26
9	P	3	41,899	120	---
10	P	19	41,899	120	Mutually exclusive to P 3
11	P	21	41,938	159	Mutually exclusive to P 20
12	P	50	41,945	166	---
13	P	1	41,978	199	---
14	P	51	41,987	208	Mutually exclusive to P 50
15	P	52	42,004	225	Mutually exclusive to P 50
16	P	40	42,079	300	---
17	P	41	42,094	315	Mutually exclusive to P40

2006 Start Date Projects:

Rank	Bidder #		CPVRR ($millions)	Difference CPVRR ($millions)	Comments
1	P	42	41,664	0	---
2	P	44	41,676	12	---
3	P	33	41,732	68	---
4	P	28	41,775	111	---
5	P	37	41,820	156	---
6	P	29	41,856	192	Mutually exclusive to P 28
7	P	45	41,864	200	Turnkey mutually exclusive to P 44
8	P	53	41,891	227	---
9	P	2	41,894	230	---
10	P	27	41,895	231	Mutually exclusive to P 28
11	P	43	41,913	249	Turnkey mutually exclusive to P 42
12	P	39	41,935	271	---
13	P	4	41,972	308	---
14	P	30	42,018	354	Mutually exclusive to P 28

Summary of Best Plans : with EGEAS and One FPL Unit Only Adjustment Costs
(as of June 18, 2002)

Plan Ranking	Plan Description	2005 Additions	2006 Additions	Costs (NPV, 2001-2030, millions, 2001$) EGEAS Costs	Transmission Integration Costs	Equity Penalty Costs	Subtotal Costs	Adjustment For One FPL Unit Only	Total Costs	Total Cost Differential
1	Combination w/ Martin only	Martin,P3, P24	P42	41,603			41,603	0	41,603	0
2	Combination w/ Martin only	Martin, P3, P25	P42	41,606			41,606	0	41,606	3
3	Combination w/ Martin only	Martin, P3, P26	P 42	41,612			41,612	0	41,612	9
4	Combination w/ Martin only	Martin, P3, P24	P 44	41,616			41,616	0	41,616	13
5	Combination w/ Manatee only	Manatee, P5	P 42	41,604			41,604	14	41,618	15
6	Combination w/ Martin only	Martin, P3, P25	P 44	41,618			41,618	0	41,618	15
7	Combination w/ Manatee only	Manatee, P6	P 42	41,605			41,605	14	41,619	16
8	Combination w/ Martin only	Martin, P3, P6, P26	P 42	41,620			41,620	0	41,620	17
9	Combination w/ Martin only	Martin, P3, P26	P 44	41,624			41,624	0	41,624	21
10	Combination w/ Manatee only	Manatee, P5	P 44	41,615			41,615	14	41,629	26
11	Combination w/ Martin only	Martin, P31	P42	41,633			41,633	0	41,633	30
12	Combination w/ Martin only	Martin, P3, P6, P26	P 44	41,633			41,633	0	41,633	30
13	Combination w/ Manatee only	Manatee, P5	P4, P42	41,626			41,626	14	41,640	37
14	Combination w/ Martin & Manatee separated	Manatee, P26	Martin	41,642			41,642	0	41,642	39
15	Combination w/ Martin & Manatee separated	Manatee, P32	Martin	41,642			41,642	0	41,642	39
16	Combination w/ Manatee only	Manatee, P3	P 42	41,631			41,631	14	41,645	42
17	Combination w/ Martin only	Martin, P31	P44	41,645			41,645	0	41,645	42
18	Combination w/ Manatee only	Manatee, P26	P4, P44	41,638			41,638	14	41,652	49
19	Combination w/ Martin & Manatee separated	Manatee, P5	Martin	41,655			41,655	0	41,655	52
20	Combination w/ Manatee only	Manatee, P3	P 44	41,643			41,643	14	41,657	54
21	All FPL Plan	Manatee, Martin	-----	41,658			41,658	0	41,658	55
22	Combination w/ Martin only	Martin, P6, P20	P 42	41,661			41,661	0	41,661	58
23	Combination w/ Martin only	Martin, P32	P 42	41,667			41,667	0	41,667	64
24	Combination w/ Martin & Manatee separated	Martin, P32	Manatee	41,670			41,670	0	41,670	67
25	Combination w/ Martin only	Martin, P6, P20	P 44	41,674			41,674	0	41,674	71
26	Combination w/ Martin only	Martin, P6, P32	P 42	41,676			41,676	0	41,676	73
27	Combination w/ Manatee only	Manatee, P24	P 42	41,663			41,663	14	41,677	74
28	Combination w/ Martin only	Martin, P32	P 44	41,680			41,680	0	41,680	77
29	Combination w/ Manatee only	Manatee, P24	P 44	41,674			41,674	14	41,688	85
30	Combination w/ Martin only	Martin, P6, P32	P 44	41,689			41,689	0	41,689	86
31	Combination w/ Martin & Manatee separated	Martin, P3, P26	Manatee	41,693			41,693	0	41,693	90
32	Combination w/ Martin only	Martin, P20	P 42	41,693			41,693	0	41,693	90
33	Combination w/ Manatee only	Manatee, P31	P 42	41,683			41,683	14	41,697	94
34	Combination w/ Manatee only	Manatee, P31	P 44	41,695			41,695	14	41,709	106
35	All Outside Plan	P5, P20, P32	P 42	41,975			41,975	0	41,975	372
36	All Outside Plan	P6, P20, P31	P 42	41,986			41,986	0	41,986	383

Combination Plans	Combination	2005 Additions	2006 Additions
w/only one FPL unit			
(i.e., w/Manatee Only or	1(a)	Manatee, P5	P 42
w/Martin Only)	1(b)	Manatee, P5	P 44
	1 (c)	Manatee, P5	P4,P42
	2(a)	Martin, P3, P26	P 42
	2(b)	Martin, P3, P26	P 44
	3(a)	Martin, P3, P6, P26	P 42
	3(b)	Martin, P3, P6, P26	P 44
	4(a)	Manatee, P3	P 42
	4(b)	Manatee, P3	P 44
	5(a)	Martin, P6, P20	P 42
	5(b)	Martin, P6, P20	P 44
	6(a)	Manatee, P24	P 42
	6(b)	Manatee, P24	P 44
	6(c)	Manatee, P26	P4,P44
	7(a)	Martin, P32	P 42
	7(b)	Martin, P32	P 44
	8(a)	Martin, P6, P32	P 42
	8(b)	Martin, P6, P32	P 44
	9(a)	Manatee, P31	P 42
	9(b)	Manatee, P31	P 44
	10	Martin, P20	P 42
Combination Plans	1	Manatee, P26	Martin
w/both FPL units Separated			
	2	Manatee, P5	Martin
	3	Martin, P32	Manatee
	4	Martin, P3, P26	Manatee
	5	Manatee, P32	Martin
All FPL Plan		Manatee, Martin	-----
All Outside Plan		P5, P20, P32	P 42

Summary of Best Plans : with Total Costs
(as of June 18, 2002)

Plan Ranking	Plan Description	2005 Additions	2006 Additions	Costs (NPV, 2001-2030, millions, 2001$) EGEAS Costs	Transmission Integration Costs	Equity Penalty Costs	Subtotal Costs	Adjustment For One FPL Unit Only	Total Costs	Total Cost Differential
1	All FPL Plan	Manatee, Martin	-----	41,658	28	0	41,686	0	41,686	0
2	Combination w/ Martin & Manatee separated	Manatee, P5	Martin	41,655	52	1	41,708	0	41,708	21
3	Combination w/ Manatee only	Manatee, P5	P 42	41,604	45	81	41,730	14	41,744	58
4	Combination w/ Martin only	Martin,P3, P24	P42	41,603	40	102	41,745	0	41,745	59
5	Combination w/ Manatee only	Manatee, P6	P 42	41,605	45	82	41,732	14	41,746	60
6	Combination w/ Martin only	Martin, P3, P24	P 44	41,616	26	105	41,748	0	41,748	61
7	Combination w/ Martin & Manatee separated	Manatee, P26	Martin	41,642	70	49	41,761	0	41,761	75
8	Combination w/ Martin only	Martin, P3, P25	P42	41,606	40	116	41,762	0	41,762	76
9	Combination w/ Martin only	Martin, P3, P25	P 44	41,618	26	119	41,763	0	41,763	77
10	Combination w/ Martin & Manatee separated	Manatee, P32	Martin	41,642	52	78	41,772	0	41,772	85
11	Combination w/ Martin only	Martin, P31	P42	41,633	32	108	41,773	0	41,773	87
12	Combination w/ Martin & Manatee separated	Martin, P32	Manatee	41,670	28	78	41,776	0	41,776	89
13	Combination w/ Manatee only	Manatee, P5	P4, P42	41,626	45	92	41,763	14	41,777	91
14	Combination w/ Martin only	Martin, P31	P44	41,645	26	111	41,782	0	41,782	96
15	Combination w/ Martin only	Martin, P3, P26	P 42	41,612	40	138	41,790	0	41,790	103
16	Combination w/ Martin only	Martin, P3, P6, P26	P 42	41,620	31	139	41,791	0	41,791	104
17	Combination w/ Martin only	Martin, P3, P26	P 44	41,624	26	141	41,791	0	41,791	105
18	Combination w/ Martin & Manatee separated	Martin, P3, P26	Manatee	41,693	45	58	41,796	0	41,796	110
19	Combination w/ Manatee only	Manatee, P3	P 42	41,631	64	89	41,784	14	41,798	111
20	Combination w/ Martin only	Martin, P3, P6, P26	P 44	41,633	26	142	41,802	0	41,802	115
21	Combination w/ Manatee only	Manatee, P5	P 44	41,615	112	84	41,811	14	41,825	139
22	Combination w/ Martin only	Martin, P6, P20	P 42	41,661	32	139	41,831	0	41,831	145
23	Combination w/ Manatee only	Manatee, P24	P 42	41,663	64	93	41,820	14	41,834	148
24	Combination w/ Martin only	Martin, P6, P20	P 44	41,674	26	142	41,842	0	41,842	156
25	Combination w/ Manatee only	Manatee, P24	P 44	41,674	63	96	41,834	14	41,848	161
26	Combination w/ Manatee only	Manatee, P31	P 42	41,683	45	108	41,836	14	41,850	164
27	Combination w/ Martin only	Martin, P32	P 42	41,667	32	158	41,857	0	41,857	170
28	Combination w/ Manatee only	Manatee, P26	P4, P44	41,638	63	143	41,844	14	41,858	172
29	Combination w/ Martin only	Martin, P20	P 42	41,693	32	137	41,862	0	41,862	175
30	Combination w/ Martin only	Martin, P32	P 44	41,680	26	161	41,867	0	41,867	181
31	Combination w/ Martin only	Martin, P6, P32	P 42	41,676	32	159	41,867	0	41,867	181
32	Combination w/ Martin only	Martin, P6, P32	P 44	41,689	26	163	41,878	0	41,878	192
33	Combination w/ Manatee only	Manatee, P3	P 44	41,643	132	92	41,868	14	41,882	195
34	Combination w/ Manatee only	Manatee, P31	P 44	41,695	64	111	41,870	14	41,884	198
35	All Outside Plan	P6, P20, P31	P 42	41,986	5	166	42,157	0	42,157	471
36	All Outside Plan	P5, P20, P32	P 42	41,975	5	215	42,195	0	42,195	509

Summary of Best Plans : with Total Costs
(Final)

Plan Ranking	Plan Description	2005 Additions	2006 Additions	Costs (NPV, 2001-2030, millions, 2001$) EGEAS Costs	Transmission Integration Costs	Equity Penalty Costs	Subtotal Costs	Adjustment for One FPL Unit Only	Total Costs	Total Cost Differential
1	All FPL Plan	Manatee, Martin	-----	41,658	28	0	41,686	0	41,686	0
2	Combination w/ Martin & Manatee separated	Manatee, P5	Martin	41,655	52	1	41,708	0	41,708	21
3	Combination w/ Manatee only	Manatee, P5	P 42	41,604	45	81	41,730	16	41,746	59
4	Combination w/ Manatee only	Manatee, P6	P 42	41,605	45	82	41,732	16	41,748	61
5	Combination w/ Martin only	Martin,P3, P24	P42	41,603	40	102	41,745	15	41,760	74
6	Combination w/ Martin & Manatee separated	Manatee, P26	Martin	41,642	70	49	41,761	0	41,761	75
7	Combination w/ Martin only	Martin, P3, P24	P 44	41,616	26	105	41,748	15	41,762	76
8	Combination w/ Martin & Manatee separated	Manatee, P32	Martin	41,642	52	78	41,772	0	41,772	85
9	Combination w/ Manatee only	Manatee, P5	P4, P42	41,626	45	87	41,758	16	41,774	88
10	Combination w/ Martin only	Martin, P3, P25	P42	41,606	40	114	41,760	15	41,774	88
11	Combination w/ Martin & Manatee separated	Martin, P32	Manatee	41,670	28	78	41,776	0	41,776	89
12	Combination w/ Martin only	Martin, P3, P25	P 44	41,618	26	117	41,761	15	41,776	89
13	Combination w/ Martin only	Martin, P31	P42	41,633	32	108	41,773	15	41,788	101
14	Combination w/ Martin & Manatee separated	Martin, P3, P26	Manatee	41,693	45	58	41,796	0	41,796	110
15	Combination w/ Martin only	Martin, P31	P44	41,645	26	111	41,782	15	41,797	111
16	Combination w/ Manatee only	Manatee, P3	P 42	41,631	64	89	41,784	16	41,799	113
17	Combination w/ Martin only	Martin, P3, P26	P 42	41,612	40	138	41,790	15	41,804	118
18	Combination w/ Martin only	Martin, P3, P6, P26	P 42	41,620	31	139	41,791	15	41,805	119
19	Combination w/ Martin only	Martin, P3, P26	P 44	41,624	26	141	41,791	15	41,806	120
20	Combination w/ Martin only	Martin, P3, P6, P26	P 44	41,633	26	142	41,802	15	41,816	130
21	Combination w/ Manatee only	Manatee, P5	P 44	41,615	112	84	41,811	16	41,826	140
22	Combination w/ Manatee only	Manatee, P24	P 42	41,663	64	93	41,820	16	41,835	149
23	Combination w/ Martin only	Martin, P6, P20	P 42	41,661	32	139	41,831	15	41,846	160
24	Combination w/ Manatee only	Manatee, P24	P 44	41,674	63	96	41,834	16	41,849	163
25	Combination w/ Manatee only	Manatee, P31	P 42	41,683	45	108	41,836	16	41,852	166
26	Combination w/ Martin only	Martin, P6, P20	P 44	41,674	26	142	41,842	15	41,857	170
27	Combination w/ Manatee only	Manatee, P26	P4, P44	41,638	66	138	41,842	16	41,858	171
28	Combination w/ Martin only	Martin, P32	P 42	41,667	32	158	41,857	15	41,871	185
29	Combination w/ Martin only	Martin, P20	P 42	41,693	32	137	41,862	15	41,876	190
30	Combination w/ Martin only	Martin, P32	P 44	41,680	26	161	41,867	15	41,882	196
31	Combination w/ Martin only	Martin, P6, P32	P 42	41,676	32	159	41,867	15	41,882	196
32	Combination w/ Manatee only	Manatee, P3	P 44	41,643	132	92	41,868	16	41,883	197
33	Combination w/ Manatee only	Manatee, P31	P 44	41,695	64	111	41,870	16	41,886	200
34	Combination w/ Martin only	Martin, P6, P32	P 44	41,689	26	163	41,878	15	41,893	206
35	All Outside Plan	P6, P20, P31	P 42	41,986	5	166	42,157	0	42,157	471
36	All Outside Plan	P5, P20, P32	P 42	41,975	5	215	42,195	0	42,195	509