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Progress Energy Florida

Request For Proposals
for
Power Supply Resources

Solicitation Document

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October 7, 2003
Revised November 12, 2003

Progress Energy

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RFP Document
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I. INTRODUCTION

A. Overview of Request For Proposals (RFP)

Progress Energy Florida (PEF) is seeking proposals from eligible Bidders for electric generating capacity and associated energy as described herein. In this RFP, Progress Energy Florida is soliciting proposals for alternatives to the Company's "next planned generating unit," which is approximately 500 MW of capacity available for commercial delivery by December 1, 2007.

Progress Energy Florida invites proposals from all potential suppliers who are capable of meeting the conditions of the RFP, including other electric utilities, marketers, exempt wholesale generators, independent power producers, and qualifying facilities. Demand-side proposals are not eligible to participate in the RFP. Progress Energy Florida's most recent Ten-Year Site Plan has identified an expected requirement for base or intermediate load resources. However, the Company will consider other resource types and evaluate all bids using the same criteria. The proposals received will be compared to PEF's self-build alternative.

The RFP is presented in two documents. The first is this RFP Solicitation Document, which outlines Progress Energy Florida's requirements for submission of bids and describes the criteria that will be used to compare and evaluate proposals. The second document is the Response Package, which includes the information required from all Bidders and the schedules that Bidders are required to provide.

B. Objectives of the RFP

The purpose of the RFP is to solicit and screen, for potential subsequent contract negotiations, competitive proposals for supply-side alternatives to PEF's next planned generating unit. Progress Energy Florida's objective is to select resources that offer the maximum value, based on cost and non-cost attributes, to the Company and its customers. Progress Energy Florida intends to realize this objective by opening the RFP to all supply-side resource alternatives, including those that offer enhanced fuel diversity.

During its normal course of business, Progress Energy Florida continuously evaluates alternatives as resources to fulfill its need for generating plants identified in its Ten-Year Site Plan (TYSP) (see Attachment B). Alternatives that are identified and evaluated are not always the same type (i.e. peaking, intermediate, or baseload) as indicated in the TYSP. Depending on the type of alternative being evaluated, it is possible that its inclusion in the Company's resource mix will impact the timing or need for other resources identified in the TYSP, including Hines 4. For this, and other possible reasons, PEF reserves the right to cancel, modify or withdraw the RFP, to reject any and all responses, and to terminate negotiations at any time during the RFP process.

C. PEF's "Next Planned Generating Unit"

Rule 25-22.082 of the Florida Administrative Code requires investor-owned utilities to provide a description of the "next planned generating unit" on which the RFP is based. Progress Energy Florida's Ten-Year Site Plan (see Attachment B), which was filed with the Florida Public Service Commission on April 1, 2003, shows the "next planned generating unit" that is subject to Rule 25-22.082 to be the Hines Energy Complex Unit 4, located in Polk County, Florida. This natural gas-fired combined cycle unit of approximately 565 MW (net winter rating) would be placed in commercial operation by December 1, 2007. A detailed technical description, as well as the financial assumptions and parameters associated with the unit, are provided in Section V of this RFP.

D. Schedule

The solicitation schedule will be approximately a 13-month process, comprising four phases: (1) Pre-Submission; (2) Evaluation Process; (3) Contract Negotiations; and (4) Regulatory Filings. The schedule is presented below.

1. **Pre-Submission (9/10/03 – 12/16/03)**

Notice of RFP	9/10/03
Pre-Issuance Conference	9/23/03
Issuance of RFP	10/7/03
Notices of Intent to Bid Due	10/14/03
Bidders Conference	10/21/03
Submission of Bids	12/16/03

2. **Evaluation Process (12/16/03 – 4/27/04)**

Determination of Short List	3/5/04
Determination of Final List	4/27/04

3. **Contract Negotiations (4/28/04 – 7/27/04)**

Initiate Contract Negotiations	4/28/04
Award Announcement	7/27/04

4. **Regulatory Filings (7/27/04 – 9/27/04)**

File contract(s) for certification	9/27/04

Progress Energy Florida reserves the right to revise the schedule. Depending on the number of proposals received, PEF may shorten the Evaluation Process schedule and advance the dates associated with the Short List and Final List announcements and the beginning of Contract Negotiations and Regulatory Filings. In the event the PEF self-build alternative is clearly superior to the short-listed proposals, the Final List announcement and Contract Negotiations steps of the process will not take place.

E. Official Contact

All inquiries or contact about the RFP, including questions of clarification, requests for additional information, and submission of proposals, must be directed in writing to PEF's Official Contact listed below:

Daniel J. Roeder
Project Leader
System Planning & Operations Department
Progress Energy Building - 7A
P.O. Box 1551
410 S. Wilmington Street
Raleigh, NC 27601
Telephone number: (919) 546-7966
Fax number: (919) 546-7558
E-mail address: PEF_2007_RFP@pgnmail.com

Unsolicited contact with other PEF personnel or employees of PEF affiliated companies concerning the RFP is not allowed and will constitute grounds for disqualification. Progress Energy Florida reserves the right to provide written responses to all Bidders on the RFP web site (www.progress-energy.com/rfp) if it is deemed necessary to ensure that all Bidders have equal access to the same information.

II. DEFINITIONS

Presented below are the definitions of critical terms used in this RFP and solicitation process. Other definitions are included in the Key Terms & Conditions (see Attachment A).

Automatic Generation Control (AGC): AGC is the automated regulation, within predetermined limits, of the power output of electric generators within a prescribed geographic area in response to changes in system frequency, tie-line loading, or the relation of these to each other, so as to maintain the scheduled system frequency and/or the established interchange with other geographic areas. This regulation will be accomplished through communication links between PEF's Energy Control Center dispatch computer and each generator equipped with such control.

Availability Adjustment Factor (AAF): A Facility's or Bidder's ability to provide capacity in the amount requested by PEF. The Availability Adjustment Factor is defined in Section 2 of the Key Terms and Conditions (Attachment A).

Bidder: Any entity that submits a proposal to PEF in response to this RFP.

Equivalent Availability Factor (EAF): Sum of the Equivalent Unplanned Derated Hours (EUDH) and Equivalent Planned Derated Hours (EPDH) subtracted from Available Hours (AH) and divided by Period Hours (PH). The method for calculating the Equivalent Availability Factor is defined in the discussion of Section II.H of the Response Package.

Equivalent Forced Outage Rate (EFOR): Sum of Forced Outage Hours (FOH) and Equivalent Forced Derated Hours (EFDH) divided by the sum of Forced Outage Hours (FOH) and Service Hours (SH). The method for calculating the Equivalent Forced Outage Rate is defined in the discussion of Section II.H of the Response Package.

Existing Unit Proposal: A bid to provide capacity and energy from a specific commercial operating unit identified by the Bidder.

Facility: All of the equipment, property, buildings, and generation and transmission facilities necessary to allow the Bidder to fulfill its proposal to provide capacity and energy to PEF pursuant to this RFP.

Forced Outage: An unplanned component failure (immediate, delayed, postponed, or start failure) or other condition that requires the unit be removed from service immediately, within six hours, or before the end of the next weekend.

Frequency Control: The capability of a generator to automatically respond to frequency deviations by increasing or decreasing its gross real power output as a result of governor action.

For generation located inside the PEF control area or dynamically telemetered into the PEF control area:

The Bidder's generator(s) shall be equipped with fully functional governors with droop adjustable from 2% to 6% and nominally set at 4%. The governors will be fully responsive to frequency deviations exceeding 0.036 Hertz (Hz).

For generation located outside the PEF control area:
The Bidder shall comply with the frequency response requirements of the host control area.

Fully Dispatchable: A generator is Fully Dispatchable when PEF makes the sole decision to operate the unit with exceptions granted for maintenance and testing, and the generator is controlled through an AGC link with PEF's Energy Control Center. The generating facility must be available for PEF's dispatch in accordance with the following operating parameters, as specified by the Bidder in its proposal: minimum load, ramp rates, start time, maximum starts per year, annual operating hour limit, and minimum run time.

Fully Schedulable: A project is Fully Schedulable when the project's output is determined by a schedule specified by PEF. PEF will provide the Bidder with a tentative schedule by 4:00 p.m. for deliveries on the following day. PEF will revise this schedule as necessary to respond to unanticipated operating requirements subject to normal utility practice.

Minimum Evaluation Requirements: The minimum requirements that all proposals are required to meet and with which a Bidder's compliance will be assessed in Step 4 of the evaluation process (see Section IV.C).

New Unit Proposal: A bid to provide capacity and energy from a new unit or block of units which is not currently in commercial operation.

Official Contact: The PEF representative, or designee, identified in Section I.E of this RFP to whom all contact regarding this solicitation process must be made.

Power System: Physically connected generation and transmission facilities operated as an integrated unit under one central management or operating supervision.

Response Package: The second section of this RFP that identifies the information and schedules that Bidders are required to provide in their proposals to PEF.

RFP Project Team: A group of individuals with backgrounds in a number of disciplines necessary to conduct a thorough evaluation of each proposal. The individuals may be Progress Energy employees or consultants.

Seasonal Contract Capacity (SCC): The Summer Contract Capacity and the Winter Contract Capacity, as applicable, with the summer and winter seasons as defined in Section II.F of the Response Package. For New and Existing Unit Proposals, the capacities are the values specified by the Bidder in Schedule 4 of the Response Package in the table labeled "Dispatchable Generation Capacity," in the row labeled "Seasonal Contract Capacity." For System Proposals, the capacities are the values specified by the Bidder in Schedule 2 Sheet A of the Response Package.

Summer Contract Capacity: The maximum capacity (MW) the Facility can sustain during the Summer period, less the capacity utilized for station service or auxiliaries, and adjusted for losses to the delivery point to the PEF control area.

System Power Proposal: A bid to provide capacity and energy from a Power System.

Strike Date: The date on or before which PEF may exercise a specific option.

Threshold Requirements: The minimum requirements that all proposals are required to meet and with which a Bidder's compliance will be assessed in Step 1 of the evaluation process (see Section IV.A).

Voltage Control: The ability to modify generator terminal voltage by varying the current in the generator's field winding either automatically by appropriate control mechanisms or manually by the operator.

Winter Contract Capacity: The maximum capacity (MW) the Facility can sustain during the Winter period, less the capacity utilized for station service or auxiliaries, and adjusted for losses to the delivery point to the PEF control area.

III. INSTRUCTIONS TO BIDDERS

A. *General Instructions*

Bidders are required to meet all the terms and conditions of the RFP to be eligible to compete in the solicitation process. Bidders are required to follow all instructions contained in the RFP. Bidders must respond to all questions contained in the Response Package, use the provided Microsoft Excel schedules, organize their proposals according to the structure specified in the Response Package (*i.e.*, organized by chapter and section in the order specified by PEF), and provide supporting documentation in the format requested. Bidders should include the Project Name, chapter and section numbers, and page number on each attachment. If a question is not applicable to the type of proposal submitted, Bidders should so indicate and specify why the requested information is not applicable. It is the Bidder's responsibility to advise PEF's Official Contact of any conflicting requirements, omissions of information, or the need for clarification before bids are due. Bidders should clearly organize and identify all information submitted in their proposals to facilitate review and evaluation. **Failure to provide all the information requested in this solicitation process or failure to demonstrate that the proposal satisfies all of the Threshold Requirements and Minimum Evaluation Requirements identified in Section IV will be grounds for disqualification.**

The Bidders should mark all confidential and proprietary information contained in its proposals as "Confidential." While PEF will use its best efforts to protect the confidentiality of such information and only release such information to the members of the RFP Project Team, management, agents and contractors, and, as necessary and consistent with applicable laws and regulations, to its affiliates and regulatory commissions, in no event shall PEF be liable to a Bidder for any damages of whatsoever kind resulting from PEF's failure to protect the confidentiality of Bidder's information. By submitting a proposal, the Bidder agrees to allow PEF to use all information provided and the results of the evaluation as evidence in any proceeding before the Florida Public Service Commission (FPSC). To the extent PEF wishes to use information that a Bidder considers confidential, PEF will petition the Commission to treat such information as confidential and to limit its dissemination, but PEF makes no assurance of the outcome of any such petition.

All correspondence between the Bidder and PEF must be through the Official Contact. All questions must be submitted in writing. PEF will attempt to respond within a reasonable length of time to Bidders' requests. PEF will maintain complete documentation of all questions received from Bidders and its responses, and provide written responses via the RFP web site to all Bidders when deemed necessary to ensure an equitable level of competition.

B. *Submission of Proposals*

All proposals must be received by PEF by 1:00 PM EST on December 16, 2003. Proposals must be submitted to the PEF Official Contact. Proposals should be submitted in a sealed package and be marked with the Bidder's name and a label indicating that the package contains a proposal in response to Progress Energy Florida's 2007 RFP for Power Supply Resources. The package should also note the confidentiality status of information contained in the document. For each proposal, Bidders must submit three (3) bound copies and one (1) electronic version (on diskette or CD-ROM) with all text portions of the responses in Microsoft Word or Adobe Acrobat and schedules in Microsoft Excel. Each proposal is to be bound separately. Bidders must submit two (2) extra unbound copies of any document that is larger than 8 ½" x 11". Bidders must ensure that the proposals are delivered on time. Delivery by services which cannot guarantee delivery by the time required are discouraged. **Failure to submit a proposal by the deadline will be grounds for disqualification.**

Bidders should carefully read all sections of this RFP Solicitation Document and the Response Package. The Response Package contains directions regarding the type and form of information Bidders are required to provide.

C. Proposal Fees/ Proposal Variations

Bidders may submit as many proposals as they desire. To help defray the cost of performing the proposal evaluations, Bidders are required to submit with each proposal a non-refundable proposal submittal fee of $10,000. The fee should be in the form of a check payable to "Progress Energy Florida."

A proposal is defined according to the site, technology, fuel, and infrastructure identified by the Bidder. Thus, a proposal which contains a different site, technology, fuel (excluding secondary fuel), or infrastructure will be classified as a separate proposal and requires a separate proposal submittal fee. Bidders are allowed to propose up to a total of two variations in project term and/or pricing at no additional cost. Variations in excess of two must be accompanied by a $1,000 per variation fee to be considered for evaluation. **Bidders must submit a <u>complete electronic version of the Response Package</u> for each variation.** (The hard copy version of the primary Bid should contain a section discussing any variations and identifying the name(s) of the file(s) in which they are contained.)

D. Proposal Size, In-Service Date, and Term

As discussed above, PEF is seeking proposals for power supply resources to be in-service by December 1, 2007. However, PEF will accept proposals with start dates as early as December 1, 2006. Since the Company's "next planned generating unit" is approximately 500 MW in size, the maximum size of the proposals should be approximately 500 MW. The earliest contract end date for the delivery of capacity and energy to PEF is December 31, 2008 for proposals supported by assets that do not require a need determination. The earliest contract end date for proposals requiring a need determination is December 31, 2017. The latest contract end date is December 31, 2032.

Progress Energy Florida will accept proposals that supply one amount of capacity beginning on December 1, 2007 and then increment to a greater amount of capacity beginning on December 1, 2008. The total amount of capacity must be less than approximately 500 MW and must be supplied from the same site, technology, fuel (excluding secondary fuel), and infrastructure.

E. Contract Flexibility Provisions

Bidders are encouraged to offer flexibility provisions. Possible provisions include, but are not limited to, fuel tolling arrangements, contract term extension options in which bidders propose an initial contract term and provide PEF the option to extend the contract at predefined prices, options to terminate or buy out the contract, or options to shorten or terminate the contract in the event of any amendments to the Florida Power Plant Siting Act or the deregulation of the electric utility industry in Florida.

F. Security Requirements

The Key Terms and Conditions contain security provisions which require the Bidder to provide financial security to ensure the project is completed on schedule (development security) and is operated effectively and reliably (operational security). Bidders will be required to post security consistent with the schedule provided in the Key Terms and Conditions (see Attachment A).

Security in the form of cash or U.S. government bonds held in escrow is preferred. However, PEF will accept other forms of security that may be less costly to the Bidder, including a letter of credit with a bank or financial institution. Security must be guaranteed by entities that are considered investment grade.

G. Permitting Responsibility

The Bidder(s) whose proposal is (are) selected will be responsible for acquiring all necessary licenses, permits, certifications, and approvals required by federal, state and local government laws, regulations and policies for the design, construction, and operation of the project. In addition, the Bidder shall fully support all of PEF's regulatory requirements associated with this potential power supply arrangement. The Bidder is also completely and solely responsible for securing financing for its project. PEF shall have no responsibility in identifying or securing any licenses, permits, or regulatory approvals (other than being a co-applicant in a Determination of Need filing and a co-applicant in the Certificate of Need proceeding under the Florida Electric Power Plant Siting Act) or in securing any financing required for the construction or operation of the project.

H. Regulatory Provisions

Any negotiated contract for the purchase of power between PEF and the Bidder will be conditioned upon approval or acceptance without substantial change by any and all regulatory authorities that have, or claim to have, jurisdiction over any or all of the subject matter of this solicitation, including, without limitation, the Florida Public Service Commission and the Federal Energy Regulatory Commission. The negotiated contract will be further conditioned upon favorable regulatory action without substantial condition or qualification (including but not limited to temporal or other conditions or limitations on cost recovery) by any and all regulatory authorities from which regulatory approval may be required for the contract or for the development or effectuation of the power supply project and related activities (including but not limited to a Determination of Need by the Florida Public Service Commission).

In accordance with Rule 25-22.082 of the Florida Administrative Code, each participant [Bidder] is required

> ... to publish a notice in a newspaper of general circulation in each county in which the participant proposes to build an electrical power plant. The notice shall be at least one-quarter of a page and shall be published no later than 10 days after the date that the proposals are due. The notice shall state that the participant has submitted a proposal to build an electric power plant, and shall include the name and address of the participant submitting the proposal, the name and address of the public utility that solicited proposals, and a general description of each proposed power plant and its location.

Bidders are required to forward copies of these actual published notices to the Official Contact within seven (7) days of the notice appearing in the paper. The copy of this notice shall clearly indicate the name of the newspaper and the date on which the notice was published.

I. Reservation of Rights

Progress Energy Florida reserves the right to reject any, all, or portions of the proposals received for failure to meet any criteria set forth in this RFP. The Company also reserves the right in its sole discretion to decline to enter into a power purchase arrangement with any Bidder, or to abandon the project in its entirety. PEF reserves the right to revise the capacity needs forecast at any point during the RFP process or during negotiations; any such change may reduce, eliminate, or increase the amount of power sought.

Respondents should be aware that the following, without limitation, will be classified as non-responsive and may not be considered or evaluated if submitted:

- proposals offering non-firm capacity or energy;
- demand-side proposals;
- incomplete, inaccurate, conditional, deceptive, misleading, ambiguous, exaggerated, or non-specific offers; or
- proposals that are not in conformance with the requirements and instructions contained herein.

Those who submit proposals do so without recourse against PEF or Progress Energy Corporation or any of Progress Energy Corporation's subsidiary companies for either rejection of their proposal(s) or for failure to execute a power purchase agreement for any reason.

IV. SOLICITATION PROCESS

A. *Description of the Process*

The solicitation process is a multi-phase process consisting of four general phases, as noted in Section I.D, and several sub-phases, or steps. This section of the RFP will describe the process in detail and outline Bidder requirements and alternatives at each phase and step of the process.

This section of the RFP is organized chronologically according to the solicitation process to be conducted by PEF. Specifically, the areas to be discussed are the (1) pre-bid submission activities, (2) evaluation process, (3) contract negotiations, and (4) regulatory filings. Discussed as part of the evaluation process are the minimum requirements that all proposals must meet as well as the evaluation criteria that will be used to identify the most attractive proposals.

B. *Pre-Bid Submission Activities*

The pre-bid submission activities phase of the process includes the period from issuance of the RFP to submission of bids.

1. Notice of Intent to Bid

The first major activity for Bidders is submission of the Notice of Intent to Bid Form. Bidders are encouraged to submit the Notice of Intent to Bid Form by October 14, 2003. Submitting a Notice of Intent to Bid does not commit a prospective Bidder to submitting a proposal to PEF. Submission of this form ensures that the Bidder will receive all information pertaining to the RFP. While Bidders who do not submit a Notice of Intent to Bid Form will be eligible to submit a proposal, PEF cannot guarantee that these Bidders will receive all information about the solicitation process. Progress Energy Florida will accept Notices of Intent to Bid from Bidders after the October 14, 2003 due date and will provide any such Bidders with all materials provided to Bidders after the issuance of the RFP. The Notice of Intent to Bid Form is the only worksheet in the Microsoft Excel file named "Bid Notice." A completed form should be e-mailed to the Official Contact. If desired, Bidders may submit a printed version of the form using other delivery methods such as fax, U.S. Mail, or overnight delivery.

2. Bidders Conference

Progress Energy Florida will conduct a bidders conference for interested Bidders on October 21, 2003 at 1:00 PM at the Tampa Airport Marriott. If this time or location changes, PEF will notify Bidders who have submitted a Notice of Intent to Bid Form. The purpose of the bidders conference is to allow interested Bidders the opportunity to ask questions and seek additional information or clarification about the solicitation process. **To make the meeting as productive and informative as possible, Bidders are encouraged to submit a written list of questions to the Official Contact prior to October 17, 2003.** Each Bidder should identify on the Notice of Intent to Bid Form if one or more representatives of its company plan to attend the bidders conference.

3. Progress Energy Florida Approval of Alternative Indices

While PEF prefers that Bidders use the cost escalation indices identified in Section III of the Response Package when completing the pricing schedules, Bidders are provided the opportunity to identify alternative indices to be used for evaluation and billing purposes if the Bidder prefers indices different from those proposed by PEF. To receive approval from PEF for a different index, the Bidder must demonstrate that the proposed index is more reflective of the underlying project cost element, accurately reflects the market which it would represent, is readily available from public sources, and is available in a timely manner. Bidders must be willing to submit all materials on which they rely to show the soundness of the proposed alternative index. To request to use a new index, Bidders should contact PEF's Official Contact in writing no later than November 15, 2003. Progress Energy Florida reserves the right to update its forecasts for these indices during the evaluation period if they are no longer reflective of PEF's current expectations of the future escalation rates of these indices.

4. Submission of Bids

The last step during this phase of the process is the submission of bids. As noted, all proposals must be received by 1:00 PM EST on December 16, 2003. Proposals must remain valid until PEF either accepts the proposal or negotiates different terms during the Contract Negotiation phase. **Failure to submit the proposal by the specified time will be grounds for disqualification.**

C. Evaluation Process

PEF will use a seven-step evaluation process to review proposals and to select the best alternative. Figure IV-1 illustrates the evaluation process from the receipt of proposals to contract negotiations. The evaluation process that will be employed by PEF is reviewed below.

1. Step 1: Screening for Threshold Requirements

Subsequent to the receipt of the bids, the Company will thoroughly review and assess each proposal to ensure that it meets the Threshold Requirements listed in the RFP. Threshold Requirements represent the minimum requirements that all proposals are required to meet and with which a Bidder's compliance can be easily assessed. PEF may, at its discretion, seek clarification and/or remedy of a Bidder's proposal at this stage of the evaluation process. Each Bidder should maintain a contact person available to PEF throughout the Evaluation Process.

Progress Energy Florida views Threshold Requirements to be an important aspect of the evaluation process. The Bidder should ensure that its proposal satisfies the Threshold Requirements listed in Table IV-1 to be eligible for further consideration. Bidders should also review the Key Terms and Conditions set forth in Attachment A, because they are the terms and conditions that will be used to ensure the Bidder's conformance with certain Threshold Requirements. The information Bidders are required to provide to demonstrate their compliance with the Threshold Requirements is specified in greater detail in the Response Package.

Figure IV-1

Evaluation Process

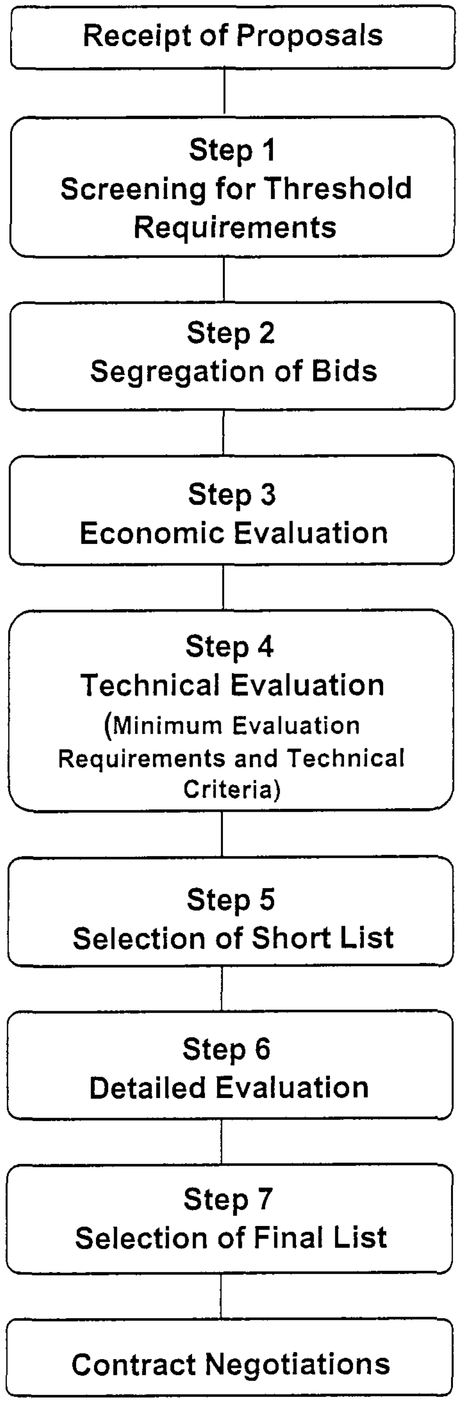

Table IV-1
Threshold Requirements

A. **General Requirements**

- The proposal is received on time.
- The offer is reasonable and bona fide.
- Complete and credible answers are provided to all questions.
- The proposal submittal fee is included.
- The pricing schedules are properly specified.
- The proper price indices are used.
- Power must be available for delivery under the contract by December 1, 2007.
- The proposed term is for a minimum of one (1) year if the project does not require a Need Determination and 10 years if a Need Determination is required. The proposed term is less than the maximum of 25 years.
- For New Unit Proposals located in Florida, the output of the unit(s) is sufficiently committed to Progress Energy Florida (or other utilities serving retail customers).

B. **Operating Performance Thresholds**

- If the project is located in PEF's control area, the Bidder will be required:
  - to operate the project to conform with PEF's ***Voltage Control*** requirements.
  - to operate the project to conform with PEF's ***Frequency Control*** requirements.
- New and Existing Unit Proposals must be ***Fully Dispatchable*** and install ***Automatic Generator Control*** that is tied into PEF's Energy Control Center.
- The Bidder must be willing to ***coordinate the project's maintenance scheduling*** with PEF.
- Proposals should have a project size less than or equal to approximately 500 MW.
- System Power Proposals must be ***Fully Schedulable*** (i.e., operate according to a day-ahead schedule but with schedule changes subject to normal utility practices).

C. **Contractual Thresholds**

- Bidders must agree to each of the Key Terms and Conditions identified in Attachment A.

  - OR -

- If Bidder has any objections to the Key Terms and Conditions, the Bidder must:
  - Identify the language which is objectionable;
  - Provide revised language.

D. **Site Control Thresholds [New and Existing Unit Proposals]**

- Identification of the site location on a USGS map.
- At a minimum, a Letter of Intent to negotiate a lease for the full contract term or term necessary for financing (whichever is greater), or to purchase the site **[New Unit Proposals]**. A copy of the title and legal description of the property is required for **Existing Unit Proposals**.

E. **Transmission Threshold**

- If the project is located outside of PEF's control area, the Bidder must provide a transmission plan for wheeling services from those utilities which would be required to wheel the project's power to PEF and provide evidence that the host utility is willing to grant PEF the right to dispatch the output of New and Existing Unit Proposals or the right to schedule power from System Power Proposals.
- If the project is located inside of PEF's control area, the Bidder must complete a Network Resource System Impact Study data request (Schedule 7 of the Response Package).

Bidders must ensure that their proposals contain sufficient documentation to demonstrate that they meet all Threshold Requirements. **Failure to conform to the Threshold Requirements will be grounds for disqualification.** Proposals that are disqualified will not be evaluated further.

2. Step 2: Segregation of Bids

After the completion of the initial screening, PEF may, at its discretion, classify proposals into various categories distinguished by type of bid (New Unit, Existing Unit, or System Power Proposal), and term (number of years for which power is offered). Depending on the proposals received, other categories may be developed to further segregate the bids (e.g., combustion turbine vs. combined cycle proposals). The purpose of this process is to categorize "like type" proposals to ensure a consistent and fair evaluation and to allow PEF to identify the best proposals in each category.

3. Step 3: Economic Evaluation

The next phase of the evaluation process is the economic evaluation of proposals. Each proposal that satisfies the Threshold Requirements evaluation performed in Step 1 will be subjected to economic screening analyses. This initial economic evaluation will be used to further screen proposals and identify those proposals that will be subjected to a technical evaluation in Step 4.

In the economic evaluation, PEF will evaluate each bid based on its price proposal. Progress Energy Florida plans to use a combination of spreadsheets and the Strategist optimization model to compare the costs of the bids to each other and to assess the impacts of each bid on system costs over PEF's planning horizon. In any spreadsheet analyses performed, the total costs of each proposal will be compared to the other proposals at an appropriate capacity factor (e.g., 10% for combustion turbines, 50% for combined cycles, 80% for coal units). In the optimization analyses, PEF will develop an optimal resource plan around each proposal to determine the cumulative present value of revenue requirements (CPVRR) of the plan. Generic combustion turbine, combined cycle, and coal plants will be available technologies from which the optimization model can select. Depending on the proposals received, PEF will also examine combinations of proposals in the development of optimal resource plans. Progress Energy Florida reserves the right to eliminate proposals with high costs (relative to other proposals) from further consideration.

Progress Energy Florida's pricing parameters for New and Existing Unit Proposals are identified and described in Table IV-2 and are specified in greater detail in the Response Package. The requirements for pricing bids for System Power Proposals are specified in the Response Package.

Table IV-2
New and Existing Unit Proposal Pricing Parameters

Fixed Payment		• The monthly fixed payment to Bidders will be based on the product of the Seasonal Contract Capacity, one-twelfth (1/12) of the Bidder-specified annual charges, and adjustments based on operating performance (see Key Terms and Conditions). • If Bidders desire, they may propose alternative methods of distributing annual payments on a monthly basis. • Bidders must complete the applicable Pricing Schedules in the Response Package.
	Generation Capital	• Bidders must specify a generation capital charge for each year of the proposal.
	Transmission	• Bidders must specify a transmission charge for each year of the proposal. • This charge must include all interconnection and, if applicable, wheeling costs. System upgrade costs will be estimated by PEF during the Detailed Evaluation of proposals (Step 6).
	Fixed O&M	• Bidders must specify annual fixed O&M charges for each year of the proposal.
	Fixed Pipeline Demand / Reservation	• Bidders must specify a fixed pipeline demand/reservation charge (if appropriate to the technology being proposed). Bidders must specify a charge for each year of the proposal. • Bidders may propose a fuel transportation tariff as the price. • PEF reserves the right to negotiate fuel transportation provisions with the Bidder if benefits can be derived for PEF and its customers.
Variable Payment		
	Fuel Price	• Bidders must specify the commodity price and a variable transportation price as an initial price and indicate the proposed index or fixed escalation rate that will be used to escalate those prices. Bidder's may specify variable transportation as a function of the commodity price rather than an initial price and escalation index. The formula must be specified in Bidder's Exhibit 2.1 • Progress Energy Florida will not allow Bidders to merely state that fuel is a passthrough. Progress Energy Florida may allow a passthrough as a result of the negotiation process and, as a condition for this, would reserve the right to participate in the management of the project's fuel supply, but reserves the right to accept the base price and index or fixed escalation rate specified by the Bidder. • Bidders must specify the months in which the primary and secondary fuels will be expected to be used and be prepared to be evaluated and paid on that basis.
	Variable O&M	• Bidders should specify in Schedule 1annual variable O&M prices for each year of the proposal. Variable O&M may be stated in $/MWh, $/hour, or both.
Start Payment		• Bidders should specify annual start prices for each year of the proposal. Start payments will be paid only for those starts required by PEF. The cost to start the facility for test starts, following a forced outage, or after unplanned maintenance will not be included in PEF's payments to the Bidder.

4. Step 4: Technical Evaluation

In Step 4 of the evaluation process, the proposals that remain in the process after the economic screening performed in Step 3 will be evaluated on a technical basis to assess the feasibility and viability of each bid. As part of this technical evaluation, proposals will be reviewed to ensure that they conform to the Minimum Evaluation Requirements (Table IV-3) and will also be evaluated on the basis of the Technical Criteria (Table IV-4) described below.

a. Minimum Evaluation Requirements

Progress Energy Florida will apply Minimum Evaluation Requirements as a step in the technical evaluation process. These Minimum Evaluation Requirements, identified in Table IV-3, are the technical "must have" elements of a proposal. The information Bidders are required to provide to demonstrate their compliance with these Minimum Evaluation Requirements is specified in greater detail in the Response Package. Each Minimum Evaluation Requirement will be evaluated on a "Pass/Fail" or "Go/No Go" basis. Bidders must ensure that their proposals contain sufficient documentation to demonstrate that they meet all the Minimum Evaluation Requirements. **Failure to demonstrate conformance to these Minimum Evaluation Requirements will be grounds for disqualification.**

Table IV-3
Minimum Evaluation Requirements

A. **Environmental**
- Preliminary environmental analysis performed and submitted to PEF [New Unit Proposals].
- Reasonable schedule for securing permits presented and evidence provided that permits are likely to be secured [New Unit Proposals].

B. **Engineering and Design**
- The project technology will be able to achieve the operating targets specified by the Bidder [New Unit and Existing Unit Proposals].
- Operation and Maintenance Plan provided which indicates that the project will be operated and maintained in a manner adequate to allow the project to satisfy its contractual commitments [New Unit and Existing Unit Proposals].

C. **Fuel Supply and Transportation Plan**
- Preliminary fuel supply plan provided which describes the Bidder's plan for securing fuel supply and transportation for delivery to the project. The plan shall provide a description of the fuel delivery system to the site, the terms and conditions of any existing or proposed fuel supply and transportation arrangements, and the status of such arrangements [New Unit and Existing Unit Proposals].

D. **Project Financial Viability**
- For New Unit Proposals, evidence provided that demonstrates the project is financially viable [New Unit Proposals].
- Demonstration that the Bidder has sufficient credit standing and financial resources to satisfy its contractual commitments [All Proposals].

E. **Project Management Plan**
- For a New Unit Proposal, critical path diagram and schedule for the project provided which specify the items on the critical path and demonstrate the project would achieve commercial operation by December 1, 2007 [New Unit Proposals].

b. Technical Criteria

Technical Criteria are characteristics (non-price attributes) PEF desires that will make the proposals more attractive to the Company. Progress Energy Florida will use three major attributes to evaluate proposals' Technical Criteria: (1) operational quality; (2) development feasibility; and (3) project value. Each of the evaluation criteria that are contained within these evaluation attributes are identified in Table IV-4 and discussed below. Proposals will be ranked relative to each other for each of the Technical Criteria. **Inability of a Bidder to substantiate the basis for any representation will be grounds for a downward revision of its proposal's ranking or, in the event of misrepresentation, disqualification from this bidding process.**

Table IV-4
Technical Criteria

Operational Quality	Development Feasibility	Project Value
♦ Minimum Load (N, E)	♦ Permitting Certainty (N)	♦ Acceptance of Key Terms and Conditions (N,E,S)
♦ Start Time (N, E)	♦ Financial Viability (N,E,S)	♦ Fuel Supply and Transportation Reliability (N,E)
♦ Ramp Rate (N, E)	♦ Commercial Operation Date Certainty (N)	♦ Reliability Impact (N,E,S)
♦ Maximum Starts/Year (N, E)	♦ Bidder Experience (N,E,S)	♦ Flexibility Provisions (N,E,S)
♦ Minimum Run-Time Constraint (N, E)		
♦ Minimum Down-Time Constraint (N, E)		
♦ Annual Operating Hour Limit (N, E)		

N = New Unit Proposals, E = Existing Unit Proposals, S = System Power Proposals

Operational Quality

There are seven evaluation criteria that are considered as part of the operational quality attribute: (1) minimum load; (2) start time; (3) ramp rate; (4) maximum starts per year; (5) minimum run-time constraint; (6) minimum down-time constraint, and (7) annual operating hour limit. For New and Existing Unit Proposals, PEF will require that tests be conducted to ensure that the Bidder's project conforms to the start time and ramp rate operating parameters claimed in its proposal. Failure to conform to these operating parameters will subject Bidders to performance penalties under any power purchase agreement.

The minimum load is the lowest capacity level at which the project may be operated. Progress Energy Florida prefers projects that show flexibility by allowing operation at less than full load. Start time assesses the amount of notice required to bring the unit, under normal operations, from a cold start to minimum synchronized load. Progress Energy Florida prefers proposals that have short start times. Ramp rate assesses the megawatt (MW) increase per minute that can be provided by the project once the unit is at or above the minimum loading level. Progress Energy Florida prefers proposals that offer a high ramp rate. Maximum starts per year assesses the maximum number of times that PEF will be allowed to start the Bidder's project. Test starts, starts after a forced outage, and starts after unplanned maintenance will not be included when determining the number of starts requested by PEF. Progress Energy Florida prefers proposals in which there is no limit on the number of times that PEF can start a project. Minimum run-time constraint assesses the number of hours that the project is required to be operated at or above its minimum operating level once it has been dispatched on line. Progress Energy Florida prefers proposals that have no minimum run-time constraints. The minimum down-time constraint assess the number of hours that the project is required to remain out of service once it has been taken off-line for economic dispatch, maintenance outage, or forced outage. Progress Energy Florida prefers proposals that have no minimum down time constraints. The annual operating hour limit assesses the number of hours during a year that PEF would be allowed to operate the Facility. Progress Energy Florida prefers proposals that have no operating hour limits.

Development Feasibility

There are four evaluation criteria that are considered as part of the development feasibility attribute: (1) permitting certainty; (2) financial viability; (3) commercial operation date certainty; and (4) Bidder experience. All four of the evaluation criteria that represent this evaluation attribute will be considered for New Unit Proposals. Existing Unit and System Power Proposals will be evaluated in terms of the Bidder's financial viability and Bidder experience.

The permitting certainty evaluation criterion assesses the degree to which the Bidder is able to demonstrate that it will be able to identify and secure all of the required major permits, approvals, certificates, and licenses within the period indicated on the project's critical path schedule. Proposals that provide well-conceived plans for securing all required permits, approvals, etc., demonstrate a thorough understanding of the permitting process, and have realistic permitting and approval schedules will receive a higher ranking than those which do not. Finally, Bidders who have made greater progress in securing permits and approvals are preferred.

The financial viability evaluation criterion assesses the financial viability of the Bidder's proposal and the financial capability and credit of the Bidder. If the Bidder is proposing to obtain project financing for its proposal, the evaluation will focus on the financial viability of the proposal through the evaluation of project pro-forma financials based on the assumptions and capital structure in the proposal. To show financial viability, the Bidder needs to demonstrate that the project is, or becomes, free cash flow positive (not every year must show positive free cash flows but, in general, the project should be positive more than it is negative). There is no specific cash flow hurdle. If the Bidder indicates that it will be providing equity to the project or will self-finance the project, PEF will also assess the Bidder's ability to provide the required equity or financing through the credit review. For New Unit Proposals, PEF prefers proposals for which the Bidder is able to demonstrate that there is a high likelihood of the project securing financing. For System Power and Existing Unit Proposals, PEF's evaluation will focus on the financial resources of the Bidder. For all types of proposals, PEF will also evaluate the Bidder's ability to financially guarantee its contractual commitments. For the demonstration of creditworthiness, credit reviews will be performed based on bond ratings from two nationally recognized bond rating agencies and PEF's internal credit scoring model. In-house analysis is performed to determine a credit score and subsequent Progress equivalent rating on companies with the following characteristics:

- Not rated by S&P or Moody's or
- S&P or Moody's rated with no outstanding unsecured debt

Utilizing financial statements - the in-house analysis process, depicted below, utilizes nine leading indicators and corresponding weightings to determine a company's aggregate credit score.

		Credit Score					
Measure	**Weighting**	**0**	**1**	**2**	**3**	**4**	**5**
Debt/Capital	.15	>75%	70-75%	65-70%	60-65%	55-60%	<55%
Current Ratio	.10	<.60	60-.69	.70-.79	.80-.89	.90-.99	>1.0
EBITDA/Interest Expense	.15	<1.25	1.25-1.99	2.00-2.49	2.50-2.99	3.00-3.99	>4.00
Fixed Assets/Total Assets	.10	<10%	10.00-19.99%	20.00-29.99%	30.00-39.99%	40.00-49.99%	>50%
Fixed Assets/Equity	.10	<1	1.00-1.49	1.50-1.99	2.00-2.49	2.50-2.99	>3
Net Worth	.20	<$10MM	$11-49MM	$50-199MM	$200-499MM	$500-999MM	>$1B
Financial Statements	.05	Qualified or Outdated	Unaudited	Compiled	Statutory Filing	Unqualified (not Big 4)	Unqualified (Big 4)
3 Year Income Trend	.10	Downward	-	-	Mixed	-	Upward
Years in Business	.05	<2	2-3	3-4	5-6	7-8	>8

Each measure's score is calculated according to the formula provided below:

$$(\text{Credit Score} / \text{Total Available Points}) * \text{Weighting} * 100$$

Aggregate credit scores are calculated according to the formula provided below. The maximum points available are 100.

$$\sum(\text{Credit Score} / \text{Total Available Points}) * \text{Weighting} * 100$$

Company rating and credit score results are converted into Progress equivalent ratings according to the table listed below.

Rated Companies Lesser of		Unrated Companies	
S&P Rating	**Moody's Rating**	**Credit Score**	**Progress Equivalent**
AAA to AA-	Aaa to Aa3	100 - 91	PGN 1
A+ to A-	A1 to A3	90 - 81	PGN 2
BBB+ to BBB	Baa1 to Baa2	80 - 71	PGN 3
BBB-	Baa3	70 - 61	PGN 4
BB+ to BB-	Ba1 to Ba3	60 - 51	PGN 5
B+ to B-	B1 to B3	50 - 41	PGN 6

If a company is rated by both S&P and Moody's, the lesser of the two ratings is used to determine a Progress equivalent rating.

Commercial operation date certainty assesses the degree to which the Bidder is able to demonstrate that it will be able to bring the project to commercial operation by December 1, 2007. For New Unit Proposals, PEF will evaluate the reasonableness of the following aspects of the Bidder's proposed schedule: permitting and approvals, fuel supply and transportation arrangements, engineering design, project financing, equipment procurement, project construction, and start-up and testing. PEF's evaluation will consider the evidence presented by the Bidder that the proposed schedule for each of these project elements is achievable. PEF prefers proposals for which the Bidder is able to demonstrate that there is little or no risk that the project will not be able to achieve the commercial operation date requirement. For Existing Unit and System Power Proposals, PEF will evaluate the Bidder's ability to demonstrate that it will be able to provide the power being offered to PEF.

Bidder experience assesses the relative experience of the Bidder in developing and operating projects that are of an equivalent size and technology as that being proposed in response to this RFP. For a New Unit Proposal, PEF will evaluate the Bidder's relevant experience in six areas: permitting and approvals, engineering, financing, fuel procurement, project construction, and operations and maintenance, including environmental compliance. Progress Energy Florida prefers Bidders that have a history of successfully developing comparable projects. For proposals that rely on project teams composed of more than one firm to develop the projects, PEF prefers project teams that have a history of working together to successfully complete projects. For a Bidder that proposes to supply PEF's capacity requirements from existing capacity, PEF will only evaluate the Bidder's fuel procurement and operations and maintenance experience. PEF will also examine the litigation history of all Bidders.

Project Value

The project value attribute considers the following four evaluation criteria: (1) the Bidder's acceptance of the Key Terms and Conditions; (2) the reliability of the Bidder's fuel supply and transportation plan; (3) impact on generation system reliability; and (4) any flexibility provisions proposed by the Bidder.

Progress Energy Florida will evaluate Bidder's acceptance of the Key Terms and Conditions by assessing the degree to which exceptions identified by the Bidder shift risk from the Bidder to PEF or its customers. Progress Energy Florida prefers Bidders which request no changes to the terms and conditions or which request only minor changes that have no material effect on the allocation of risk within any contract ultimately executed.

Progress Energy Florida will evaluate the reliability of the Bidder's fuel supply and transportation plans by assessing the status of its fuel supply and transportation arrangements, the strength of the proposed fuel supplier, and the relative risk of the Bidder's proposed fuel supply and transportation arrangements. Progress Energy Florida prefers proposals that have well developed fuel supply and transportation arrangements, rely on a major fuel supplier that offers a diverse mix of potential fuel supplies and access to a number of different transportation alternatives, and have minimal fuel supply and transportation risks.

Progress Energy Florida will evaluate the impact on generation system reliability of the project proposed by Bidders, primarily through an examination of outage rate information provided by the Bidder. Depending on the proposals received, additional analyses may be required.

Progress Energy Florida reserves the right to consider any unique flexibility provisions offered by a Bidder that are not considered elsewhere, such as the economic evaluation. Progress Energy Florida favors bids which provide flexibility for meeting its projected requirements.

5. Step 5: Selection of Short List

Progress Energy Florida's objective is to select a short list which includes a mix of proposal types. Those bids which are inferior to other proposals, based on cost and technical merits, will be eliminated from further consideration. Progress Energy Florida anticipates selecting more than one proposal for the short list in order to create more opportunities for comparison. Progress Energy Florida will notify all short-listed Bidders that they have been included on the short list.

6. Step 6: Detailed Evaluation

Proposals that are included on the short list will be subjected to a more detailed assessment and will be compared to PEF's self-build alternative. In the detailed evaluation phase, PEF will incorporate the transmission cost impacts based on system impact studies. These studies include load flow, stability, and short circuit analyses and are necessary to determine the impacts on the transmission system of building the proposed power plants at the proposed sites. In the analyses to be performed by PEF, each proposed plant will be placed into the transmission system (Hines 4 will not be part of the system configuration) and the performance of the system with and without the proposed plant will be compared. If overload situations are encountered in the simulations, determinations will be made as to what corrective actions would be required to integrate the proposed plant into the PEF transmission system. The cost of these corrective actions will be included in the economic analysis of each proposal.

Progress Energy Florida plans to use spreadsheet and the Prosym production costing models to compare the short-listed proposals to PEF's self-build alternative. Using the optimal plans for the short-listed proposals developed in the economic analysis performed in Step 3, the detailed evaluation will assess the impact of each alternative on the CPVRR over the planning horizon compared to a Base Case plan. In order to treat all alternatives the same in the economic analysis, all cases will be compared to a Base Case optimal plan, which will consist of existing, committed, and generic future units. The results of the Prosym production costing analyses will be incorporated into the detailed financial analysis of each alternative. In addition to the direct costs associated with each alternative (that is, the energy charges of the proposals and the operating costs of the self-build alternative), the change in system production costs as a result of the alternative, relative to the Base Case, will also be a part of the financial analysis. The fixed costs associated with each alternative (the fixed charges of the proposals and the construction costs and fixed O&M of the self-build alternative) will be included in the analysis.

The cost impacts of the changes in the resource plan will be reflected in the financial analysis by way of an economic carrying charge, which is the same concept as the Value of Deferral. Each alternative will receive a credit for fixed cost savings equal to the economic carrying charge of a generic combined cycle unit (the unit in the Base Case being deferred) through the term of the proposal being considered.

Progress Energy Florida will apply the cost of imputed debt to Bidder's proposals to assure that the total costs of proposals include the marginal impact of the fixed future commitment on PEF's capital structure. The annual additional equity cost of imputed debt on a revenue requirements basis is calculated as:

Annual Additional Equity Cost =
Risk Factor * Present Value of Future Fixed Payments
* (Cost of Equity Rate – After Tax Cost of Debt Rate)
* Equity Ratio / (1 – Tax Rate)

where the Risk Factor and Present Value of Future Fixed Payments are calculated using S&P Standard Methodology (discount rate equals 10 percent and the risk factor equals 30 percent).

This additional cost is the direct result of incurring fixed future payment obligations. Rating agencies make these adjustments to a utility's balance sheet to reflect the existence of debt-like commitments. The Risk Factor is the percentage of the future fixed payments to be added to balance sheet debt and depends on a number of factors, including the conditions of a purchased power proposal, regulatory cost recovery risk, if the power proposal is economic compared to other alternatives. The biggest factor in selecting a risk factor is the likelihood of payment by the utility. According to Standard & Poors, "For utilities in supportive regulatory jurisdictions with a precedent for timely and full cost recovery of fuel and purchased-power costs, a risk factor as low as 30% could be used."

Consistent with Florida PSC rules, PEF encourages participants to formulate creative responses to the RFP. Without knowing the details of the proposals that may be submitted, PEF is not able to identify or describe all the analyses that may be needed to determine which alternative is the most cost-effective alternative. Based on the Company's review of the proposals submitted, the Company may deem it appropriate to perform scenario analyses (e.g., to examine flexibility options proposed by a bidder) and conduct sensitivity analyses of key cost and performance characteristics (such as, but not limited to, heat rate, outage rate, construction cost, O&M costs, and energy costs).

Progress Energy Florida may elect to schedule meetings or conference calls with each short-listed Bidder to review and clarify its proposal. Progress Energy Florida reserves the right to seek clarification or additional information from each Bidder regarding its proposal.

7. Step 7: Selection of Final List

Progress Energy Florida will develop a Final List based on the detailed evaluation of the short-listed proposals. This Final List will not necessarily be composed of the lowest cost alternatives. The price and non-price attributes described in this RFP solicitation document will be considered in their totality for each project. Progress Energy Florida will exercise sound professional judgment in performing the analyses and in making the final selection of the RFP process. Progress Energy Florida's objective is to select resources that offer the maximum value, based on cost and non-cost attributes, to the Company and its customers. The final-listed Bidders will be those Bidders with which PEF will begin contract negotiations. Progress Energy Florida will not necessarily award contracts to any of the Bidders on the Final List. In the event PEF's self-build alternative is clearly superior to the short-listed proposals, a Final List will not be selected and an appropriate announcement will be made.

D. Contract Negotiations

The next phase in the solicitation process is contract negotiations. As previously noted, PEF has included Key Terms and Conditions in the RFP to allow Bidders to identify their exceptions; thereby, expediting contract negotiations and allowing PEF to assess the significance of the changes requested by Bidders. Inclusion of a proposal in the Final List does not indicate PEF's acceptance of the exceptions identified by the Bidder. Progress Energy Florida reserves the right to negotiate any terms and conditions which provide value to PEF and its customers. Also, if in PEF's view contract negotiations are not proceeding on a reasonable schedule to ensure achievement of the in-service date requirement, PEF has the right to terminate contract negotiations with that Bidder.

E. Regulatory Filings

Determination of Need and/or Cost Recovery Filings with the Florida Public Service Commission may be required of selected proposals. Proposals that require an application for certification by the Florida Siting Board under the Florida Electrical Power Plant Siting Act will require a Determination of Need by the Florida Public Service Commission. In that event, Progress Energy Florida will be the applicant, and the Bidder will be the co-applicant in proceedings before the Florida Public Service Commission (which will determine the need for the project), the Florida Department of Environmental Protection (which will make a recommendation to the Florida Siting Board concerning site certification), and the Florida Siting Board. Cost Recovery Filings are annual filings associated with the fuel and purchased power clauses and are made after the execution of the purchased power agreement (PPA) and will be required for all selected proposals. In the case of a proposal that does not require a need determination, pre-approval of the PPA, as determined by PEF, may be required. The regulatory filing date of September 27, 2004 in the RFP schedule presented on page I-2 is for the Determination of Need Filing, if required, or the PPA pre-approval filing, if desired. Progress Energy Florida will also require that an application for site certification be filed on or before September 27, 2004 for any project that will require site certification by the Florida Siting Board.

V. PROGRESS ENERGY FLORIDA'S "NEXT PLANNED GENERATING UNIT"

The following data represent preliminary cost and performance estimates for Progress Energy Florida's next planned generating unit and are provided for information purposes only. These planning estimates have not been refined by detailed engineering or vendor quotes. The final actual cost of the project could be greater or smaller than that shown. Parties responding to this RFP should rely on their own independent evaluations and estimates of project costs in formulating their proposals.

1. A combined cycle generating unit to be located on PEF's existing Hines Energy Complex site in Polk County, Florida.
2. Planned Size 565 MW (winter), 494 MW (summer).
3. Commercial Operation of the facility is proposed to be December 1, 2007.
4. The primary fuel is natural gas. Distillate fuel oil will be used as a backup fuel source.
5. The estimated total direct cost is $249.9 million, including escalation, but excluding AFUDC. This estimate does not include transmission interconnection or required system upgrade costs.
6. The estimated annual levelized revenue requirement is $38.0 million over 25 years (2008$).
7. The estimated annual value of deferral of this unit is $55.05/kW-yr (2008$), which includes generation construction costs and fixed O&M.
8. The estimated annual fixed O&M is $0.96/kW-yr (2007$). The estimated variable O&M is $0.26/MWh (2007$). The estimated major maintenance costs are $2.72/MWh (2007$).
9. The estimated delivered fuel cost is $4.03/mmBtu (2007$), plus fixed transportation at $0.55/mmBtu.
10. The following are estimates for:

Planned outage rate	5.8%
Forced outage rate	3%
Minimum load	147 MW (winter)
Ramp Rate	45 MW/minute from min. to full load
Minimum run time	4 hours
Minimum down time	6 hours
Capacity factor	50% (annual average from TYSP)
Annual starts	50-100

Capacity States and heat rates (based on HHV of fuel)

Seasonal Capacity States and Net Heat Rates			
Capacity State (MW)		Primary Fuel (Btu/kWh)	
Winter	Summer	Winter	Summer
147	123	7731	8344
565	494	6720	6775

All values based on "new and clean" conditions

11. The estimated transmission interconnection costs for this unit are $3.1 million, excluding AFUDC. The estimated transmission system integration costs for this unit are $26.9 million, excluding AFUDC.
12. Supplemental site certification as well as amendment to related environmental permits will be required for this unit. It is PEF's plan to comply with all environmental standards of Local, Regional, State and

Federal governments.

13. The major financial assumptions in the development of these numbers were:

Construction escalation:	2.5% per year
O&M escalation:	2.5 % per year
Fuel escalation:	Varies by year
Capital structure:	48% debt @ 5.5%
	52% equity @ 12%
Discount rate:	7.92%

VI. PROGRESS ENERGY FLORIDA'S SYSTEM SPECIFIC CONDITIONS

FPC, doing business as Progress Energy Florida, Inc., is providing the following list of favorable generation location sites.

FPC has identified sites on the FPC Transmission System for the interconnection of new generation. Sites are based upon FPC's current knowledge of and experience with the FPC Transmission System.

Generation located at these sites appears to be less likely to cause severe system impacts and necessitate extensive transmission network upgrades. There may be other sites (which are not listed) that may offer similar capabilities. It must be emphasized that the full extent of the impact of a particular generation facility on the system and any needed transmission system improvements cannot be determined absent a specific study associated with the generation facility as provided for in FPC's Generator Interconnection Procedures, which can be found through the FPC and Interconnection Docs links on the FPC OASIS (http://floasis.seimens-asp.com). The ultimate disposition of transmission service associated with a generator also impacts needed transmission system improvements.

Persons interested in interconnecting generation should independently evaluate these sites as they would evaluate any potential generation site. To facilitate such studies, customers can obtain transmission cases upon request from the Florida Reliability Coordinating Council. Potential generators assume all risks should they decide to interconnect generation at one or more of these sites. Moreover, this list of sites reflects only a transmission perspective and does not consider other issues that may be relevant, such as fuel supply, water supply or environmental concerns.

FPC does not make, and expressly disclaims, any representation regarding the suitability of the sites for locating new generation. By posting this list of sites, FPC is not offering to purchase the output of any generation that may be constructed at such sites, nor does FPC warrant or otherwise guarantee the availability of transmission service from these sites.

It should be emphasized that interconnection and transmission service requests change frequently and can affect results at a particular site. Accordingly, reference should be made to the FPC OASIS (http://floasis.siemens-asp.com) for information relating to existing requests including generator interconnection requests at or near to a particular site.

General for siting

- 230 kV stations or lines are more favorable than 115 kV or 500 kV.
- Areas in proximity of nuclear generation may be more sensitive to stability issues.
- 230 k V lines are typically rated between 400 MVA to 1000 MVA.
- 115 kV lines are typically rated between 70 MVA and 200 MVA.
- Stations are more favorable than lines.

Favorable Generation Sites
Listed by County

County	Potential Area of Interconnection	Interconnection Voltage
Lake	Sorrento Sub	230 kV
Seminole	Piedmont Sub	230 kV
Orange	Woodsmere Sub	230 kV
Marion	Silver Springs Sub	230 kV
North Pinellas	Lake Tarpon Sub	230 kV
South Pinellas	Ulmerton Sub	230 kV

ATTACHMENT A
KEY TERMS & CONDITIONS

DEFINITIONS

"Agreement" means the Power Purchase Agreement entered into between Progress Energy Florida (PEF) and the "Seller."

"Commencement Date" means the date power is first accepted under this Agreement, and could be as early as December 1, 2006 but no later than December 1, 2007.

"Commercial Operation" means operation of the Facility commencing on the Commercial Operation Date and continuing until termination or expiration of the Agreement.

"Commercial Operation Date" means the later of (a) first day of the month following the date that the Facility has been satisfactorily completed and tested by Seller, or (b) the Commencement Date.

"Delivery Point" means the point at which deliveries of capacity and energy under the Agreement are required to be made and shall be measured which, for any Facility located within PEF's control area, shall be the Point of Interconnection; and, for any Facility located outside PEF's control area, shall be the physical point at which connection is made between PEF's system and the system of the Wheeling utility adjacent to PEF's control area which will deliver the capacity and energy to such point from the Facility or from other Wheeling utilities, as the case may be.

"Effective Date" means the date set forth in the preamble to the Agreement.

"Equivalent Availability Factor" or "EAF" shall have the meaning given in Section II.H of the Response Package.

"Equivalent Forced Outage Rate" or "EFOR" shall have the meaning given in Section II.H of the Response Package.

"Facility" or "Project" means the equipment, spare parts inventory, lands, property, buildings, generators, step-up transformers, boilers, output breakers, transmission lines and facilities used to connect to the Delivery Point or to the Facility's point of interconnection with the Wheeling utility, protective and associated equipment, improvements, and other tangible and intangible assets, property rights and contract rights reasonably necessary for the construction, operation and maintenance of the Facility.

"Good Utility Practice" means the practices, methods and acts (including but not limited to the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry) that, at a particular time, in the exercise of reasonable judgement in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with law, regulation, codes, standards, equipment manufacturer's recommendations, reliability, safety, environmental protection, economy and expedition. With respect to the Facility, Good Utility Practice(s) include, but are not limited to, taking reasonable steps to ensure that:

1. adequate equipment, materials, resources and supplies, including Primary Fuel and Secondary Fuel (with minimum inventory levels) are available to meet the needs of the Facility;

2. sufficient management and operating personnel are available at all times and are adequately experienced and trained and licensed as necessary to operate the Facility properly, efficiently and in coordination with the transmission system control area operator and are capable of responding to reasonably foreseeable emergency conditions whether caused by events on or off the site of the Facility;

3. preventive, routine, and non-routine maintenance and repairs are performed on a basis that ensures reliable long term and safe operation, and are performed by knowledgeable, trained and experienced personnel utilizing proper equipment and tools;

4. appropriate monitoring and testing is done to ensure equipment in functioning as designed;

5. equipment is not operated in a negligent or reckless manner, or in a manner unsafe to workers, the general public or the transmission system control area operator or contrary to environmental laws or regulations or without regard to defined limitations such as steam pressure, temperature and moisture content, chemical content of make-up water, safety inspection requirements, operating voltage, current, volt-ampere reactive (VAR) loading, frequency, rotational speed, polarity, synchronization and/or control system limits; and

6. the equipment will function properly under both normal and emergency conditions at the Facility and/or the transmission system.

"Interconnection Facilities" means all land, easements, materials, equipment and facilities installed for the purpose of interconnecting the Facility to the Delivery Point to facilitate the transfer of electric energy in either direction, including but not limited to connection, transformation, switching, metering, relaying, communications equipment, safety equipment, and any necessary additions and reinforcements to the control area operator's transmission system required for safety or system security as a result of the interconnection between the Facility and the control area operator's transmission system.

"Milestone Date" means the date by which the Seller is required to complete a specified task in accordance with the Milestone Schedule.

"Milestone Schedule" means the Milestone Schedule set forth in the Agreement, as such Milestone Schedule may be revised in accordance with the terms and conditions of the Agreement.

"MW" means megawatt or megawatts.

"Net Dependable Capacity" or "NDC" means the maximum net sustainable output of the Facility in MW that can be delivered to the Delivery Point (after deducting plant auxiliary loads and other losses), based on a performance test.

"Net Electrical Output" means all of the Facility's electric generating output after deducting plant auxiliary loads and any transmission losses between the Facility and the Delivery Point, as measured by metering devices owned by PEF.

"Point of Interconnection" shall mean the point where the Seller's Interconnection Facilities connect to the Company's transmission system.

"Project Lender" means the lender or lenders providing the initial construction and/or permanent debt financing for the Facility, and any fiscal agents, trustees, or other nominees acting on their behalf.

"Ramp Rate" means the minimum rate change in Net Electrical Output per minute over the period beginning at the time when the Seller is instructed to change the Facility's Net Electrical Output, and ending at the time that such Net Electrical Output is achieved, based on performance testing.

"Scheduled Commercial Operation Date" means the Milestone Date by which Seller is required to achieve Commercial Operation.

"Seasonal Contract Capacity(ies)" shall have the meaning given in Section II of the RFP document.

"Seasonal NDC" means the Summer NDC and/or the Winter NDC, as applicable.

"Security Funds" means the Development Security Fund and the Operational Security Fund as defined in Section 3.2.

"Start Time" means the maximum time required to synchronize the Facility to the control area operator's transmission system and achieve minimum load beginning when PEF instructs the Seller to start the Facility from a cold shut-down condition.

"Summer Contract Capacity" shall have the meaning given in Section II of the RFP document.

"Summer NDC" means the NDC for the Summer Period, corrected to the ambient conditions.

"Summer Period" shall be the months specified in Section II.F of the Response Package.

"System" means Power System as defined in the Solicitation Document (see page II-2).

"Wheeling" means the transmission of electric power from the electrical system of one utility to the electrical system of another utility, either directly or through the system of one or more other utilities.

"Winter Contract Capacity" shall have the meaning given in Section II of the RFP document.

"Winter NDC" means the NDC for the Winter Period, corrected to the ambient conditions.

"Winter Period" shall be the months specified in Section II.F of the Response Package.

SECTION 1. RIGHT OF FIRST REFUSAL

Progress Energy Florida (PEF) shall have the Right of First Refusal to purchase the Facility or to purchase any capacity expansions during the term of the Agreement, upon substantially the same terms and purchase price as that offered to any third party, which option shall be held open for a period of ninety (90) days after Seller's presentation of the terms of such offer to PEF. Notwithstanding the foregoing, any transfer of the Facility or any expansion thereof to any third party shall be permitted only with the prior written approval of PEF, and only upon agreement by a third party to assume all of Seller's obligations under the Agreement. This Right of First Refusal is not applicable to System sales.

SECTION 2. ADJUSTMENTS TO FIXED PAYMENTS

Subsequent to the Commercial Operation Date of the Facility and subject to the Seller's meeting all other obligations under the Agreement (including availability requirements), PEF shall accept, purchase and pay for the Seasonal NDC (as applicable) to be delivered under the Agreement based on the Contract Capacity, subject to the following:

a. If the tested Seasonal NDC is greater than or equal to the Seasonal Contract Capacity, PEF will pay Seller for capacity delivered based on the Seasonal Contract Capacity.

b. If tested Seasonal NDC is lower than the Seasonal Contract Capacity, PEF will pay Seller based on the Seasonal Contract Capacity, after subtracting the daily liquidated damages as specified in Section 3.5, until a re-test of the Facility shows a Seasonal NDC at least equal to the applicable Seasonal Contract Capacity.

c. If Seller fails to achieve an eighty-five percent (85%) EAF on a 12-month rolling average, starting in the second contract year, then the proposed Fixed Payments (Generation Capital, Transmission, Fixed O&M, and Fixed Pipeline Demand/Reservation as specified in Schedule 1 of the Response Package) will be reduced on a sliding-scale basis.

d. No Fixed Payments will be made for those months in which the 12-month rolling average EAF is less than 60%.

e. In any month, if the actual EFOR is greater than the EFOR guarantee, the proposed Fixed Payment will also be reduced by the Availability Adjustment Factor (AAF), where

$$AAF = (1 - EFOR_{actual}) / (1 - EFOR_{guarantee}).$$

The AAF shall not be greater than 1.0.

f. The monthly fixed payment shall thus be

Actual Fixed Payment (AFP) = proposed Fixed Payment * EAF adjustment * AAF.

Fixed Payment Adjustments are not applicable to System sales.

SECTION 3. DEFAULT AND SECURITY

3.1 Operation by PEF Following Event of Default by Seller

a. If during the term of the Agreement PEF becomes entitled to terminate the Agreement due to an Event of Default and if operation of the Facility is not assumed by Project Lender or its permitted assignee, then, in lieu of terminating the Agreement, PEF may, but is not obligated to, assume operational responsibility for the Facility to complete construction, continue operation, complete any necessary repairs, or take such other steps as are appropriate in the circumstances, or may designate a third party or parties to do the same, so as to assure uninterrupted availability of capacity and deliverability of electric energy from the Facility. Seller agrees to fully cooperate with PEF in providing access to the Facility, and permitting PEF to operate the Facility as provided herein. Any payments to Seller shall be made only after any and all costs and expenses (including liquidated damages) of PEF in exercising its rights hereunder are deducted.

b. PEF's exercise of its rights hereunder to operate the Facility and Seller's Interconnection Facilities shall not be deemed an assumption by PEF of any liability of Seller.

c. PEF may continue to operate the Facility until:

(1) Seller demonstrates to PEF's satisfaction that it is financially and technically qualified to operate the Facility in accordance with the Agreement and resumes operations;

(2) the Project Lender or its permitted assignee assumes operation of the Facility; or

(3) PEF terminates the Agreement for an Event of Default.

d. Operation by PEF Following Event of Default by Seller is not applicable to System sales.

3.2 Establishment of Security Funds

a. Seller agrees to establish, fund, and maintain the Security Funds specified below, which shall be available at PEF's discretion to pay any amount due to PEF under the Agreement:

(1) A "Development Security Fund" which shall be established and funded as provided in Section 3.2f within thirty (30) days after the Effective Date, and shall be maintained until such time as (a) the Facility achieves Commercial Operation; (b) all amounts payable from the Development Security Fund have been paid; and (c) the Operational Security Fund has been satisfactorily established and funded. A Development Security Fund is not applicable to a sale from either an existing generator or a System.

(2) An "Operational Security Fund" which shall be established and funded as provided in Section 3.2g within thirty (30) days after the Commercial Operation Date, and shall be

maintained until (a) the end of the term of the Agreement, or until termination of the Agreement; and (b) all amounts payable from the Operational Security Fund have been paid.

b. The Security Funds shall be maintained at Seller's expense, shall be originated by or deposited in a financial institution or company ("Issuer") acceptable to PEF, and shall be in the form of either of the following, or combination of both:

(1) an irrevocable standby letter of credit drawn on an Issuer acceptable to PEF; or

(2) cash in U. S. Dollars or U. S. Government Bonds deposited with an Issuer acceptable to PEF.

c. If a Security Fund in the form of an irrevocable letter of credit is utilized by the Seller to fund the above, such security must be issued for a minimum term of two (2) years. Additionally, the form and substance of such letter of credit must meet PEF's requirements to ensure that claims or draw-downs can be made in accordance with the terms of the Agreement. Furthermore, at the end of each year the security must be renewed for another one (1) year term such that the minimum remaining term of any such security shall not be less than twelve (12) months. If there is failure to comply with this provision, PEF shall have the right to draw immediately upon the security and to place the amounts so drawn in an account in accordance with the provisions of Section 3.2b. At such time as Seller's obligation to provide security expires, PEF shall, within a reasonable period of time, cooperate with Seller in canceling the letter of credit and/or returning such amounts.

d. With respect to any escrow account opened as security for Seller's obligations hereunder, PEF shall establish at Seller's cost and with Seller's funds an account in the name of PEF. If cash is to be deposited, the account shall be an interest bearing account. The documents for such escrow account and the institution holding such escrow account shall be acceptable to PEF in its sole discretion. At such time as Seller's obligation to provide security hereunder expires, PEF shall, within a reasonable period of time, return the cash or bonds in such escrow account to Seller. At such times as the cash balance in such escrow account exceeds the amount of Seller's obligation to provide security hereunder, PEF shall remit to Seller, at Seller's request, any excess in the escrow account above Seller's obligations. Seller may obtain the return of such escrow account at any time by providing to PEF an irrevocable letter of credit in the same amount as the escrow account and meeting the appropriate criteria specified in the Agreement.

e. PEF may reevaluate the value of all non-cash securities put into escrow as provided above at any time. Should the value of the non-cash securities fail to be in excess of the requirements set forth above, PEF may in its sole discretion require Seller to post additional security of an acceptable nature and level.

f. Development Security is security required from Seller during the development phase of the project. It must be posted according to the schedule found below and is based on the average Seasonal Contract Capacity of the Facility. All remaining Development Security will be returned to the Seller when the conditions of Section 3.2 are accomplished.

DEVELOPMENT SECURITY SCHEDULE
($50/kW Total)

Timing	Amount (Cash Equivalent Value)	Cumulative (Cash Equivalent Value)
30 days after contract signing	$20/kW	$20/kW
18 months before Scheduled Commercial Operation Date	$20/kW	$40/kW
12 months before Scheduled Commercial Operation Date	$10/kW	$50/kW

g. Operational Security is required from Seller during the operational phase (i.e., commercial operations date to contract end) of the project. It must be posted according to the schedule below and is based on the average Seasonal Contract Capacity of the Facility. All remaining Operational Security will be returned to the Seller when the conditions of Section 3.2 are accomplished.

OPERATIONAL SECURITY SCHEDULE
($30/kW Total)

Timing	Amount (Cash Equivalent Value)	Cumulative (Cash Equivalent Value)
Within 30 days after Commercial Operation Date	$10/kW	$10/kW
5 Years After Commercial Operation Date	$10/kW	$20/kW
10 Years After Commercial Operation Date	$10/kW	$30/kW

3.3 <u>Liquidated Damages for Seller's Failure to Meet Milestone Dates Before Commercial Operation</u>

a. If Seller fails to achieve Commercial Operation by the Scheduled Commercial Operation Date or fails to meet any Milestone Date, Seller shall pay liquidated damages to PEF as specified below:

Event	Liquidated Damages
i. Failure to meet each Milestone Date under Section 3.5 (other than Commercial Operation)	AFP/60*
ii. Failure to attain Commercial Operation by the Scheduled Commercial Operation Date	AFP/30*

* Based on the Seasonal Contract Capacity

Liquidated damages shall be paid for each calendar day of delay until the event is achieved or until twelve (12) months shall pass, as liquidated damages and not as a penalty. Liquidated damages shall begin accruing the day after failure to meet the scheduled Milestone. Such amounts shall be cumulative for each Milestone which is not achieved. Liquidated damages shall be payable monthly within ten (10) days of Seller's receipt from PEF of a bill covering the applicable period and shall continue until the specific Milestone is achieved or twelve (12) months have passed. If Seller fails to make such payment within such ten (10) days, PEF may draw on the Development Security to cover such payment. In the event that Seller fails to achieve a Milestone event within twelve (12) months of the Milestone Date for such event, PEF shall have the right to terminate the Agreement. If PEF exercises its right to terminate the Agreement, the entire amount of the Development Security plus any accrued interest shall be retained by PEF as liquidated damages. PEF shall also have any and all remedies specified in the Agreement, or as provided by law.

b. If Seller fails to achieve Commercial Operation by the Scheduled Commercial Operation Date, Seller shall be liable for damages to PEF for the costs of replacing the capacity and energy over and above what PEF would have paid Seller for the capacity and energy under the Agreement, and the transactional costs of obtaining the replacement capacity and energy, in addition to any liquidated damages payable under Section 3.3a.

c. If Seller provides written notice to PEF or it is otherwise determined by PEF at any time after the Effective Date that Seller will not be able to complete the Facility to a state of Commercial Operation, PEF may terminate the Agreement, and Seller shall pay liquidated damages as specified by the following formula, in addition to any liquidated damages payable under Section 3.3a through the date of termination:

(\$20/kW X Contract Capacity) +

(\$40/kW X Contract Capacity) X (No. of days from contract execution to date of notice)

(No. of days from contract execution to Scheduled Com. Oper. Date)

Upon such notice given by PEF, the Agreement shall terminate and Seller waives any rights it may have under the Agreement.

3.4 Damages for Event of Default After Commercial Operation

If a termination of the Agreement occurs as a result of an Event of Default of Seller after attaining Commercial Operation, Seller, for three (3) years subsequent to the date of default, shall be liable for PEF's damages, including, but not limited to, damages to PEF for the costs of replacing the capacity and energy over and above what PEF would have paid Seller for the capacity and energy under the Agreement, and the transactional costs of obtaining the replacement capacity and energy.

3.5 Penalties for Seasonal Contract Capacity Deficiencies

Seller shall pay to PEF an amount to be negotiated for the difference between the Seasonal Contract Capacity and the tested Seasonal NDC as determined through Facility testing, for each day that the Seasonal NDC remains below the Seasonal Contract Capacity. Assessed penalties shall be paid monthly. Penalties for Seasonal Contract Capacity Deficiencies are not applicable to System sales.

3.6 Penalties for Start Time Deficiencies

If Seller fails to meet the agreed upon Start Time requirements when tested in accordance with agreed upon provisions at any time during the term of the Agreement, then for each failure Seller shall pay PEF an amount to be negotiated, based on the applicable Seasonal Contract Capacity for the Facility, until the deficiency is corrected and satisfactorily re-tested. Assessed penalties shall be paid monthly.

3.7 Penalties for Ramp Rate Deficiencies

If Seller fails to meet the agreed upon Ramp Rate requirements when tested in accordance with agreed upon provisions at any time during the term of the Agreement, then for each failure Seller shall pay PEF an amount to be negotiated, based on the applicable Seasonal Contract Capacity for the Facility, until the deficiency is corrected and satisfactorily re-tested. Assessed penalties shall be paid monthly.

3.8 Payments from Security Funds

In addition to any other remedy available to it, PEF may draw appropriate amounts from the Security Funds to recover the damages owing to it under the Agreement, including but not limited to the recovery of liquidated damages payable under this Section 3. At the end of the term of the Agreement, the remaining balance of the Security Funds and accumulated interest shall be returned to Seller within a reasonable period of time if any funds are remaining in the Security Funds and if no funds are owed to PEF under the Agreement.

SECTION 4. OPERATION OF THE FACILITY

4.1 General

Seller shall operate, maintain, and repair the Facility in a safe, prudent, reliable, and efficient manner in accordance with Good Utility Practice.

4.2 Establishment of Operating Procedures

Seller and PEF shall each appoint an Operating Representative who shall be the primary point of contact between the parties for purposes of this Section within thirty (30) days after the Effective Date. Seller and PEF shall mutually develop written operating procedures no later than ninety (90) days prior to the Scheduled Commercial Operation Date. The operating procedures will be established by mutual agreement based on the design of the Facility and the design of the Interconnection Facilities. The operating procedures will be intended as a guide on how to integrate the Facility into the control area operator's transmission system. Topics covered shall include, but be not limited to, method of day-to-day communications; key personnel list for applicable PEF and Seller operating centers; clearances and switching practices; outage scheduling; daily capacity and energy reports; unit operations log; and reactive power support. In no event shall the operating procedures to be established hereunder be considered as a modification, amendment or waiver of any of the terms and conditions of the Agreement.

4.3 Certification of Maintenance

a. Seller shall obtain at its sole expense an independent engineering review of the entire Facility (including the Interconnection Facilities), its operation and maintenance to assist PEF in monitoring compliance with Good Utility Practice. This review shall also include a review of the environmental compliance of the Facility and its operation and maintenance plan. The independent review will be conducted by an engineering firm other than the firm chosen by Seller to design, construct, operate or maintain the Facility, and furthermore, selection of this engineering firm is subject to PEF's approval. The independent review will be conducted according to the following schedule:

   (1) Once every other year for the first ten (10) years following the Commercial Operation Date.

   (2) For the remainder of the term of the Agreement, once every calendar year.

b. Seller shall cause the independent engineer to issue a written report to PEF before June 1 of every year in which the independent review has been conducted assessing Facility operation and maintenance and compliance with all applicable environmental licenses, approvals, and permits and stipulating any related remedial or other actions consistent with Good Utility Practice. Such report shall be made available to PEF as soon as it is available to Seller. Seller shall cause these recommendations to be implemented as soon as practical unless Seller and PEF agree otherwise. Seller shall provide written certification of implementation of these recommendations to PEF as soon as they are completed.

c. PEF or its designated agent shall have the right to verify such recommendations by reviewing all pertinent Facility records and by inspecting the Facility, provided that such review and inspection shall not unreasonably interfere with Seller's operations at the Facility.

d. Seller and PEF shall use all reasonable efforts to resolve any disputes between them as to whether any maintenance deficiency exists and/or whether a particular remedy is reasonably necessary to correct a purported deficiency.

e. Seller agrees to undertake promptly and complete any undisputed deficiencies in maintenance and any disputed deficiencies in maintenance as ultimately agreed by Seller and PEF.

4.4 PEF Inspections

Seller shall allow PEF, at any time and with reasonable prior notice, to visit the Facility, including the control room and Interconnection Facilities, to inspect the Facility, review Seller's operating practices, and examine the operating logs. These visits may be made during weekends and nights as well as normal business hours. In exercising such rights, PEF shall not unreasonably interfere with or disrupt the operation of the Facility and PEF shall comply with all of Seller's reasonable safety regulations at the Facility.

SECTION 5. COMPLIANCE WITH LAWS

5.1 General

Seller agrees that it will at all times comply with all federal, state, and local statutes, laws, regulations and public ordinances of any nature relating in any way to the construction, modification, ownership, maintenance and operation of the Facility, and shall procure all necessary governmental permits, licenses, and inspections, and shall pay all fees and charges in connection therewith. Seller shall indemnify and defend PEF from and against any liability, fines, damages, costs, or expenses arising from Seller's failure to comply with the requirements of this Section.

5.2 Safety and Health

Seller shall comply with all federal, state and local laws and regulations pertaining to health, safety, sanitary facilities and waste disposal. Seller shall meet all requirements of the Occupational Safety and Health Act of 1970 (OSHA), including all amendments. Seller shall also comply with any standards, rules, regulations and orders promulgated under OSHA and particularly with the agreement for state development and enforcement of occupational health and safety standards as authorized by Section 18 of the Act.

5.3 Equal Employment Opportunity

Unless the rules, regulations or orders of the United States Secretary of Labor exempt the Agreement from the provisions of Section 202 of Executive Order No. 11246, dated September 24, 1965, relating to equal employment opportunity, those provisions are, to the extent applicable, made a part of the Agreement.

SECTION 6. ASSIGNMENT

Seller shall not sell or transfer the Facility or any part thereof, and shall not sell, transfer or assign the Agreement or any rights or obligations thereunder, without the prior written consent of PEF. A request to sell or transfer the Facility, or to sell, transfer or assign the Agreement must contain the name and location of individuals or firms to whom it is to be assigned, and a detailed description of the proposed transaction. Consent by PEF to sell or transfer the Facility, or to sell, transfer or assign the Agreement shall not relieve the Seller of responsibility for the performance of all obligations under the Agreement. Any sale or transfer of the Facility, and any transfer or assignment of the Agreement shall not jeopardize any of the security given by Seller as provided in Section 6. For purposes of this Section, a transfer or assignment shall include but not be limited to a sale of all or a majority interest in the stock of Seller.

SECTION 7. ENVIRONMENTAL REPORTING AND INDEMNITY

7.1 Environmental Compliance

Seller shall construct, maintain and operate the Facility in accordance with all state, federal and local environmental laws, regulations, ordinances, and permits. Seller shall disclose to PEF, as soon as and to the extent known to Seller, any actual or alleged violation of any environmental laws or regulations arising out of or in connection with the construction, operation or maintenance of the Facility, or the alleged presence of environmental contamination at or in connection with the Facility, or the existence of any past or present enforcement, legal or regulatory action or proceeding relating to such alleged violation or alleged presence of environmental contamination. Environmental contamination means the presence of hazardous wastes, hazardous substances, hazardous materials, toxic substances, hazardous air or other hazardous pollutants, and toxic pollutants, as those terms are used in the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation and Liability act; the Hazardous Materials Act; the Toxic Substances Control Act; the Clean Air Act; the Safe Drinking Water Act; the Oil Pollution and Hazardous Substances Control Act; and any and all other applicable federal, state, and local laws and regulations as amended, at such levels or quantities or location, or of such form or character, to be in violation of said federal, state, and local laws and regulations.

7.2 Environmental Indemnity

Seller shall indemnify, defend and hold PEF harmless against any and all claims, demands, losses, liabilities, expenses, fines and penalties, including interest and attorney fees, resulting from any alleged violation of applicable federal, state or local environmental laws or regulations arising out of Seller's construction, operation, maintenance or ownership of the Facility or the Facility site, or the presence of any environmental contamination at or in connection with the Facility.

SECTION 8. REGULATORY OUT

Notwithstanding anything to the contrary in the Agreement, if PEF, at any time during the term of the Agreement, fails to obtain or is denied the authorization of the Florida Public Service Commission ("FPSC"), or the authorization of any other legislative, administrative, judicial or regulatory body which now has, or in the future may have, jurisdiction over PEF's rates and charges, to recover from its customers all of the payments required to be made to the Seller under the terms of the Agreement or any subsequent amendment hereto, PEF may, at its sole option, adjust the payments made under the Agreement to the amount(s) which PEF is authorized to recover from its customers. In the event that PEF so adjusts the payments to which the Seller is entitled under the Agreement, then, without limiting or otherwise affecting any other remedies which the Seller may have hereunder or by law, the Seller may, at its sole option, terminate the Agreement upon (180) days written notice to PEF. If such determination of disallowance is ultimately reversed and such payments previously disallowed are found to be recoverable, PEF shall pay all withheld payments, with interest as set for refunds under the Federal Power Act pursuant to 18 C.F.R. §35.19a.. Seller acknowledges that any amounts initially received by PEF from its ratepayers, but for which recovery is subsequently disallowed and charged back to PEF, may be offset or credited, with interest as set for refunds under the Federal Power Act pursuant to 18 C.F.R. §35.19a, against subsequent payments to be made by PEF to the Seller under the Agreement.

If, at any time, PEF receives notice that the FPSC or any other legislative, administrative, judicial or regulatory body seeks or will seek to prevent full recovery by PEF from its customers of all payments required to be made under the terms of the Agreement or any subsequent amendments to the Agreement, then PEF shall, within five business days of such action, give written notice thereof to the Seller. PEF shall use its best efforts to defend and uphold the validity of the Agreement and its right to recover from its customers all payments required to be made by PEF hereunder, and will cooperate in any effort by the Seller to intervene in any proceeding challenging, or to otherwise be allowed to defend, the validity of the Agreement and the right of PEF to recover from its customers all payments to be made by it hereunder.

The Parties do not intend this Section 8 to grant any rights or remedies to any third party(ies) or to any legislative, administrative, judicial or regulatory body; and this Section 8 shall not operate to release any person from any claim or cause of action which the Seller may have relating to, or to preclude the Seller from asserting, the validity or enforceability of any obligation undertaken by PEF under the Agreement.

ATTACHMENT B

Progress Energy Florida
2003 Ten-Year Site Plan

Progress Energy Florida
Ten-Year Site Plan

April 2003
(Revised 04/08/03)

2003-2012

Submitted to:
Florida Public Service Commission

Progress Energy

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CHAPTER 4 ENVIRONMENTAL and LAND USE INFORMATION

LIST OF
REQUIRED SCHEDULES

PROGRESS ENERGY FLORIDA

CODE IDENTIFICATION SHEET

Generating Unit Type

ST - Steam Turbine - Non-Nuclear
NP - Steam Power - Nuclear
CT - Combustion Turbine (Gas Turbine)
CC - Combined Cycle
SPP - Small Power Producer
COG - Cogeneration Facility

Fuel Type

NUC - Nuclear (Uranium)
NG - Natural Gas
RFO - No. 6 Residual Fuel Oil
DFO - No. 2 Distillate Fuel Oil
BIT - Bituminous Coal
MSW - Municipal Solid Waste
WH - Waste Heat
BIO - Biomass

Fuel Transportation

WA - Water
TK - Truck
RR - Railroad
PL - Pipeline
UN - Unknown

Future Generating Unit Status

A - Generating unit capability increased
FC - Existing generator planned for conversion to another fuel or energy source
P - Planned for installation but not authorized; not under construction
RP - Proposed for repowering or life extension
RT - Existing generator scheduled for retirement
T - Regulatory approval received but not under construction
U - Under construction, less than or equal to 50% complete
V - Under construction, more than 50% complete

INTRODUCTION

Section 186.801 of the Florida Statutes requires generating electric utilities to submit a Ten-Year Site Plan (TYSP) to the Florida Public Service Commission (FPSC). The TYSP includes historical and projected data pertaining to the utility's load and resource needs as well as a review of those needs. It is compiled in accordance with FPSC Rules 25-22.070 through 25.072, Florida Administration Code.

Progress Energy Florida's (PEF's) TYSP is based on projections of long-term planning requirements that are dynamic in nature and subject to change. These planning documents should be used for general guidance concerning PEF's planning assumptions and projections, and they should not be taken as an assurance that particular events discussed in the TYSP will materialize or that particular plans will be implemented. Information and projections pertinent to periods further out in time are inherently subject to greater uncertainty.

The TYSP document contains four chapters as described below:

CHAPTER 1

Description of EXISTING FACILITIES

CHAPTER 2

Forecast of ELECTRICAL POWER DEMAND and ENERGY CONSUMPTION

CHAPTER 3

Forecast of FACILITIES REQUIREMENTS

CHAPTER 4

ENVIRONMENTAL and LAND USE INFORMATION

Detailed schedules and a description of PEF's TYSP follow.

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CHAPTER 1

Description of
EXISTING FACILITIES

Progress Energy

CHAPTER 1

Description of EXISTING FACILITIES

EXISTING FACILITIES OVERVIEW

OWNERSHIP

Progress Energy Florida is a wholly owned subsidiary of Progress Energy, Inc. (Progress Energy), a registered holding company under the Public Utility Holding Company Act (PUHCA) of 1935. Progress Energy and its subsidiaries, including Florida, are subject to the regulatory provisions of the PUHCA. Progress Energy is the parent company of PEF and certain other subsidiaries.

AREA OF SERVICE

Progress Energy Florida provided electric service during 2002 to an average of 1.5 million customers in west central Florida. Its service area covers approximately 20,000 square miles and includes the densely populated areas around Orlando, as well as the cities of St. Petersburg and Clearwater. Progress Energy Florida is interconnected with 20 municipal and 9 rural electric cooperative systems. Major wholesale power sales customers include Seminole Electric Cooperative, Inc., Florida Municipal Power Agency, Florida Power & Light, and Tampa Electric Company. PEF's Service Area is shown in Figure 1.1.

TRANSMISSION/DISTRIBUTION

As of December 31, 2002, Progress Energy Florida distributed electricity through 370 substations and had the second largest transmission network in Florida. Progress Energy Florida has 4,736 circuit miles of transmission lines, of which 2,600 circuit miles are operated at 500, 230, or 115 kV and the balance at 69 kV. Progress Energy Florida has 28,143 circuit miles of distribution lines, which operate at various voltages ranging from 2.4 to 25 kV. A map of the Electric System can be found in Figure 1.2.

ENERGY MANAGEMENT

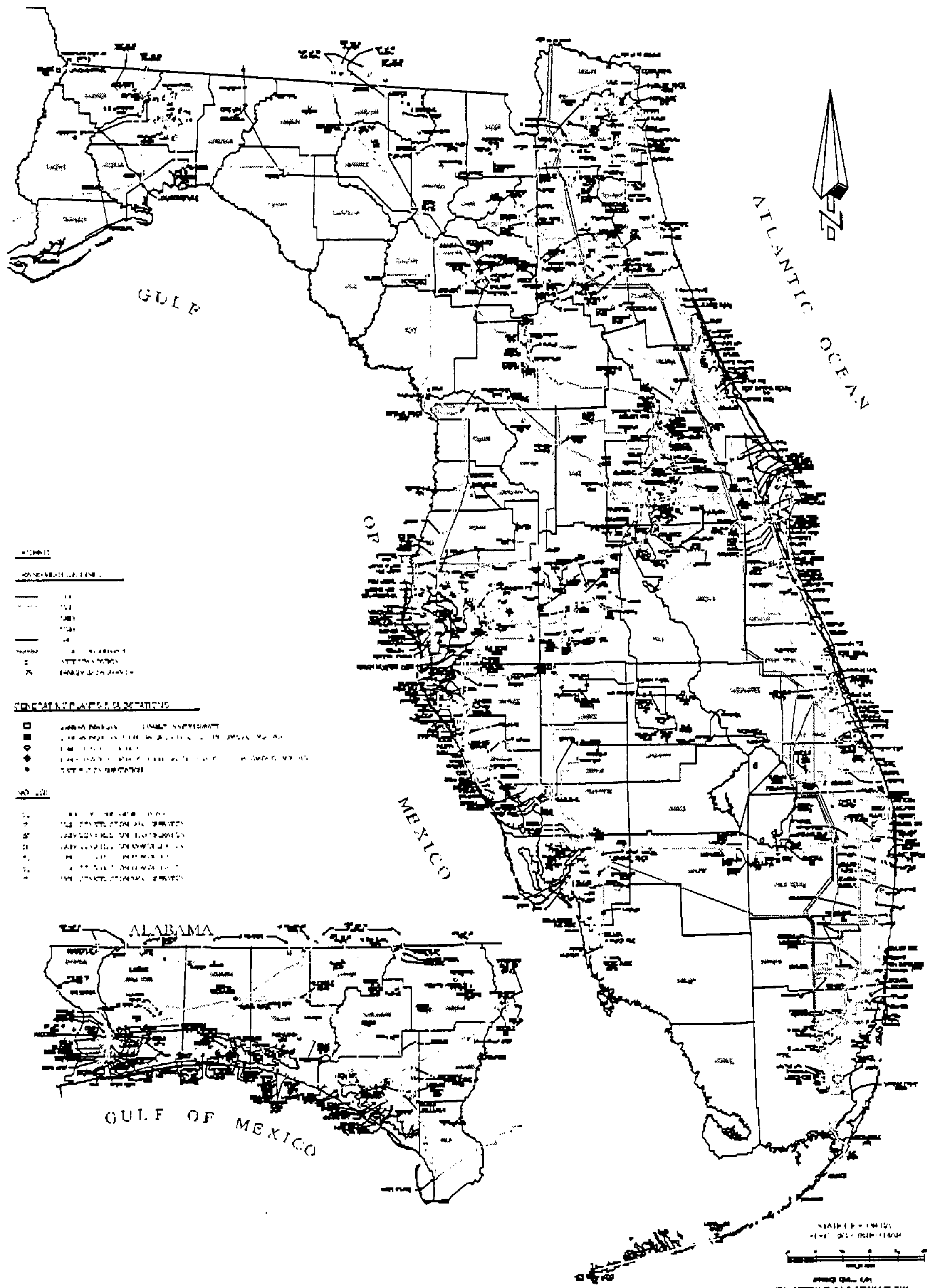
PEF customers participating in the company's residential Energy Management program are managing future growth and costs. Approximately 400,000 customers participated in the Energy Management program at the end of the year, contributing more than 720,000 kW of winter peak shaving capacity for use during high load periods.

TOTAL CAPACITY RESOURCE

As of December 31, 2002, PEF had total summer capacity resources of approximately 9,268 MW consisting of installed capacity of 7,955 MW (excluding joint ownership) and 1,313 MW of firm purchased power. Hines Unit 2 is a 516 MW combined-cycle unit under construction and currently scheduled for completion in late 2003. Additional information on PEF's existing generating resources is shown on Schedule 1 and Table 3.1.

FIGURE 1.1
Progress Energy Florida
Service Area

FIGURE 1.2
Electric System Map



PROGRESS ENERGY FLORIDA

SCHEDULE 1
EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 2002

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								ALT.					
								FUEL	COM'L IN-	EXPECTED	GEN. MAX.	NET CAPABILITY	
	UNIT	LOCATION	UNIT	FUEL		FUEL TRANSPORT		DAYS	SERVICE	RETIREMENT	NAMEPLATE	SUMMER	WINTER
PLANT NAME	NO.	(COUNTY)	TYPE	PRI.	ALT.	PRI.	ALT.	USE	MO./YEAR	MO./YEAR	KW	MW	MW
												993	1,044
ANCLOTE	1	PASCO	ST	RFO	NG	PL	PL		10/1974		556,200	498	522
	2		ST	RFO	NG	PL	PL		10/1978		556,200	495	522
												52	64
AVON PARK	P1	HIGHLANDS	GT	NG	DFO	PL	TK	3	12/1968		33,790	26	32
	P2		GT	DFO		TK			12/1968		33,790	26	32
												631	671
BARTOW	1	PINELLAS	ST	RFO		WA			09/1958		127,500	121	123
	2		ST	RFO		WA			08/1961		127,500	119	121
	3		ST	RFO	NG	WA	PL		07/1963		239,360	204	208
	P1, P3		GT	DFO		WA			06/1972		111,400	92	106
	P2		GT	NG	DFO	PL	WA	8	06/1972		55,700	46	53
	P4		GT	NG	DFO	PL	WA	8	06/1972		55,700	49	60
												184	232
BAYBORO	P1-P4	PINELLAS	GT	DFO		WA,TK			04/1973		226,800	184	232
												3,067	3,123
CRYSTAL	1	CITRUS	ST	BIT		WA,RR			10/1966		440,550	379	383
RIVER	2		ST	BIT		WA,RR			11/1969		523,800	486	491
	3 *		ST	NUC		TK			03/1977		890,460	765	782
	4		ST	BIT		WA,RR			12/1982		739,260	720	735
	5		ST	BIT		WA,RR			10/1984		739,260	717	732
												667	762
DEBARY	P1-P6	VOLUSIA	GT	DFO		TK,RR			04/1976		401,220	324	390
	P7-P9		GT	NG	DFO	PL	TK,RR	8	11/1992		345,000	258	279
	P10		GT	DFO		TK,RR			11/1992		115,000	85	93
												122	134
HIGGINS	P1-P2	PINELLAS	GT	NG	DFO	PL	TK	1	04/1969		67,580	54	64
	P3-P4		GT	NG	DFO	PL	TK	1	12/1970		85,850	68	70
												482	529
HINES ENERGY COMPLEX	1	POLK	CC	NG	DFO	PL	TK	6	04/1999		546,550	482	529
												1,041	1,206
INTERCESSION	P1-P6	OSCEOLA	GT	DFO		PL,TK			05/1974		340,200	294	366
CITY	P7-P10		GT	NG	DFO	PL	PL,TK	5	11/1993		460,000	352	376
	P11 **		GT	DFO		PL,TK			01/1997		165,000	143	170
	P12-P14		GT	NG	DFO	PL	PL,TK	5	12/2000		345,000	252	294
												13	16
RIO PINAR	P1	ORANGE	GT	DFO		TK			11/1970		19,290	13	16
												307	347
SUWANNEE	1	SUWANNEE	ST	RFO	NG	TK	PL		11/1953		34,500	32	33
RIVER	2		ST	RFO	NG	TK	PL		11/1954		37,500	31	32
	3		ST	RFO	NG	TK	PL		10/1956		75,000	80	81
	P1, P3		GT	NG	DFO	PL	TK	10	11/1980		122,400	110	134
	P2		GT	DFO		TK			11/1980		61,200	54	67
												207	223
TIGER BAY	1	POLK	CC	NG		PL			08/1997		278,223	207	223
												154	194
TURNER	P1-P2	VOLUSIA	GT	DFO		TK			10/1970		38,580	26	32
	P3		GT	DFO		TK			08/1974		71,200	65	82
	P4		GT	DFO		TK			08/1974		71,200	63	80
												35	41
UNIV OF FLA.	P1	ALACHUA	GT	NG		PL			01/1994		43,000	35	41
												7,955	8,586

* REPRESENTS 91.78% PEF OWNERSHIP OF UNIT

** SUMMER CAPABILITY (JUNE THROUGH SEPTEMBER) OWNED BY GEORGIA POWER COMPANY

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CHAPTER 2

Forecast of
ELECTRIC POWER DEMAND
And ENERGY CONSUMPTION

Progress Energy

CHAPTER 2

Forecast of ELECTRIC POWER DEMAND

and

ENERGY CONSUMPTION

OVERVIEW

The following Schedules 2, 3 and 4 represent PEF's history and forecast of customers, energy sales (GWh), and peak demand (MW). High and low scenarios are also presented for sensitivity purposes.

The base case was developed using assumptions to predict a forecast with a 50/50 probability, or most likely scenario. The high and low scenarios, which have a 90/10 probability of occurrence or an 80 percent probability of an outcome falling between the high and low cases, employed a Monte Carlo simulation procedure that studied 1,000 possible outcomes of retail demand and energy.

PEF's customer growth is expected to average 1.6 percent between 2003 and 2012, less than the ten-year historical average of 2.2 percent. The ten-year historical growth rate falls to 2.0 percent when accounting for the creation ofPEF's Seasonal Service Rate tariff, which artificially inflates customer growth figures. Slower population growth -- based on the latest projection from the University of Florida's Bureau of Economic and Business Research -- results in a lower base case customer projection when compared to the higher historical growth rate. This translates into lower projected energy and demand growth rates from historic rate levels.

Net energy for load, which had grown at an average of 3.9 percent between 1993 and 2002, is expected to increase by 2.3 percent per year from 2003-2012 in the base case, 2.6 percent in the high case and 1.9 percent in the low case.

Summer net firm demand is expected to grow an average of 2.5 percent per year during the next ten years. This compares to the 3.4 percent average annual growth rate experienced throughout the last ten years. High and low summer growth rates for net firm demand are 2.9 percent and

2.2 percent per year, respectively. Winter net firm demand is projected to grow at 2.3 percent per year after having increased by 4.3 percent per year from 1993 to 2002. High and low winter net firm demand growth rates are 2.6 percent and 2.0 percent, respectively.

Summer net firm retail demand is expected to grow an average of 2.5 percent per year during the next ten years; this compares to the 3.3 percent average annual growth rate experienced throughout the last ten years. High and low summer growth rates for net firm retail demand are 2.9 percent and 2.1 percent per year, respectively. Winter net firm retail demand is projected to grow at approximately 2.2 percent per year after having increased by 3.7 percent per year from 1993 to 2002. High and low winter net firm retail demand growth rates are 2.6 percent and 1.8 percent, respectively.

ENERGY CONSUMPTION and FORECAST CONSUMPTION SCHEDULES

History and Forecast of Energy Consumption and Number of Customers by Customer Class are shown on Schedules 2.1, 2.2 and 2.3.

History and Forecast of Base, High and Low Summer Peak Demand are shown on Schedules 3.1.1, 3.1.2 and 3.1.3.

History and Forecast of Base, High, and Low Winter Peak Demand are shown on Schedules 3.2.1, 3.2.2 and 3.2.3.

History and Forecast of Base, High and Low Annual Net Energy for Load are shown on Schedules 3.3.1, 3.3.2 and 3.3.3.

Previous Year Actual and Two-Year Forecast of Peak Demand and Net Energy for Load by Month are shown on Schedule 4.

PROGRESS ENERGY FLORIDA

SCHEDULE 2.1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RURAL AND RESIDENTIAL					COMMERCIAL		
YEAR	PEF POPULATION	MEMBERS PER HOUSEHOLD	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER
1993	2,663,086	2.473	13,373	1,076,657	12,421	7,885	119,811	65,812
1994	2,734,821	2.485	13,863	1,100,537	12,597	8,252	122,987	67,097
1995	2,801,105	2.491	14,938	1,124,679	13,282	8,612	126,189	68,247
1996	2,847,802	2.494	15,481	1,141,671	13,560	8,848	129,440	68,356
1997	2,895,266	2.495	15,080	1,160,611	12,993	9,257	132,504	69,862
1998	2,959,509	2.502	16,526	1,182,786	13,972	9,999	136,345	73,336
1999	3,047,293	2.511	16,245	1,213,470	13,387	10,327	140,897	73,295
2000	3,044,459	2.467	17,116	1,234,286	13,867	10,813	143,475	75,368
2001	3,141,867	2.465	17,604	1,274,672	13,810	11,061	146,983	75,251
2002	3,207,661	2.465	18,754	1,301,515	14,409	11,420	150,577	75,842
2003	3,257,240	2.461	19,025	1,323,365	14,376	11,891	152,768	77,837
2004	3,304,629	2.460	19,496	1,343,486	14,512	12,313	155,315	79,278
2005	3,347,997	2.455	19,956	1,363,476	14,636	12,716	157,154	80,914
2006	3,394,454	2.451	20,428	1,384,860	14,751	13,090	159,862	81,883
2007	3,447,017	2.449	20,905	1,407,587	14,852	13,459	162,739	82,703
2008	3,505,442	2.449	21,409	1,431,210	14,959	13,834	165,728	83,474
2009	3,566,998	2.451	21,912	1,455,275	15,057	14,210	168,773	84,196
2010	3,628,453	2.453	22,422	1,479,339	15,157	14,597	171,819	84,956
2011	3,696,399	2.454	22,932	1,506,312	15,224	14,994	175,282	85,542
2012	3,747,779	2.455	23,448	1,526,460	15,361	15,399	177,785	86,616

PROGRESS ENERGY FLORIDA

SCHEDULE 2.2
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	INDUSTRIAL						
YEAR	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	RAILROADS AND RAILWAYS GWh	STREET & HIGHWAY LIGHTING GWh	OTHER SALES TO PUBLIC AUTHORITIES GWh	TOTAL SALES TO ULTIMATE CONSUMERS GWh
1993	3,381	3,107	1,088,188	0	25	1,865	26,529
1994	3,580	3,186	1,123,666	0	26	1,954	27,675
1995	3,864	3,143	1,229,399	0	27	2,058	29,499
1996	4,224	2,927	1,443,116	0	26	2,205	30,784
1997	4,188	2,830	1,479,859	0	27	2,299	30,851
1998	4,375	2,707	1,616,180	0	27	2,459	33,386
1999	4,334	2,629	1,648,536	0	27	2,509	33,442
2000	4,249	2,535	1,676,188	0	28	2,626	34,832
2001	3,872	2,551	1,517,771	0	28	2,698	35,263
2002	3,835	2,535	1,513,143	0	28	2,822	36,859
2003	3,966	2,520	1,573,810	0	29	2,946	37,857
2004	4,120	2,520	1,634,921	0	29	3,054	39,012
2005	4,245	2,520	1,684,524	0	29	3,167	40,113
2006	4,318	2,520	1,713,492	0	30	3,280	41,146
2007	4,368	2,520	1,733,333	0	30	3,394	42,156
2008	4,419	2,520	1,753,571	0	30	3,509	43,201
2009	4,467	2,520	1,772,619	0	30	3,626	44,245
2010	4,515	2,520	1,791,667	0	31	3,743	45,308
2011	4,562	2,520	1,810,317	0	31	3,863	46,382
2012	4,608	2,520	1,828,571	0	31	3,986	47,472

PROGRESS ENERGY FLORIDA

SCHEDULE 2.3
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(1) YEAR	(2) SALES FOR RESALE GWh	(3) UTILITY USE & LOSSES GWh	(4) NET ENERGY FOR LOAD GWh	(5) OTHER CUSTOMERS (AVERAGE NO.)	(6) TOTAL NO. OF CUSTOMERS
1993	1,695	2,020	30,244	15,077	1,214,652
1994	1,819	1,680	31,174	17,181	1,243,891
1995	1,846	2,322	33,667	17,774	1,271,785
1996	2,089	1,842	34,715	18,035	1,292,073
1997	1,758	1,996	34,605	18,562	1,314,507
1998	2,340	2,037	37,763	19,013	1,340,851
1999	3,267	2,451	39,160	19,601	1,376,597
2000	3,732	2,678	41,242	20,004	1,400,299
2001	3,839	1,830	40,933	20,752	1,444,958
2002	3,173	2,534	42,567	21,156	1,475,783
2003	2,537	2,714	43,108	21,824	1,500,477
2004	2,456	2,494	43,962	22,387	1,523,708
2005	2,536	2,557	45,206	22,952	1,546,102
2006	2,732	2,643	46,521	23,513	1,570,755
2007	2,648	2,609	47,413	24,077	1,596,923
2008	2,448	2,699	48,348	24,641	1,624,099
2009	2,395	2,759	49,399	25,206	1,651,774
2010	2,350	2,809	50,467	25,769	1,679,447
2011	2,319	2,882	51,583	26,419	1,710,533
2012	2,311	2,939	52,722	26,898	1,733,663

PROGRESS ENERGY FLORIDA

SCHEDULE 3.1.1
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
BASE CASE

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM. / IND. LOAD MANAGEMENT	(9) COMM. / IND. CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
1993	6,913	833	6,080	272	502	48	27	70	155	5,839
1994	6,880	787	6,093	262	527	52	30	81	154	5,774
1995	7,523	959	6,564	269	503	64	40	106	160	6,381
1996	7,470	828	6,642	309	565	69	41	120	167	6,199
1997	7,786	874	6,912	288	555	78	41	131	170	6,523
1998	8,367	943	7,424	291	438	97	42	142	182	7,175
1999	9,039	1,326	7,713	292	505	113	45	153	183	7,747
2000	8,911	1,319	7,592	277	455	127	48	155	75	7,774
2001	8,471	1,118	7,353	283	414	139	54	156	75	7,350
2002	9,034	1,205	7,829	305	390	153	43	159	75	7,909
2003	8,777	687	8,089	325	341	169	45	161	75	7,661
2004	8,953	680	8,273	386	300	183	47	162	75	7,800
2005	9,101	664	8,437	394	266	197	49	164	75	7,957
2006	9,464	849	8,615	397	236	211	51	165	75	8,329
2007	9,716	916	8,800	398	210	226	53	166	75	8,589
2008	9,896	904	8,992	380	187	240	55	167	75	8,792
2009	10,075	888	9,187	371	167	253	58	168	75	8,984
2010	10,253	872	9,381	351	150	259	58	169	75	9,192
2011	10,445	873	9,572	352	134	259	57	169	75	9,400
2012	10,634	873	9,761	353	120	259	56	169	75	9,602

Historical Values (1993 - 2002):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2003 - 2012):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = Represent cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.1.2
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
HIGH LOAD FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM. / IND. LOAD MANAGEMENT	COMM. / IND. CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1993	6,913	833	6,080	272	502	48	27	70	155	5,839
1994	6,880	787	6,093	262	527	52	30	81	154	5,774
1995	7,523	959	6,564	269	503	64	40	106	160	6,381
1996	7,470	828	6,642	309	565	69	41	120	167	6,199
1997	7,786	874	6,912	288	555	78	41	131	170	6,523
1998	8,367	943	7,424	291	438	97	42	142	182	7,175
1999	9,039	1,326	7,713	292	505	113	45	153	183	7,747
2000	8,911	1,319	7,592	277	455	127	48	155	75	7,774
2001	8,471	1,118	7,353	283	414	139	54	156	75	7,350
2002	9,034	1,205	7,829	305	390	153	43	159	75	7,909
2003	8,924	687	8,237	325	341	169	45	161	75	7,809
2004	9,122	680	8,442	386	300	183	47	162	75	7,969
2005	9,298	664	8,635	394	266	197	49	164	75	8,155
2006	9,677	849	8,828	397	236	211	51	165	75	8,542
2007	9,965	916	9,049	398	210	226	53	166	75	8,838
2008	10,165	904	9,261	380	187	240	55	167	75	9,061
2009	10,392	888	9,504	371	167	253	58	168	75	9,301
2010	10,629	872	9,758	351	150	259	58	169	75	9,568
2011	10,864	873	9,991	352	134	259	57	169	75	9,819
2012	11,116	873	10,244	353	120	259	56	169	75	10,085

Historical Values (1993 - 2002):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2003 - 2012):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = Represent cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.1.3
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
LOW LOAD FORECAST

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM. / IND. LOAD MANAGEMENT	(9) COMM. / IND. CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
1993	6,913	833	6,080	272	502	48	27	70	155	5,839
1994	6,880	787	6,093	262	527	52	30	81	154	5,774
1995	7,523	959	6,564	269	503	64	40	106	160	6,381
1996	7,470	828	6,642	309	565	69	41	120	167	6,199
1997	7,786	874	6,912	288	555	78	41	131	170	6,523
1998	8,367	943	7,424	291	438	97	42	142	182	7,175
1999	9,039	1,326	7,713	292	505	113	45	153	183	7,747
2000	8,911	1,319	7,592	277	455	127	48	155	75	7,774
2001	8,471	1,118	7,353	283	414	139	54	156	75	7,350
2002	9,034	1,205	7,829	305	390	153	43	159	75	7,909
2003	8,217	687	7,530	325	341	169	45	161	75	7,101
2004	8,367	680	7,687	386	300	183	47	162	75	7,214
2005	8,479	664	7,815	394	266	197	49	164	75	7,335
2006	8,796	849	7,947	397	236	211	51	165	75	7,661
2007	9,001	916	8,085	398	210	226	53	166	75	7,874
2008	9,131	904	8,227	380	187	240	55	167	75	8,028
2009	9,250	888	8,362	371	167	253	58	168	75	8,159
2010	9,391	872	8,519	351	150	259	58	169	75	8,330
2011	9,520	873	8,647	352	134	259	57	169	75	8,474
2012	9,666	873	8,793	353	120	259	56	169	75	8,634

Historical Values (1993 - 2002):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2003 - 2012):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = Represent cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.2.1
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
BASE CASE

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM. / IND. LOAD MANAGEMENT	COMM. / IND. CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1992/93	7,191	851	6,340	155	599	67	0	57	159	6,154
1993/94	7,184	972	6,212	199	759	90	2	66	165	5,903
1994/95	9,084	1,145	7,939	281	997	101	5	75	131	7,494
1995/96	10,562	1,489	9,073	255	1,156	106	15	95	201	8,734
1996/97	8,486	1,235	7,251	290	917	133	16	104	190	6,836
1997/98	7,717	941	6,776	318	663	124	17	117	168	6,310
1998/99	10,473	1,741	8,732	305	874	196	18	117	187	8,776
1999/00	10,040	1,728	8,312	225	849	229	20	119	182	8,416
2000/01	11,450	1,984	9,466	255	809	254	29	120	194	9,789
2001/02	10,676	1,625	9,051	285	770	278	24	121	187	9,011
2002/03	10,298	1,399	8,899	308	723	305	27	121	186	8,627
2003/04	10,420	1,313	9,107	380	691	332	30	122	188	8,676
2004/05	10,620	1,334	9,286	392	665	361	33	123	190	8,855
2005/06	10,866	1,397	9,469	399	644	390	36	124	192	9,080
2006/07	11,365	1,703	9,662	400	628	419	39	125	194	9,560
2007/08	11,520	1,675	9,845	381	615	448	43	126	196	9,711
2008/09	11,730	1,696	10,034	371	605	477	46	127	198	9,905
2009/10	11,948	1,724	10,224	362	598	505	49	128	200	10,106
2010/11	12,164	1,751	10,413	353	591	505	49	128	203	10,336
2011/12	12,384	1,786	10,598	354	584	505	49	128	205	10,559

Historical Values (1993 - 2002):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2003 - 2012):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = Represent cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.2.2
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
HIGH LOAD FORECAST

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM. / IND. LOAD MANAGEMENT	(9) COMM. / IND. CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
1992/93	7,191	851	6,340	155	599	67	0	57	159	6,154
1993/94	7,184	972	6,212	199	759	90	2	66	165	5,903
1994/95	9,084	1,145	7,939	281	997	101	5	75	131	7,494
1995/96	10,562	1,489	9,073	255	1,156	106	15	95	201	8,734
1996/97	8,486	1,235	7,251	290	917	133	16	104	190	6,836
1997/98	7,717	941	6,776	318	663	124	17	117	168	6,310
1998/99	10,473	1,741	8,732	305	874	196	18	117	187	8,776
1999/00	10,040	1,728	8,312	225	849	229	20	119	182	8,416
2000/01	11,450	1,984	9,466	255	809	254	29	120	194	9,789
2001/02	10,676	1,625	9,051	285	770	278	24	121	187	9,011
2002/03	10,460	1,399	9,060	308	723	305	27	121	186	8,789
2003/04	10,603	1,313	9,290	380	691	332	30	122	188	8,859
2004/05	10,834	1,334	9,500	392	665	361	33	123	190	9,070
2005/06	11,097	1,397	9,700	399	644	390	36	124	192	9,312
2006/07	11,636	1,703	9,932	400	628	419	39	125	194	9,830
2007/08	11,810	1,675	10,134	381	615	448	43	126	196	10,000
2008/09	12,072	1,696	10,377	371	605	477	46	127	198	10,248
2009/10	12,351	1,724	10,628	362	598	505	49	128	200	10,510
2010/11	12,613	1,751	10,863	353	591	505	49	128	203	10,785
2011/12	12,899	1,786	11,114	354	584	505	49	128	205	11,075

Historical Values (1993 - 2002):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2003 - 2012):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = Represent cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.2.3
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
LOW LOAD FORECAST

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM. / IND. LOAD MANAGEMENT	(9) COMM. / IND. CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
1992/93	7,191	851	6,340	155	599	67	0	57	159	6,154
1993/94	7,184	972	6,212	199	759	90	2	66	165	5,903
1994/95	9,084	1,145	7,939	281	997	101	5	75	131	7,494
1995/96	10,562	1,489	9,073	255	1,156	106	15	95	201	8,734
1996/97	8,486	1,235	7,251	290	917	133	16	104	190	6,836
1997/98	7,717	941	6,776	318	663	124	17	117	168	6,310
1998/99	10,473	1,741	8,732	305	874	196	18	117	187	8,776
1999/00	10,040	1,728	8,312	225	849	229	20	119	182	8,416
2000/01	11,450	1,984	9,466	255	809	254	29	120	194	9,789
2001/02	10,676	1,625	9,051	285	770	278	24	121	187	9,011
2002/03	10,129	1,399	8,729	308	723	305	27	121	186	8,458
2003/04	10,238	1,313	8,925	380	691	332	30	122	188	8,494
2004/05	10,416	1,334	9,082	392	665	361	33	123	190	8,652
2005/06	10,630	1,397	9,233	399	644	390	36	124	192	8,845
2006/07	11,096	1,703	9,392	400	628	419	39	125	194	9,290
2007/08	11,214	1,675	9,538	381	615	448	43	126	196	9,404
2008/09	11,376	1,696	9,681	371	605	477	46	127	198	9,552
2009/10	11,562	1,724	9,839	362	598	505	49	128	200	9,721
2010/11	11,712	1,751	9,962	353	591	505	49	128	203	9,884
2011/12	11,887	1,786	10,102	354	584	505	49	128	205	10,063

Historical Values (1993 - 2002):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2003 - 2012):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = Represent cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.3.1
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
BASE CASE

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM. / IND. CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR (%) *
1993	31,164	202	195	524	26,528	1,695	2,020	30,243	51.3
1994	32,150	219	220	536	27,675	1,819	1,680	31,174	51.2
1995	34,696	234	246	549	29,499	1,846	2,322	33,667	49.8
1996	35,812	249	285	562	30,785	2,089	1,841	34,715	44.9
1997	35,753	268	317	563	30,850	1,758	1,997	34,605	49.0
1998	38,950	289	333	565	33,387	2,340	2,036	37,763	53.9
1999	40,376	312	339	565	33,441	3,267	2,452	39,160	50.0
2000	42,486	334	345	565	34,832	3,732	2,678	41,242	50.5
2001	42,200	354	349	564	35,263	3,839	1,831	40,933	47.5
2002	43,860	377	352	564	36,859	3,173	2,535	42,567	50.0
2003	44,422	397	353	564	37,857	2,537	2,714	43,108	57.0
2004	45,299	417	355	565	39,013	2,456	2,493	43,962	57.7
2005	46,564	438	356	564	40,113	2,536	2,557	45,206	58.3
2006	47,902	459	358	564	41,145	2,732	2,644	46,521	58.5
2007	48,815	479	359	564	42,155	2,648	2,610	47,413	56.6
2008	49,773	499	361	565	43,202	2,448	2,698	48,348	56.7
2009	50,844	519	362	564	44,245	2,395	2,759	49,399	56.9
2010	51,912	519	362	564	45,308	2,350	2,809	50,467	57.0
2011	53,028	519	362	564	46,382	2,319	2,882	51,583	57.0
2012	54,168	519	362	565	47,472	2,311	2,939	52,722	56.8

NOTE : COLUMN (OTH) INCLUDES CONSERVATION ENERGY FOR LIGHTING AND PUBLIC AUTHORITY CUSTOMERS, CUSTOMER-OWNED SELF-SERVICE COGENERATION AND LOAD CONTROL PROGRAMS.

* LOAD FACTORS FOR HISTORICAL YEARS ARE CALCULATED USING THE ACTUAL WINTER PEAK DEMAND EXCEPT 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND.

LOAD FACTORS FOR FUTURE YEARS ARE CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.1).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.3.2
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
HIGH LOAD FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM. / IND. CONSERVATION	*OTHER* ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	*LOAD* FACTOR (%) *
1993	31,164	202	195	524	26,528	1,695	2,020	30,243	51.3
1994	32,150	219	220	536	27,675	1,819	1,680	31,174	51.2
1995	34,696	234	246	549	29,499	1,846	2,322	33,667	49.8
1996	35,812	249	285	562	30,785	2,089	1,841	34,715	44.9
1997	35,753	268	317	563	30,850	1,758	1,997	34,605	49.0
1998	38,950	289	333	565	33,387	2,340	2,036	37,763	53.9
1999	40,376	312	339	565	33,441	3,267	2,452	39,160	50.0
2000	42,486	334	345	565	34,832	3,732	2,678	41,242	50.5
2001	42,200	354	349	564	35,263	3,839	1,831	40,933	47.5
2002	43,860	377	352	564	36,859	3,173	2,535	42,567	50.0
2003	45,232	397	353	564	38,585	2,537	2,796	43,918	57.0
2004	46,188	417	355	565	39,848	2,456	2,547	44,851	57.6
2005	47,608	438	356	564	41,099	2,536	2,615	46,250	58.2
2006	49,043	459	358	564	42,218	2,732	2,712	47,662	58.4
2007	50,149	479	359	564	43,416	2,648	2,683	48,747	56.6
2008	51,222	499	361	565	44,564	2,448	2,785	49,797	56.7
2009	52,566	519	362	564	45,863	2,395	2,863	51,121	56.9
2010	53,949	519	362	564	47,228	2,350	2,926	52,504	57.0
2011	55,308	519	362	564	48,527	2,319	3,017	53,863	57.0
2012	56,791	519	362	565	49,948	2,311	3,086	55,345	56.9

NOTE : COLUMN (OTH) INCLUDES CONSERVATION ENERGY FOR LIGHTING AND PUBLIC AUTHORITY CUSTOMERS, CUSTOMER-OWNED SELF-SERVICE COGENERATION AND LOAD CONTROL PROGRAMS.

* LOAD FACTORS FOR HISTORICAL YEARS ARE CALCULATED USING THE ACTUAL WINTER PEAK DEMAND *EXCEPT 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND.*

LOAD FACTORS FOR FUTURE YEARS ARE CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.2).

PROGRESS ENERGY FLORIDA

SCHEDULE 3.3.3
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
LOW LOAD FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM. / IND. CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR (%) *
1993	31,164	202	195	524	26,528	1,695	2,020	30,243	51.3
1994	32,150	219	220	536	27,675	1,819	1,680	31,174	51.2
1995	34,696	234	246	549	29,499	1,846	2,322	33,667	49.8
1996	35,812	249	285	562	30,785	2,089	1,841	34,715	44.9
1997	35,753	268	317	563	30,850	1,758	1,997	34,605	49.0
1998	38,950	289	333	565	33,387	2,340	2,036	37,763	53.9
1999	40,376	312	339	565	33,441	3,267	2,452	39,160	50.0
2000	42,486	334	345	565	34,832	3,732	2,678	41,242	50.5
2001	42,200	354	349	564	35,263	3,839	1,831	40,933	47.5
2002	43,860	377	352	564	36,859	3,173	2,535	42,567	50.0
2003	43,580	397	353	564	37,096	2,537	2,633	42,266	57.0
2004	44,422	417	355	565	38,186	2,456	2,443	43,085	57.7
2005	45,569	438	356	564	39,178	2,536	2,497	44,211	58.3
2006	46,743	459	358	564	40,054	2,732	2,576	45,362	58.5
2007	47,479	479	359	564	40,898	2,648	2,531	46,077	56.6
2008	48,245	499	361	565	41,764	2,448	2,608	46,820	56.7
2009	49,071	519	362	564	42,571	2,395	2,660	47,626	56.9
2010	49,959	519	362	564	43,472	2,350	2,692	48,514	57.0
2011	50,740	519	362	564	44,223	2,319	2,753	49,295	56.9
2012	51,641	519	362	565	45,087	2,311	2,797	50,195	56.8

NOTE : COLUMN (OTH) INCLUDES CONSERVATION ENERGY FOR LIGHTING AND PUBLIC AUTHORITY CUSTOMERS, CUSTOMER-OWNED SELF-SERVICE COGENERATION AND LOAD CONTROL PROGRAMS.

* LOAD FACTORS FOR HISTORICAL YEARS ARE CALCULATED USING THE ACTUAL WINTER PEAK DEMAND EXCEPT 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND.

LOAD FACTORS FOR FUTURE YEARS ARE CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.3).

LOAD MANAGEMENT VALUES FROM 1994 FORWARD REFLECT ACTUAL HOURS OF OPERATION; PRIOR TO 1994 THE HOURS OF OPERATION WERE ASSUMED TO BE 100 HOURS PER YEAR.

PROGRESS ENERGY FLORIDA

SCHEDULE 4
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL 2002		FORECAST 2003		FORECAST 2004	
	PEAK DEMAND	NEL	PEAK DEMAND	NEL	PEAK DEMAND	NEL
MONTH	MW	GWh	MW	GWh	MW	GWh
JANUARY	9,721	3,320	8,627	3,746	8,676	3,547
FEBRUARY	8,941	2,679	7,254	3,004	7,186	3,100
MARCH	8,345	3,165	6,200	3,195	6,127	3,245
APRIL	7,208	3,381	6,182	3,190	6,160	3,206
MAY	8,127	3,841	7,003	3,687	7,130	3,787
JUNE	8,076	3,766	7,421	4,019	7,565	4,133
JULY	9,034	4,104	7,635	4,191	7,773	4,313
AUGUST	8,372	4,107	7,661	4,427	7,801	4,554
SEPTEMBER	8,362	4,067	7,182	3,917	7,304	4,031
OCTOBER	7,920	3,855	6,384	3,410	6,511	3,527
NOVEMBER	6,978	2,988	5,610	3,004	5,661	3,108
DECEMBER	7,828	3,295	6,939	3,319	7,024	3,410
TOTAL		42,568		43,109		43,961

FUEL REQUIREMENTS and ENERGY SOURCES

PEF's two-year actual and ten-year projected nuclear, coal, oil, and gas requirements (by fuel units) are shown on Schedule 5. PEF's two-year actual and ten-year projected energy sources, in GWh and percent, are shown by fuel type on Schedules 6.1 and 6.2, respectively. PEF's fuel requirements and energy source reflect a diverse fuel supply system that is not dependent on any one fuel source. PEF expects its fuel diversity to be further enhanced with the addition of future planned combined cycle generation units fueled by natural gas. Natural gas consumption is projected to increase as plants are added to meet future load growth. PEF's coal, nuclear, and purchased power requirements are projected to remain relatively stable over the planning horizon.

PROGRESS ENERGY FLORIDA

SCHEDULE 5

FUEL REQUIREMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	FUEL REQUIREMENTS		UNITS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
(1)	NUCLEAR		TRILLION BTU	62	69	64	71	65	70	65	71	54	70	65	71
(2)	COAL		1,000 TON	5,468	5,557	6,273	5,996	6,467	6,123	6,120	6,331	6,406	6,417	6,447	6,472
(3)	RESIDUAL	TOTAL	1,000 BBL	9,726	9,851	9,398	8,738	10,813	8,682	9,400	10,478	12,242	12,015	12,686	12,587
(4)		STEAM	1,000 BBL	9,726	9,851	9,398	8,738	10,813	8,682	9,400	10,478	12,242	12,015	12,686	12,587
(5)		CC	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CT	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(7)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(8)	DISTILLATE	TOTAL	1,000 BBL	1,434	1,548	1,030	529	526	427	444	446	531	463	678	581
(9)		STEAM	1,000 BBL	122	108	36	43	37	46	46	41	40	35	36	34
(10)		CC	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CT	1,000 BBL	1,312	1,440	994	486	489	381	398	405	491	428	642	547
(12)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	NATURAL GAS	TOTAL	1,000 MCF	48,932	55,916	47,071	56,848	51,054	72,821	81,854	73,671	88,667	85,120	93,923	96,593
(14)		STEAM	1,000 MCF	4,793	4,717	0	0	0	0	0	0	0	0	0	0
(15)		CC	1,000 MCF	30,733	35,526	27,676	43,420	35,147	60,632	65,046	61,054	70,433	71,866	76,882	83,851
(16)		CT	1,000 MCF	13,406	15,673	19,395	13,428	15,907	12,189	16,808	12,617	18,234	13,254	17,041	12,742
(17)	OTHER (SPECIFY)			0	0	0	0	0	0	0	0	0	0	0	0

PROGRESS ENERGY FLORIDA

SCHEDULE 6.1

ENERGY SOURCES (GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
(1)	ANNUAL FIRM INTERCHANGE 1/		GWh	645	27	255	91	98	64	81	69	94	70	12	0
(2)	NUCLEAR		GWh	5,979	6,700	6,037	6,658	6,136	6,640	6,098	6,658	5,089	6,640	6,154	6,658
(3)	COAL		GWh	14,164	14,406	16,900	16,156	17,448	16,502	16,480	17,083	17,298	17,331	17,415	17,482
(4)	RESIDUAL	TOTAL	GWh	6,167	6,319	6,007	5,569	7,096	5,558	6,083	6,871	8,138	7,984	8,461	8,417
(5)		STEAM	GWh	6,167	6,319	6,007	5,569	7,096	5,558	6,083	6,871	8,138	7,984	8,461	8,417
(6)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(7)		CT	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(8)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(9)	DISTILLATE	TOTAL	GWh	558	607	422	197	203	157	169	168	206	179	268	230
(10)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(12)		CT	GWh	558	607	422	197	203	157	169	168	206	179	268	230
(13)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(14)	NATURAL GAS	TOTAL	GWh	5,764	6,446	5,246	7,057	6,090	9,458	10,497	9,575	11,370	11,143	12,162	12,800
(15)		STEAM	GWh	488	462	0	0	0	0	0	0	0	0	0	0
(16)		CC	GWh	4,237	4,816	3,740	5,981	4,797	8,448	9,085	8,496	9,846	10,011	10,725	11,706
(17)		CT	GWh	1,039	1,168	1,506	1,076	1,293	1,010	1,412	1,079	1,524	1,132	1,437	1,094
(18)	OTHER 2/														
	QF PURCHASES		GWh	5,216	5,091	5,333	5,319	5,234	5,241	5,105	5,014	4,302	4,218	4,209	4,226
	IMPORT FROM OUT OF STATE		GWh	2,808	3,317	2,908	2,915	2,901	2,901	2,900	2,910	2,902	2,902	2,902	2,909
	EXPORT TO OUT OF STATE		GWh	-368	-346	0	0	0	0	0	0	0	0	0	0
(19)	NET ENERGY FOR LOAD		GWh	40,933	42,567	43,108	43,962	45,206	46,521	47,413	48,348	49,399	50,467	51,583	52,722

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION.

2/ NET ENERGY PURCHASED (+) OR SOLD (-).

PROGRESS ENERGY FLORIDA

SCHEDULE 6.2

ENERGY SOURCES (PERCENT)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
(1)	ANNUAL FIRM INTERCHANGE 1/		%	1.6%	0.1%	0.6%	0.2%	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%	0.0%	0.0%
(2)	NUCLEAR		%	14.6%	15.7%	14.0%	15.1%	13.6%	14.3%	12.9%	13.8%	10.3%	13.2%	11.9%	12.6%
(3)	COAL		%	34.6%	33.8%	39.2%	36.7%	38.6%	35.5%	34.8%	35.3%	35.0%	34.3%	33.8%	33.2%
(4)	RESIDUAL	TOTAL	%	15.1%	14.8%	13.9%	12.7%	15.7%	11.9%	12.8%	14.2%	16.5%	15.8%	16.4%	16.0%
(5)		STEAM	%	15.1%	14.8%	13.9%	12.7%	15.7%	11.9%	12.8%	14.2%	16.5%	15.8%	16.4%	16.0%
(6)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(7)		CT	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(8)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(9)	DISTILLATE	TOTAL	%	1.4%	1.4%	1.0%	0.4%	0.4%	0.3%	0.4%	0.3%	0.4%	0.4%	0.5%	0.4%
(10)		STEAM	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(11)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(12)		CT	%	1.4%	1.4%	1.0%	0.4%	0.4%	0.3%	0.4%	0.3%	0.4%	0.4%	0.5%	0.4%
(13)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(14)	NATURAL GAS	TOTAL	%	14.1%	15.1%	12.2%	16.1%	13.5%	20.3%	22.1%	19.8%	23.0%	22.1%	23.6%	24.3%
(15)		STEAM	%	1.2%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(16)		CC	%	10.4%	11.3%	8.7%	13.6%	10.6%	18.2%	19.2%	17.6%	19.9%	19.8%	20.8%	22.2%
(17)		CT	%	2.5%	2.7%	3.5%	2.4%	2.9%	2.2%	3.0%	2.2%	3.1%	2.2%	2.8%	2.1%
(18)	OTHER 2/														
	QF PURCHASES		%	12.7%	12.0%	12.4%	12.1%	11.6%	11.3%	10.8%	10.4%	8.7%	8.4%	8.2%	8.0%
	IMPORT FROM OUT OF STATE		%	6.9%	7.8%	6.7%	6.6%	6.4%	6.2%	6.1%	6.0%	5.9%	5.8%	5.6%	5.5%
	EXPORT TO OUT OF STATE		%	-0.9%	-0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(19)	NET ENERGY FOR LOAD		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION.

2/ NET ENERGY PURCHASED (+) OR SOLD (-).

FORECASTING METHODS AND PROCEDURES

INTRODUCTION

The need for accurate forecasts of long-range electric energy consumption, customer growth and peak demand shape is a crucial planning function for any electric utility. Accurate projections of a utility's future load growth require a forecasting methodology with the ability to account for a variety of factors influencing electric energy usage over the planning horizon. PEF's forecasting framework utilizes a set of econometric models to achieve this end. This chapter will describe the underlying methodology of the customer, energy, and peak demand forecast including any assumptions incorporated within each. Also included is a description of how Demand-Side Management (DSM) impacts affect the forecast, the development of high and low forecast scenarios, and a review of DSM programs.

Figure 2.1, entitled "Customer, Energy, and Demand Forecast", gives a general description of PEF's forecasting process. Highlighted in the diagram is a disaggregated modeling approach that blends the impacts of average class usage as well as class customer growth based on a specific set of assumptions for each class. Also accounted for is some direct contact with large customers. These inputs provide the forecaster at PEF with the tools needed to frame the most likely scenario of the company's future demand.

FORECAST ASSUMPTIONS

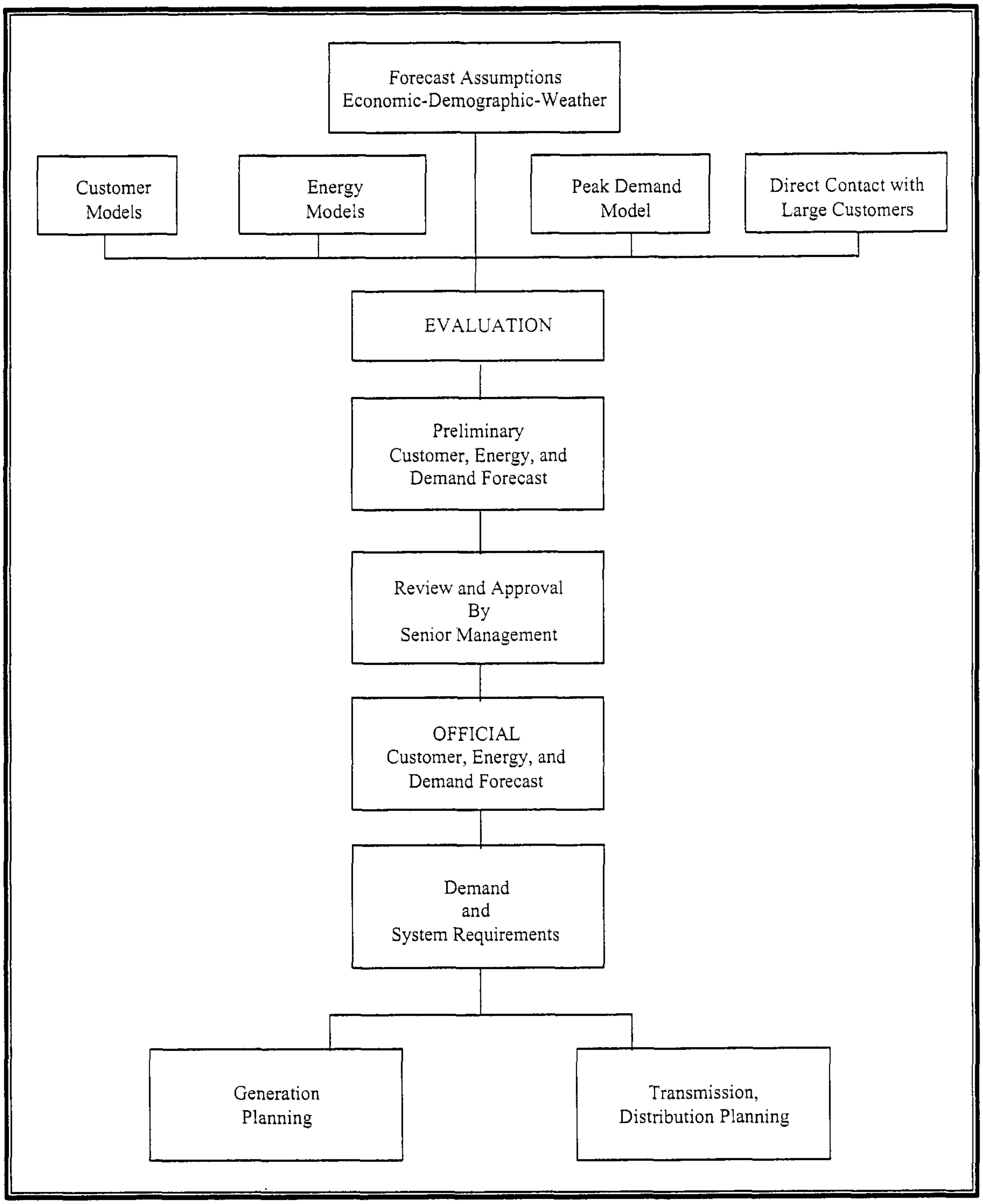
The first step in any forecasting effort is the development of assumptions upon which the forecast is based. The Financial Planning & Regulatory Services Department develops these assumptions based on discussions with a number of organizations within Progress Energy, as well as through the research efforts of a number of external sources. These assumptions specify major factors that influence the level of customers, energy sales, and peak demand over the forecast horizon. The following set of assumptions forms the basis for the forecast presented in this document.

GENERAL ASSUMPTIONS

1. Normal weather conditions are assumed over the forecast horizon. For kilowatt-hour sales projections, normal weather is based on a historical thirty-year average of service area weighted

FIGURE 2.1

Customer, Energy, and Demand Forecast



billing month degree days. Peak demand projections are based on a thirty-year historical average of system-weighted temperatures at time of peak.

2. The population projections produced by the Bureau of Economic and Business Research (BEBR) at the University of Florida as published in "Florida Population Studies Bulletin No. 132 (February 2002) provide the basis for development of the customer forecast. State and national economic assumptions produced by Economy.Com in its national and Florida forecasts (Quarter 2, 2002) are also incorporated.

3. Within the Progress Energy Florida service area the phosphate mining industry is the dominant sector in the industrial sales class. Five major customers accounted for almost 30 percent of PEF's industrial class MWh sales in 2002. These energy intensive customers mine and process phosphate-based fertilizer products for the global marketplace. Both supply and demand conditions for their products are dictated by global conditions that include, but are not limited to, foreign competition, national/international agricultural industry conditions, exchange-rate fluctuations, and international trade pacts. Load and energy consumption at the PEF-served mining or chemical processing sites depends heavily on plant operations which are heavily influenced by the state of these global conditions as well as local conditions. There has been excess mining capacity in the industry for the past few years due to weak farm commodity prices and a strong U.S exchange rate. Weak farm commodity prices lead to lower crop production, which results in less demand for fertilizer products. A strong U.S. currency results in U.S. fertilizer producers becoming less price competitive. Going forward, energy consumption is expected to bounce back in 2003-2004 but not to the levels experienced in the year 2000. The increase projected in 2003 is mainly due to the elimination of extended vacation shutdowns that held down 2002 results. A stronger 2004 increase is based on a weaker U.S. dollar that will result in improved competitiveness of the Florida producer worldwide.

4. PEF supplies load and energy service to wholesale customers on a "full", "partial" and "supplemental" requirement basis. Full requirements customers' demand and energy is assumed to grow at a rate that approximates their historical trend. Partial requirements customer load is assumed to reflect the current contractual obligations received by PEF as of May 31, 2002. The

forecast of energy and demand to the partial requirements customers reflects the nature of the stratified load they have contracted for, plus their ability to receive dispatched energy from power marketers any time it is more economical for them to do so. Contracts for partial requirements service included in this forecast are with FMPA, the cities of New Smyrna Beach, Tallahassee and Homestead, Reedy Creek Utilities, Tampa Electric and Florida Power & Light. PEF's arrangement with Seminole Electric Cooperative, Inc. (SECI) is to serve "supplemental" service over and above stated levels it commits to supply itself. SECI's projection of its system requirements in the PEF control area has been incorporated into this forecast. This forecast also incorporates three firm bulk power contracts with SECI. The first is a 150 MW stratified intermediate demand (Oct 1995 contract) that is projected to remain until 2013. A second 150 MW stratified intermediate contract has been incorporated into the forecast beginning in June 2006, and a stratified peaking contract for 150 MW begins in December 2006. Two agreements to serve interruptible service at two individual SECI sites have also been signed.

5. This forecast assumes that PEF will successfully renew all franchise agreements.

6. This forecast incorporates demand and energy reductions from PEF's dispatchable and non-dispatchable DSM programs required to meet the approved goals set by the Florida Public Service Commission.

7. Expected energy and demand reductions from self-service cogeneration are also included in this forecast. PEF will supply the supplemental load of self-service cogeneration customers. While PEF offers "standby" service to all cogeneration customers, the forecast does not assume an unplanned need for standby power.

8. This forecast assumes that the regulatory environment and the obligation to serve PEF's retail customers will continue throughout the forecast horizon. The ability of wholesale customers to switch suppliers has ended the company's obligation to serve these customers beyond their contract life. As a result, the company does not plan for generation resources unless a long-term contract is in place. Current "all requirements" customers are assumed to not renew their contracts with PEF. Current "partial requirements" contracts are projected to terminate as terms

reach their expiration date. Deviation from these assumptions can occur if it is determined that a wholesale customer has limited options in the marketplace to replace PEF capacity more economically.

SHORT-TERM ECONOMIC ASSUMPTIONS

The short-term economic outlook (one year out) is still a bit influenced by the terrorist events of September 11th. It is believed that the Florida tourist and travel industry has not yet reached pre 9/11 levels. The reaction on the part of the Federal Reserve Board to continue to reduce interest rates to 40-year lows helped the national housing and automotive industries significantly. This forecast incorporates a moderate economic upturn realizing that the typical boost from the housing and automotive industries, during the initial stages on economic expansion, will most likely not come. While the likelihood of a second Gulf War seems certain, no negative impacts are expected to reach the Florida economy and no additional terrorist events, nor any further "shocks" to any supply or demand condition in the national economy, are incorporated in the forecast. This means a return to "trend" level economic growth for the remaining years of the planning horizon is assumed.

Going forward, this forecast assumes that the Federal Reserve Board (FRB) will orchestrate a proper balance of economic growth with low inflation via monetary policy measures. A shift from pursuing inflationary pressures to maintaining economic growth will keep the economy from slipping back into recession. Energy prices are also expected to settle at an equilibrium level between the depressed prices of the 1998-1999 period and the peaks reached in the winter 2000-2001.

On a regional basis, the aftermath of the September 11th attack will have a lingering but fading impact on the short-term travel and tourism industries in Florida. Airline industry financial woes will limit volume of passenger service for quite a while. Some time will need to pass before airline travelers will attain their previous comfort level. Interest rate levels will continue to influence the pace of economic growth in the State through its impact on the construction industry. Personal income growth is expected to continue growing but not at the torrid pace experienced in recent years. Proposed tax cut plans can boost after tax income but it is difficult to assume how the final package will look. Employment growth is returning in the State, but is not expected to reach the strong pace experienced in the latter '90s.

LONG-TERM ECONOMIC ASSUMPTIONS

The long-term economic outlook assumes that changes in economic and demographic conditions will follow a trended behavior pattern. The main focus involves identifying these trends. No attempt is made to predict business cycle fluctuations during this period.

Population Growth Trends

This forecast assumes Florida will experience slower in-migration and population growth over parts of the long term, as reflected in the BEBR projections.

Florida's climate and low cost of living have historically attracted a major share of the retirement population from the eastern half of the United States. This will continue to occur, but at less than historic rates for two reasons. First, Americans entering retirement age during the late 1990s and early twenty-first century were born during the Great Depression era of the 1930s. This decade experienced a low birth rate due to the economic conditions at that time. Sixty years later, there now exists a smaller pool of retirees capable of migrating to Florida. As we enter into the second decade of the new century and the baby-boom generation enters retirement age, the reverse effect can be expected.

The enormous growth in population and corresponding development of the 1980s and 1990s made portions of Florida less desirable for retirement living. This diminished the quality of retiree life, and along with increasing competition from neighboring states, is expected to cause a slight decline in Florida's share of these prospective new residents over the long term.

With the bulk of Florida's in-migrants under age 45, the baby boom generation born between 1945 and 1963 helped fuel the rapid population increase Florida experienced during the 1980s. In fact, slower population in-migration to Florida can be expected as the baby boom generation enters the 40s and 50s age bracket. This age group has been significantly characterized as immobile when studies focusing on interstate population flows or job changes are conducted.

Economic Growth Trends

Florida's rapid population growth of the 1980s created a period of strong job creation, especially in the service sector industries. While the service-oriented economy expanded to support an increasing population level, there were also significant numbers of corporations migrating to Florida capitalizing on the low cost, low tax business environment. In this situation, increased job opportunities in Florida created greater in-migration among the nation's working age population. Florida's ability to attract businesses from other states because of its "comparative advantage" is expected to continue throughout the forecast period. A cause for concern, however, is the passage of the North American Free Trade Agreement (NAFTA) as well as future trade agreements. At risk here is the bypassing of Florida by manufacturers looking to relocate to a lower cost foreign environment. Mexico is expected to attract a formidable share of American manufacturing jobs that may have otherwise moved to Florida. Also, the stability of Florida's citrus and vegetable industry may be threatened when faced with greater competition from Mexico as tariffs are eliminated.

The forecast assumes negative growth in real electricity price. That is, the change in the nominal, or current dollar, price of electricity over time is expected to be less than the overall rate of inflation.

Real personal incomes are assumed to increase throughout the forecast period thereby boosting the average customer's ability to purchase electricity -- especially since the price of electricity is expected to increase at a rate below general inflation. As incomes grow faster than the price of electricity, consumers, on average, will remain inclined to purchase additional electric appliances and increase their utilization of existing end-uses.

FORECAST METHODOLOGY

The PEF forecast of customers, energy sales and peak demand is developed using customer class-specific econometric models. These models are expressly designed to capture class-specific variation over time. By modeling customer growth and average energy usage individually, the forecaster can better capture subtle changes in existing customer usage as well as growth from new customers. Peak demand models are projected on a disaggregated basis as well. This allows for appropriate handling of individual assumptions in the areas of wholesale contracts, load management and interruptible service.

ENERGY AND CUSTOMER FORECAST

In the retail jurisdiction, customer class models have been specified showing a historical relationship to weather and economic/demographic indicators using monthly data for sales models and annual data for customer models. Sales are regressed against "driver" variables that best explain monthly fluctuations over the historical sample period. Forecasts of these input variables are either derived internally or come from a review of the latest projections made by several independent forecasting concerns. The external sources of data include Economy.Com and the University of Florida's Bureau of Economic and Business Research (BEBR). Internal company forecasts are used for projections of electric price, weather conditions and the length of the billing month. Normal weather, which is assumed throughout the forecast horizon, is equal to the 30-year average of heating and cooling degree days by month as measured at the St Petersburg, Orlando and Tallahassee weather stations. Projections of PEF's demand-side management (conservation programs) are also incorporated into the forecast. Specific sectors are modeled as follows:

Residential Sector

Residential kWh usage per customer is modeled as a function of real Florida personal income, cooling degree days, heating degree days, the real price of electricity to the residential class and the average number of billing days in each sales month. This equation captures significant variation in residential usage caused by economic cycles, weather fluctuations, electric price movements and sales month duration. Projections of kWh usage per customer combined with the customer forecast provide the forecast of total residential energy sales. The residential customer forecast is developed by correlating annual customer growth with PEF service area population growth. County level population projections for the 29 counties, which PEF serves residential customers, are provided by the BEBR.

Commercial Sector

Commercial kWh use per customer is forecast based on commercial (non-agricultural, non-manufacturing and non-governmental) employment, the real price of electricity to the commercial class, the average number of billing days in each sales month and heating and cooling degree days. The measure of cooling degree days utilized here differs slightly from that used in the residential sector reflecting the unique behavior pattern of this class with respect to its cooling needs. Commercial customers are projected as a function of the number of residential customers served.

Industrial Sector

Energy sales to this sector are separated into two sub-sectors. A significant portion of industrial energy use was consumed by the phosphate mining industry. Because this one industry comprises nearly a 30 percent share of the total industrial class, it is separated and modeled apart from the rest of the class. The term "non-phosphate industrial" is used to refer to those customers who comprise the remaining portion of total industrial class sales. Both groups are impacted significantly by changes in economic activity. However, adequately explaining sales levels require separate explanatory variables. Non-phosphate industrial energy sales are modeled using a Florida industrial production index developed by Economy.Com, the real price of electricity to the industrial class, and the average number of sales month billing days.

The industrial phosphate mining industry is modeled using customer-specific information with respect to expected market conditions. Since this sub-sector is comprised of only five customers, the forecast is dependent upon information received from direct customer contact. PEF industrial customer representatives provide specific phosphate customer information regarding customer production schedules, inventory levels, area mine-out and start-up predictions, and changes in self-generation or energy supply situations over the forecast horizon.

Street Lighting

Electricity sales to the street and highway lighting class are projected to increase due to growth in the service area population base. Because this class comprised less than 0.01 percent of PEF's 2002 electric sales and just 0.1 percent of total customers, a simple time trend was used to project energy consumption and customer growth in this class.

Public Authorities

Energy sales to public authorities (SPA), comprised mostly of government operated services, is also projected to grow with the size of the service area. The level of government services, and thus energy use per customer, can be tied to the population base, as well as to the state of the economy. Factors affecting population growth will impact the need for additional governmental services (i.e., schools, city services, etc.) thereby increasing SPA energy usage per customer. Government employment has been determined to be the best indicator of the level of government services provided. This variable, along with heating and cooling degree days, the real price of electricity and the average number of sales month billing days, result in a significant level of explained variation over the historical sample period. Intercept shift variables are also included in this model to account for the large change in school-related energy use in the billing months of January, July and August. SPA customers are projected linearly as a function of a time-trend.

Sales for Resale Sector

The Sales for Resale sector encompasses all firm sales to other electric power entities. This includes sales to other utilities (municipal or investor-owned) as well as power agencies (Rural Electric Authority or Municipal).

Seminole Electric Cooperative, Incorporated (SECI) is a wholesale, or sales for resale, customer of PEF on both a supplemental contract basis and contract demand basis. Under the supplemental contract PEF provides service for those energy requirements above the level of generation capacity served by either SECI's own facilities or firm purchase obligations. SECI provides PEF with a forecast of total monthly peak demands and energy for its load within the PEF control area. Monthly supplemental demands are calculated from the total demand levels it projects in PEF's control area less its own ("committed") resources. Beyond supplemental service, PEF has signed three firm power or "contract demand" agreements with SECI to serve stratified intermediate and peaking load. The first contract, an October 1995 agreement, has one remaining piece that has not expired. This piece involves serving 150 MW of stratified intermediate demand and is assumed to remain a requirement on the PEF system throughout the forecast horizon. The load tied to this piece of the contract was carved out of the supplemental "pay as you take" contract and restructured to a contract demand. The two additional firm power agreements with SECI beginning in 2006 include a 150 MW stratified intermediate contract and a 150 MW stratified peaking contract. Both are expected to expire in December 2013. Energy usage under these contracts is projected using typical intermediate and peak load factors, respectively. Two non-firm or interruptible service agreements are currently in effect between PEF and SECI at two substations amounting to an estimated 65 MW.

The municipal sales for resale class includes a number of customers, divergent not only in scope of service, (i.e., full or partial requirement), but also in composition of ultimate consumers. Each customer is modeled separately in order to accurately reflect its individual profile. The majority of customers in this class are municipalities whose full energy requirements are met by PEF. The full requirement customers are modeled individually using local weather station data and population growth trends for each vicinity. Since the ultimate consumers of electricity in this sector are, to a large degree, residential and commercial customers, it is assumed that their use patterns will follow those of the PEF retail-based residential and commercial customer classes. PEF serves partial requirement service (PR) to a municipality (New Smyrna Beach), a power authority (Florida Municipal Power Agency) and a utility district (Reedy Creek Improvement District). In each case, these customers contract with PEF for a specific level and type of demand needed to provide their particular electrical system with an appropriate level of reliability. The certain terms of each contract are subject to change each year. More specifically, this means that the level and type of demand under contract can increase or decrease for each year of their contract. The demand forecast for each PR wholesale customer is derived using its historical coincident demand to contract demand relationship (including transmission delivery losses). The demand projections for the Florida Municipal Power Agency (FMPA) also include a "losses service" MW amount to account for the transmission losses PEF incurs when "wheeling" power to its customers in PEF's transmission area. The contract demand level for each PR customer in its last contract year determines the load upon the PEF system for the remaining years of the forecast horizon unless the customer has notified PEF of a willingness to not renew its contract.

The methodology for projecting MWh energy usage for the PR customers differs slightly from customer to customer. This category of service is sporadic in nature and exceptionally difficult to forecast because PR customers are capable of buying "spot" energy in the wholesale market if it is cheaper than the energy under the PEF capacity contract. For example, FMPA utilizes PEF's wholesale energy service only when more economical energy is unavailable. The forecast for FMPA is derived using annual historical load factor calculations to provide the expected level of energy sales based on the level of contracted MW nominated by FMPA. Average monthly-to-annual energy ratios are applied to the forecast in order to obtain monthly profiles. For New Smyrna Beach, recent growth trends and historic load factor calculations are utilized to provide the expected level of MWh sales. Again, these customers have alternative sources of supply to meet their needs. Purchases of energy from PEF will depend heavily on the price of available energy from other sources in the marketplace. Beginning in late 1999, the City of Tallahassee sold back its ownership share of Crystal River 3 nuclear plant to PEF. It replaced this capacity with a long-term contract of 11.4 MW with an expected high load factor.

PEAK DEMAND FORECAST

The forecast of peak demand also employs a disaggregated econometric methodology. For seasonal (winter and summer) peak demands, as well as each month of the year, PEF's coincident system peak is dissected into five major components. These components consist of potential firm retail load, demand-side management program capability, wholesale demand, company use demand and interruptible demand.

Potential firm retail load refers to projections of PEF retail hourly seasonal net peak demand (excluding the non-firm interruptible/curtailable/standby services) before the cumulative effects of any conservation activity or the activation of PEF's Load Management program. The historical values of this series are constructed to show the size of PEF's firm retail net peak demand had no utility-induced conservation or load control ever taken place. The value of constructing such a "clean" series enables the forecaster to observe and correlate the underlying trend in retail peak demand to total system customer levels and coincident weather conditions at the time of the peak without the impacts of year-to-year variation in conservation activity or load control reductions. Seasonal peaks are projected using historical seasonal peak data regardless of which month the peak occurred. The projections become the potential retail demand projections for the months of January (winter) and August (summer), since this is typically when the seasonal peaks occur. The non-seasonal peak months are projected the same as the seasonal peaks, but the analysis is limited to the specific month being projected.

Energy conservation and direct load control estimates are consistent with PEF's DSM goals that have been filed with the Florida Public Service Commission in the 1999 DSM Goals Docket. These estimates are incorporated into the MW forecast. Projections of dispatchable and cumulative non-dispatchable DSM are subtracted from the projection of potential firm retail demand resulting in a projected series of retail demand figures one would expect to occur.

Sales for Resale demand projections represent load supplied by PEF to other electric utilities such as Seminole Electric Cooperative, Incorporated, the Florida Municipal Power Agency, and other electric distribution companies. The SECI supplemental demand projection is based on SECI's forecast of its service area within the PEF control area. The level of MW to be served by PEF is dependent upon the amount of resources SECI supplies to itself or contracts with others. An assumption has been made that beyond the last year of committed capacity declaration (five years out), SECI will hold constant its level of self-serve resources. For the partial requirements customers' demand projections, historical ratios of coincident-to-contract levels of demand are applied to future MW contract levels. Demand requirements continue out at the level indicated by the final year in the respective contract declaration letters. The full requirements municipal demand forecast is estimated for individual cities using linear econometric equations modeling both weather and economic impacts specific to each locale. The seasonal (winter and summer) projections become the January and August peak values, respectively. The non-seasonal peak months are calculated using monthly allocation factors derived from applying the historical relationship between each winter month (November to March) and the winter peak demand, and between each summer month (April to October) and the summer peak demand.

PEF "company use" at the time of system peak is estimated using load research metering studies and is assumed to remain stable over the forecast horizon. The interruptible and curtailable service (IS and CS) load component is developed from historic trends, as well as specific information obtained from PEF's industrial service representatives.

Each of the peak demand components described above is a positive value except for the DSM program MW impacts and IS and CS load. These impacts represent a reduction in peak demand and are assigned a negative value. Total system peak demand is then calculated as the arithmetic sum of the five components.

Demand-Side Management

Each projection of every retail class-of-business MWh energy sales forecast is reduced by estimated future energy savings due to PEF-sponsored and Florida Public Service Commission (FPSC)-approved dispatchable and non-dispatchable Demand-Side Management programs. Estimated energy and demand savings for every DSM program are calculated on a program-by-program basis and aggregated to system level. The DSM projections incorporated in this demand and energy forecast meet the new conservation goals established by the FPSC in Order No. PSC-99-1942-FOF-EG, issued October 1, 1999 in Docket No. 971005-EG.

HIGH AND LOW FORECAST SCENARIOS

The high and low bandwidth scenarios around the base MWh energy sales forecast are developed using a Monte Carlo simulation applied to a multivariate regression model that closely replicates the base retail MWh energy forecast in aggregate. This model accounts for variation in Gross Domestic Product, retail customers and electric price. The base forecasts for these variables were developed based on input from Economy.Com and internal company price projections. Variation around the base forecast predictor variables used in the Monte Carlo simulation was based on an 80 percent confidence interval calculated around variation in each variable's historic growth rate. While the total number of degree days (weather) was also incorporated into the model specification, the high and low scenarios do not attempt to capture extreme weather conditions. Normal weather conditions were assumed in all three scenarios.

The Monte Carlo simulation was produced through the estimation of 1,000 scenarios for each year of the forecast horizon. These simulations allowed for random normal variation in the growth trajectories of the economic input variables (while accounting for cross-correlation amongst these variables), as well as simultaneous variation in the equation (model error) and coefficient estimates. These scenarios were then sorted and rank ordered from one to a thousand, while the simulated scenario with no variation was adjusted to equal the base forecast.

The low retail scenario was chosen from among the ranked scenarios resulting in a bandwidth forecast reflecting an approximate probability of occurrence of .10. The high retail scenario similarly represents a bandwidth forecast with an approximate probability of occurrence of .90. In both scenarios the high and low peak demand bandwidth forecasts are projected from the energy forecasts using the load factor implicit in the base forecast scenario.

CONSERVATION

In October 1999, the FPSC established new conservation goals for PEF that span the ten-year period from 2000 through 2009 (in Docket 971007-EG, Order No. PSC-99-1942-FOF-EG). As required by Rule 25-17.0021(4), Florida Administrative Code, PEF then submitted for Commission approval a new DSM Plan that was specifically designed to meet the new conservation goals. PEF's DSM Plan was subsequently approved by the Commission on April 17, 2000 (in Docket 991789-EG, Order No. PSC-00-750-PAA-EG). The following tables present PEF's historical DSM performance by showing the Commission-approved conservation goal as well as the conservation savings actually achieved through PEF's DSM programs for the reporting years of 2000-2002.

Historical Residential Conservation Savings Goals and Achievements

	Cumulative Summer MW		Cumulative Winter MW		Cumulative GWh Energy	
Year	**Goal**	**Achieved**	**Goal**	**Achieved**	**Goal**	**Achieved**
2000	10	17	30	35	15	21
2001	20	29	64	72	32	42
2002	32	43	102	111	50	65

Historical Commercial/Industrial Conservation Savings Goals and Achievements

	Cumulative Summer MW		Cumulative Winter MW		Cumulative GWh Energy	
Year	**Goal**	**Achieved**	**Goal**	**Achieved**	**Goal**	**Achieved**
2000	4	12	4	12	2	6
2001	8	18	7	17	4	10
2002	11	28	11	24	6	14

The forecasts contained in this Ten-Year Site Plan document are based on PEF's DSM Plan and, therefore, appropriately reflect the level of DSM savings required to meet the Commission-established conservation goals. PEF's DSM Plan consists of five residential programs, eight commercial and industrial programs, and one research and development program. The programs are subject to periodic monitoring and evaluation for the purpose of ensuring that all DSM resources are acquired in a cost-effective manner and that the program savings are durable. Following is a brief description of these programs.

RESIDENTIAL PROGRAMS

Home Energy Check Program

This energy audit program provides customers with an analysis of their current energy use and recommendations on how they can save on their electricity bills through low-cost or no-cost energy-saving practices and measures. The Home Energy Check program offers PEF customers the following types of audits: Type 1: Free Walk-Through Audit (Home Energy Check); Type 2: Customer-completed Mail In Audit (Do It Yourself Home Energy Check); Type 3: Online Home Energy Check (Internet Option)-a customer-completed audit; Type 4: Phone Assisted Audit –A customer assisted survey of structure and appliance use; Type 5: Computer Assisted Audit; Type 6: Home Energy Rating Audit (Class I, II, III). The Home Energy Check Program serves as the foundation of the Home Energy Improvement Program in that the audit is a prerequisite for participation in the energy saving measures offered in the Home Energy Improvement Program.

Home Energy Improvement Program

This is the umbrella program to increase energy efficiency for existing residential homes. It combines efficiency improvements to the thermal envelope with upgraded electric appliances. The program provides incentives for attic insulation upgrades, duct testing and repair, high efficiency electric heat pumps, heat recovery units, and dedicated heat pump water heaters.

Residential New Construction Program

This program promotes energy efficient new home construction in order to provide customers with more efficient dwellings combined with improved environmental comfort. The program provides education and information to the design and building community on energy efficient equipment and construction. It also facilitates the design and construction of energy efficient homes by working directly with the builders to comply with program requirements. The program provides incentives to the builder for high efficiency electric heat pumps, heat recovery units, and dedicated heat pump water heaters. The highest level of the program incorporates the Environmental Protection Agency's Energy Star Homes Program and qualifies participants for cooperative advertising.

Low Income Weatherization Assistance Program

This umbrella program seeks to improve energy efficiency for low-income customers in existing residential dwellings. It combines efficiency improvements to the thermal envelope with upgraded electric appliances. The program provides incentives for attic insulation upgrades, duct testing and repair, reduced air infiltration, water heater wrap, HVAC maintenance, high efficiency heat pumps, heat recovery units, and dedicated heat pump water heaters.

Residential Energy Management Program

This is a voluntary customer program that allows PEF to reduce peak demand and thus defer generation construction. Peak demand is reduced by interrupting service to selected electrical equipment with radio controlled switches installed on the customer's premises. These interruptions are at PEF's option, during specified time periods, and coincident with hours of peak demand. Participating customers receive a monthly credit on their electricity bills. Due to the cost of new installations, this program was modified in the 1999 filing to allow for participation in a winter-only program that provides for direct load control of water heating and central heating appliances during the months of November through March.

COMMERCIAL/INDUSTRIAL (C/I) PROGRAMS

Business Energy Check Program

This energy audit program provides commercial and industrial customers with an assessment of the current energy usage at their facilities, recommendations on how they can improve the environmental conditions of their facilities while saving on their electricity bills, and information on low-cost energy efficiency measures. The Business Energy Check consists of two types of audits: Level 1 - free walk-through audit, and Level 2 - paid walk-through audit. Beginning in 2003, small business customers will have the option to complete a Business Energy Check online at Progress Energy's website. In most cases, this program is a prerequisite for participation in the other C/I programs.

Better Business Program

This is the umbrella efficiency program for existing commercial and industrial customers. The program provides customers with information, education, and advice on energy-related issues and incentives on efficiency measures that are cost-effective to PEF and its customers. The Better Business Program promotes energy efficient heating, ventilation, air conditioning (HVAC), motors, and some building retrofit measures (in particular, roof insulation upgrade, duct leakage test and repair, and window film retrofit).

Commercial/Industrial New Construction Program

The primary goal of this program is to foster the design and construction of energy efficient buildings. The new construction program: 1) provides education and information to the design community on all aspects of energy efficient building design; 2) requires that the building design, at a minimum, surpass the state energy code; 3) provides financial incentives for specific energy efficient equipment; and 4) provides energy design awards to building design teams. Incentives will be provided for high efficiency HVAC equipment, motors, and heat recovery units.

Innovation Incentive Program

This program promotes a reduction in demand and energy by subsidizing energy conservation projects for customers in PEF's service territory. The intent of the program is to encourage legitimate energy efficiency measures that reduce kW demand and/or kWh energy, but are not addressed by other programs. Energy efficiency opportunities are identified by PEF representatives during a Business Energy Check audit. If a candidate project meets program specifications, it will be eligible for an incentive payment, subject to PEF approval.

Commercial Energy Management Program (Rate Schedule GSLM-1)

This direct load control program reduces PEF's demand during peak or emergency conditions. As described in PEF's DSM Plan, this program is currently closed to new participants. It is applicable to existing program participants who have electric space cooling equipment suitable for interruptible operation and are eligible for service under the Rate Schedule GS-1, GST-1, GSD-1, or GSDT-1. The program is also applicable to existing participants who have any of the following electrical equipment installed on permanent residential structures and utilized for domestic (household) purposes: 1) water heater(s), 2) central electric heating systems(s), 3) central electric cooling system(s), and/or 4) swimming pool pump(s). Customers receive a monthly credit on their bills depending on the type of equipment in the program and the interruption schedule.

Standby Generation Program

This demand control program reduces PEF's demand based upon the indirect control of customer generation equipment. This is a voluntary program available to all commercial, industrial, and agricultural customers who have on-site generation capability and are willing to reduce their PEF demand when PEF deems it necessary. The customers participating in the Standby Generation program receive a monthly credit on their electricity bills according to the demonstrated ability of the customer to reduce demand at PEF's request.

Interruptible Service Program

This direct load control program reduces PEF's demand at times of capacity shortage during peak or emergency conditions. The program is available to qualified non-residential customers with an average billing demand of 500 kW or more, who are willing to have their power interrupted. PEF will have remote control of the circuit breaker or disconnect switch supplying the customer's equipment. In return for this ability to interrupt load, customers participating in the Interruptible Service program receive a monthly interruptible demand credit applied to their electric bills. In response to customer requests, PEF has implemented improvements in the way in which these customer resources are called upon during periods of capacity shortage. Customer response has been favorable to the improvements that have been implemented.

Curtailable Service

This direct load control program reduces PEF's demand at times of capacity shortage during peak or emergency conditions. The program is available to qualified non-residential customers with an average billing demand of 500 kW or more, who are willing to curtail 25 percent of their average monthly billing demand. Customers participating in the Curtailable Service program receive a monthly curtailable demand credit applied to their electric bills.

RESEARCH AND DEVELOPMENT PROGRAMS

Technology Development Program

The primary purpose of this program is to establish a system to "Aggressively pursue research, development and demonstration projects jointly with others as well as individual projects" (Rule 25-17.001, {5}(f), Florida Administration Code). PEF will undertake certain development, educational and demonstration projects that have promise to become cost-effective demand reduction and energy efficiency programs. In most cases, each demand reduction and energy efficiency project that is proposed and investigated under this program requires field testing with actual customers.

CHAPTER 3

Forecast of
FACILITIES REQUIREMENTS

Progress Energy

CHAPTER 3

Forecast of FACILITIES REQUIREMENTS

RESOURCE PLANNING FORECAST

OVERVIEW OF CURRENT FORECAST

Supply-Side Resources

PEF has a summer total capacity resource of 9,268 MW, as shown in Table 3.1. This capacity resource includes utility purchased power (474 MW), non-utility purchased power (839 MW), combustion turbine (2,619 MW), nuclear (765 MW), fossil steam (3,882 MW) and combined cycle plants (689 MW). Table 3.2 shows PEF's contracts for firm capacity provided by QFs.

Demand-Side Programs

PEF has experienced excellent levels of participation in its Demand-Side Management Programs. Total DSM resources are shown in Schedules 3.1.1 and 3.2.1 of Chapter 2. These programs include Non-Dispatchable DSM, Interruptible Load, and Dispatchable Load Control resources. PEF's 2003 Ten-Year Site Plan Demand-Side Management projections are consistent with the DSM Goals established by the Commission in Docket No. 971005-EG.

Capacity and Demand Forecast

PEF's forecasts of capacity and demand for the projected summer and winter peaks are shown on Schedules 7.1 and 7.2, respectively. PEF's forecasts of capacity and demand are based on serving expected growth in retail requirements in its regulated service area and meeting commitments to wholesale power customers who have entered into supply contracts with PEF. In its planning process, PEF balances its supply plan for the needs of retail and wholesale customers and endeavors to ensure that cost-effective resources are available to meet the needs across the customer base. Over the years, as wholesale markets have grown more competitive, PEF has remained active in the competitive solicitations while planning in a manner that maintains an appropriate balance of commitments and resources within the overall regulated supply framework.

Base Expansion Plan

PEF's planned supply resource additions and changes are shown in Schedule 8 and are referred to as PEF's Base Expansion Plan. This Plan includes 2,781 MW of proposed new capacity additions over the next ten years. As identified in Schedule 8, PEF's next planned need is a 516 MW (summer) power block in December 2003. PEF's self-build option for Hines Unit 2 was determined to be the most cost-effective alternative (FPSC Docket No. 001064-EI, Order No. PSC-01-0029-FOF-EI, Issued January 5, 2001). PEF also plans to build the 516 MW (summer) Hines Unit 3 combined-cycle addition in December 2005. This resource was determined to be the most cost-effective alternative for the 2005 addition (FPSC Docket No. 020953-EI, Order No. PSC-03-0175-FOF-EI, issued February 4, 2003).

PEF's Base Expansion Plan projects requirements for additional combined cycle units with proposed in-service dates of 2007, 2009, and 2011. These high efficiency gas-fired combined cycle units, together with a CT unit planned for December 2004 and two additional CT units planned for December 2006, help the PEF system meet the growing energy requirements of its customer base and also contribute to meeting the requirements of the 1990 Clean Air Act Amendments. Fuel switching, SO_2 emission allowance purchases, re-dispatching of system generation and technology improvements are additional options available to PEF to ensure compliance with these important environmental requirements. Status reports and specifications for new generation facilities are included in Schedule 9.

TABLE 3.1

PROGRESS ENERGY FLORIDA
TOTAL CAPACITY RESOURCES
POWER PLANTS AND PURCHASED POWER CONTRACTS
AS OF DECEMBER 31, 2002

PLANTS	NUMBER OF UNITS	NET DEPENDABLE CAPABILITY MW SUMMER
Nuclear Steam		
Crystal River	1	765 *
Fossil Steam		
Crystal River	4	2,302
Anclote	2	993
Paul L. Bartow	3	444
Suwannee River	3	143
Total Fossil Steam	12	3,882
Combined Cycle		
Hines Energy Complex	1	482
Tiger Bay	1	207
Total Combined Cycle	2	689
Combustion Turbine		
DeBary	10	667
Intercession City	14	1,041
Bayboro	4	184
Bartow	4	187
Suwannee	3	164
Turner	4	154
Higgins	4	122
Avon Park	2	52
University of Florida	1	35
Rio Pinar	1	13
Total Combustion Turbine	47	2,619
Total Units	62	
Total Net Generating Capability		**7,955**
** Adjusted for sale of 8.2% of total capacity*		
Purchased Power		
Qualifying Facility Contracts	19	839
Investor Owned Utilities	2	474
TOTAL CAPACITY RESOURCE		**9,268**

TABLE 3.2 PROGRESS ENERGY FLORIDA QUALIFYING FACILITY GENERATION CONTRACTS AS OF DECEMBER 31, 2002	
Facility Name	**Firm Capacity (MW)**
Bay County Resource Recovery	11.0
Cargill	15.0
Dade County Resource Recovery	43.0
El Dorado	114.2
Jefferson Power	8.0
Lake Cogen	110.0
Lake County Resource Recovery	12.8
LFC Jefferson	8.5
LFC Madison	8.5
Mulberry	79.2
Orange Cogen (CFR-Biogen)	74.0
Orlando Cogen	79.2
Pasco Cogen	109.0
Pasco County Resource Recovery	23.0
Pinellas County Resource Recovery	54.8
Ridge Generating Station	39.6
Royster	30.8
Timber Energy	12.5
US Agrichem	5.6
TOTAL	**838.7**

PROGRESS ENERGY FLORIDA

SCHEDULE 7.1

FORECAST OF CAPACITY, DEMAND AND SCHEDULED MAINTENANCE

AT TIME OF SUMMER PEAK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	TOTAL	FIRM	FIRM		TOTAL	SYSTEM FIRM					
	INSTALLED	CAPACITY	CAPACITY		CAPACITY	SUMMER PEAK	RESERVE MARGIN		SCHEDULED	RESERVE MARGIN	
	CAPACITY	IMPORT	EXPORT	QF	AVAILABLE	DEMAND	BEFORE MAINTENANCE		MAINTENANCE	AFTER MAINTENANCE	
YEAR	MW	MW	MW	MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
2003	7,812	474	0	839	9,125	7,661	1,464	19%	0	1,464	19%
2004	8,337	474	0	839	9,650	7,800	1,850	24%	0	1,850	24%
2005	8,483	483	0	827	9,793	7,958	1,835	23%	0	1,835	23%
2006	9,000-	483	0	827	10,310	8,330	1,980	24%	0	1,980	24%
2007	9,295	483	0	802	10,580	8,589	1,991	23%	0	1,991	23%
2008	9,731	483	0	787	11,001	8,792	2,209	25%	0	2,209	25%
2009	9,731	483	0	647	10,861	8,983	1,878	21%	0	1,878	21%
2010	10,167	483	0	647	11,297	9,192	2,105	23%	0	2,105	23%
2011	10,167	463	0	647	11,277	9,400	1,877	20%	0	1,877	20%
2012	10,603	413	0	647	11,663	9,602	2,061	21%	0	2,061	21%

PROGRESS ENERGY FLORIDA

SCHEDULE 7.2

FORECAST OF CAPACITY, DEMAND AND SCHEDULED MAINTENANCE

AT TIME OF WINTER PEAK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	TOTAL INSTALLED CAPACITY	FIRM CAPACITY IMPORT	FIRM CAPACITY EXPORT	QF	TOTAL CAPACITY AVAILABLE	SYSTEM FIRM WINTER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	
YEAR	MW	MW	MW	MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
2003 / 04	9,175	474	0	839	10,488	8,676	1,812	21%	0	1,812	21%
2004 / 05	9,356	483	0	827	10,666	8,855	1,811	20%	0	1,811	20%
2005 / 06	9,938	483	0	827	11,248	9,080	2,168	24%	0	2,168	24%
2006 / 07	10,303	483	0	802	11,588	9,560	2,028	21%	0	2,028	21%
2007 / 08	10,843	483	0	787	12,113	9,711	2,402	25%	0	2,402	25%
2008 / 09	10,843	483	0	678	12,004	9,905	2,099	21%	0	2,099	21%
2009 / 10	11,383	483	0	647	12,513	10,106	2,407	24%	0	2,407	24%
2010 / 11	11,383	483	0	647	12,513	10,336	2,177	21%	0	2,177	21%
2011 / 12	11,923	413	0	647	12,983	10,560	2,423	23%	0	2,423	23%
2012 / 13	11,923	413	0	647	12,983	10,785	2,198	20%	0	2,198	20%

PROGRESS ENERGY FLORIDA

SCHEDULE 8

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

AS OF JANUARY 1, 2003 THROUGH DECEMBER 31, 2012

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
								CONST.	COM'L IN-	EXPECTED	GEN. MAX.	NET CAPABILITY			
	UNIT	LOCATION	UNIT	FUEL		FUEL TRANSPORT		START	SERVICE	RETIREMENT	NAMEPLATE	SUMMER	WINTER		
PLANT NAME	NO.	(COUNTY)	TYPE	PRI.	ALT.	PRI.	ALT.	MO. / YR	MO. / YR	MO. / YR	KW	MW	MW	STATUS	NOTES
HINES ENERGY COMPLEX	2	POLK	CC	NG	DFO	PL	TK	3/2002	12/2003			516	582	V	
CRYSTAL RIVER	3	CITRUS	ST	NUC		TK			1/2004			7	7	A	1
PEAKER	1	UNKNOWN	GT	NG	DFO	PL	UN	12/2003	12/2004			147	182	P	
HINES ENERGY COMPLEX	3	POLK	CC	NG	DFO	PL	TK	9/2003	12/2005			516	582	T	
PEAKER	2	UNKNOWN	GT	NG	DFO	PL	UN	12/2005	12/2006			147	182	P	
PEAKER	3	UNKNOWN	GT	NG	DFO	PL	UN	12/2005	12/2006			147	182	P	
HINES ENERGY COMPLEX	4	POLK	CC	NG	DFO	PL	TK	9/2005	12/2007			436	540	P	
HINES ENERGY COMPLEX	5	POLK	CC	NG	DFO	PL	TK	9/2007	12/2009			436	540	P	
HINES ENERGY COMPLEX	6	POLK	CC	NG	DFO	PL	TK	9/2009	12/2011			436	540	P	

NOTES

1/ CAPABILITY INCREASE (POWER LEVEL INCREASE). REPRESENTS 91.78% PEF OWNERSHIP OF UNIT.

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #2
(2)	Capacity	
	a. Summer:	516
	b. Winter:	582
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	3/2002
	b. Commercial in-service date:	12/2003 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(7)	Cooling Method:	COOLING PONDS
(8)	Total Site Area:	8,200 ACRES
(9)	Construction Status:	UNDER CONSTRUCTION, MORE THAN 50% COMPLETE
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	5.80 %
	b. Forced Outage Factor (FOF):	3.00 %
	c. Equivalent Availability Factor (EAF):	91.40 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,023 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	PEAKER 1
(2)	Capacity	
	a. Summer:	147
	b. Winter:	182
(3)	Technology Type:	COMBUSTION TURBINE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	12/2003
	b. Commercial in-service date:	12/2004 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION (NATURAL GAS) WATER INJECTION (DISTILLATE FUEL OIL)
(7)	Cooling Method:	AIR
(8)	Total Site Area:	UNKNOWN ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	PLANNED
(11)	Status with Federal Agencies:	PLANNED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	6.90 %
	b. Forced Outage Factor (FOF):	4.70 %
	c. Equivalent Availability Factor (EAF):	88.70 %
	d. Resulting Capacity Factor (%):	15.00 %
	e. Average Net Operating Heat Rate (ANOHR):	11,525 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #3
(2)	Capacity	
	a. Summer:	516
	b. Winter:	582
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	9/2003
	b. Commercial in-service date:	12/2005 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(7)	Cooling Method:	COOLING PONDS
(8)	Total Site Area:	8,200 ACRES
(9)	Construction Status:	REGULATORY APPROVAL RECEIVED
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	5.80 %
	b. Forced Outage Factor (FOF):	3.00 %
	c. Equivalent Availability Factor (EAF):	91.40 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,023 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	PEAKER 2
(2)	Capacity	
	a. Summer:	147
	b. Winter:	182
(3)	Technology Type:	COMBUSTION TURBINE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	12/2005
	b. Commercial in-service date:	12/2006 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION (NATURAL GAS) WATER INJECTION (DISTILLATE FUEL OIL)
(7)	Cooling Method:	AIR
(8)	Total Site Area:	UNKNOWN ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	PLANNED
(11)	Status with Federal Agencies:	PLANNED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	6.90 %
	b. Forced Outage Factor (FOF):	4.70 %
	c. Equivalent Availability Factor (EAF):	88.70 %
	d. Resulting Capacity Factor (%):	15.00 %
	e. Average Net Operating Heat Rate (ANOHR):	11,525 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	PEAKER 3
(2)	Capacity	
	a. Summer:	147
	b. Winter:	182
(3)	Technology Type:	COMBUSTION TURBINE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	12/2005
	b. Commercial in-service date:	12/2006 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION (NATURAL GAS) WATER INJECTION (DISTILLATE FUEL OIL)
(7)	Cooling Method:	AIR
(8)	Total Site Area:	UNKNOWN ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	PLANNED
(11)	Status with Federal Agencies:	PLANNED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	6.90 %
	b. Forced Outage Factor (FOF):	4.70 %
	c. Equivalent Availability Factor (EAF):	88.70 %
	d. Resulting Capacity Factor (%):	15.00 %
	e. Average Net Operating Heat Rate (ANOHR):	11,525 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #4
(2)	Capacity	
	a. Summer:	436
	b. Winter:	540
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	9/2005
	b. Commercial in-service date:	12/2007 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(7)	Cooling Method:	COOLING PONDS
(8)	Total Site Area:	8,200 ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	6.90 %
	b. Forced Outage Factor (FOF):	6.70 %
	c. Equivalent Availability Factor (EAF):	86.90 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,046 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #5
(2)	Capacity	
	a. Summer:	436
	b. Winter:	540
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	9/2007
	b. Commercial in-service date:	12/2009 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(7)	Cooling Method:	COOLING PONDS
(8)	Total Site Area:	8,200 ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	6.90 %
	b. Forced Outage Factor (FOF):	6.70 %
	c. Equivalent Availability Factor (EAF):	86.90 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,046 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2003

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #6
(2)	Capacity	
	a. Summer:	436
	b. Winter:	540
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	9/2009
	b. Commercial in-service date:	12/2011 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(7)	Cooling Method:	COOLING PONDS
(8)	Total Site Area:	8,200 ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	6.90 %
	b. Forced Outage Factor (FOF):	6.70 %
	c. Equivalent Availability Factor (EAF):	86.90 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,046 BTU/kWh

PROGRESS ENERGY FLORIDA

SCHEDULE 10
STATUS REPORT AND SPECIFICATIONS OF PROPOSED DIRECTLY ASSOCIATED TRANSMISSION LINES

HINES ENERGY COMPLEX SITE

(1)	POINT OF ORIGIN AND TERMINATION:	BARCOLA SUBSTATION - HINES ENERGY COMPLEX
(2)	NUMBER OF LINES:	1 (SECOND CIRCUIT OF DOUBLE CIRCUIT CONSTRUCTION)
(3)	RIGHT-OF-WAY:	EXISTING TRANSMISSION LINE AND HINES ENERGY COMPLEX SITE
(4)	LINE LENGTH:	3 MILES
(5)	VOLTAGE:	230 KV
(6)	ANTICIPATED CONSTRUCTION TIMING:	MAY 2003 IN-SERVICE, START CONSTRUCTION EARLY 2003
(7)	ANTICIPATED CAPITAL INVESTMENT:	$ 1,800,000
(8)	SUBSTATIONS:	N/A
(9)	PARTICIPATION WITH OTHER UTILITIES:	N/A

INTEGRATED RESOURCE PLANNING OVERVIEW

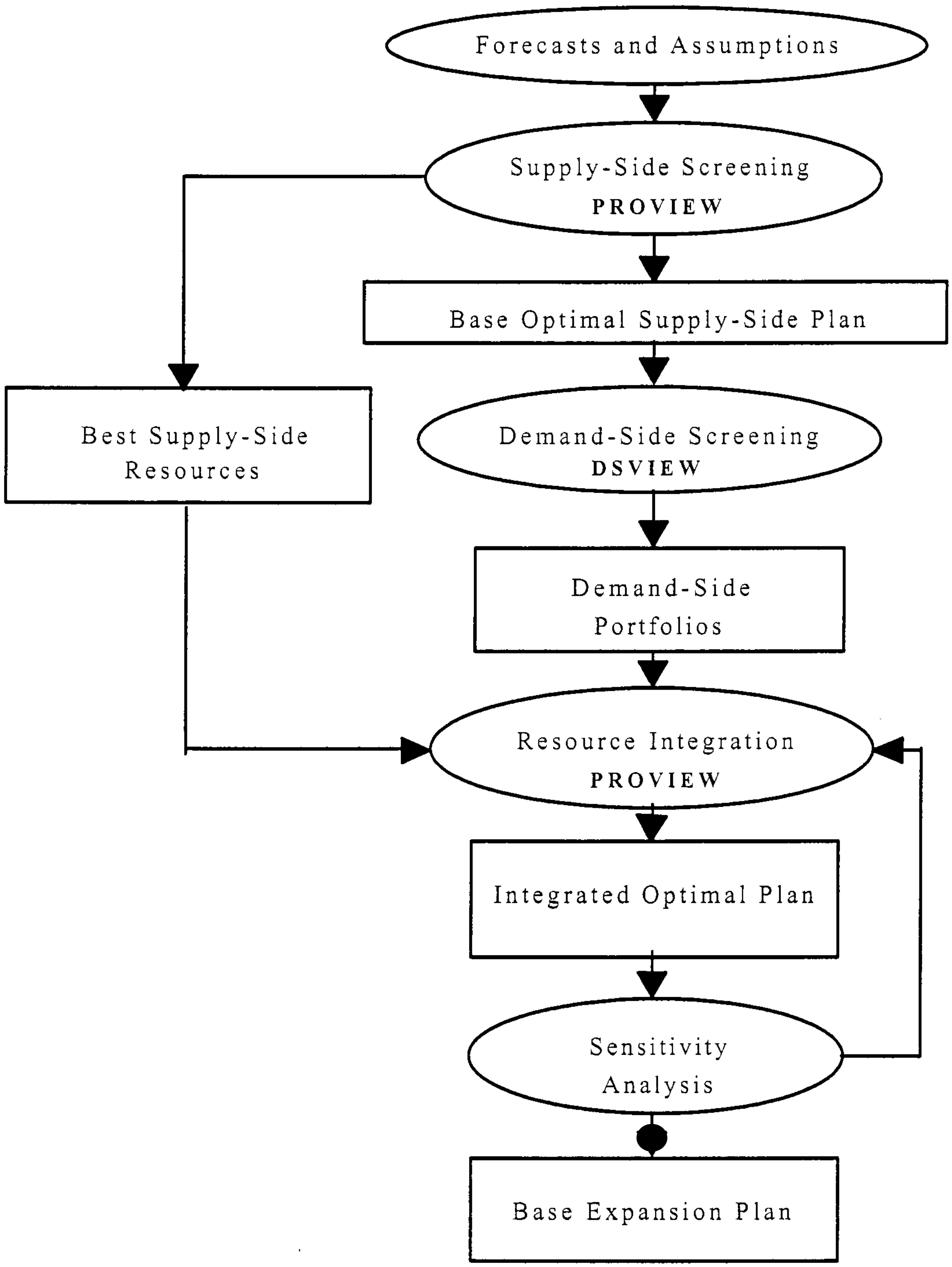
PEF employs an Integrated Resource Planning (IRP) process to determine the most cost-effective mix of supply- and demand-side alternatives that will reliably satisfy our customers' future energy needs. PEF's IRP process incorporates state-of-the-art computer models used to evaluate a wide range of future generation alternatives and cost-effective conservation and dispatchable demand-side management programs on a consistent and integrated basis.

An overview of PEF's IRP Process is shown in Figure 3.1. The process begins with the development of various forecasts, including demand and energy, fuel prices, and economic assumptions. Future supply- and demand-side resource alternatives are identified and extensive cost and operating data are collected to enable these to be modeled in detail. These alternatives are optimized together to determine the most cost-effective plan for PEF to pursue over the next ten years to meet the company's reliability criteria. The resulting ten year plan, the Integrated Optimal Plan, is then tested under different sensitivity scenarios to identify variances, if any, that would warrant reconsideration of any of the base plan assumptions. If the plan is judged robust under sensitivity analysis and works within the corporate framework, it evolves as the Base Expansion Plan. This process is discussed in more detail in the following section titled "The IRP Process".

The Integrated Resource Plan provides PEF with substantial guidance in assessing and optimizing the Company's overall resource mix on both the supply side and the demand side. When a decision supporting a significant resource commitment is being developed (e.g. plant construction, power purchase, DSM program implementation), the Company will move forward with directional guidance from the IRP and delve much further into the specific levels of examination required. This more detailed assessment will typically address very specific technical requirements and cost estimates, detailed corporate financial considerations, and the most current dynamics of the business and regulatory environments.

FIGURE 3.1

IRP Process Overview



THE IRP PROCESS

Forecasts and Assumptions

The evaluation of possible supply- and demand-side alternatives, and development of the optimal plan, is an integral part of the IRP process. These steps together comprise the integration process that begins with the development of forecasts and collection of input data. Base forecasts that reflect PEF's view of the most likely future scenarios are developed, along with high and low forecasts that reflect alternative future scenarios. Computer models used in the process are brought up-to-date to reflect this data, along with the latest operating parameters and maintenance schedules for PEF's existing generating units. This establishes a consistent starting point for all further analysis.

Reliability Criteria

Utilities require a margin of generating capacity above the firm demands of their customers in order to provide reliable service. At any given time during the year, some plants will be out of service and unavailable due to forced outages or to repair failed equipment. Generating equipment also requires periodic outages to perform maintenance and refuel nuclear plants. Adequate reserves must be available to provide for this unavailable capacity and for higher than projected peak demand due to forecast uncertainty and abnormal weather. In addition, some capacity must be available for operating reserves to maintain the balance between supply and demand on a moment-to-moment basis.

PEF plans its resources in a manner consistent with utility industry planning practices, utilizing dual reliability criteria: a minimum Reserve Margin criterion and a maximum Loss of Load Probability (LOLP) criterion. The Reserve Margin criterion is deterministic and measures PEF's ability to meet its forecasted seasonal peak load with firm capacity. PEF's current minimum Reserve Margin threshold is 15 percent. The FPSC approved a joint proposal from the investor-owned utilities in peninsular Florida to increase minimum planning Reserve Margin levels to at least 20 percent by the summer of 2004 (Docket No. 981890-EU, Order No. PSC-99-2507-S-EU). Thus, PEF raised its target minimum Reserve Margin criterion to 20 percent by the summer of 2004. Loss of Load Probability (LOLP) is a probabilistic criterion that measures the probability that a company will be unable to meet its load throughout the year. Where Reserve Margin only considers the peak load and amount of installed resources, LOLP also takes into account unit failures, unit maintenance, and assistance from other utilities. A standard probabilistic reliability threshold commonly used in the electric utility industry, and the criterion employed by PEF, is a maximum of one day in ten years loss of load probability.

PEF has based its planning on the use of dual reliability criteria since the early 1990s, a practice that has been accepted by the FPSC. By using both the Reserve Margin and LOLP planning criteria, PEF's overall system is designed to have sufficient capacity for peak load conditions, and the generating units are selected to provide reliable service under all expected load conditions. PEF has found that resource additions are typically triggered to meet Reserve Margin thresholds before LOLP becomes a factor; however, PEF considers LOLP a meaningful supplemental reliability measure.

Supply-Side Screening

Potential supply-side resources are screened to determine those that are the most cost-effective. Data used for the screening analysis is compiled from various industry sources and PEF's experiences. The wide range of resource options is pre-screened to set aside those that do not warrant a detailed cost-effectiveness analysis. Typical screening criteria are costs, fuel source, technology maturity, environmental parameters, and overall resource feasibility.

Economic evaluation of generation alternatives is performed using the PROVIEW optimization program. The optimization program evaluates revenue requirements for specific resource plans generated from multiple combinations of future resource additions that meet system reliability criteria and other system constraints. All resource plans are then ranked by system revenue requirements. The optimization run produces the optimal supply-side resource plan, which is considered the "Base Optimal Supply-Side Plan."

Demand-Side Screening

Like supply-side resources, data about large numbers of potential demand-side resources is also collected. These resources are pre-screened to eliminate those alternatives that are still in research and development, addressed by other regulations (building code), or not applicable to PEF's customers. The demand-side screening model, DSVIEW, is updated with cost data and load impact parameters for each potential DSM measure to be evaluated.

The Base Optimal Supply-Side Plan is used to establish avoidable units for screening future demand-side resources. Each future demand-side alternative is individually tested in this plan over the ten year planning horizon to determine the benefit or detriment that the addition of this demand-side resource provides to the overall system. DSVIEW calculates the benefits and costs for each demand-side measure evaluated and reports the appropriate ratios for the Rate Impact Measure (RIM), the Total Resource Cost Test (TRC), and the Participant Test. Demand-side programs that pass the RIM test are then bundled together to create demand-side portfolios. These portfolios contain the appropriate DSM options and make the optimization solvable with the DSVIEW model.

Resource Integration and The Integrated Optimal Plan

The cost-effective generation alternatives and the demand-side portfolios developed in the screening process can then be optimized together to formulate an Integrated Optimal Plan. The optimization program considers all possible future combinations of supply- and demand-side alternatives that meet the company's reliability criteria in each year of the ten-year study period and reports those that provide both flexibility and low revenue requirements for PEF's ratepayers.

Developing the Base Expansion Plan

The plans that provide the lowest revenue requirements are then further tested using sensitivity analysis. The economics of the plan are evaluated under high and low forecast scenarios for load, fuel, and financial assumptions to ensure that the plan does not unduly burden the company or the ratepayers if the future unfolds in a manner significantly different from the base forecasts. From the sensitivity assessment, the ten year plan that is identified as achieving the best balance of flexibility and cost is then reviewed within the corporate framework to determine how the plan potentially impacts or is impacted by many other factors. If the plan is judged robust under this review it evolves as the Base Expansion Plan.

KEY CORPORATE FORECASTS

Fuel Forecast

Base Fuel Case: The base case fuel price forecast was developed using short term and long term market price projections from industry-recognized sources. Coal prices are expected to be relatively stable month to month; however, oil and natural gas prices are expected to be more volatile on a day to day and month to month basis.

In the short term, the base cost for coal is based on the existing contractual structure between Progress Fuels Corporation (PFC) and Progress Energy Florida and both contract and spot market coal and transportation arrangements between PFC and its various suppliers. For the longer term, the costs are based on market forecasts reflective of expected market conditions. Oil and natural gas prices are estimated based on current and expected contracts and spot purchase arrangements as well as near term and long term market forecasts. Oil and natural gas commodity prices are driven primarily by open market forces of supply and demand. Natural gas firm transportation cost is determined primarily by pipeline tariff rates and tends to change less frequently than commodity prices.

High and Low Fuel Case: The high and low fuel price scenarios were developed statistically from the base forecast projections to reflect an approximate 80 percent probability that the actual fuel price would fall somewhere between the high and low scenarios.

Special Fuel Case: A constant oil and gas to coal differential fuel sensitivity forecast was also developed to examine the premise that the current differential price of oil and gas to coal could remain constant over time.

Financial Forecast

Base Financial Case: For the Base Financial Case the income tax, depreciation rates, capital structure, inflation rates and debt interest rates were based on PEF's current financial assumptions. In general, the economy has a balanced growth path and a stable inflation rate.

Optimistic Financial Case: In the Optimistic Financial Case there is high growth and low stable inflation rate. Due to low inflation, interest rates remain low, which enhances business development. PEF's composite cost of capital was adjusted to reflect the low inflation rates.

Pessimistic Financial Case: In the Pessimistic Financial Case there is low growth and high inflation. Due to high inflation, interest rates remain high, which depresses consumer expenditures. PEF's composite cost of capital was adjusted to reflect the high inflation rates.

CURRENT PLANNING RESULTS

TYSP Supply-Side Resources

In this TYSP, PEF's supply-side resources include the projected combined cycle expansion of the Hines Energy Complex (HEC) with Units 2 through 6 forecasted to be in service by December 2003, 2005, 2007, 2009, and 2011, respectively. The new units at Hines are state-of-the-art combined cycle units similar to HEC Unit 1. As new advancements in combined cycle technologies mature, PEF will continue to examine the merits of these new alternatives to ensure the lowest possible expansion costs. The TYSP also includes a combustion turbine unit planned in-service by December 2004 and two additional combustion turbine units planned in-service by December 2006. PEF had previously projected the next peaking addition to be installed at the Intercession City site. However, the Company is currently conducting more detailed analyses of other existing generation sites including Hines and Anclote and has not finalized its decision on the preferred site(s) for these combustion turbine additions. PEF expects to finalize combustion turbine site plans by third quarter 2003 to support installation of the December 2004 peaking addition.

Plan Sensitivities

Sensitivities to load, fuel and financial forecasts were analyzed against the base plan. The base plan of constructing combined cycle and combustion turbine units on gas was determined to be robust with respect to changes in the load, fuel and financial forecasts. The low load forecast sensitivity required less combined cycle and combustion turbine generation; the high load forecast indicated that additional combined cycle and combustion turbine units would potentially be required.

The high and low fuel forecast sensitivity results did not suggest any significant reconsideration of the base plan. The high and low financial forecast sensitivity results did not point to any changes to the base plan. The additional sensitivity, which assumes the current differential price of oil and gas to coal remains constant over time, indicated a potential shift toward pulverized coal and combined cycle units. This current differential in oil and gas to coal prices, however, includes recent spikes in natural gas prices that historically have been of a short-term nature and, thus, are not expected to continue over the planning horizon. FPC will continue to monitor these fuel price relationships and watch for any signs of a long-term structural change.

Request for Proposals

PEF issued a request for proposals (RFP) in November 2001, which determined that the Hines 3 combined-cycle unit is the most cost-effective generation addition to satisfy resource needs in December 2005. The FPSC subsequently approved PEF's petition to add a third combined cycle unit at the Hines Energy Complex (FPSC Docket No. 020953-EI, Order No. PSC-03-0175-FOF-EI). PEF will solicit competitive proposals for supply-side alternatives to compare against its future Hines combined-cycle self-build options in accordance with Rule 25-22.82 (F.A.C.).

TRANSMISSION PLANNING

PEF's transmission planning assessment practices are developed to test the ability of the planned system to meet criteria. This involves the use of loadflow and transient stability programs to model various contingency situations that may occur, and determining if the system response meets criteria. In general, this involves running simulations for the loss of any single line, generator, or transformer, with any one generator scheduled out for maintenance. PEF normally runs this analysis for system load levels from minimum to peak for all possible contingencies and for both summer and winter. Additional studies are performed to determine the system response to credible, less probable criteria, to assure the system meets PEF and Florida Reliability Coordinating Council, Inc. (FRCC) criteria. These studies include the loss of multiple generators or lines, and combinations of each, and some load loss is permissible under these more severe disturbances. These credible, less probable scenarios are also evaluated at various load levels, since some of the more severe situations occur at average or minimum load conditions. In particular, critical fault clearing times are typically the shortest (most severe) at minimum load conditions, with just a few large base load units supplying the system needs.

As noted in the PEF reliability criteria, some remedial actions are allowed to reduce system loadings, in particular, sectionalizing is allowed to reduce loading on lower voltage lines for bulk system contingencies, but the risk to load on the sectionalized system must be reasonable (it would not be considered prudent to operate for long periods with a sectionalized system). Also, the number of remedial action steps and the overall complexity of the scheme are evaluated to determine overall acceptability.

Presently, PEF uses the following reference documents to calculate Available Transfer Capability (ATC) for required transmission path postings on the Florida Open Access Same-Time Information System (OASIS):

- FRCC: FRCC ATC Calculation and Coordination Procedures, November 8th 2000, which is posted on the FRCC website:

  (http://www.frcc.com/downloads/frccatc.pdf)
- NERC: Transmission Transfer Capability, May 1995

- NERC: Available Transfer Capability – Definitions and Determination, May 1996

PEF uses the FRCC Capacity Benefit Margin (CBM) methodology to assess its CBM needs. This methodology is:

"FRCC Transmission Providers make an assessment of the CBM needed on their respective systems by using either deterministic or probabilistic generation reliability analysis. The appropriate amount of transmission interface capability is then reserved for CBM on a per interface basis, taking into account the amount of generation available on other interconnected systems, the respective load peaking diversities of those systems, and Transmission Reliability Margin (TRM). Operating reserves may be included if appropriate in TRM and subsequently subtracted from the CBM if needed."

PEF currently has zero CBM reserved on each of its interfaces (posted paths). PEF's CBM on each path is currently established through the transmission provider functions within PEF using deterministic and probabilistic generation reliability analysis.

Currently, PEF proposes no bulk transmission additions that must be certified under the Florida Transmission Line Siting Act (TLSA). PEF's proposed future bulk transmission line additions are shown in Table 3.3.

TABLE 3.3

LIST OF PROPOSED BULK TRANSMISSION LINE ADDITIONS

2003-2012

LINE OWNERSHIP	TERMINALS		LINE LENGTH CKT. MILES	COMMERCIAL IN-SERVICE DATE (MO./YEAR)	NOMINAL VOLTAGE (kV)
PEF	HINES ENERGY COMPLEX	BARCOLA #2	3	5 / 2003	230
PEF/TECO	BARCOLA	PEBBLEDALE	1 *	6 / 2003	230
PEF/FPL	VANDOLAH	WHIDDEN	14	7/ 2004	230
PEF	LAKE BRYAN	WINDERMERE #1	10 *	6 / 2006	230
PEF	LAKE BRYAN	WINDERMERE #2	10	6 / 2006	230
PEF	HINES ENERGY COMPLEX	WEST LAKE WALES #1	21	5 / 2007	230
PEF	HINES ENERGY COMPLEX	WEST LAKE WALES #2	21	5 / 2007	230
PEF	INTERCESSION CITY	GIFFORD	10	6 / 2008	230
PEF	INTERCESSION CITY	WEST LAKE WALES #1	30 *	6 / 2010	230
PEF	INTERCESSION CITY	WEST LAKE WALES #2	30	6 / 2010	230

* Rebuild existing circuit

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CHAPTER 4

ENVIRONMENTAL and LAND USE INFORMATION

Progress Energy

CHAPTER 4

ENVIRONMENTAL and LAND USE INFORMATION

PREFERRED SITES

PEF's base expansion plan proposes new combined-cycle generation at the Hines Energy Complex (HEC) site in Polk County. New proposed peaking simple-cycle combustion turbine generation site options include Anclote (Pasco County), Intercession City (Osceola County) and the HEC. While the Anclote, Intercession City and HEC sites are currently suitable for new peaking generation, PEF continues to evaluate other available sites and supply alternatives.

The next proposed combined-cycle unit at the HEC site is scheduled for commercial operation in December 2007. The next proposed peaking simple-cycle unit is scheduled for commercial operation in December 2004. The HEC, Intercession City, and Anclote sites meet all of PEF's siting requirements for capacity throughout the planning horizon. PEF's existing sites, as identified in Table 3.1 of Chapter 3, include the capability to further develop generation. All appropriate permitting requirements will be addressed for PEF's preferred sites as discussed in the following site descriptions. The base expansion plan does not include any potential new sites for generating additions. Therefore, detailed environmental or land use data are not included.

HINES ENERGY COMPLEX SITE

In 1990, PEF completed a statewide search for a new 3,000 MW coal capable power plant site. As a result of this work, a large tract of mined out phosphate land in south central Polk County was selected as the primary alternative. This 8,200-acre site is located south of the City of Bartow, near the cities of Fort Meade and Homeland, south of S.R. 640 and west of U.S. 17/98 (reference Figure 4.1). It is an area that has been extensively mined and remains predominantly unreclaimed.

The Governor and cabinet approved site certification for ultimate site development and construction of the first 470 MW increment on January 25, 1994, in accordance with the rules of the Power Plant Siting Act. Due to the thorough screening during the selection process, and the disturbed nature of the site, there were no major environmental limitations. As would be the situation at any location in the state, air emissions and water consumption were significant issues during the licensing process.

The site's initial preparation involved moving over 10 million cubic yards of soil and draining 4 billion gallons of water. Construction of the energy complex will recycle the land for a beneficial use and promote habitat restoration.

The Hines Energy Complex is visited by several species of wildlife, including alligators, bobcats, turtles, and over 50 species of birds. The Hines site also contains a wildlife corridor, which creates a continuous connection between the Peace River and the Alafia River.

PEF arranged for the City of Bartow to provide treated effluent for cooling pond make-up. The complex's cooling pond initially covered 722 acres with an eventual expansion to 2,500 acres.

The Hines Energy Complex is designed and permitted to be a zero discharge site. This means that there will be no discharges to surface waters either from the power plant facilities or from storm water runoff. Based on this design, storm water runoff from the site can be used as cooling pond make-up, minimizing groundwater withdrawals.

As future generation units are added, the remaining network of on-site clay settling ponds will be converted to cooling ponds and combustion waste storage areas to support power plant operations. Given the disturbed nature of the property, considerable development has been required in order to make it usable for electric utility application. An industrial rail network and an adequate road system service the site.

The first combined-cycle unit at this site, with a capacity of 482 MW summer and 529 MW winter, began commercial operation in April 1999. The transmission improvements associated with this first unit were the rebuilding of the 230/115 kV double circuit Barcola to Ft. Meade line by increasing the conductor sizes and converting the line to double circuit 230 kV operation.

The transmission improvement associated with the second combined-cycle unit at this site, planned for commercial operation in December 2003 with seasonal capacity ratings of 516 MW summer and 582 MW winter, is an additional 230 kV circuit from the Hines Energy Complex to Barcola.

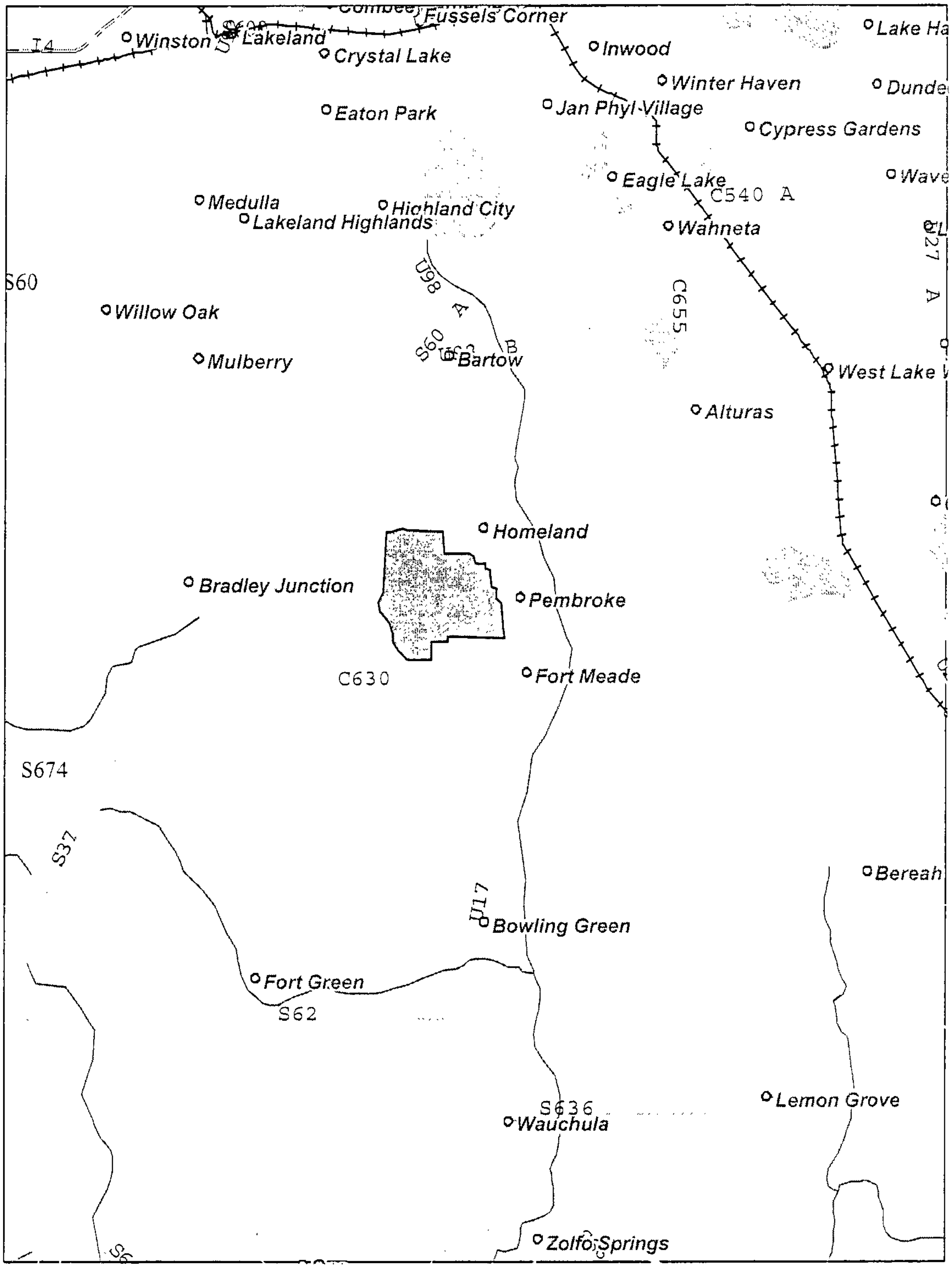
The third HEC combined-cycle unit is planned for commercial operation in December 2005 with seasonal capacity ratings of 516 MW summer and 582 MW winter, and requires no transmission upgrades.

Hines was also chosen as a potential site for installation of peaking combustion turbine units. The seasonal ratings for each proposed peaking combustion turbine unit are projected to be 147 MW summer and 182 MW winter.

Transmission modifications will be required to accommodate the additional combustion turbine peaking units identified in this expansion plan.

FIGURE 4.1

Hines Energy Complex (Polk County)



ANCLOTE SITE

Anclote was chosen as a potential site for installation of peaking combustion turbine units (reference Figure 4.2). The seasonal ratings for each proposed peaking combustion turbine unit are projected to be 147 MW summer and 182 MW winter.

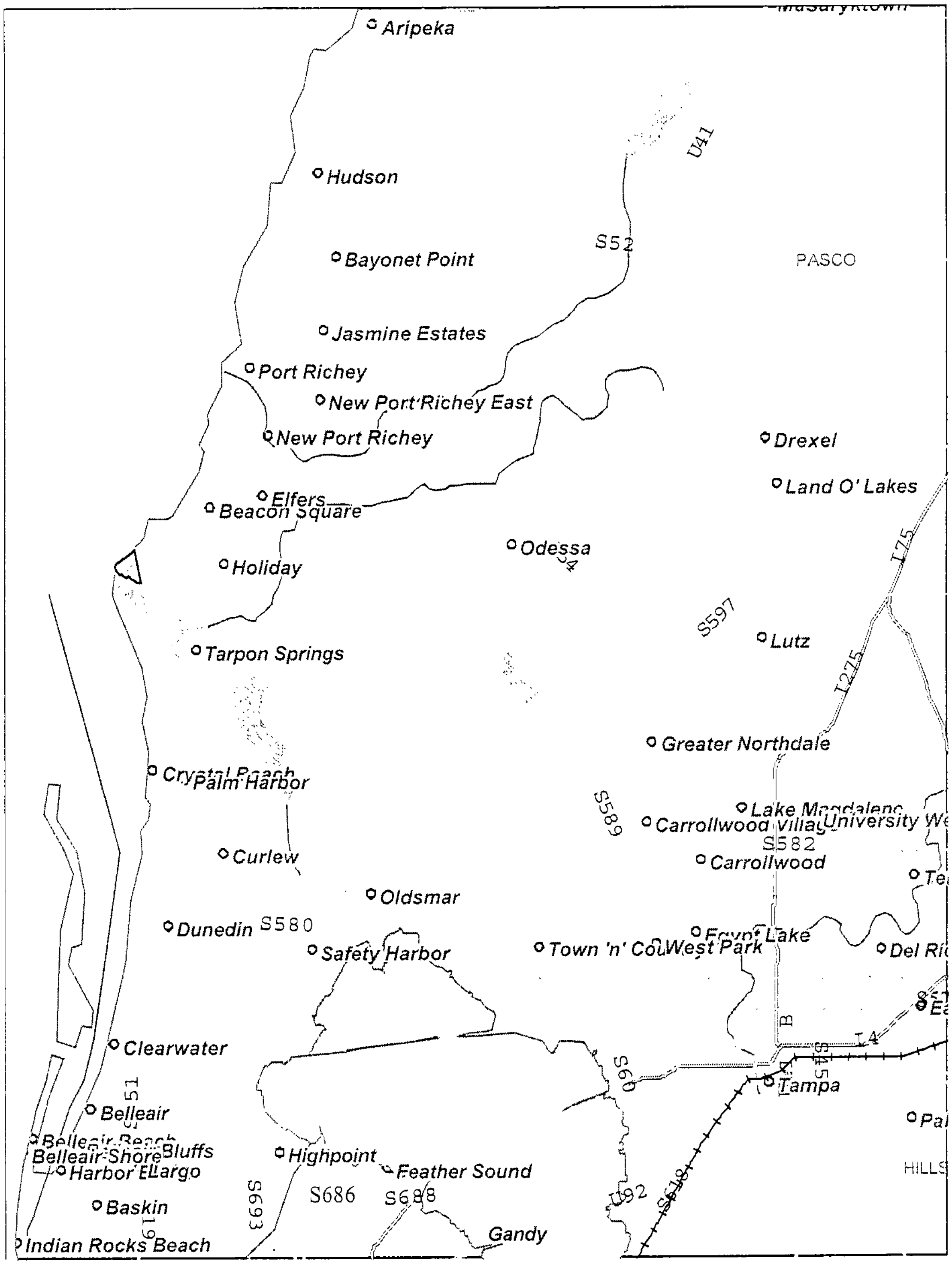
The Anclote site consists of approximately 400 acres in Pasco County (reference the Pasco County Site map). The site is located in Holiday Florida at the mouth of the Anclote River. The site receives make-up water from the city of Tarpon Springs, fuel oil through a pipeline from the Bartow plant, and natural gas from the Florida Gas Transmission (FGT) Pipeline.

The Florida Department of Environmental Protection air rules currently lists all of Pasco County as attainment for ambient air quality standards. The environmental impact on the site will be minimized by PEF's close coordination with regulatory agencies to ensure compliance with all applicable environmental regulations.

Transmission modifications will be required to accommodate the additional combustion turbine peaking units identified in this expansion plan.

FIGURE 4.2

Anclote (Pasco County)



INTERCESSION CITY SITE

Intercession City was chosen as a potential site for installation of peaking combustion turbine units (reference Figure 4.3). The seasonal ratings for each proposed peaking combustion turbine unit are projected to be 147 MW summer and 182 MW winter.

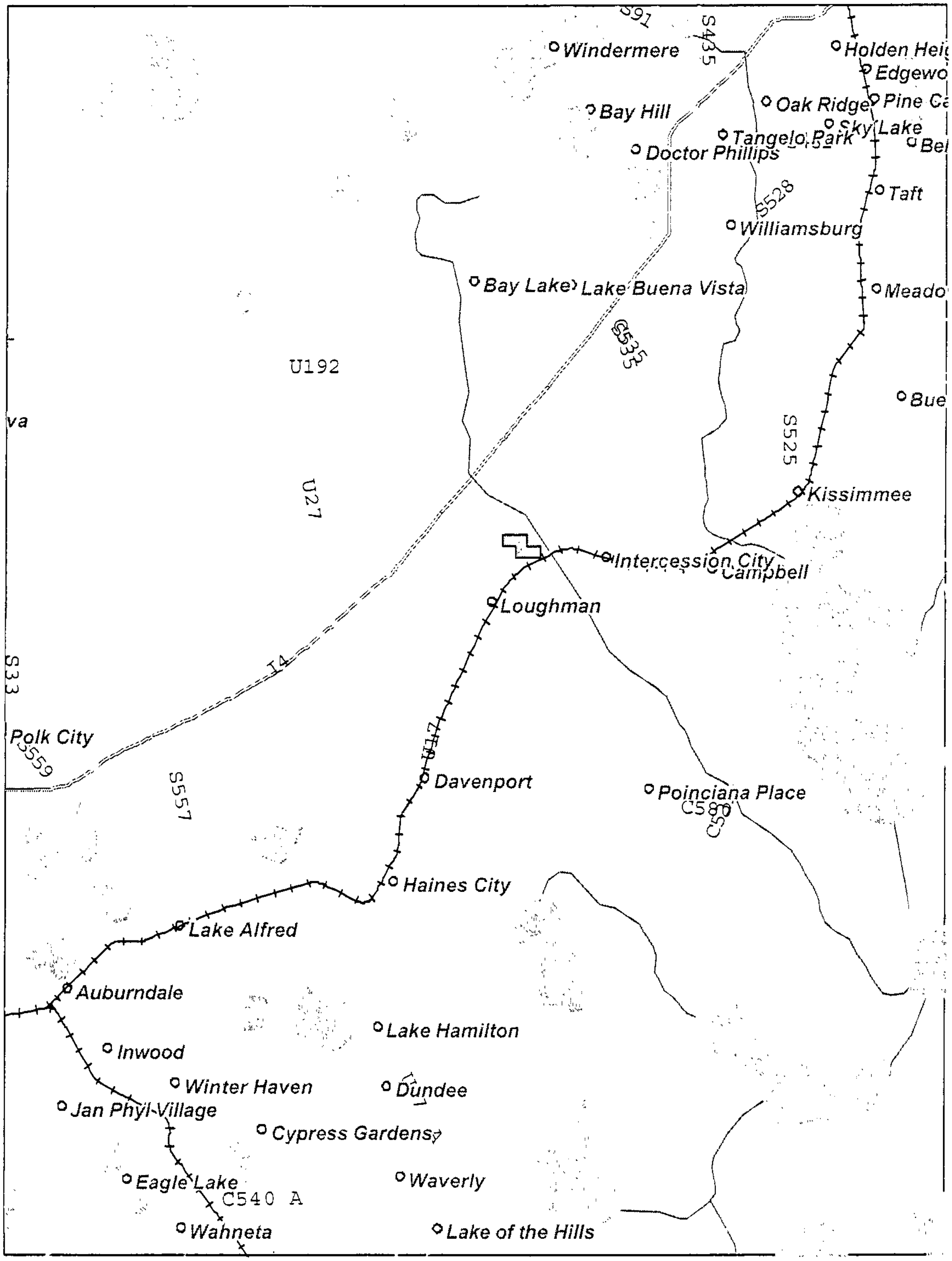
Intercession City Site consists of 162 acres in Osceola County, two miles west of Intercession City (reference the Osceola County Site map). The site is immediately west of Reedy Creek and the adjacent Reedy Creek Swamp. The site is adjacent to a secondary effluent pipeline from a municipal wastewater treatment plant, an oil pipeline, and natural gas from the Florida Gas Transmission (FGT) and Gulf Stream pipelines.

The Florida Department of Environmental Protection air rules currently lists all of Osceola County as attainment for ambient air quality standards. The environmental impact on the site will be minimized by PEF's close coordination with regulatory agencies to ensure compliance with all applicable environmental regulations.

Transmission modifications will be required to accommodate the additional combustion turbine peaking units identified in this expansion plan.

FIGURE 4.3

Intercession City Site (Osceola County)



Presented at the
Ten-Year Site Plan Review
Commission Workshop
Florida Public Service Commission
August 6, 2003

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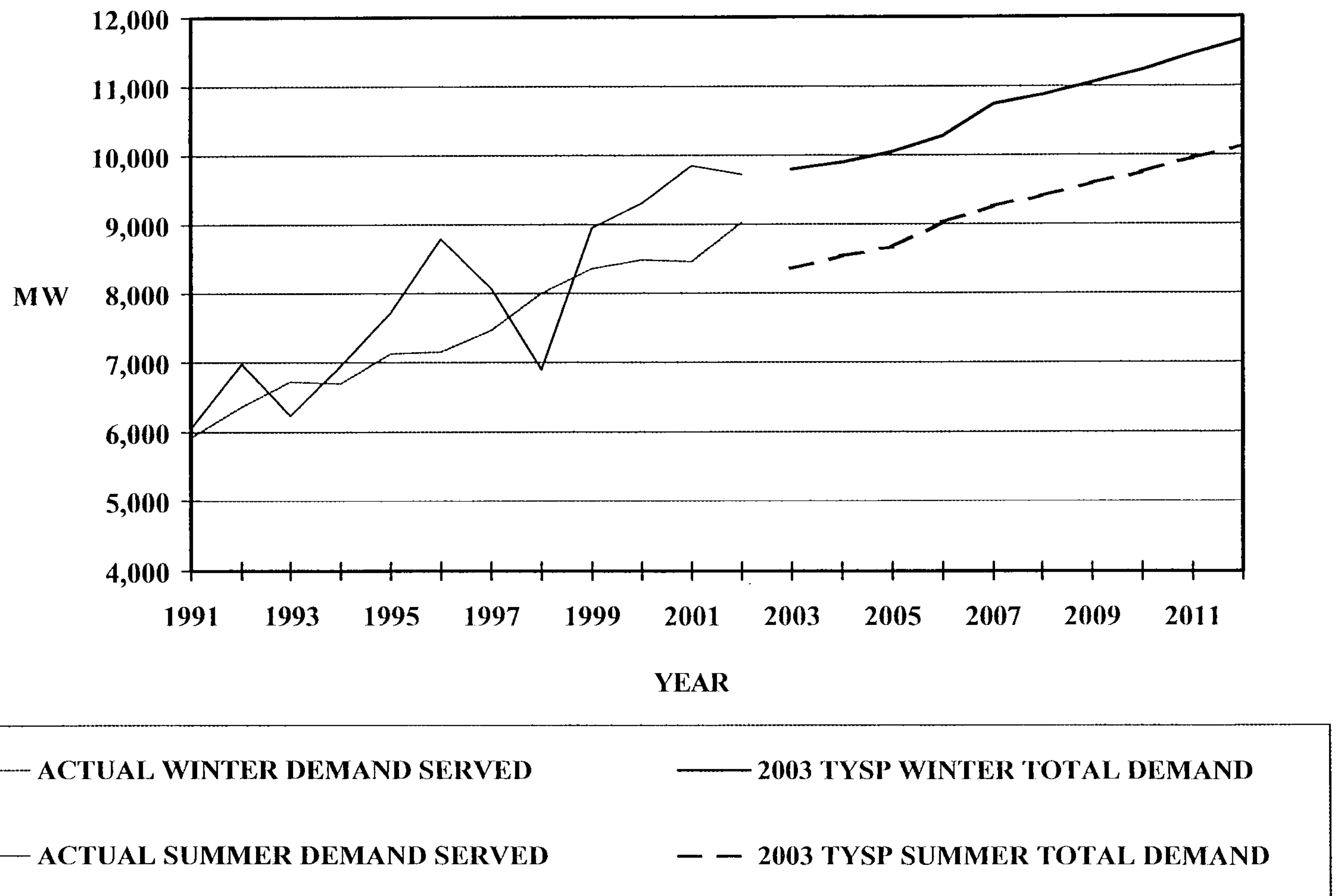
PEF Resource Planning

Reliability Criteria

- Reliability Criteria:
  - 20% Reserve Margin
  - LOLP < 1 Day in 10 Years
- 20% Reserve Margin Criterion met with Hines 2 addition in Winter 2003/04
- 20% Margin maintained thereafter

PEF Seasonal Peak Demand Forecast



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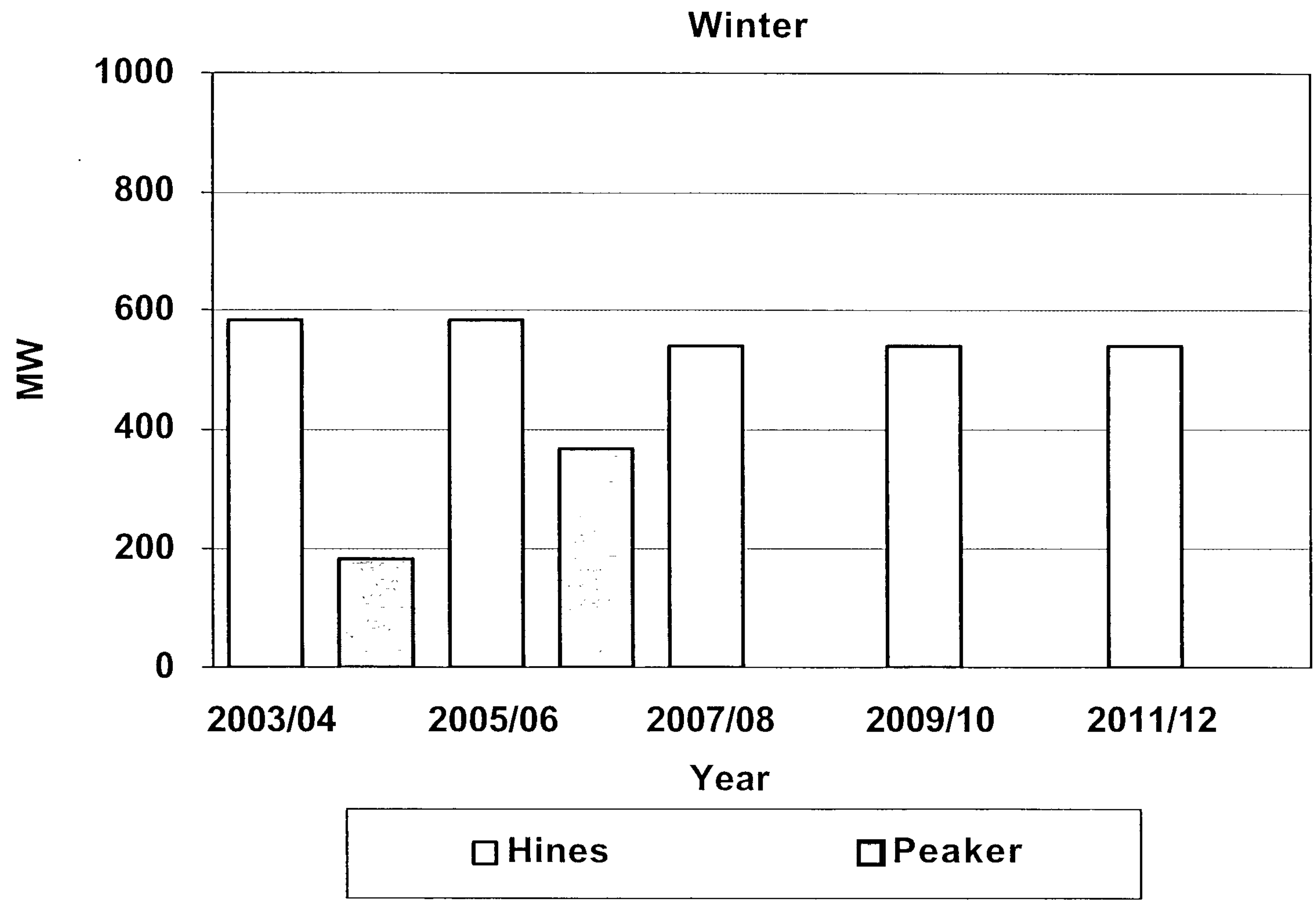
Generating Additions Plan

April TYSP and Revisions (Changes to Schedule 8)

	April 2003 Plan	Revised Plan
2003/04	Hines 2	Hines 2
2004/05	Peaker 1	Winter Purchase
2005/06	Hines 3	Hines 3
2006/07	Peakers 2,3	Peakers 1,2,3
2007/08	Hines 4	Hines 4

Generating Additions Summary
April 2003 TYSP



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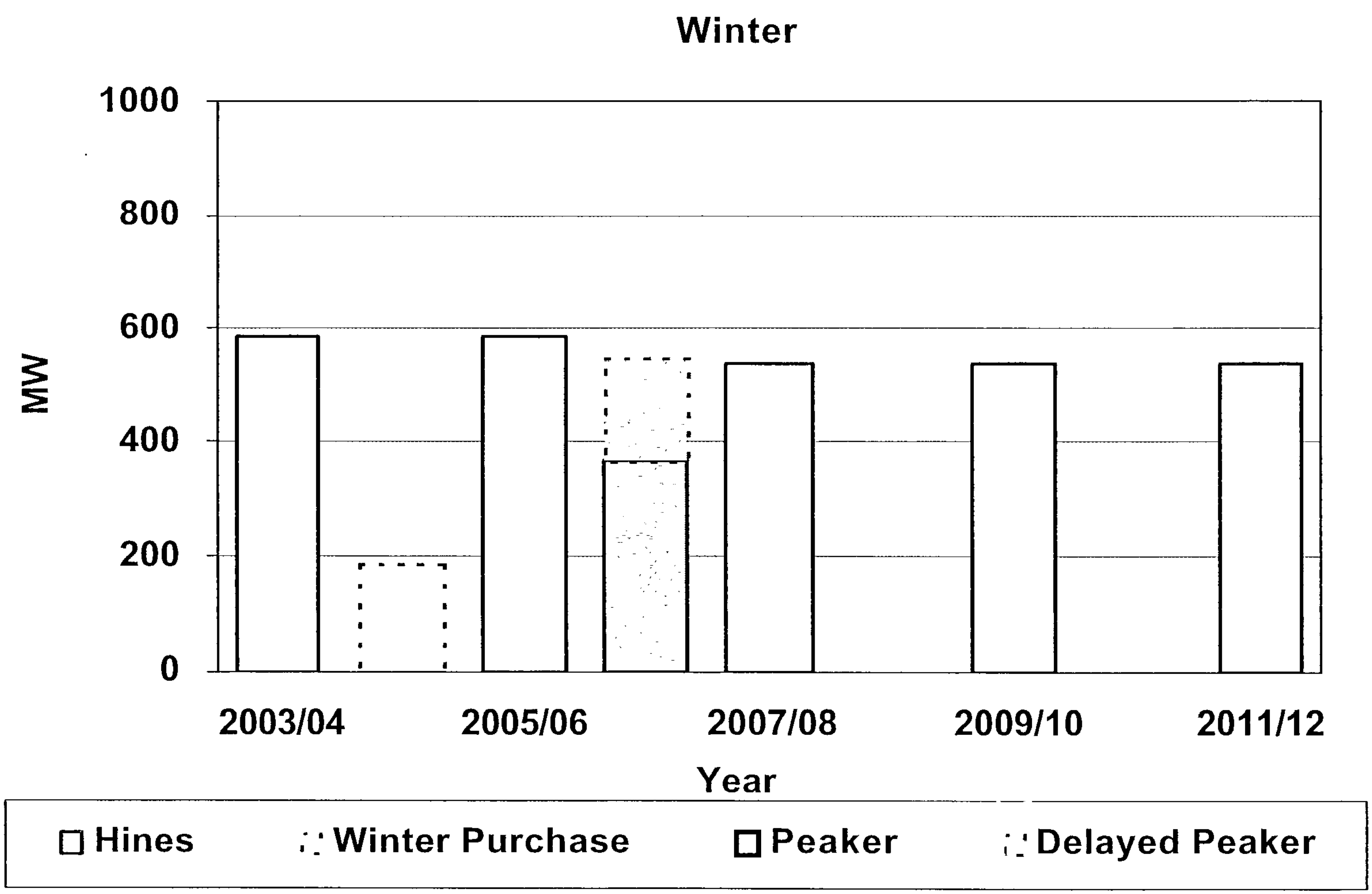
Generating Additions Summary
Revised 2003 TYSP



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Winter Reserve Margin Comparison

	April 2003 Plan	Revised Plan
2003/04	21%	21%
2004/05	20%	20%
2005/06	24%	22%
2006/07	21%	21%
2007/08	25%	25%
2008/09	21%	21%
2009/10	24%	24%
2010/11	21%	21%
2011/12	23%	23%

Summer Reserve Margin Comparison

	April 2003 Plan	Revised Plan
2003	19%	19%
2004	24%	24%
2005	23%	21%
2006	24%	22%
2007	23%	23%
2008	25%	25%
2009	21%	21%
2010	23%	23%
2011	20%	20%

New Additions Status

Unit	MW	Status	Date Available
Hines 2 CC	582	• Final construction • On schedule	Dec. 2003
Winter-only purchases	188	• Reliant (Vandolah) 158 MW • Reedy Creek (RCID) 20-30 MW	Dec. 2004
Hines 3 CC	582	• Determination of Need granted • Governor/Cabinet consideration Aug. 2003	Dec. 2005
Peaker 1 Peaker 2 Peaker 3	182 182 182	• P1 delayed 2 years with short term purchases • Build vs. buy analyses ongoing • Concurrent site selection activities to preserve build option	Dec. 2006 Dec. 2006 Dec. 2006
Hines 4 CC	540	• RFP in preparation	Dec. 2007

PEF 2003 TYSP Summary

- Satisfies reliability criteria in all years
- Sufficient capacity for peak load conditions in all years
- Fuel diversity and generation mix adequate for reliable service under all expected load conditions

Progress Energy Florida

Request For Proposals
for
Power Supply Resources

Response Package

October 7, 2003

Progress Energy

Response Package
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RESPONSE PACKAGE SCHEDULES

I. General Instructions

This Response Package contains the information required of Bidders and reviews the required organizational structure and contents of the proposals submitted in response to Progress Energy Florida's RFP for Power Supply Resources. Prior to developing their proposals, Bidders are requested to carefully read Progress Energy Florida's RFP and the instructions in this Response Package.

Proposals in response to this RFP must consist of three bound copies and an electronic version (on diskette or CD-ROM) with all text portions of the responses in Microsoft Word or Adobe Acrobat and schedules in Microsoft Excel. Each proposal is to be bound separately. Bidders must submit two (2) extra unbound copies of any document that is larger than 8 ½" x 11". Bidders must ensure that the proposals are delivered on time. Preprinted materials such as maps, annual reports, etc. do not have to be submitted in electronic format.

Bidders are required to use the schedules provided. The schedules (as well as the format of the entire Response Package) have been designed to facilitate the evaluation of the proposals in an expedient manner. Failure to use the schedules will be grounds for disqualification.

II. Organization and Contents of Bidders' Proposals

A. Overview

Bidders' proposals **must** be organized according to the structure specified below. If a particular chapter or section is not relevant to a Bidder's proposal, then the Bidder should include the chapter or section and indicate why it is not relevant. Where Progress Energy Florida (PEF) has included a schedule that is to be completed by the Bidder, the schedules must be completed or the Bidder must indicate why the schedule is not relevant.

B. Proposal Outline

The outline that Bidders **must** use to organize their proposals is presented below. Also specified in each section of this Response Package is the chapter number and section number that should be used for all proposals. The specific information that is to be included in each chapter is described below. However, because the information requested may not be relevant to all types of proposals, PEF has indicated in bold the type of proposal to which each question applies. **Where no specific type of proposal is indicated, the Bidder should assume that the information is required for all types of proposals.**

- Proposal Executive Summary
- Chapter 1: Project Summary
- Chapter 2: Proposal Pricing
- Chapter 3: Operating Performance

- Chapter 4: Permitting Plans
- Chapter 5: Engineering and Design Plans
- Chapter 6: Site Control
- Chapter 7: Transmission Plan
- Chapter 8: Fuel Supply and Transportation Plan
- Chapter 9: Project Financing Plan
- Chapter 10: Commercial Operation Date Certainty
- Chapter 11: Bidder Experience
- Chapter 12: Acceptance of the Key Terms and Conditions

This Response Package is organized around a series of schedules. The matrix presented below indicates which schedules apply to different types of proposals. These schedules are provided in an Excel workbook included as part of this Response Package. If a schedule applies to the type of proposal that the Bidder is submitting, the Bidder is **required** to provide both hard and electronic copies of the schedule. **Inconsistencies between the electronic and hard copies will be grounds for disqualification.**

Schedules To Be Completed By Bidder

Schedule No. and Name	New Unit	Existing Unit	System Power
Schedule A: Project Summary	X	X	X
Schedule 1: Pricing Schedule for New and Existing Unit Proposals	X	X	
Schedule 2: Pricing Schedule for System Power Proposals			X
Schedule 3: Project Capacity and Heat Rate Schedule	X	X	
Schedule 4: Operating Performance Schedule	X	X	X
Schedule 5: Environmental and Regulatory Permit Status Schedule	X		
Schedule 6: Air Emissions Schedule	X		
Schedule 7: Network Resource System Impact Study data request	X	X	
Schedule 8: Project Pro Formas Schedule	X		
Schedule 9: Project Milestone Schedule	X		

C. Proposal Executive Summary

The Bidder is required to provide a brief summary of its proposal (no more than two pages). The summary should include at a minimum a brief overview of the technology and equipment proposed, amount of capacity offered, project location and point of delivery, proposed project pricing, power delivery period, proposed fuel supply arrangements, experience with key project elements, financing plan/arrangements, permitting schedule, and conformance with Key Terms and Conditions provisions (see Attachment A to the RFP).

D. *Chapter 1: Project Summary*

Chapter 1 of the Bidder's proposal must consist of a completed Project Summary (Schedule A). Bidders should complete Schedule A after they have completed all other schedules; data must be consistent with the detailed schedules. In addition to submitting the Excel spreadsheet version of this schedule, the Bidder must include a hard copy of this schedule in Chapter 1 of its proposal. The information in this form will be treated as non-confidential and non-proprietary and may be released to the public.

E. *Chapter 2: Proposal Pricing*

1. Introduction

Bidders are required to complete all the applicable pricing schedules referenced in this chapter of the Response Package and to provide a complete description of the components of the charges. Progress Energy Florida has included price schedules for New and Existing Unit Proposals and System Power Proposals as part of this package. Bidders should only complete those schedules that are pertinent to the type of bid submitted (see Table on Page 2). Bidders should note that contract year one is a partial year. Therefore, a "10-year" contract will cover one partial year and nine full years, for example, December 1, 2007 through December 31, 2016.

2. Price Schedule for New and Existing Unit Proposals

Bidders offering New or Existing Unit Proposals must complete all relevant sections of Schedule 1 as described in this section of the Response Package. Bidders should ensure that the pricing components of their proposals conform to the requirements described in Table IV-2 of the RFP. **All costs to be paid by PEF must be reflected in the proposed pricing. PEF will not accept any charges other than those identified in Schedule 1.**

Bidders must specify the pricing for their proposals in terms of the following components and units, to the degree that each component is relevant to the particular bid:

- Fixed Payment
  - Generation Capital Charge ($/kW-Yr)
  - Transmission Charge ($/kW-Yr)
  - Fixed Operation and Maintenance (O&M) Charge ($/kW-Yr)
  - Pipeline Reservation Charge ($/mmBtu-day)
- Variable Payment
  - Fuel Commodity ($/mmBtu)
  - Variable Transportation ($/mmBtu)
  - Variable O&M Price ($/MWh, $/hour, or both)
- Start Payment
  - Start Price Per Facility ($/start/facility).

Schedule 1 consists of three Excel sheets. The sheets named "Schedule 1 Sheet A" and "Schedule 1 Sheet B" contain cells in which Bidders must enter the proposed term for their bid and the associated pricing data. The workbook is programmed to automatically calculate the yearly pricing projections over the proposed term, using the pricing data entered by the Bidder in the sheets. These calculated projections may be viewed in "Schedule 1 Sheet C," but the Bidder is not allowed to make any entries in this sheet.

In addition to completing the schedules, Bidders should include back-up sheets (that are to be labeled by the Bidder as Exhibit 2.1) which clearly describe their pricing proposals in terms of the pricing components, the indices proposed to adjust the prices, and the frequency of change in the indices for payment purposes.

a. Initial Prices

In the Initial Data section of "Schedule 1 Sheet A," the Bidder must provide initial prices for each of the pricing components. Bidders' prices must reflect a January 1, 2003 base period. In addition to providing the initial prices, the Bidder must specify its primary and secondary fuels in this section of the schedule. The primary fuel is the fuel that the Bidder expects to use for the majority of the months in the year, and the secondary fuel is the fuel that the Bidder expects to use for the remaining months. If desired, the Bidder may propose to use only one fuel for all months throughout the year and not specify a secondary fuel. The Bidder should identify in the Initial Data Section the months in which the primary and secondary fuels will be expected to be used by entering a "P" for primary or an "S" for secondary next to each month. These entries will be used for both evaluation and payment purposes. For example, if a Bidder states that natural gas will be used eleven months of the year and oil for only one month (*e.g.*, January), the Bidder must be willing to accept this commitment for both payment and evaluation purposes.

The final entries in the Initial Data Section are the Term of the Proposal, which represents the number of years under which capacity and energy will be provided to PEF by the Bidder, the Contract Start Month, and the Contract Start Year. Based on these entries in Sheet A, the beginning and ending dates for the corresponding contract years will automatically be displayed in Sheets B and C.

b. Price Escalation

In addition to providing initial prices for each of the fuel pricing components, the Bidder must specify the escalation indices to be used for each component for evaluation and payment purposes. This information must be provided in the Escalation Indices Section of "Schedule 1 Sheet A." Beside each pricing component, the Bidder can select a predefined index, **or** the Bidder can specify an alternative fixed escalation rate.

The value of the index on January 1, 2003 will be used in conjunction with the value of the index at the time of payment to determine the escalation rate to be applied to the Initial Price. For example, the primary commodity price used for payment in any month (m) is:

$$\text{Primary Commodity Price}_m = \text{Initial Price} \times \frac{\text{Primary Commodity Index}_m}{\text{Primary Commodity Index}_{1/1/2003}}$$

As a numerical example, assume the Initial Primary Commodity Price, is \$5.00/mmBtu. Also assume the index selected for the Primary Commodity was 4.80 on January 1, 2003. In 2010, if the index turns out to be 6.00, the Primary Commodity Price that will be used to determine payments to the Bidder in 2010 will be:

Primary Commodity Price = 5.00 x 6.00 / 4.80 = \$6.25/mmBtu.

This reflects the hypothetical 25% increase in the index from 2003 to 2010 and increases the Primary Commodity Price by 25% also.

The predefined indices from which the Bidder may choose are listed in Section III of this document, along with their current standard escalation assumptions at the time Section III was prepared. These assumptions are based on recent forecasts for the indices; however, PEF reserves the right to update these forecasts during the evaluation period if they no longer reflect PEF's current expectations for the indices. Excel will automatically compute and display, in the right-most column of this section, the standard escalation for a particular pricing component based on the Bidder's entries and the standard assumptions shown in Section III.

The standard escalation value will be used to evaluate the proposal; however, Bidders will be paid based on the actual values of the indices at the time of payment. The index selected for each pricing component should be consistent with market-based indices that are appropriate for that component. For example, if a Bidder proposes to use natural gas as its primary fuel, a gas commodity index is appropriate to choose. If a Bidder proposes to use a secondary fuel, the Bidder should select an appropriate index for that fuel. The Bidder must identify the pricing point for the index selected, if appropriate

To choose from the predefined indices, the Bidder selects the abbreviated code for the selected index, as given in Section III, in the first cell beside the pricing component. Selecting the cell will reveal a drop-down menu from which the index is to be selected.

Alternatively, the Bidder may choose to specify a fixed escalation rate by leaving all predefined index cells blank and entering the annual fixed escalation rate as a percent. Bidders should not specify both predefined and fixed escalators for any one pricing component. If a Bidder incorrectly completes the schedule by specifying both types of escalators, the fixed escalator will be used for evaluation and payment purposes.

Next, the Bidder must specify the Frequency of Change for the selected indices for <u>payment</u> purposes. For <u>evaluation</u> purposes, all values will escalate on a contract year basis. To specify the Frequency of Change, the Bidder may select Monthly, Quarterly, Annual, or Never (*i.e.*, the initial price remains constant throughout the term) from the drop-down menus contained in the cells under the "Frequency of Change" heading.

c. Annual Charges

Bidders must enter generation capital charges in "Schedule 1 Sheet B" for every year of the term of the proposal. The generation capital charges must be based on the Seasonal Contract

Capacities. Therefore, Bidders must take into account the difference in Summer and Winter Contract Capacities and enter **annualized** $/kW values for every year, including the start year when the proposal does not include all 12 months of the calendar year. Since the Summer and Winter Periods each contain six (6) months, this can easily be achieved by using the average Summer and Winter Contract Capacities when developing $/kW values. Bidders will be paid monthly based on the product of the Bidder-specified seasonal capacity and one-twelfth (1/12) of the Bidder-specified annual charges, and will be subject to adjustments based on actual operating performance (the adjustments for operating performance are described in the Key Terms and Conditions).

A transmission charge must be specified by the Bidder in Schedule 1 Sheet B for each year of the proposal. These charges should represent the Bidders Interconnection Facilities and wheeling (if applicable) costs to PEF's Delivery Point and must be based on the Seasonal Contract Capacities. The transmission charges specified are to be consistent with the transmission equipment costs specified in Section 9.0 of the Bidder's proposal. Costs for any necessary upgrades to integrate the project into the PEF transmission system will be estimated by PEF during the Detailed Evaluation of proposals and the costs for the upgrades will be included in the evaluation of the proposal. If the proposed project is not located in the PEF control area, any costs related to an upgrade of other transmission systems must be included in the price proposal by the Bidder. Progress Energy Florida will not estimate any upgrade costs for other control areas.

Bidders must specify a fixed pipeline demand/reservation charge (if appropriate to the technology being proposed). Bidders must specify a charge for each year of the proposal in $/mmBtu-day and must specify the amount of transportation proposed to be reserved (in Chapter 8 of the proposal). Bidders may specify a fixed pipeline demand/ reservation tariff as the price. Progress Energy Florida reserves the right to negotiate fuel transportation provisions with the Bidder if benefits can be derived for PEF and its customers.

The Bidder must enter annual prices for fixed and variable O&M. Although the Bidder may specify two fuels (Primary and Secondary) to be used during a year, the Bidder should enter only one annual price for each of the O&M components. These prices should reflect the weighted average annual O&M, based on the proposed fuels. The Bidder must specify an **annualized** price, even though the start year for the proposal may not include all twelve months of the calendar year.

The Bidder is also required to enter annual start prices. The start price component is designed to compensate the Bidder for the cost of starting the **Facility**. Payment will only be made for starts required by PEF. The Company will not reimburse the Bidder for test starts or starts arising from a forced outage or from an unplanned maintenance outage. The Company will estimate the number of starts for evaluation purposes but pay the Bidder based on the actual number of successful starts.

3. Price Schedule For System Power Proposals

Bidders who are proposing System Power Proposals are required to complete "Schedule 2 Sheet A." In the Initial Data Section of the Excel sheet, the Bidder must provide initial prices for the

Fuel Energy components in $/MWh. Bidders' prices must reflect a January 1, 2003 base period. Also in this section, Bidders must specify the Contract Start Year, the Term of the Proposal, which represents the number of years under which capacity and energy would be provided to PEF by the Bidder, the Winter Contract Capacity, and the Summer Contract Capacity. Based on these entries in Sheet A, the beginning and ending dates for the corresponding contract years will automatically be displayed in the schedule.

In addition to providing an initial prices for the Fuel Energy pricing component, the Bidder must specify the escalation index to be used for evaluation and payment purposes. This information must be provided in the Escalation Indices Section of the Excel sheet. The Bidder can select a predefined index, or the Bidder can specify an alternative fixed escalation rate. The predefined indices which the Bidder may choose are listed in Section III, along with their current standard escalation assumptions at the time Section III was prepared. These assumptions are based on recent forecasts for the indices; however, PEF reserves the right to update these forecasts during the evaluation period if they no longer reflect PEF's current expectations for the indices. Excel will automatically compute and display, in the right-most column of this section, the standard escalation for a particular pricing component based on the Bidder's entries and the standard assumptions shown in Section III. The standard escalation value will be used to evaluate the proposal. Bidders will be paid based on the actual values of the index at the time of payment. Once the initial price and escalator has been specified, the annual fuel energy charges will be calculated by Excel and may be viewed by the Bidder in "Schedule 2 Sheet B." The Bidder is not allowed to make any entries in this sheet.

To choose from the predefined indices, the Bidder selects the abbreviated code for the selected index, as given in Section III, in the first cell beside the pricing component. Selecting the cell will reveal a drop-down menu from which the index is to be selected.

Next, the Bidder must specify the Frequency of Change for the selected indices for <u>payment</u> purposes. For <u>evaluation</u> purposes, all values will escalate on a contract year basis. To specify the Frequency of Change, the Bidder may select Monthly, Quarterly, Annual, or Never (*i.e.*, the initial price remains constant throughout the term) from the drop-down menus contained in the cells under the "Frequency of Change" heading.

Bidders must enter capacity and transmission charges and non-fuel energy prices in "Schedule 2 Sheet A" for every year of the term of the proposal. For the transmission charge, the Bidder should enter the total price of transmission, accounting for all transmission costs to PEF's Delivery Point. Should the PEF transmission system require upgrades as a result of the proposed power flow, these additional costs will be estimated by PEF during the Detailed Evaluation of proposals and included in the evaluation of the proposal. The capacity and transmission charges must be based on the Seasonal Contract Capacities and must be entered as **annualized** values for every year, including the start year when the proposal does not include all twelve months of the calendar year. Bidders will be paid monthly based on the product of the Seasonal Contract Capacity and one-twelfth (1/12) of the Bidder-specified annual capacity and transmission charges, and will be subject to adjustments based on the actual availability of capacity under the contract.

Bidders of System Power Proposals must guarantee 100% availability for the capacity and energy offered to PEF. In addition to receiving reduced capacity and wheeling payments, Bidders that fail to achieve 100% availability will be charged the cost of replacement capacity and energy. PEF prefers proposals that, when curtailments are necessary, curtail delivery only on a pro-rata basis simultaneously and proportionately along with the Bidder's other firm sales, including primary public service obligations.

All costs to be paid by PEF must be reflected in the proposed pricing. PEF will not accept any charges other than those identified in Schedule 2A.

Finally, Bidders should include back-up sheets (labeled by the Bidder as Exhibit 2.1) which clearly describe their pricing proposals in terms of the pricing components and the index proposed to adjust the prices.

4. Other Contract Flexibility Provisions

Also pursuant to Section III.E of the Solicitation Document, PEF is encouraging Bidders to offer other contract flexibility provisions. For example, Bidders may propose an initial contract term and provide PEF options to extend the term at predefined prices. If Bidders would like to provide such options, the pricing schedules should be used to convey the prices. The initial term should be entered as the Contract Term, and the extension provisions should be explained in a Bidder-provided Exhibit 2.2. Other flexibility provisions should be also be proposed in a Bidder-provided Exhibit 2.2.

As an alternative to proposing fuel prices, Bidders may propose a fuel tolling arrangement with Progress Energy Florida (see Section K for more information).

F. Chapter 3: Operating Performance

In this chapter of its proposal, each Bidder must demonstrate how its proposal complies with all of the operating performance thresholds and the degree to which it is consistent with PEF's preferences for the operational quality evaluation criteria outlined in Section IV.C.4.b of the RFP. In Section II of the Solicitation Document, PEF has provided definitions for several of these operating performance thresholds which will be used to ensure that the Bidder's generating resource provides PEF with its required level of operating performance. Bidders are required to answer the questions presented in Schedules 3 and 4 and to provide all necessary data to support the assertions made.

In Schedule 3, each Bidder is required to specify the proposed project's capacity that is being offered to PEF based on the criteria identified below. In addition, the Bidder should specify the elevation at which the unit will be sited.

CAPACITY SPECIFICATION CRITERIA

- Summer: 90°F, 60% R.H.
- Winter: 45°F, 60% R.H.

Capacity must be specified at net generation levels at the Delivery Point. Bidders must complete the Dispatchable Generation Capacity Table shown in Schedule 3 for each season as defined in the table below. In this portion of Schedule 3, values for Contract Year Ending 12/31/2006 are required only if the Bidder is proposing a contract start date prior to January 1, 2007. Bidders should enter values in the last column of the table only if the proposed capacity increases after 12/31/2007.

SEASONAL DEFINITIONS	
Summer	**Winter**
May through October	November through April

Each Bidder must specify in Schedule 3 the proposed project's heat rate information for the proposed primary fuel and secondary fuel. The heat rate data must be provided by specifying seasonal capacity states and heat rates for each fuel. The heat rate data provided will be used for both evaluation and contract purposes. Heat rates must be expressed in terms of the higher heating value of the fuel. Heat rates must incorporate any margin for degradation during the term of the contract.

In Schedule 4, the Bidder must provide responses to all items that apply to the type of proposal being offered. Answer yes or no for each Operating Performance threshold by entering an "X" in the appropriate box for each item in the first part of Schedule 4. In the second part of Schedule 4, Bidders must provide operating performance evaluation criteria responses and outage information.

G. Chapter 4: Permitting Plans [New Unit Proposal]

In this chapter of its proposal, each Bidder should demonstrate how its proposal complies with all of the permitting and siting thresholds and minimum evaluation requirements and the degree to which it is consistent with PEF's preferences for a high level of certainty that the proposed project will receive its required permits within the time indicated on the project's critical path schedule. Each Bidder is required to answer the questions presented below in the appropriate sections of its proposal and provide all necessary data to support these assertions. For sections that require responses to several bullet items, the Bidder must always precede its response with the bullet item, verbatim, as shown below.

Section

4.0 In Schedule 5, the Environmental and Regulatory Permit Status Schedule, identify which items would be required for the project to be constructed and operated by placing an "X" in the "Not Required" or "Required" column by each item. Provide a critical path schedule for each of the required items. If a permit has been applied for, indicate the date that the permit was applied for in the column marked "Applied For" and the date that the permit is likely to be issued in the column labeled "Expected Receipt." Some of the required items are pre-printed in Schedule 5. However, if additional permits would be required, add them to the schedule in the blank cells provided.

In a separate attachment labeled Exhibit 4.0, the Bidder should indicate why the project is likely to receive each required permit, license, or approval.

4.1 Provide specific information for the project site as identified below. Label all attachments for this section of the proposal as Exhibit 4.1.

- List any new rights-of-way required for the project for fuel pipelines, rail spurs, roadways, or electric transmission lines.
- Identify the total acreage of wetlands on the proposed site or rights-of-way before and after construction and the acreage disturbed, lost, or converted during construction.
- Provide a copy of a map showing any portions of the proposed site or rights-of-way that are in a local or state designated Coastal Zone Management Area (CZMA).
- Provide evidence that the existing zoning for the site is compatible with the proposed use and, if not, provide a plan for changing the zoning.
- Provide evidence that a Phase I Environmental Assessment has been completed and that the proposed site or rights-of-way are not contaminated. If the proposed site or rights-of-way are contaminated, indicate the clean-up measures planned, their estimated costs, schedules for completion, and status of reviews by appropriate federal or state agencies.
- Identify any environmentally sensitive areas (*i.e.*, wetlands, water use caution areas, state lands (including submerged), CZMA, wildlife refuge, public parks, critical habitats for endangered species) within a one-mile radius of the proposed plant location and any mitigation measures for these areas.
- Identify any sites of historical or archaeological significance within a one-mile radius of the proposed plant location and any mitigation measures for these areas.

4.2 Describe the current and recent past land use and development of the site and adjacent lands, discussing the compatibility of the project with adjacent and nearby land uses.

4.3 Provide a waste disposal plan for the proposed project which identifies the solid or hazardous wastes that would be generated by the project and identifies how they would be disposed.

4.4 Indicate the quantity and source of cooling, injection, steam make-up, and general use water that would be needed for the project. This information should include the characteristics of the water to be used, necessary treatment processes, and a discussion of competing uses for the water.

4.5 Provide the following information concerning the wastewater generated by the project:

- The sources, composition, and expected quantity of wastewater to be generated by the project, the disposal method to be employed, including any waste treatment methods, and the water composition after treatment.

- The classification of any surface waters or groundwaters to which wastewater effluent is discharged and the name of the surface water.

4.6 Please describe any hydrologic alterations, (*e.g.*, dredging, filling, diking, outfall structure, or impoundment) of any surface waters that would be required by the project, identifying the affected resource, the significance of the alteration, and the mitigation measures proposed.

4.7 Provide the following information regarding the impact of the project on the air quality of the surrounding area:

- Identify the air quality management area where the project would be located and indicate the attainment status of this area for each of the criteria pollutants.

- Identify whether there are any Class 1 areas within 100 kilometers of the proposed project site. If so, indicate whether any visibility modeling has been performed and the visibility impacts on the Class 1 areas projected by the model.

- Indicate the removal efficiency of any pollution control equipment that would be employed for NO_x, SO_2, PM, CO, Hg, or other hazardous air pollutants (HAPs).

- Complete Schedule 6, the Air Emissions Schedule, for both the primary and secondary fuel.

- If BACT or LAER would apply to the project, indicate how the Bidder proposes to comply with these requirements.

- Describe plans for obtaining any required offsets and allowances for the project.

- Address levels of NH_3 (ammonia) emissions and requirements for handling/storage, if used.

4.8 Indicate the expected incremental ambient noise level during the daytime and nighttime hours that would result from the operation of the project at the nearest property boundary and any planned mitigation measures. Also, indicate the distance of the nearest residence from the project and define the expected daytime and nighttime ambient noise levels at the nearest residence.

H. Chapter 5: Engineering and Design Plans

In this chapter of the proposal, the Bidder should demonstrate how its proposal complies with all of the engineering and design thresholds. The Bidder is required to provide the information requested below and all data necessary to support the assertions made.

<u>Section</u>

5.0 Provide an operations and maintenance plan (O&M Plan) which demonstrates that the project will be operated and maintained in a manner to allow the project to satisfy its contractual commitments. This O&M Plan should indicate proposed project staffing levels, the schedule for major maintenance activities, plans for inspecting and testing of major equipment, entities responsible for operating and maintaining the project, and status and schedule for securing a maintenance agreement. **[New Unit Proposal, Existing Unit Proposal]**

5.1 Provide a preliminary engineering design plan that identifies the following: **[New Unit Proposal, Existing Unit Proposal]**

- generation technology, including the make/model/supplier's name
- emission control equipment, including the make/model/supplier's name
- major equipment to be employed, including the make/model/supplier's name
- major equipment vendors
- whether new or refurbished equipment will be used
- commercial in-service date **[Existing Unit Proposal only]**

5.2 Provide historic operating performance data (heat rate, EFOR, summer and winter MDC, number of starts) for the project that demonstrate the proposed project will be able to achieve the operating targets specified. **[Existing Unit Proposal]**

Provide historic operating performance data (heat rate, EFOR, summer and winter MDC, number of starts) for projects of similar technology that demonstrate that the proposed technology will be able to achieve the operating targets specified. **[New Unit Proposal]**

5.3 Provide a heat and material balance diagram. **[New Unit Proposal]**

5.4 Provide a plot plan showing the layout of the proposed project. **[New Unit Proposal]**

5.5 Specify any limitations the proposed project will have regarding the start-up fuel system. If the project has or will have a secondary fuel, please specify whether the project will be able to start on either fuel independent of other fuel systems being completely out of service. Please specify whether the project will be able to switch "on the fly." **[New Unit Proposal, Existing Unit Proposal]**

5.6 Provide the following projected unit performance information: **[New Unit Proposal, Existing Unit Proposal]**

- Equivalent Forced Outage Rate (EFOR)

  EFOR = [(FOH + EFDH)/(FOH + SH)]

  Where:

FOH	=	Forced Outage Hours: The sum of all hours experienced during forced outages.
EFDH	=	Equivalent Forced Derated Hours: The summation of the products of the Forced Derated Hours (FDH) and size (MW) of reduction for each event, divided by the Seasonal Contract Capacity (SCC).
FDH	=	Forced Derated Hours: The number of hours experienced during a forced derated event.
SH	=	Service Hours: The total number of hours a unit was electrically connected to the transmission system.

- Equivalent Availability Factor (EAF)

  EAF = [(AH - (EUDH + EPDH)) / PH]

  Where:

AH	=	Available Hours: Period Hours (PH) less Planned Outage Hours (POH), Forced Outage Hours (FOH) and Maintenance Outage Hours (MOH).
PH	=	Period Hours: Number of hours in the period (month).
POH	=	Planned Outage Hours: The sum of all hours experienced during planned outages and planned outage extensions.
FOH	=	Forced Outage Hours: The sum of all hours experienced during forced outages.
MOH	=	Maintenance Outage Hours: The sum of all hours experienced during maintenance outages and maintenance outage extensions.
EUDH	=	Equivalent Unplanned Derated Hours: The summation of the products of Unplanned Derated Hours (UDH) and size (MW) of reduction for each event, divided by Seasonal Contract Capacity (SCC).
UDH	=	Unplanned Derated Hours: The number of hours experienced during a forced derated event, a maintenance derated event, or scheduled derated extension of a maintenance derated event.
EPDH	=	Equivalent Planned Derated Hours: The summation of the products of the Planned Derated Hours (PDH) and size (MW) of reduction for each event, divided by the Seasonal Contract Capacity (SCC).
PDH	=	Planned Derated Hours: The number of hours experienced during

planned derated event or scheduled derated extension of a planned derated event.

I. *Chapter 6: Site Control* [New Unit Proposal, Existing Unit Proposal]

In this chapter of the proposal, the Bidder should demonstrate how its proposal complies with the site control thresholds. Bidders are required to provide the information requested below and all necessary data to support the assertions made.

Section

6.0 Provide a USGS map (7.5 minute scale) that indicates the project site location, identifies all generation, substation, and other equipment, and all new rights-of-way that would be required for the project, including critical dimensions. Show proximity to and identify the nearest PEF substation and/or transmission line.

6.1 Demonstrate site control either in the form of an agreement demonstrating ownership of the site, lease of the site for the term of the proposal, or at a minimum, an executed letter of intent to negotiate a lease for the site for the full contract term or term necessary for financing (whichever is greater) or to purchase the site. Provide a copy of a letter of intent or contract that demonstrates that the Bidder's proposal satisfies PEF's site control threshold. If the property is fee owned, a copy of the Title and Legal Description of the property is required.

6.2 If off-site rights-of-way are required for gas, electrical, or rail service, demonstrate site control either in the form of an executed letter of intent to negotiate a lease for the rights-of-way for the full contract term or term necessary for financing (whichever is greater) or to purchase the rights-of-way.

J. *Chapter 7: Transmission Plan*

In this chapter of the proposal, the Bidder should demonstrate how its proposal complies with the transmission threshold. Bidders are required to provide the information requested below and all necessary data to support the assertions made.

Section

7.0 If the proposed project or power source is located outside of PEF's control area, provide a transmission plan that identifies the project's proposed transmission path, including delivery point. Also provide evidence that the host utility and all wheeling utilities are willing to grant PEF the right to schedule the output of the unit. Identify the PEF interface utility that would be used to deliver the power to PEF.

7.1 For projects located within PEF's control area, Bidders are required to complete the Network Resource System Impact Study Data Request Form (Schedule 7, Sections I and II) and provide all the information identified in that form. For Bidder's that submit proposals in which a Generator Interconnection Study Request has already been submitted, the following information may be submitted as an alternative to completing the Network Resource System Impact Study Data Request:

- OASIS IR Queue priority date,
- Generator capacity (MW),
- Interconnection point,
- Status of the Interconnection Request.

Note: Submitting the Network Resource System Impact Study Data Request Form does not imply Generator Interconnection queue position nor does this process imply deliverability rights. Generators wishing to establish queue position must submit an official Interconnection Request (IR) as outlined at the floasis.siemens-asp.com web site (see the PEF FLOASIS Home Page). Deliverability can only be obtained by making a Transmission Service request (see the PEF FLOASIS Home Page). **[New Unit Proposal, Existing Unit Proposal]**

K. Chapter 8: Fuel Supply and Transportation Plan

In this chapter of the proposal, the Bidder should demonstrate how its proposal complies with the fuel supply and transportation plan threshold and the degree to which it is consistent with PEF's requirements for a reliable fuel supply for the proposed project. Bidders are required to provide a preliminary fuel supply plan and all necessary data to support the assertions made regarding this plan. **[New Unit Proposal, Existing Unit Proposal]** Bidders interested in having PEF provide fuel tolling services should complete Section 8.1 rather than Section 8.0.

Section

8.0 The preliminary fuel supply plan for both primary and secondary fuels must specify or provide the information listed below.

- Provide a map of the fuel supply and transportation infrastructure for the proposed project and a description of supply and transportation alternatives available to the project. If natural gas is proposed as a fuel (primary or secondary), identify the proposed main pipeline source, the length of any lateral from the main pipeline to the site, and the size and pressure of the lateral. If oil is proposed as a fuel (primary or backup), provide the fuel quality requirements, proposed on-site storage capacity (total usable volume and number of tanks), the proposed transport means to the site, and the distance from the expected supply source.

- Provide copies of all fuel supply and transportation agreements in place for the proposed project. If fuel supply and transportation contracts are not in place, provide a description of the types and quality of service for fuel supply and transportation sought, the pricing and operational requirements, the contract terms and conditions required, and the status of such arrangements including the date that such arrangements will be in place. If the Bidder has received proposals from fuel and transportation providers, the Bidder should include the preferred proposal as well as a description of the experience of the Bidder in developing similar supply arrangements.

- Specify the criteria that would be used to select the ultimate fuel supplier and transportation service providers.

- If a secondary fuel is to be used, provide supporting information for the periods over which the primary and secondary fuel supply are expected to be used.

- Indicate whether transportation would be provided from existing capacity or whether new construction would be required. If new construction is required, provide an assessment of the availability of rights-of-way.

- If natural gas is being proposed, indicate the required gas pressure for the proposed project and confirm the capability of the pipeline to deliver natural gas to the project at or above that pressure.

- If natural gas is being proposed, indicate the amount of fixed pipeline demand/reservation (in mmBtu per day) on which the pricing is based.

8.1 Progress Energy Florida is willing to consider tolling proposals. If the Bidder is interested in Progress Energy Florida providing fuel tolling services, the following information must be included in its proposal:

- Provide a map of the fuel supply and transportation infrastructure for the proposed project and a description of supply and transportation alternatives available to the project. If natural gas is proposed as a fuel (primary or secondary), identify the proposed main pipeline source, the length of any lateral from the main pipeline to the site, and the size and pressure of the lateral. If oil is proposed as a fuel (primary or backup), provide the fuel quality requirements, proposed on-site storage capacity (total usable volume and number of tanks), the proposed transport means to the site, and the distance from the expected supply source. **[New Unit Proposal, Existing Unit Proposal]**

- If a secondary fuel can be used, provide information for the periods over which the primary and secondary fuel supply are expected to be used. **[New Unit Proposal, Existing Unit Proposal]**

[Existing Unit Proposals]

- The name of gas pipeline(s) with which the project is interconnected
- Location of the interconnection/meter
- Flow capability of each meter at the plant and the pressure requirement
- The name of the Operator Account
- Specify whether there are other units at the site that serve other customers such that a balancing agreement would need to be developed with a third party.

[New Unit Proposals].

- The name of gas pipeline(s) with which the project will be interconnected
- Location of the proposed interconnection/meter

- Specify whether the facility will serve only PEF such that the meter could be added to PEF's Operator Account.

L. Chapter 9: Project Financing Plan

The Bidder is required to provide evidence that the project is financially viable and that the project will likely be able to attract funds from investors and lenders. In this section of the proposal, the Bidder should demonstrate how its proposal complies with the project financial viability threshold and the degree to which it is consistent with PEF's preferences for proposals for which the Bidder is able to demonstrate that there is a high likelihood of the project securing funding. Bidders are required to provide the information requested below and all necessary data to support the assertions made.

Section
9.0 The financing plan must specify or provide the following: **[New Unit Proposal]**

- The projected cost of the project, broken down into the following major cost elements:

    Equipment
        Generation facilities
        Transmission Interconnection facilities
        Fuel facilities (e.g. pipeline interconnection, oil storage tanks, rail spurs)
    EPC Contractor
    Contingency
    Licensing, permits and site certificates
    Interest During Construction
    Other Costs.

- How the proposed project would be financed, including likely lenders and investors, the terms under which funds would be provided, and the respective percentage of funding represented by debt and equity.

- The timing for securing financing.

- A description of the project from a legal and financial standpoint indicating the actual ownership structure, the entities that will have ownership interests and their percentage interests in the project, their responsibilities for the development of the project, and their responsibilities for funding of project development expenses.

- Provide documentation demonstrating the relevant experience of the Bidder (or partner responsible for securing financing) in obtaining financing for other power generation projects.

9.1 The Bidder is required to provide sufficient financial information to enable PEF to assess the financial strength and credit of the entity that would execute a contract with PEF.

Subsidiaries or affiliates of companies that desire that the project's viability be judged based on a parent company or affiliated company must indicate the extent to which the parent or affiliate will provide financial guarantees for the proposed project and under what circumstances it would do so. To enable PEF to make such an assessment, Bidders are required to provide the following information:

- For publicly traded companies, provide copies of annual reports and Form 10-Ks for the two most recent years. For privately held companies, provide copies of audited financial statements, including, at a minimum, income statements, balance sheets, cash flow statements, and notes to financials for the two most recent years.

- Dunn and Bradstreet identification number credit rating of the Bidder's senior unsecured debt securities.

9.2 The Bidder is required to include a discussion of the potential for increases or decreases in PEF's cost of capital and any competitive advantage the Bidder's financing arrangements may give the Bidder.

9.3 For proposals that will be seeking to obtain project financing, Bidders are required to provide full project financial pro formas that supply, at a minimum, the information outlined in Schedule 8, Financial Pro Forma Schedule, for the proposed financing term. For purposes of completing this pro forma, Bidders should assume an appropriate project capacity factor for the technology being proposed (10% for peaking duty, 50% for intermediate duty, and 80% for baseload duty). Actual project capacity factors will vary. The assumed capacity factor is used only to review the project's financial viability as indicated by the Bidder's financial pro formas. Progress Energy Florida reserves the right to request project pro formas from all short-listed proposals.

M. Chapter 10: Commercial Operation Date Certainty

The Bidder is required to demonstrate that its New Unit Project will be able to achieve the December 1, 2007 commercial operation date requirement. As part of this demonstration, the Bidder is required to provide a critical path diagram and schedule for the project that conforms to the requirements specified below. Progress Energy Florida will evaluate the reasonableness of the following aspects of the Bidder's proposed schedule: permitting, securing the project site, fuel supply and transportation arrangements, engineering design, equipment procurement, project financing, project construction, and start-up and testing. Progress Energy Florida's evaluation will consider the evidence presented by the Bidder that the proposed schedule for each of these project elements is reasonable. For the purposes of developing this schedule only, the Bidder should assume that contract negotiations are finalized by July 26, 2004. However, specifying this date should not be construed as a commitment by PEF to finalize contract negotiations by this date.

<u>Section</u>

10.0 Provide a critical path diagram and schedule for the project that specifies the critical path for each of the elements of the project development cycle including but not limited to, the following: permitting, securing the project site, fuel supply and transportation arrangements, engineering design, equipment procurement, construction and permanent financing, project construction, and start-up and testing. **[New Unit Proposal]**

10.1 Complete Schedule 9, the Project Milestone Schedule, which will be included as part of an executed contract. **[New Unit Proposal]**

10.2 The Bidder should provide a summary of its current and planned electric power resources including such information as the source of supply, contract terms, and accessibility to the PEF system. For proposals that require new resources be built to maintain a reliable supply on the host system, Bidders are required to state the type of capacity to be built and provide evidence that the required construction can be completed in time to maintain a reliable supply. **[System Power Proposal]**

10.3 If the proposed project will be providing steam or electricity to a host customer, indicate the name of the entity to whom this service will be provided, the type and amount of energy to be provided, and the status of negotiations regarding the terms and conditions under which such service will be provided, including appropriate documentation of such contracts. **[New Unit Proposal, Existing Unit Proposal]**

N. Chapter 11: Bidder Experience

The Bidder is required to provide evidence regarding its relevant experience in developing projects that are of an equivalent size and technology. Progress Energy Florida will evaluate each Bidder's relevant experience in six areas: permitting, engineering, financing, fuel procurement, project construction, and operations and maintenance, including environmental compliance. For proposals that rely on a project team composed of more than one firm to develop the project, the Bidder should indicate its relevant experience in working with other team members to develop projects.

Section

11.0 Provide for at least five comparable projects a project reference not affiliated with the Bidder. For each reference, specify a contact name, title, company, address, and phone number.

For each project, indicate the utility or company served and provide a description of the project, including project location, the size and type of project, the scheduled and actual in-service date, and the availability factor achieved. **[New Unit Proposal, Existing Unit Proposal]**

11.1 For each of the project participants, provide an experience statement which lists the relevant experience of the firm, including other projects of a similar type, size, and technology. Describe the experience in the following six areas: permitting, engineering, financing, fuel procurement, project construction, and operations and maintenance, including environmental compliance. **[New Unit Proposal, Existing Unit Proposal]**

11.2 Provide documentation regarding the contractual relationship between the Bidder and all additional project participants and vendors. If this contractual relationship has not been finalized, specify the schedule for doing so. **[New Unit Proposal]**

11.3 Indicate if the Bidder has failed to perform under any contracts or agreements for power supplies. If so, please explain.

11.4 Provide a summary of current litigation activity related to (1) provision of energy products and services (fuel, power, ancillary services, engineering, on-site services); (2) lease option arrangements for assets; (3) purchases of energy products and services (as above); or (4) industrial construction projects (power plants, industrial plants, cogeneration facilities, etc.).

O. Chapter 12: Acceptance of the Key Terms and Conditions [New Unit Proposals, Existing Unit Proposals]

Bidders willing to accept PEF's Key Terms and Conditions (Attachment A to RFP Solicitation Document) without exceptions should indicate this in their proposals. Bidders with exceptions to the Key Terms and Conditions should indicate all exceptions in list form. Each exception should be clearly described, the requested change clearly identified, and the associated paragraph and page number from the Key Terms and Conditions indicated. Bidders that desire to provide a red-lined version may do so using the Word version that was included in the RFP Package. Red-lined versions of the Key Terms and Conditions should be accompanied by a textual discussion which reviews the reason for the exception.

III. Progress Energy Florida Approved Price Indices

<u>INDICES</u> **Gas:** Inside FERC's Gas Market Report or Gas Daily Price Guide.

Oil: Platt's Oilgram or Oil Buyer's Guide.

Coal: Bidder to propose index subject to review by PEF.

Index	Code	Standard Escalation Assumption (% per year)
Inside FERC's Gas Market Report	GAS1	see Esc Assump Excel sheet in Response Package
Gas Daily Price Guide	GAS2	see Esc Assump Excel sheet in Response Package
Platt's Oilgram	OIL1	see Esc Assump Excel sheet in Response Package
Oil Buyer's Guide	OIL2	see Esc Assump Excel sheet in Response Package
Coal Index	COAL1	see Esc Assump Excel sheet in Response Package

Standard Escalation Assumptions

Index	Annl Esc Assumption
GAS1	Vanable
GAS2	Vanable
OIL1	Vanable
OIL2	Vanable
COAL1	Vanable

Escalation Rate(%)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
GAS1	0	14 5%	-7 0%	-8 1%	-21.2%	-10.7%	4 0%	6.3%	1 9%	2 8%	2.7%	2.9%	2.3%	2 5%	2 7%
GAS2	0	14 5%	-7 0%	-8.1%	-21 2%	-10.7%	4 0%	6.3%	1.9%	2.8%	2.7%	2 9%	2.3%	2 5%	2.7%
OIL1	0	1 7%	-10 7%	-10 4%	-2.2%	1.0%	2 0%	1.1%	1 9%	1 9%	1 9%	1.8%	2 0%	1 9%	1 9%
OIL2	0	1 7%	-10.7%	-10 4%	-2 2%	1 0%	2 0%	1 1%	1 9%	1 9%	1 9%	1 8%	2 0%	1 9%	1 9%
COAL1	0	6.7%	-3 3%	3 3%	2 0%	3 0%	3.0%	2.2%	2 5%	2 2%	2 0%	2.0%	2 0%	2 0%	2 0%

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
GAS1	2 4%	2.5%	2.5%	2 4%	2.4%	2 3%	2 4%	2.4%	2.4%	2 4%	2.4%	2 4%	2 4%	2 4%	2 4%	2 4%
GAS2	2 4%	2 5%	2 5%	2 4%	2 4%	2 3%	2.4%	2 4%	2.4%	2 4%	2 4%	2 4%	2 4%	2 4%	2 4%	2 4%
OIL1	1.9%	1 9%	2 0%	1 9%	1.9%	2 0%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1.9%	1 9%
OIL2	1 9%	1 9%	2.0%	1.9%	1 9%	2 0%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%	1 9%
COAL1	2 0%	2 0%	2.0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%

Index	1/1/03	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
GAS1	1 00	1 15	1.06	0 98	0 77	0.69	0.72	0 76	0 78	0 80	0.82	0 84	0.86	0 88	0 91
GAS2	1 00	1 15	1 06	0 98	0 77	0 69	0 72	0.76	0.78	0 80	0 82	0 84	0 86	0 68	0 91
OIL1	1 00	1 02	0 91	0 81	0 80	0 80	0 82	0.83	0 85	0.86	0 88	0 89	0 91	0 93	0 95
OIL2	1 00	1.02	0 91	0 81	0 80	0.80	0 82	0 83	0 85	0 86	0 88	0 89	0 91	0 93	0 95
COAL1	1.00	1 07	1 03	1.07	1 09	1 12	1.15	1.18	1 21	1 23	1 26	1.28	1.31	1 34	1 36

Index	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
GAS1	0 93	0 95	0 98	1.00	1 02	1 05	1 07	1 10	1.12	1.15	1 18	1 21	1 24	1 27	1 30	1.33
GAS2	0 93	0 95	0.98	1 00	1.02	1 05	1 07	1 10	1 12	1.15	1 18	1.21	1.24	1 27	1 30	1 33
OIL1	0 96	0 98	1.00	1 02	1 04	1 06	1.08	1 10	1 12	1.15	1 17	1.19	1 21	1 24	1 26	1.29
OIL2	0 96	0 98	1.00	1 02	1.04	1 06	1 08	1 10	1.12	1 15	1 17	1.19	1 21	1 24	1 26	1 29
COAL1	1.39	1 42	1.45	1.47	1 50	1.53	1 57	1 60	1 63	1 66	1.69	1 73	1 76	1 80	1 83	1.87

Progress Energy Florida
RFP for Power Supply Resources

Notice of Intent to Bid

Name of Bidder	Bidder Name	____________
	Contact Name	____________
Bidder Contact	Address	____________
		____________
	Telephone	____________
	Fax	____________
	E-mail address	____________
Bidder Representatives Attending Bidders Conference	Names:	____________
		____________

Bidders Conference will be held on Oct. 21, 2003 at the Tampa Airport Marriott at 1:00 PM

Project Name		____________	
Project Location	County	____________	
	State	____________	
Contract Start Date		____________	
Term of Proposal	Years	____________	
Seasonal Capacity (MW)	Summer	____________	
	Winter	____________	
Proposal Type	Check One	New Unit	☐
		Existing Unit	☐
		System Power	☐
Generation Technology	Technology	____________	
Fuel Type	Primary	____________	
	Secondary	____________	
Heat Rate @ Max Load	Summer	____________	HHV
	Winter	____________	HHV

All potential Bidders are requested to submit a Notice of Intent to Bid to Progress Energy Florida's Official Contact by Oct. 14, 2003.

Respond by fax, mail, or e-mail to:	

Daniel J. Roeder
Project Leader
System Planning & Operations Department
Progress Energy Building - 7A
P.O. Box 1551
410 S. Wilmington Street
Raleigh, NC 27601

Telephone number: (919) 546-7966
Fax number: (919) 546-7558
E-mail address: PEF_2007_RFP@pgnmail.com