

**BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION**

**DOCKET NO. 04 0206 -EI
FLORIDA POWER & LIGHT COMPANY**

**IN RE: FLORIDA POWER & LIGHT COMPANY'S
PETITION TO DETERMINE NEED FOR
TURKEY POINT UNIT 5
ELECTRICAL POWER PLANT**

DIRECT TESTIMONY & EXHIBIT OF:

RENE SILVA

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5 **March 8, 2004**

6

7 **Q. Please state your name and business address.**

8 A. My name is Rene Silva, and my business address is 9250 West Flagler Street,
9 Miami, Florida 33174.

10

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

12 A. I am employed by Florida Power & Light Company (FPL) as Director,
13 Resource Assessment and Planning (RAP).

14

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

16 A. I manage the RAP, the department that is responsible for developing FPL's
17 integrated resource plan (IRP) and other related activities, such as analyzing
18 demand side management (DSM) programs, developing system production
19 cost projections, developing FPL's demand and energy forecasts, and
20 administering wholesale power purchase agreements (PPAs).

21

22

23

1 **Q. Please describe your education and professional experience.**

2 A. I graduated from the University of Michigan with a Bachelor of Science
3 Degree in Engineering Science in 1974. From 1974 until 1978, I was
4 employed by the Nuclear Energy Division of the General Electric Company in
5 the area of nuclear fuel design. While employed by General Electric, I earned
6 a Masters Degree in Mechanical Engineering from San Jose State University
7 in 1978.

8

9 I joined the Fuel Resources Department of FPL in 1978, as a fuel engineer,
10 responsible for purchasing nuclear fuel. While employed by FPL, I earned a
11 Masters Degree in Business Administration from the University of Miami in
12 1986. In 1987 I became Manager of Fossil Fuel, responsible for FPL's
13 purchases of fuel oil, natural gas and coal. In 1990 I assumed the position of
14 Director, Fuel Resources Department, and in 1991 became Manager of Fuel
15 Services, responsible for coordinating the development and implementation of
16 FPL's fossil fuel procurement strategy. In 1998 I was named Manager of
17 Business Services in the Power Generation Division (PGD). In that capacity I
18 managed the group that is responsible for coordinating (a) the development of
19 PGD's strategic plan for the effective and efficient construction, operation and
20 maintenance of FPL's fossil generating plants, (b) the preparation of PGD
21 annual budgets and tracking of expenditures, and (c) the preparation of reports
22 related to fossil generating plant performance. On May 1, 2002, I was
23 appointed to my current position.

1 **Q. What is the purpose of your testimony?**

2 A. My testimony addresses seven areas. First, I summarize the determination of
3 need FPL is seeking in this proceeding. Second, I introduce FPL's witnesses
4 and FPL's Need Study and Appendices. Third, I summarize FPL's 2007
5 capacity need. Fourth, I summarize FPL's assessment of self-build
6 alternatives to meet FPL's 2007 capacity need and FPL's selection of Turkey
7 Point Unit 5 as its Next Planned Generating Unit (NPGU). Fifth, I address in
8 detail FPL's Request for Proposals (RFP) issued to identify additional
9 potential alternatives to meet FPL's 2007 need and describe FPL's RFP
10 process. Sixth, I summarize FPL's analyses of proposals submitted in
11 response to FPL's RFP, and the comparison of these proposals to FPL's
12 NPGU, culminating in the selection of Turkey Point Unit 5 as the best, most
13 cost-effective alternative to meet FPL's 2007 need. Finally, I address the
14 significant adverse consequences FPL and its customers face if the Turkey
15 Point Unit 5 determination of need is not granted.

16
17 **Q. Are you sponsoring an exhibit in this case?**

18 A. Yes. I am sponsoring an exhibit consisting of 5 documents attached to my
19 direct testimony. Those 5 documents are:

- 20 • Document RS-1, a list of the four organizations that responded to FPL's
21 RFP, and the number and type of proposals submitted by each,
- 22 • Document RS-2, a list of proposals received by FPL in response to its
23 RFP, and the capacity, technology and term of each proposal,

- 1 ● Document RS-3, Rankings of Portfolios Prior to Announcement of
- 2 Finalist, including all costs,
- 3 ● Document RS-4, Summary of Unsatisfied Minimum Requirements for
- 4 each of the proposed projects, and
- 5 ● Document RS-5, Final Rankings After Best and Final Offer, including all
- 6 costs.

7

8 **Q. Are you sponsoring any sections in the Need Study document?**

9 A. Yes. I am sponsoring the following sections: I, II and IX. I also co-sponsor

10 Sections V, VI and VIII. In addition, I sponsor Appendices B, D, H, I and O.

11

12 **I. FPL's Request for an Affirmative Determination of Need.**

13

14 **Q. Please explain the relief FPL seeks in this proceeding.**

15 A. FPL seeks from the Florida Public Service Commission (Commission) an

16 affirmative determination of need for Turkey Point Unit 5, a combined cycle

17 unit with a summer capacity rating of 1,144 MWs and a proposed commercial

18 operation date of June 1, 2007. The unit's primary fuel will be natural gas,

19 but it will have the capability to use light oil as backup fuel.

20

21 FPL's request for an affirmative determination of need is the culmination of

22 more than a year of investigation and extensive analyses designed to identify

23 the best, most cost-effective alternative available to meet FPL's forecasted

1 2007 need for capacity. That work included not only FPL's assessment of its
2 2007 capacity need and analysis of self-build options, but also the preparation,
3 administration and evaluation of an RFP soliciting alternatives to the self-
4 build option.

5
6 **Q. Why is Turkey Point Unit 5 needed?**

7 A. Turkey Point Unit 5 is needed by FPL to maintain system reliability for its
8 customers. Without the addition of Turkey Point Unit 5, FPL will experience
9 in the Summer of 2007 a reserve margin of only 14.7 percent, well below the
10 20 percent reserve margin the Commission has approved for FPL. Without
11 the addition of Turkey Point Unit 5, FPL's customers will be served by a less
12 reliable system.

13
14 Turkey Point Unit 5 is needed to provide adequate electricity at a reasonable
15 cost to FPL's customers. Turkey Point Unit 5 employs a highly efficient,
16 proven technology with which FPL has considerable experience. It will be a
17 highly reliable and low-cost source of electricity for FPL's customers. Given
18 FPL's industry-leading performance with this type technology, FPL's
19 customers will be well served by this resource addition.

20
21 Further, Turkey Point Unit 5 is needed to address the growing imbalance
22 between load and generation capacity in Southeast Florida and the associated
23 increasing reliance on transmission import capability to serve the Southeast

1 Florida area load. Locating new generation in Southeast Florida improves this
2 imbalance and avoids higher costs related to transmission losses and increased
3 uneconomic operation of Southeast Florida gas turbines.

4
5 **Q. Is Turkey Point Unit 5 the most cost-effective alternative to meet FPL's**
6 **and its customers' needs for new resources in 2007?**

7 A. Yes. Turkey Point Unit 5 is the best, most cost-effective option available to
8 meet the needs of FPL and its customers. Turkey Point Unit 5 was selected as
9 FPL's NPGU to meet FPL's 2007 need because it was determined to be the
10 best, most cost-effective alternative from among all the self-build options
11 identified and evaluated by FPL. In addition, Turkey Point Unit 5
12 subsequently was evaluated against seven alternative portfolios constructed
13 from the 5 proposals received in response to FPL's RFP. None of the seven
14 alternative portfolios was cost-competitive with Turkey Point Unit 5. The
15 closest alternative was at least \$271 million, Cumulative Present Value of
16 Revenue Requirements (CPVRR), more costly to FPL's customers than
17 Turkey Point Unit 5. Furthermore, that portfolio did not offer any non-
18 economic advantages over Turkey Point Unit 5. Therefore, FPL has confirmed
19 that Turkey Point Unit 5 is the best, most cost-effective alternative to meet
20 FPL's and its customers' needs for additional resources in 2007.

1 **Q. Is there cost-effective DSM available to avoid or mitigate the need for**
2 **Turkey Point Unit 5?**

3 A. No. FPL and the Commission already have identified the reasonably
4 achievable, cost-effective DSM available to FPL through 2007, and those
5 DSM amounts were used to develop FPL's 2007 need. Therefore, if there is
6 any additional cost-effective DSM available to FPL, it is not sufficient to
7 avoid or mitigate the need for Turkey Point Unit 5.

8

9 **II. FPL's Witnesses and Need Study Documents.**

10

11 **Q. How many witnesses is FPL sponsoring?**

12 A. FPL is sponsoring ten witnesses in its direct case. Each witness has prefiled
13 testimony, and most have prefiled exhibits. In addition, most of FPL's
14 witnesses sponsor a portion of FPL's Need Study and Appendices.

15

16 **Q. Please summarize the topics addressed in the testimony of the other**
17 **witnesses who will appear on FPL's behalf in this proceeding.**

18 A. Dr. Leonardo Green describes FPL's load forecasting process, discusses the
19 methodologies and assumptions used in that process, and presents the
20 resulting load forecast. Dr. Green's load forecast was used in FPL's IRP
21 analysis to identify FPL's resource need in 2007, and in the economic analysis
22 of the various alternatives identified by FPL and proposed by others to meet
23 that need.

1 Dr. Steven Sim describes FPL's resource planning process, identifies FPL's
2 additional resource need in 2007, describes FPL's proposed self-build options
3 to meet that resource need, discusses the proposals received in response to the
4 RFP, explains in detail the process FPL followed to perform the economic
5 evaluation of the proposals and FPL's NPGU, and presents the results of the
6 economic evaluation. Dr. Sim demonstrates that the addition of Turkey Point
7 Unit 5 in 2007 results in the lowest cost to FPL's customers. Dr. Sim's
8 testimony also discusses FPL's DSM goals and FPL's DSM programs and
9 plan. He demonstrates that there is not sufficient DSM potential to avoid the
10 proposed generating unit.

11
12 Alan Taylor describes his role as an independent evaluator of FPL's Turkey
13 Point Unit 5 and of the new capacity proposals received by FPL in response to
14 its RFP, describes the process he followed and the tools he used to conduct his
15 economic evaluation, presents the results of that evaluation, and explains his
16 conclusion that the addition of Turkey Point Unit 5 constitutes the most cost-
17 effective alternative to meet FPL's resource need in 2007.

18
19 David Hicks presents the engineering details of FPL's Turkey Point Unit 5
20 project, which involves the construction of a new state-of-the-art 4x1
21 combined cycle (CC) unit. Included in his testimony are the cost and
22 performance specifications of this unit, corresponding to the data used in
23 FPL's RFP analysis.

1 Martin Mennes discusses FPL's electrical system. He discusses the basis for
2 FPL's concerns arising from the growing imbalance between load and
3 generation in the Southeast Florida area. He also describes the transmission-
4 related assessment that was performed for the RFP.

5
6 N. Dag Reppen describes the load flow studies and other transmission
7 assessments and calculations performed to determine the transmission
8 integration costs, system transmission losses and southeast Florida
9 uneconomic dispatch costs associated with the addition of Turkey Point Unit 5
10 and each of the alternative portfolios considered. Mr. Reppen presents the
11 results of that process.

12
13 Mr. Moray Dewhurst describes the importance, from the perspective of FPL
14 and its customers, of ensuring that the entities with whom FPL may enter into
15 a capacity and energy contract have, and will maintain, the level of financial
16 viability necessary to ensure that their facilities will be constructed, completed
17 on schedule, and properly operated and maintained. He also explains the
18 importance of implementing the security provisions necessary to mitigate the
19 adverse impact of failure to perform on the part of these entities. Mr.
20 Dewhurst also describes why an economic evaluation of purchased power
21 alternatives relative to a company's self-build option must include
22 consideration and application of an equity adjustment.

23

1 Dr. William Avera addresses the impact of power purchase contracts on FPL's
2 financial leverage and describes the method FPL used to account for this
3 impact in its evaluation of proposals submitted in response to FPL's RFP. His
4 testimony discusses the financial impact associated with purchased power
5 contracts and the importance of recognizing the known costs of these risks in
6 an economic evaluation of power supply alternatives. Dr. Avera concludes
7 that FPL's calculation of the costs associated with the debt equivalent of
8 portfolios including proposals submitted in response to the RFP was based on
9 reasonable assumptions, and that the application of the resulting equity
10 adjustment in FPL's analysis of proposals is consistent both with the Standard
11 & Poor's Corporation (S&P) methodology to calculate the off-balance sheet
12 obligation and prior Florida Public Service Commission (Commission)
13 practice.

14
15 Gerard Yupp describes the transportation plan to deliver natural gas and light
16 oil to Turkey Point Unit 5 and testifies to the ready availability of natural gas
17 for Turkey Point Unit 5. Mr. Yupp also supports the fuel price forecast used in
18 FPL's economic analysis of Turkey Point Unit 5 and the alternative portfolios.

19
20 **Q. What is FPL's Need Study and supporting appendices?**

21 **A.** The Need Study is a comprehensive overview of FPL's planning process and
22 the RFP process used to identify the Turkey Point Unit 5 project as the best,

1 most cost-effective alternative to meet FPL's 2007 need. The document
2 consists of nine sections:

3 Section I Executive Summary

4 Section II Introduction

5 Section III Description of the Proposed Power Plant

6 Section IV FPL's Need for the Proposed Power Plant

7 Section V Factors Affecting Selection of the Best Alternative

8 Section VI Major Available Generating Alternatives Evaluated

9 Section VII Non-Generating Alternatives

10 Section VIII Adverse Consequences if the Proposed Capacity
11 Addition Is Delayed or Denied

12 Section IX Conclusion

13 Various portions of the Need Study document and appendices are sponsored
14 or co-sponsored by FPL's witnesses, as explained in their testimony.

15
16 **III. FPL's Need for Additional Capacity in the Summer of 2007.**

17
18 **Q. Please summarize FPL's need for additional capacity in the summer of**
19 **2007.**

20 **A.** Each year FPL performs a reliability assessment using two reliability criteria,
21 a 20 percent reserve margin and a 0.1 Loss of Load Probability (LOLP).
22 FPL's reliability assessment completed in 2003 determined that FPL needed
23 to add 1,066 MW of capacity in 2007 in order to meet its 20 percent reserve

1 margin criterion during the summer of 2007. FPL also determined that adding
2 the 1,066 MW of new capacity required to meet the reserve margin criterion
3 also would enhance FPL's ability to meet the 0.1 LOLP criterion. Therefore,
4 FPL's capacity need in 2007 is 1,066 MW. Dr. Sim discusses the reliability
5 assessment in detail in his testimony.
6

7 **Q. Did FPL's reliability assessment that led to its determination of a need to**
8 **add 1,066 MW by the summer of 2007 include consideration of demand**
9 **side management on FPL's system?**

10 A. Yes. FPL's reliability assessment included FPL's current DSM goals, which
11 are the Commission's most recent determination of the reasonably achievable,
12 cost-effective DSM available to FPL. Dr. Sim addresses this in more detail in
13 his testimony.
14

15 **IV. FPL's Assessment of Alternatives to Meet Its Forecasted 2007 Needs.**
16

17 **Q. What important factors did FPL consider in its evaluation of alternatives**
18 **available to meet FPL's forecasted 2007 capacity need?**

19 A. FPL considered a number of important factors, including but not limited to:
20 cost, performance, location, protection of customers and fuel diversity.
21
22

1 **Q. Please explain why “cost” was an important consideration in your**
2 **assessment of alternatives.**

3 A. The statute that governs determinations of need, which would apply to many
4 potential alternatives, requires the Commission to consider whether the option
5 FPL selects is the most cost-effective alternative to meet its needs. In
6 addition, FPL is obligated to provide to its customers electricity at a
7 reasonable cost. Therefore, even if that statute did not exist, FPL would still
8 be subject to a Commission review of prudence in its choice of a generating
9 alternative. So achieving low cost to customers is of paramount importance in
10 the selection of the generation capacity alternative.

11
12 **Q. Please explain the importance of a generation alternative’s “ability to**
13 **perform” in your assessment of alternatives.**

14 A. If a generation alternative fails to perform as projected, any perceived cost
15 advantage associated with that alternative might not be realized. In addition,
16 failure to meet the target in-service date and/or perform as proposed and
17 evaluated would have a serious adverse effect on reliability. Therefore,
18 perceived low cost alone is not sufficient to select a given alternative. There
19 must also be assurance that the selected generation alternative will be placed
20 in service when needed and will perform as evaluated. In this regard it is
21 important to consider whether an alternative utilizes a known, reliable
22 technology with proven performance, whether a developer/operator has a
23 proven successful record in the construction and operation of the proposed

1 alternative, whether the entity responsible for the construction and operation
2 of the alternative has the financial strength to weather market adversities and
3 still meet its commitments, and whether a proposer can and will provide
4 material assurances that serve to mitigate the adverse effect of delays and non-
5 performance and that preserve for the customer the perceived benefit upon
6 which the selection of that proposer's alternative is based.

7
8 **Q. Please address the importance of the "location of resources" in your**
9 **assessment of alternatives.**

10 **A.** The location of the capacity addition is an important consideration. For some
11 time now FPL has been informing the Commission and potential suppliers of
12 a growing imbalance between load and generation capacity in the southeast
13 area of FPL's system. Addressing this growing imbalance will require either
14 additional generation located in that area, or additional generation located
15 outside this area combined with significant transmission additions.

16
17 Therefore, the location of the capacity addition to be placed in service in 2007
18 will have a significant effect on the magnitude and cost of transmission
19 enhancements that will be required to maintain reliability in the future, as well
20 as other transmission-related costs such as system transmission losses and the
21 effect of dispatching uneconomically the less efficient gas turbines in
22 Southeast Florida to maintain voltage and area protection.

23

1 It is evident that any decision regarding the location of new generation
2 capacity – whether within, or outside of southeast Florida in 2007 - has cost
3 consequences to FPL’s customers that must be captured in the economic
4 analysis of options.

5
6 Mr. Mennes and Mr. Reppen discuss these issues in detail.

7
8 **Q. Please explain how the “protection of customers” was an important factor**
9 **in your assessment of alternatives.**

10 A. FPL has a statutory obligation to serve and is extensively regulated as to its
11 costs and performance. The Commission has jurisdiction over FPL to ensure
12 that FPL is meeting its obligations to its customers.

13
14 However, the Commission does not have jurisdiction over entities that supply
15 electricity, or for that matter, fuel, equipment, or other services to FPL.
16 Therefore, the Commission cannot directly protect FPL’s customers from
17 these entities in the event of delays, poor performance, misconduct or
18 negligence. FPL’s customers and the Commission rely on FPL to provide that
19 protection. The only means FPL has to provide that protection are: (1)
20 entering into contracts with selected entities that can reasonably be relied
21 upon to perform as specified in the contract; and (2) requiring that the
22 contracts FPL enters into with those entities include terms that protect the
23 customers’ interests.

1 Having contract protection is essential, and for that reason FPL goes to great
2 lengths to insist on terms that protect its customers. This applies to the
3 purchase of fuel, the acquisition of combustion turbines, and the procurement
4 of engineering procurement and construction (EPC) services, as well as power
5 purchases.

6
7 However, having the right contract terms is sometimes not sufficient. If a
8 supplier becomes financially distressed, it may not be able to perform and
9 could use bankruptcy protection to evade some contract provisions designed
10 to protect customers. This presents two challenges to FPL regarding the RFP.
11 The first challenge is to enter into PPAs with entities that, at least at the time
12 the contract is entered into, can demonstrate in a number of ways that they can
13 perform their obligations under the PPA. The second is to insist on contract
14 terms that are designed to protect FPL's customers even in the event of a
15 supplier's unforeseen financial distress. FPL's RFP process reflects its
16 recognition that it must strive to meet these challenges to protect its
17 customers.

18
19 **Q. The last factor you mentioned as important in your assessment of**
20 **alternatives was "fuel diversity," please explain its import.**

21 **A.** Natural gas fired combined cycle units provide the most efficient means of
22 converting fuel into electricity in FPL's system, and contribute significantly to
23 FPL's low electricity cost. Because of the many significant attractive features

1 of this technology, FPL's system has increased its reliance on natural gas as
2 fuel source in recent years. However, natural gas prices have exhibited
3 volatility during the last two years, and it is expected that the situation will
4 continue for some time. As a result, FPL has been evaluating other economic
5 alternatives that would enable FPL to achieve greater balance in its fuel mix.

6
7 However, as FPL considered resource additions in the 2003 IRP process to
8 meet FPL's need in 2007, the alternatives available to improve FPL's system
9 fuel diversity were very limited. In FPL's view, new solid fuel generation
10 facilities could not be counted on to initiate and complete the process of
11 permitting and construction in the time available. Furthermore, there is still
12 significant uncertainty regarding the type of emission management systems
13 that would be required for new solid fuel facilities, and the cost of those
14 systems. FPL's current evaluation of alternative technologies is considering
15 these uncertainties, as well as the possibility of utilizing natural gas
16 transported as liquefied natural gas (LNG) in the future.

17
18 Therefore, FPL stated in its RFP a preference for proposals that would
19 improve FPL's fuel diversity. FPL specifically noted that plants utilizing
20 pulverized coal, circulating fluidized bed coal, petroleum coke or natural gas
21 transported as LNG would contribute to FPL's fuel diversity. Any proposals
22 that would deliver energy from an existing plant or one already under

1 development that utilized these fuels and be priced based on these fuels had
2 the potential to improve FPL's fuel diversity.

3

4 **Q. With these factors in mind, what alternatives did FPL consider to meet its**
5 **2007 resource need?**

6 A. FPL considered 25 different self-build alternatives consisting of combined
7 cycle units and/or combustion turbines in simple cycle operation to meet its
8 2007 need. Dr. Sim discusses in detail the alternatives considered and the
9 analyses performed. Turkey Point Unit 5 emerged as the best self-build
10 alternative to meet the 2007 need and therefore was identified as FPL's
11 NPGU.

12

13 **Q. Did FPL issue a Request for Proposals to seek alternative proposals to**
14 **meet the generation capacity need for 2007?**

15 A. Yes. The Florida Administrative Code Rule 25-22.082 (Bid Rule) requires
16 public utilities to issue an RFP prior to filing a petition for determination of
17 need in accordance with Section 403.519, Florida Statutes. The most cost-
18 effective self-build option identified by FPL to meet its 2007 need, Turkey
19 Point Unit 5, requires a positive determination of need. FPL issued an RFP in
20 compliance with the above requirements in order to determine whether other
21 (non-FPL) alternatives could meet FPL's 2007 need more cost-effectively
22 than Turkey Point Unit 5.

23

1 **V. FPL's RFP and RFP Process.**

2

3 **Q. Please describe FPL's RFP issued on August 25, 2003.**

4 A. FPL's RFP consisted of a comprehensive document setting forth in detail the
5 terms of the solicitation, supplemented by six appendices, A-F, and two
6 attachments. FPL's RFP is Appendix D to FPL's Need Study.

7

8 **Q. Did FPL's RFP contain a detailed technical description of FPL's NPGU**
9 **including financial assumptions and parameters associated with the**
10 **NPGU?**

11 A. Yes. That information is found on pages 31-39 of the RFP for both FPL's
12 NPGU and FPL's alternative generating unit.

13

14 **Q. Did FPL's RFP contain a copy of FPL's most recent Ten-Year Site Plan?**

15 A. Yes. FPL's 2003 Ten Year Site Plan was Attachment One to the RFP.

16

17 **Q. Did FPL's RFP contain a schedule of critical dates for solicitation,**
18 **evaluation, screening of proposals, selection of finalists and subsequent**
19 **contract negotiations?**

20 A. Yes, that schedule is found on page 14 of the RFP and was supplemented by
21 text.

22

1 **Q. Did FPL's RFP contain a detailed description of the criteria and**
2 **methodology to be used to evaluate alternative generating proposals on**
3 **the basis of price and non-price attributes?**

4 A. Yes. That discussion is found on pages 28 through 30 of the RFP. It is
5 supplemented by Appendix B, which contains a detailed description of the
6 evaluation methodology, Appendix C, which contains a detailed discussion of
7 the Equity Adjustment methodology used in the economic evaluation, and
8 Appendix E, which provides a detailed discussion of the transmission system-
9 related cost analyses employed in the economic evaluation.

10

11 **Q. Did FPL's RFP set forth the required application fees?**

12 A. Yes. FPL's application fee was set forth in the RFP on page 18 of the RFP.
13 This passage was subsequently superseded by new language contained in
14 Addendum Three to the RFP, submitted to the Commission dated October 6,
15 2003.

16

17 **Q. Was FPL's RFP fee cost based?**

18 A. Yes. FPL used its then most recent RFP to develop a cost-based RFP fee.

19

20

21

22

1 **Q. Did FPL's RFP contain the best available information regarding system**
2 **specific conditions?**

3 A. Yes. This information is reflected on pages 2 - 6 of FPL's RFP. It includes a
4 discussion of FPL's 2007 capacity need as well as a discussion of FPL's
5 geographic preference and fuel diversity preference.

6

7 **Q. Did FPL require bidders to publish newspaper notices in counties in**
8 **which they proposed to build new plants?**

9 A. Yes, that requirement was specified on page 20 of the RFP.

10

11 **Q. FPL specified a number of "minimum requirements" in its RFP. Please**
12 **explain the rationale for these minimum requirements.**

13 A. The "minimum requirements" FPL specified in its RFP were mandatory terms
14 that proposers had to meet. Proposers could not state exceptions to these
15 specific terms. FPL's RFP permitted proposers to state exceptions to other
16 terms of the RFP, and most of the terms of the RFP were not stated as
17 "minimum requirements."

18 These minimum requirements were necessary to allow FPL to:

- 19 1. properly administer the RFP and fairly and completely evaluate all
20 alternatives,
- 21 2. enable FPL to comply with the Bid Rule,
- 22 3. protect FPL's customers from a proposer's inability to complete proposed
23 new generation facilities on schedule or operate the facility as proposed

- 1 and evaluated or acquire and maintain all necessary government permits,
2 licenses and approvals,
- 3 4. protect FPL's customers from future higher transmission costs that may
4 result from the implementation of a regional transmission organization
5 (RTO) or independent system operator (ISO) in Florida,
- 6 5. maintain system reliability in the event of an unexpected interruption in
7 the delivery of natural gas, and
- 8 6. ensure that for any contract entered into as a result of this RFP, all contract
9 terms and payments to be made are subject to Commission approval.

10

11 In short, the minimum requirements were designed to enable FPL to conduct a
12 process that would result in the selection of the best, most cost-effective
13 generation alternative to meet the 2007 need, and, to the extent that the
14 selected alternative included one or more proposals, to successfully enter into
15 a contract to secure the benefits of that alternative for FPL's customers, and to
16 ensure that the customers, in fact, would receive those benefits.

17

18 **Q. Please address the process FPL followed in announcing its August 25,**
19 **2003 RFP and providing relevant information to potential bidders.**

20 A. On August 14, 2003, FPL provided notification of its RFP, its pre-issuance
21 meeting with potential bidders and its pre-bid meeting with potential bidders
22 by publishing notices in the Wall Street Journal, Miami Herald, New York
23 Times and St. Petersburg Times, and issuing a press release that was

1 published in a variety of trade publications. The notices included the name
2 and address of the RFP contact person, a general description of FPL's NPGU,
3 and a schedule of critical dates. A copy of the notices and advertisements are
4 provided as Appendix H to the Need Study.

5
6 On August 21, 2003, FPL held the pre-issuance meeting with potential bidders
7 in Miami as indicated in the notices published on August 14. At that meeting
8 FPL explained its intent to issue an RFP, its forecasted capacity need, its
9 NPGU, its anticipated RFP process, and the minimum requirements to be met
10 by each proposer. Also, FPL shared with potential proposers key
11 characteristics that would make a proposal more beneficial to FPL's
12 customers and responded to questions posed by the meeting participants.

13
14 **Q. Did FPL change the terms of its RFP in response to concerns raised by
15 potential bidders at the pre-issuance workshop?**

16 **A.** Yes. In Addendum One, filed with the Commission on September 4, 2003,
17 FPL gave potential proposers a choice, as requested by the attendees at the
18 pre-issuance meeting, to provide in the proposal's pricing provision either a
19 set of specified annual payments, or in the alternative, initial payment values
20 to be escalated for purposes of the evaluation utilizing a uniform set of
21 indices.

1 **Q. When did FPL issue its RFP?**

2 A. FPL issued its RFP and filed it with the Commission on August 25, 2003.
3 Subsequently, FPL issued 3 addenda to its RFP on September 4 and 12, and
4 October 6, respectively, and filed those addenda with the Commission.

5
6 **Q. Did FPL hold any meetings with potential proposers after it issued the**
7 **RFP?**

8 A. Yes. FPL held a pre-bid workshop on September 2, 2003. At this workshop
9 FPL summarized the RFP, discussed the process FPL would follow to
10 evaluate proposals, presented each minimum requirement and explained the
11 basis for each, emphasized the significance of the growing imbalance between
12 load and installed capacity in southeast Florida, and responded to many
13 questions posed by the attendees.

14
15 **Q. Did FPL further change other aspects of the RFP process in response to**
16 **concerns raised by potential bidders at the pre-bid workshop?**

17 A. Yes. In response to potential proposers' requests, FPL issued Addendum Two
18 on September 12, 2003, in which FPL communicated to all participants the
19 fuel price forecast it would use in the economic evaluation of proposals
20 submitted in response to the RFP. FPL also extended the cutoff date for
21 questions to be submitted by potential proposers, and sought to expand the
22 options available to proposers to meet the dual fuel requirement.

23

1 **Q. What means did FPL provide for potential proposers to obtain responses**
2 **to questions regarding the RFP or the RFP process?**

3 A. In addition to the pre-issuance meeting of August 21, 2003, and the pre-bid
4 meeting of September 2, 2003, FPL created a website on which it listed
5 questions posed by potential proposers and posted responses that would be
6 available to all interested parties. This website was opened on August 14, and
7 201 questions were listed and answered on the website. In addition to these
8 201 questions, answers to 32 other questions received by FPL nearer the
9 proposal due date were e-mailed directly to all participants to ensure timely
10 receipt by all. All the questions received and responses posted on FPL's
11 website or answered via e-mail to all participants are included in Appendix I
12 to the Need Study.

13
14 **Q. What other notable features were included in FPL's RFP?**

15 A. First, FPL included in its RFP a draft PPA to which proposers could choose to
16 take exception regarding any terms other than the minimum requirements.
17 Including the draft PPA enabled prospective proposers to better understand
18 what FPL considers important in protecting its customers. The Bid Rule does
19 not require the inclusion of such a sample PPA or the opportunity to state
20 exceptions, but FPL sought to give prospective proposers as much information
21 as possible to help them submit attractive proposals.

22

1 Second, in addition to identifying its NPGU as specified by the Bid Rule, FPL
2 offered a separate option consisting of a smaller FPL generating unit located
3 in southeast Florida. This separate option or “alternative generating unit,”
4 could be (and was) combined into portfolios with proposals submitted in
5 response to the RFP. This action increased the number of alternative
6 portfolios, giving proposers more potential opportunities to compete against
7 FPL’s NPGU.

8
9 Third, FPL employed an independent evaluator to perform an economic
10 assessment in parallel with FPL. Although this is not a requirement, FPL
11 chose to employ one in order to increase the transparency and confirm the
12 results of its economic evaluation process.

13
14 **Q. The Bid Rule allows a potential participant to file objections to the RFP**
15 **within 10 days of issuance. Were any objections filed?**

16 A. Yes. Although none of the potential proposers filed any objections, PACE, an
17 industry association, filed 14 such objections. Within 5 days of PACE
18 submitting its objections, FPL filed its response.

19
20 **Q. What was the resolution of PACE’s objections?**

21 A. The Commission heard oral argument on the objections on September 30,
22 2003. After hearing arguments, all of the Commissioners concluded that
23 PACE’s objections did not demonstrate FPL’s RFP violated the Bid Rule.

1 **Q. Did FPL make other changes to the RFP?**

2 A. Yes. In response to the discussion at the oral argument, FPL implemented a
3 number of further changes to the RFP. First, the evaluation fee provision was
4 modified to reduce the fee required for variations to a proposal. Second, the
5 minimum financial viability requirement was relaxed from “BBB/Baa2” to
6 “BBB-/Baa3.” Third, the schedule for posting financial security amounts was
7 deferred, and the form of security required was modified to mitigate the
8 impact on proposers. Fourth, the wording of the regulatory modifications
9 requirement was amended to incorporate language from the Bid Rule. Fifth,
10 any inference that failure to state specific exceptions to the draft PPA
11 constituted contractual acceptance on the part of the proposer was eliminated.
12 And sixth, the dual fuel minimum requirement was restated to apply to
13 proposals the same continuity and operability requirements that FPL imposes
14 on its NPGU. A more detailed description of these modifications, which were
15 published on October 6, 2003, as Addendum Three, is presented in Appendix
16 D to the Need Study.

17
18 **Q. Did FPL allow a minimum of sixty days between issuance of its RFP and**
19 **receiving bids?**

20 A. Yes, FPL did so, as required by the Bid Rule.

21
22
23

1 **Q. Did FPL receive bids in response to its RFP?**

2 A. Yes, FPL received 5 proposals from four entities. Unlike FPL's last
3 solicitation, all the proposers were Independent Power Producers (IPPs). The
4 proposers were Calpine Corporation, Progress Energy Ventures, Southern
5 Power Company and Summit Energy Partners. A list of the proposers, the
6 number of proposals submitted by each, and the type of proposed contractual
7 arrangement is presented in my Document RS-1. The magnitude of each
8 proposal, the proposed technology, and the proposed term of service is
9 presented in my Document RS-2.

10

11 **Q. In FPL's last RFP, it received proposals from sixteen bidders. Were you**
12 **surprised that FPL received proposals from fewer bidders in this**
13 **solicitation?**

14 A. No. There are a number of reasons FPL received fewer bids in this RFP than
15 in its last RFP. I will address several.

16

17 First, FPL received no proposals from utility companies in response to this
18 RFP, whereas it received three such proposals in its last RFP. This reflects the
19 reality that there is no longer "spare" utility capacity available to be offered
20 for sale to other utilities in Florida.

21

22 Second, and probably most significant, since FPL's previous RFP's there has
23 been a significant downturn in the financial health of many IPP companies.

1 Of the thirteen IPP proposers who submitted proposals in response to FPL's
2 Supplemental RFP in 2002, nine now have bond ratings below "investment
3 grade." This may well have contributed to the lower number of IPP bids
4 received.

5
6 Third, for entities proposing new construction, FPL required entities with a
7 bond rating lower than "BBB-" from S&P or Baa3 from Moody's Investors
8 Service to obtain a guarantee from another entity with bond rating of "BBB-
9 /Baa3" or higher, as a minimum requirement. This appropriately would have
10 had the effect of eliminating unacceptably risky potential bidders.

11
12 Fourth, this solicitation was aimed at meeting FPL's need for one year – 2007.
13 The prior RFP sought proposals to meet FPL's needs in two years, 2005 and
14 2006. In the former case, the multiple-year needs covering 1,722 MWs,
15 offered proposers more chances at being selected because there were more
16 possible combinations in which a proposal could participate. In addition,
17 proposers could submit the same proposal with two different starting dates,
18 2005 and 2006, and it was counted as one proposal for fee purposes (but two
19 for the purpose of counting total proposals submitted). This year, because FPL
20 was soliciting proposals for a smaller need (1,066 MWs) covering only one
21 year, there were likely to be fewer combinations in which a single proposal
22 could be considered. This may have provided less of an incentive for
23 potential proposers than in the previous RFP.

1 It should be noted that aside from FPL's last RFP and Supplemental RFP, no
2 other IOU solicitation in Florida has ever received more than four proposals
3 from four proposers. Therefore, the fact that FPL received 5 proposals from
4 four entities is consistent with solicitations by other IOU's.

5

6 **Q. Please describe the screening of the RFP proposals.**

7 A. FPL first evaluated the proposals in terms of their compliance with the
8 minimum requirements. FPL determined that three entities submitting
9 proposals took specific exception to one or more of the minimum
10 requirements, or otherwise failed to comply with one or more minimum
11 requirements. FPL notified each of these proposers of the nature and extent of
12 its non-compliance, encouraged the proposer to make the changes necessary
13 to comply with all minimum requirements and advised it that failure to
14 comply would result in its proposal(s) not being considered further. FPL also
15 notified these proposers that pending a definitive determination of their
16 compliance with all minimum requirements after their responses were
17 received and evaluated by FPL, FPL would include their proposals in the
18 economic evaluation.

19

20 **Q. Why did FPL include non-complying proposals in the economic**
21 **evaluation?**

22 A. FPL sought to give all proposers ample opportunity to revise their proposals to
23 make them compliant, but this would require time. At the same time, FPL

1 wanted to avoid delays in the economic evaluation. Therefore, FPL included
2 the non-complying proposals in the economic evaluation, contingent upon
3 these proposals being modified to comply with all minimum requirements.
4

5 **Q. Please summarize the economic evaluation process.**

6 **A.** The economic evaluation consisted of four steps. The first step was to identify
7 portfolios that were potential alternatives to FPL's NPGU. FPL utilized the
8 EGEAS model to create potential portfolios and identified seven portfolios to
9 be evaluated as alternatives to Turkey Point Unit 5 to meet the 2007 need.
10 Two consisted of a single proposal each; two others consisted of two
11 proposals each, and three consisted of one or more proposals combined with
12 FPL's alternative generating unit (CT option). Counting FPL's NPGU, eight
13 portfolios were evaluated.
14

15 Second, for each portfolio a total generation-related cost was calculated for
16 the FPL system including that portfolio as part of the FPL system. This cost
17 was developed using the EGEAS model with cost inputs from the proposals
18 and the cost data for FPL's NPGU and FPL's alternative generating unit
19 provided in Section V of the RFP document. Dr. Sim addresses this step in
20 detail.
21

22 Third, for each portfolio transmission-related costs were calculated for the
23 FPL system including that portfolio as part of the FPL system. These include

1 the cost of transmission integration, the cost of capacity and energy losses,
2 and increased system operating costs. Dr. Sim and Mr. Reppen address this
3 step in detail.

4
5 Fourth, a net equity adjustment (equity adjustment less mitigation offered by
6 completion and performance security) was then calculated for each portfolio
7 to reflect the cost of rebalancing FPL' capital structure, as required to offset
8 the debt equivalent of that portfolio. Mr. Avera and Mr. Dewhurst address this
9 step.

10
11 **Q. What were the results of the economic evaluation?**

12 A. The Turkey Point Unit 5 is the most cost-effective alternative. The results of
13 the economic evaluation indicate that the closest alternative portfolio had
14 costs that were \$266 million, CPVRR, greater than those for Turkey Point
15 Unit 5. The cost of the most costly portfolio was \$354 million greater than
16 those for Turkey Point Unit 5. These results are summarized in Document RS-
17 3. Dr. Sim discusses these results in greater detail.

18
19 **Q. What were the results of the economic evaluation performed by an
20 independent evaluator?**

21 A. The independent evaluator's results confirmed that the Turkey Point Unit 5 is
22 the most cost-effective alternative. Specifically, the results of the independent
23 economic evaluation indicate that the closest alternative portfolio had costs

1 that were \$302 million, CPVRR, greater than those for Turkey Point Unit 5.
2 The cost of the most costly portfolio was \$433 million greater than those for
3 Turkey Point Unit 5. Mr. Taylor discusses these results in detail.
4

5 **Q. In your economic evaluation of alternatives, you considered more than**
6 **generation-related costs, why?**

7 A. The objective of FPL's economic evaluation in first identifying its own
8 NPGU, and then evaluating market proposals in comparison to the NPGU is
9 to select the overall most cost-effective alternative for FPL's customers. This
10 requires that every cost component that can be identified and quantified be
11 reflected in the evaluation. All the costs considered in the economic
12 evaluation, including all transmission-related costs, are real costs that will
13 accrue to FPL's customers as a result of the decisions made to meet FPL's
14 need in 2007. Unless these costs are reflected in the evaluation the result could
15 lead to the selection of an alternative that would not be the most cost-effective
16 choice.
17

18 As FPL performs more of these evaluations, it continues to enhance and refine
19 its ability to identify and quantify all cost components. In addition, FPL's
20 system does not remain static. Growth in demand and the effect of capacity
21 additions to meet that demand have a significant effect on FPL's system.
22 Therefore, the evaluation process must continue to evolve to ensure that the
23 selected alternative is in fact the most cost-effective for FPL's customers.

1 The calculation of capacity and energy losses that has been a part of this effort
2 represents one of those enhancements. These and the quantification of
3 increased system operating costs are explained in detail by Mr. Reppen.

4
5 **Q. Were any of the non-complying proposals eventually revised as necessary**
6 **to comply with all minimum requirements?**

7 A. No. The three non-complying proposers did not make the changes necessary
8 to achieve compliance with all minimum requirements. In fact, each of these
9 proposers failed to comply with at least three minimum requirements, as
10 shown in Document RS-4. Therefore, FPL notified these three proposers in
11 December that their four proposals would not be considered further.

12
13 The question of non-compliance with minimum requirements in this RFP
14 became moot, however, because as shown in Document RS-3, the costs
15 associated with those non-complying proposals were \$276 million CPVRR or
16 more greater than the costs of Turkey Point Unit 5.

17
18 **Q. Please explain the results of FPL's non-economic evaluation.**

19 A. A non-economic review was conducted to identify and, if necessary, address
20 the risk exposure presented by portfolios that included complying proposals
21 submitted in response to FPL's RFP and to compare such risk exposure to that
22 of FPL's NPGU. This step sought to identify major issues of concern related
23 to environmental, technical/operational and project execution factors.

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The environmental review evaluated, for each alternative, the likelihood of successfully attaining the necessary permits, licenses and regulatory approvals within the time frame necessary to meet the in-service date of June 1, 2007. The experience of the proposer and that of FPL was considered, along with the specific characteristics of each alternative.

The technical/operational review evaluated factors such as the technology to be used for each alternative, and the design limitations and projected rating of the equipment.

The project execution review was applied only to the complying proposal because it considered exceptions taken by the proposer to provisions in the RFP and terms in the draft power purchase agreement attached to the RFP. The objective of this evaluation was to ascertain the likelihood of the proposer and FPL reaching a mutually acceptable contract.

The conclusion of the non-economic evaluation was that both the alternative portfolio consisting of the complying proposal and FPL's alternative generating unit, and Turkey Point Unit 5 reflected experience in permitting, building and operating gas generation facilities in Florida, using a mature, proven technology. Therefore, both offered a stable, acceptable risk profile and no additional investigation was required.

1 **Q. Did FPL select a finalist as part of the RFP evaluation process?**

2 A. Yes. The proposal that met all minimum requirements was, along with FPL's
3 alternative generating unit (CT option), part of a portfolio which held the next
4 highest economic ranking after FPL's NPGU. In addition, the results of FPL's
5 non-economic evaluation indicated that this proposal offered a stable and
6 acceptable risk profile. Consequently, this proposal was identified in
7 December 2003 as the "finalist," and the proposer was invited to submit a
8 "best and final offer."

9

10 **Q. The Bid Rule permits the utility to change its cost estimates during an**
11 **RFP and provide any remaining proposers the opportunity to revise their**
12 **proposals as well. Did FPL revise its cost estimates during the RFP?**

13 A. No, but FPL did allow the proposer selected as finalist to modify its bid in
14 submitting its best and final offer. That finalist elected to increase its price as
15 part of its best and final offer. This change increased the cost difference
16 between Turkey Point Unit 5 and the closest alternative to \$271 million,
17 CPVRR. The final results of FPL's economic evaluation, showing Turkey
18 Point Unit 5 and the alternative portfolio selected as "finalist" is provided in
19 Document RS-5.

20

21

22

1 **Q. In conducting its RFP evaluation, did FPL follow the methodology set**
2 **forth in the RFP?**

3 **A. Yes. However, there were some modest adjustments made that were not**
4 **material and had no effect on the outcome of the evaluations. In fact, the**
5 **adjustments were favorable to the proposers. Furthermore, knowing that FPL**
6 **would make these process adjustments would not have helped proposers**
7 **develop more competitive proposals**

8
9 For example, FPL indicated in the RFP that it would complete the initial
10 screening of proposals and that any proposal that did not meet all minimum
11 requirements would not be considered in the economic evaluation. However,
12 to allow for proposers who did not initially meet minimum requirements to
13 make the changes required to comply while at the same time avoiding delays
14 in the evaluation process, we conducted the economic analysis of the seven
15 portfolios that offered alternatives to FPL's NPGU before the question of
16 proposal compliance was finally resolved.

17
18 Also, FPL indicated in the RFP that it would first rank individual proposals as
19 a way to organize and prioritize the work of constructing the portfolios.
20 However, in this instance we proceeded directly to include all proposals in the
21 initial construction of portfolios. Once again, this adjustment had no impact
22 on the proposers.

23

1 Yet another example was the consideration of upstream pipeline costs. FPL
2 indicated in the RFP that it would develop estimates for the cost of upstream
3 gas pipeline enhancements, if any, above those submitted in the proposals. For
4 Turkey Point Unit 5 all pipeline costs were included in the analysis. For four
5 of the alternative portfolios considered, there were no additional upstream gas
6 pipeline enhancement costs above those included in the analysis. For the three
7 other portfolios, studies to determine the cost, if any, of upstream pipeline
8 enhancements would be done last. However, because these portfolios already
9 were more than \$270 million more costly than Turkey Point Unit 5, and
10 because any additional costs attributed to these portfolios would only serve to
11 increase the already sizable economic advantage of Turkey Point Unit 5, it
12 became pointless to perform the additional studies.

13
14 **VI. Turkey Point Unit 5 is FPL's Best, Most Cost-Effective Alternative to**
15 **Meet FPL's 2007 Resource Need.**

16
17 **Q. Why do you believe Turkey Point Unit 5 is FPL's best, most cost-effective**
18 **option to meet FPL's capacity need in 2007?**

19 **A.** For the reasons I and other witnesses have presented, the Turkey Point Unit 5
20 project is the best, most cost-effective alternative to meet the capacity and
21 energy needs of FPL's customers in 2007. This project is needed to maintain
22 system reliability in 2007 as measured by FPL's 20 percent reserve margin

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criterion, and it will provide FPL’s customers with an adequate supply of electricity at a reasonable cost.

The economic evaluations performed by FPL concluded that adding Turkey Point Unit 5 is more than \$270 million less costly than any competing alternative. A separate analysis performed by an independent evaluator concluded that adding Turkey Point Unit 5 is more than \$300 million less costly than any alternative.

The non-economic evaluation concluded that FPL’s experience in permitting, building and operating combined cycle facilities in Florida, and the maturity of the technology proposed by FPL for Turkey Point Unit 5 result in a low, acceptable level of risk, at least as low as that for the next most economic portfolio. In addition, Turkey Point Unit 5 provides a very significant benefit because it improves the balance between demand and installed capacity in Southeast Florida.

FPL’s Turkey Point Unit 5 project meets all of the criteria required by the Commission as the best and most cost-effective alternative available to FPL to meet its 2007 capacity need and should be granted a determination of need.

1 **VII. Adverse Consequences if a Determination of Need for Turkey Point Unit**
2 **5 were not granted.**

3
4 **Q. Would there be any adverse consequences to FPL and its customers if the**
5 **Commission were not to grant an affirmative determination of need for**
6 **Turkey Point Unit No. 5?**

7 **A. Yes. If Turkey Point Unit 5 is not added, there are a number of adverse**
8 **consequences that FPL's customers will face. If Turkey Point Unit 5 is not**
9 **placed in-service by June 1, 2007 and FPL makes no alternative arrangement**
10 **to obtain the additional capacity required to meet its 20 percent reserve margin**
11 **reliability criterion in 2007, then FPL's customers would be served by a far**
12 **less reliable system than either the Commission or FPL have identified as**
13 **appropriate. If Turkey Point Unit 5 is delayed a year or not built at all, and**
14 **FPL obtains alternative generation capacity to meet its 20 percent reserve**
15 **margin criterion, the incremental cost to FPL's customers would be at least**
16 **\$86 million and \$271 million, CPVRR, respectively.**

17
18 **Q. What is the impact on FPL's reserve margin of not placing Turkey Point**
19 **Unit 5 in-service by June 1, 2007?**

20 **A. The addition of Turkey Point Unit 5 will increase FPL's system capability by**
21 **1,144 MWs for the summer of 2007, enabling FPL to achieve a reserve**
22 **margin of 20.4 percent. Without the addition of Turkey Point Unit 5, FPL's**
23 **reserve margin would decrease to only 14.7 percent for the summer of 2007.**

1 As a result, FPL's customers would have a far less reliable system to serve
2 them. Also, it should be noted that since demand on FPL's system is projected
3 to grow at an average rate of about 500 MWs per year, not meeting the reserve
4 margin criterion in 2007 will add to the challenge of economically adding
5 sufficient capacity to meet reliability standards in subsequent years.

6
7 **Q. What is the effect of denying need determination for Turkey Point Unit 5**
8 **on the cost of electricity?**

9 A. If a need determination for Turkey Point Unit 5 were to be denied, FPL's
10 customers would incur greater costs for electricity. The results of FPL's
11 evaluation of 25 self-build alternatives and 7 alternative portfolios considered
12 as part of the RFP process show that the addition of Turkey Point Unit 5 by
13 June of 2007 is the most cost-effective alternative available to meet the 2007
14 need. Therefore, if Turkey Point Unit 5 is not built, the capacity and energy
15 Turkey Point Unit 5 is expected to provide would have to be replaced with a
16 higher-cost generation portfolio that would include a higher-cost FPL option
17 and higher-cost power purchases and which would lead to increased operation
18 of less efficient existing FPL units.

19
20 One measure of the incremental cost to FPL's customers caused by denial of a
21 need determination for Turkey Point Unit 5 is provided by the results of FPL's
22 evaluation of proposals submitted in response to the RFP. Based on those
23 results, the next best alternative that is available to FPL would cost FPL's

1 customers at least \$271 million CPVRR more than Turkey Point Unit 5. This
2 increased cost to FPL's customers cannot be justified.

3
4 If Turkey Point Unit 5 were to be delayed for one year to 2008, significant
5 additional costs would also be incurred by FPL's customers. These costs
6 would be both generation-related and transmission-related.

7
8 In regard to generation-related costs, several factors must be assessed. First, if
9 a one year delay were to occur, FPL assumes that it would attempt to secure a
10 one-year purchase of capacity for its 1,066 MW capacity need. Assuming
11 (perhaps optimistically) that such a large, short-term purchase could be made,
12 FPL estimates that the purchase cost would be at approximately \$5/kW-month
13 for a 2007 total of about \$64 million (nominal) or approximately \$47 million
14 CPVRR. Second, a one-year delay in building Turkey Point Unit 5 would
15 result in increased construction-related costs. It is difficult to determine the
16 impact on construction-related costs due to the fact that there are numerous
17 major equipment contracts, materials pricing issues and labor market cost
18 uncertainties involved. However, even if the construction-related effects of a
19 delay were conservatively assigned a zero cost and FPL merely escalated the
20 current cost estimate for Turkey Point Unit 5, that would result in at least a
21 \$10 million increase in total construction costs. Finally, there would be higher
22 fuel costs in 2007 from not having this fuel-efficient unit in-service in that
23 year, and a reduction in capital costs in 2007 due to not building Turkey Point

1 Unit 5 in that year. FPL estimates that the net impact of all these generation-
2 related cost impacts for one year is approximately \$24 million CPVRR.

3
4 In regard to transmission-related cost impacts, there would be both
5 transmission integration costs and a one-year cost of losses that would be
6 incurred in connection with the 2007 purchases. Using the next lowest cost
7 portfolio in the RFP as a basis for estimating these costs, this would add \$56
8 million CPVRR for integration and \$6 million CPVRR for losses, for a total
9 of \$62 million CPVRR for transmission-related costs.

10
11 Consequently, FPL estimates that the total costs to FPL's customers of a one-
12 year delay in Turkey Point Unit 5 to be at least \$86 million. This increased
13 cost to FPL's customers cannot be justified.

14
15 **Q. Does this conclude your testimony?**

16 **A. Yes.**

17

List of Organizations Submitting Proposals

(in alphabetical order)

<u>Organization</u>	<u>Number of Proposals Submitted</u>	<u>Type of Proposal</u>	<u>New or Existing Source</u>
Calpine (Blue Heron Energy Center)	1	Tolling Agreement	New
Progress Energy Ventures	1	Tolling Agreement	Existing/New *
Southern Power Company	2	Tolling Agreement	New
Summit Energy Partners	1	Tolling Agreement	New
	<u>5</u>		

* Proposal was based on two existing CT's and one new CT

Summary of Proposals Evaluated

Proposal Code Number	Capacity Offered (Summer MW)	Technology	Proposed Term-of-Service (Years)
Proposal 1	50	Circulating Fluidized Bed (CFB)	25
Proposal 2	1,220	Combined Cycle (CC)	15
Proposal 3	1,220	Combined Cycle (CC)	25
Proposal 4	447	Combustion Turbine (CT)	15
Proposal 5	252	Combined Cycle (CC)	15
	<hr/> 1969 *		

* The capacity amounts offered for Proposal 2 and Proposal 3 were mutually exclusive.

Final Rankings After Best and Final Offer

(millions, CPVRR, 2003\$, 2003 - 2031)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) = sum of (1) thru (7)		
Ranking of Portfolio	Description of Portfolio	Portfolio MW	Generation Costs *	Transmission-Related Costs				Upstream Gas Pipeline Costs	Net Equity Adjustment	Total =====	Difference from lowest cost portfolio
				Integration **	Peak Hour Capacity Losses ***	Annual Energy Losses ***	Increased Operating Costs ***				
1	FPL Turkey Point Unit 5	1,144	62,591	0	0	0	0	0	0	62,591	0
2	FPL 4 CT, Proposal 4	1,095	62,700	56	11	64	16	0	16	62,862	271

- Generation-related costs include: capital, fixed O&M, variable O&M, project fuel/energy cost, FPL system fuel, transmission interconnection, and gas pipeline lateral costs. Values for Proposal 1 assume 80%/20% coal/pet coke mix.
- ** The FPL Turkey Point 5's generation-related cost already includes transmission integration costs of approx. \$4 million CPVRR.
- *** These transmission-related costs are relative to the FPL Turkey Point Unit 5's costs.

Minimum Requirements Not Met

Proposed Project	Unsatisfied Minimum Requirements
SEP Homestead, LLC (Summit Energy Partners)	<ul style="list-style-type: none"> - Firm Nature of Proposal (100% output) - Financial Viability - Experience of Company - Feasibility of Permit Process*
Blue Heron Energy Center (Calpine Corporation)	<ul style="list-style-type: none"> - Firm Nature of Proposal (100% output) - Financial Viability - Security Amounts - Dual Fuel Capability*
St. Lucie Co. Project (Southern Power Co.)	<ul style="list-style-type: none"> - Commercial Operation Date (COD) - Security Amounts - Pricing – Post RTO contingency - Permits – change of law pre-COD - Milestones – Site Certification
St. Lucie Co. Project (Southern Power Co.)	<ul style="list-style-type: none"> - COD - Security Amounts - Pricing – Post RTO contingency - Permits – change of law pre-COD - Milestones – Site Certification

* Insufficient data submitted to evaluate compliance.

Rankings of Portfolios Prior to Announcement of Finalist- All Costs

(millions, CPVRR, 2003\$, 2003 - 2031)
(note: includes non-complying Proposals)

(1) (2) (3) (4) (5) (6) (7) (8) = sum of
(1) thru (7)

Ranking of Portfolio	Description of Portfolio	Portfolio MW	Generation Costs *	Transmission-Related Costs				Upstream Gas Pipeline Costs	Net Equity Adjustment	Total =====	Difference from lowest cost portfolio
				Integration **	Peak Hour Capacity Losses ***	Annual Energy Losses ***	Increased Operating Costs ***				
1	FPL Turkey Point Unit 5	1,144	62,591	0	0	0	0	0	62,591	0	
2	FPL 4 CT, Proposal 4	1,095	62,695	56	11	64	16	0	62,857	266	
3	FPL 4 CT, Proposal 4, Proposal 1	1,145	62,712	56	6	47	11	0	62,867	276	
4	FPL 4 CT, Proposal 4, Proposal 5	1,347	62,741	56	7	41	15	0	62,888	297	
5	Proposal 2	1,220	62,763	7	14	29	15	0	62,891	300	
6	Proposal 2, Proposal 1	1,270	62,788	6	12	14	15	0	62,918	327	
7	Proposal 3, Proposal 1	1,270	62,741	6	14	19	15	0	62,927	336	
8	Proposal 3	1,220	62,760	7	16	34	15	0	62,945	354	

• Generation-related costs include: capital, fixed O&M, variable O&M, project fuel/energy cost, FPL system fuel, transmission interconnection, and gas pipeline lateral costs. Values for Proposal 1 assume 80%/20% coal/pet coke mix.

** The FPL Turkey Point Unit 5's generation-related cost already includes transmission integration costs of approx. \$4 million CPVRR.

*** These transmission-related costs are relative to the FPL Turkey Point Unit 5's costs.