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January 12, 2001

VIA HAND DELIVERY

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
4075 Esplanade Way, Room 110
Tallahassee, FL 32399-0850

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RECORDS AND REPORTING


In re: Need Determination for the Osprey Energy Center in Polk County by Seminole Electric Cooperative, Inc. and Calpine Construction Finance Company, L.P. . . .
Docket No. 001748-EC

Dear Ms. Bayo:

Enclosed please find the original and 15 copies of the Amended Direct Testimony and Exhibits of Timothy R. Eves on behalf of Calpine Construction Finance Company, L.P. in the above-referenced case.

If you or your staff have any questions, please feel free to call. Thank you for your assistance.

Sincerely,


John T. LaVia, III

Enclosures

- APP _____
- CAF _____
- CMP _____
- COM 5/10
- CTR _____
- ECR _____
- LEG _____
- OPC _____
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00559 JAN 12 01

FPSC-RECORDS/REPORTING

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Determination of)
Need for the Osprey Energy Center in) DOCKET NO. 001748-EC
Polk County by Seminole Electric)
Cooperative, Inc. and Calpine) FILED: January 12, 2001
Construction Finance Company, L.P.)
_____)

AMENDED DIRECT TESTIMONY
AND EXHIBITS

OF

TIMOTHY R. EVES

ON BEHALF OF

CALPINE CONSTRUCTION FINANCE
COMPANY, L.P.

DOCUMENT NUMBER-DATE

00559 JAN 12 01

FPSC-RECORDS/REPORTING

IN RE: JOINT PETITION FOR DETERMINATION OF NEED FOR THE OSPREY
ENERGY CENTER IN POLK COUNTY BY SEMINOLE ELECTRIC COOPERATIVE,
INC. AND CALPINE CONSTRUCTION FINANCE COMPANY, L.P.

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Q: Please state your name and business address.

2 A: My name is Timothy R. Eves, and my business address is Two
3 Urban Centre, 4890 West Kennedy Boulevard, Suite 600, Tampa,
4 Florida 33609.

5

6 Q: By whom are you employed and in what position?

7 A: I am employed by Calpine Eastern Corporation ("Calpine
8 Eastern"), as Director of Business Development for Florida.

9

10 Q: Please describe your duties with Calpine Eastern.

11 A: In my capacity as Director of Business Development for Florida,
12 I am responsible for managing all of Calpine Eastern's
13 development activities in Florida, including, among other
14 things, coordinating regulatory matters and permitting
15 activities for Calpine Eastern's Florida projects;
16 participating directly in Calpine Eastern's marketing
17 activities for the Osprey Energy Center (the "Osprey Project"
18 or the "Project") and the Blue Heron Energy Center; and
19 managing all aspects of the development of the Osprey Project.

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1

QUALIFICATIONS AND EXPERIENCE

2 **Q: Please summarize your educational background.**

3 A: I received a Bachelor of Mechanical Engineering degree from the
4 University of Detroit in 1979, a Master of Business
5 Administration degree from Widener University in 1983, and a
6 Juris Doctor degree from the University of Miami in 1988.

7

8 **Q: Please summarize your employment history and work experience.**

9 A: I have 21 years of experience in the electric power industry,
10 19 years of which I worked for Westinghouse Electric
11 Corporation, and the remaining 2 years with BBI Power
12 Corporation and Calpine Eastern. I began my career in 1979 as
13 an Assistant Sales Engineer with Westinghouse Electric
14 Corporation where I sold electrical equipment to
15 architect/engineering firms for application on utility
16 projects. From there I held marketing positions of increasing
17 responsibility before being appointed Westinghouse's Manager of
18 Customer Program Integration in July 1989. In this position,
19 I managed a marketing group responsible for the coordination
20 and sale of integrated generating plant services and
21 modernization services to electric utilities. In December
22 1991, I was appointed the Regional Marketing Manager
23 responsible for the sale of new unit power generation equipment
24 and engineering, procurement, and construction services to

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 developers, utilities and architect/engineers in diverse
2 markets across the United States and Latin America. I was
3 appointed Director of International Marketing in January 1996,
4 in which position I was responsible for managing the department
5 responsible for selling new power generation equipment and
6 engineering, procurement, and construction services to power
7 plant developers, utilities, industrial users, and
8 architect/engineers for projects located in Eastern Europe, the
9 Middle East, and the Indian subcontinent. For most of my
10 career with Westinghouse, I worked in Florida, where I had
11 regular contact with various Florida utilities.

12 In June 1998, I began my employment with BBI Power
13 Corporation as Senior Vice President with responsibilities for
14 worldwide project development activities. My responsibilities
15 included: project development, joint partner identification and
16 negotiation of joint development agreements, determination of
17 plant configuration, and financial analyses. I also negotiated
18 purchased power and steam supply contracts, engineering-
19 procurement-construction contracts, and conducted permitting
20 and financing activities for various projects. My project
21 development activities covered the Indian subcontinent, Eastern
22 Europe, the Middle East, the Caribbean, and the United States
23 with respect to developing natural gas and oil-fired combustion
24 turbine units, coal-fired steam units, and biomass plants.

25 In October 1999, I accepted my current position with

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Calpine Eastern Corporation as Director of Business
2 Development. In this position, I am responsible for all of
3 Calpine Eastern's development activities in Florida, including
4 regulatory matters, permitting, and marketing activities for
5 Calpine Eastern's Florida projects.

6

7 **Q: What are your responsibilities with respect to the Osprey**
8 **Energy Center?**

9 A: As Director of Business Development for Florida, my
10 responsibilities with respect to the Osprey Project include
11 coordinating the regulatory and business activities relating to
12 the permitting and construction of the Project, including
13 coordination with our partner, Seminole Electric Cooperative,
14 Inc. ("Seminole"). My responsibilities encompass coordination
15 and oversight of several elements of power generation project
16 development, including evaluating and selecting development
17 opportunities, project design and engineering, negotiating
18 power sales agreements, acquiring necessary land rights,
19 permits and fuel resources, obtaining financing, and managing
20 construction.

21

22 **SUMMARY AND PURPOSE OF TESTIMONY**

23 **Q: What is the purpose of your testimony?**

24 A: I am testifying on behalf of Calpine Construction Finance

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Company, L.P. ("Calpine"), one of the joint applicants for the
2 Florida Public Service Commission's ("Commission")
3 determination of need for the Osprey Energy Center. My
4 testimony describes Calpine and the relationship between
5 Calpine, Calpine Eastern, their parent, Calpine Corporation,
6 Inc., a Delaware corporation headquartered in San Jose,
7 California, and other Calpine affiliates involved with the
8 Osprey Project including Calpine Energy Services, L.P., and
9 Calpine East Fuels, L.L.C. My testimony also addresses the
10 Osprey Project, the Power Purchase Agreement ("PPA") between
11 Calpine and Seminole for the purchase of firm capacity and
12 associated energy from the Osprey Project, Calpine's need for
13 the Project to meet its obligations to Seminole, the cost-
14 effectiveness of the Project to Calpine, the economic viability
15 of the Project, potential generating and non-generating
16 alternatives to the Project considered by Calpine, and the
17 action that Calpine and Seminole are asking the Commission to
18 take in this proceeding.

19

20 **Q: Please summarize your testimony.**

21 A: Calpine Construction Finance Company, L.P., and Seminole
22 Electric Cooperative, Inc. are petitioning the Commission for
23 an affirmative determination of need for the Osprey Energy
24 Center, a 529 MW natural gas-fired, combined cycle power plant

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 to be located in the City of Auburndale, in Polk County,
2 Florida.

3 The Osprey Project utilizes state-of-the-art technology,
4 with proven reliability, high efficiency, and a very benign
5 environmental profile. The Project will provide a clean and
6 cost-effective power supply resource to Seminole to meet the
7 growing demands of Seminole's Member cooperative utilities and
8 those utilities' member-consumers. In contrast to rate-based
9 facilities, Calpine will bear all of the capital investment and
10 operating risks associated with the Project, while Seminole,
11 its Member cooperatives, and their member-consumers bear none.

12 The Project is the most cost-effective alternative
13 available to Calpine and, because of its very high efficiency,
14 the Project is expected to be economically viable for its
15 entire useful life.

16

17 **Q: Are you sponsoring any exhibits to your testimony?**

18 **A:** Yes. I am sponsoring the following exhibits.

19 TRE-1. Calpine Construction Finance Company, L.P.,
20 Ownership Structure.

21 TRE-2. Calpine Corporation Generation Portfolio.

22 TRE-3. Order of the Federal Energy Regulatory Commission
23 ("FERC") approving Calpine's market-based rate
24 tariff.

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 TRE-4. Osprey Energy Center, Generating Alternatives
2 Evaluated.

3 TRE-5. Osprey Energy Center, Cost-Effectiveness Analyses of
4 Alternative Generation Technologies.

5 I am also sponsoring Figures II-1 and II-2, Tables II-1,
6 II-13, II-20, II-21, and parts of Table II-2 (relating to the
7 cost, economic life, and status of the Project) in Volume II of
8 the Amended Exhibits filed in support of Calpine's Amended
9 Joint Petition for determination of need for the Project. I am
10 also sponsoring the text relating to the subject matter of
11 these figures and tables contained within the Executive
12 Summary, Introduction, and Sections II.A, II.C, II.D, II.E,
13 II.F, and III.F of the Amended Exhibits. I am also sponsoring
14 Appendix II-A to the Amended Exhibits.

15

16 CALPINE CONSTRUCTION FINANCE COMPANY, L.P.,
17 CALPINE EASTERN CORPORATION, AND CALPINE CORPORATION, INC.

18

19 Q: Please describe Calpine Construction Finance Company, L.P., and
20 its business.

21 A: Calpine is a limited partnership organized and existing under
22 the laws of the State of Delaware. Calpine is a wholly-owned
23 subsidiary of Calpine Corporation, Inc. ("Calpine
24 Corporation"), a Delaware corporation headquartered in San
25 Jose, California. Exhibit _____ (TRE-1) illustrates the
26 ownership structure relationships of Calpine, Calpine Eastern,

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 and Calpine Corporation.

2 Calpine is in the business of developing competitive
3 wholesale power plants and acquiring electrical generating
4 facilities for operation as competitive wholesale power plants.
5 Calpine's basic business strategy is to provide clean,
6 efficient, cost-effective wholesale power to other utilities.
7 Competitive wholesale power plants are operated to sell power
8 to other utilities at wholesale at voluntarily negotiated
9 rates, with Calpine taking all financial and operating risk
10 associated with the plants. With respect to the Osprey
11 Project, Calpine, through its affiliate Calpine Energy
12 Services, L.P. ("Calpine Energy Services"), has entered into
13 the PPA pursuant to which Calpine will sell and Seminole will
14 buy 350 MW of firm capacity from the Project from June 1, 2004
15 through May 22, 2020, subject to periodic "reopener" provisions
16 in the PPA. Calpine will have a contractual arrangement with
17 Calpine Energy Services pursuant to which Calpine Energy
18 Services will provide fuel to the Project and will receive all
19 of the electric capacity and energy from the Project, which it
20 will then use to meet its contractual obligations to Seminole.
21 Also pursuant to the PPA, Calpine has committed to Seminole and
22 Seminole has the right to purchase up to all of the Project's
23 capacity and all of the energy output of the Project for the
24 term of the PPA; this includes Seminole's option to purchase
25 the entire capacity of the Project from the Project's

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 commercial operation date (projected to be June 2003) through
2 May 31, 2004, and Seminole's option to purchase the balance of
3 the Project's capacity, i.e., the capacity above the 350 MW of
4 capacity already committed to Seminole on a firm basis, from
5 June 1, 2004 through May 22, 2020, to the extent that that
6 additional capacity has not been firmly committed to other
7 Florida load-serving utilities at the time that Seminole wishes
8 to exercise these options.

9

10 **Q: Please describe Calpine Corporation and its business.**

11 A: Calpine Corporation is a leading independent power company
12 engaged in the development, acquisition, ownership, and
13 operation of power generation facilities and the sale of
14 electricity predominantly in the United States. Calpine
15 Corporation has experienced significant growth in all aspects
16 of our business over the last five years. Calpine Corporation
17 and its subsidiaries have ownership interests in 47 operating
18 power plants with total generating capacity of 5,318.5 MW, in
19 18 power plants under construction with total generating
20 capacity of 11,428.2 MW, and in 13 power plants under
21 development with total generating capacity of 8,006 MW.

22 Calpine Corporation is financially strong and sound, with
23 market capitalization near \$10 billion and an investment grade
24 bond rating.

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Calpine Corporation's development of power generation
2 projects involves numerous elements, including evaluating and
3 selecting development opportunities, designing and engineering
4 the projects, negotiating power sales agreements, acquiring
5 necessary land rights, permits and fuel resources, obtaining
6 financing, and managing construction.

7 In May 1999, Calpine Corporation completed the
8 acquisitions from Pacific Gas & Electric Company of 14
9 geothermal power plans at The Geysers in Northern California,
10 with a combined capacity of approximately 700 megawatts ("MW").
11 With these acquisitions Calpine Corporation now owns and
12 operates 850 MW of geothermal generating capacity and is the
13 nation's largest geothermal power producer.

14

15 **Q: Please describe Calpine Eastern Corporation and the**
16 **relationship between Calpine, Calpine Eastern, and Calpine**
17 **Corporation.**

18 **A:** Calpine Eastern Corporation is one of three regional Calpine
19 Corporation subsidiaries that have responsibility for
20 developing, acquiring, and operating the power plants owned by
21 Calpine Corporation and its subsidiaries and for marketing the
22 output of those plants. Calpine Eastern has responsibility
23 for: (1) developing power plants all the way through the
24 various permitting processes and construction phase and into

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 commercial operation; (2) overseeing the marketing of the power
2 plants' output; and (3) operating, maintaining, and optimizing
3 the power plants' operations over their lives. Calpine (i.e.,
4 Calpine Construction Finance Company, L.P.) provides the
5 financing for the projects and owns them upon completion, and,
6 as such, the development of the projects is completed in the
7 name of Calpine. Calpine Corporation is the parent of both
8 Calpine and Calpine Eastern.

9
10 **Q: What existing power plants do Calpine Corporation and its**
11 **subsidiaries have ownership interests in?**

12 **A:** Calpine Corporation and its subsidiaries have ownership
13 interests in 47 existing power generation facilities with a
14 current aggregate capacity of approximately 5,318.5 MW,
15 consisting of 28 gas-fired generation plants with a total
16 capacity of 4,468.5 MW and 19 geothermal power generating
17 facilities with a total capacity of 850 MW. Calpine
18 Corporation's ownership interests, through various wholly-owned
19 subsidiaries, in these plants total 4,421.6 MW, including
20 3,571.6 MW of gas-fired capacity and 850 MW of geothermal
21 capacity. These existing power plants are located in
22 California, New York, Texas, Florida, Massachusetts, New
23 Jersey, Pennsylvania, Virginia, Illinois, Oklahoma and
24 Washington. Exhibit _____ (TRE-2) presents Calpine

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Corporation's generation portfolio.

2

3 **Q: Do any subsidiaries or affiliates of Calpine Corporation**
4 **presently own and operate any electrical power plants in**
5 **Florida?**

6 **A:** Yes. Calpine Corporation, through wholly owned subsidiaries,
7 owns the entire ownership interest in the Auburndale Power
8 Plant, a 150 MW cogeneration power plant located in Auburndale,
9 Florida adjacent to the Osprey Project site. Most of the
10 output from the Auburndale Power Plant is sold to Florida Power
11 Corporation pursuant to a long-term negotiated contract, and
12 most of the remainder is presently sold to Tampa Electric
13 Company pursuant to a negotiated contract, with the balance
14 sold on a daily basis into the wholesale market.

15

16 **Q: What other projects do Calpine and its subsidiaries currently**
17 **have under construction and development?**

18 **A:** Calpine Corporation's subsidiaries, including Calpine
19 Construction Finance Company, currently have eighteen gas-fired
20 projects under construction with total capacity of 11,428.2 MW;
21 Calpine Corporation's ultimate ownership share in these plants
22 will be 9,891.3 MW. Upon completion of the projects under
23 construction, Calpine Corporation will have interests in 65
24 power plants located in 18 states. Approximately 90 percent of

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 these plants' generating capacity will be gas-fired and
2 approximately 10 percent will utilize geothermal technology.
3 The power plants under construction are located in Alabama,
4 Missouri, Texas, Oklahoma, California, Louisiana, Maine,
5 Oregon, Arizona, Maine, and Pennsylvania.

6 Calpine Corporation's subsidiaries, including Calpine
7 Construction Finance Company, have also formally announced
8 plans to develop, and have commenced development of, an
9 additional thirteen gas-fired power plants with a total
10 capacity of 8,006 megawatts; Calpine Corporation's ultimate
11 ownership share of these projects will be 7,484 megawatts. The
12 power plants under development are located in California,
13 Florida, Mississippi, Alabama, New York, Arizona, Ohio,
14 Tennessee, Connecticut, and Alberta, Canada.

15

16 **Q: Please describe the ownership status of Calpine Construction**
17 **Finance Company, L.P.**

18 **A:** Calpine is owned by its investors, and Calpine will own the
19 power generation facilities, i.e., the Osprey Energy Center and
20 the Blue Heron Energy Center identified in Calpine's 2000 Ten-
21 Year Site Plan.

22

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1 Q: Under what authority will Calpine sell the Osprey Project's
2 output?

3 A: Calpine will market the Project's capacity and associated
4 energy to other utilities and power marketers under negotiated
5 arrangements entered into pursuant to Calpine's Rate Schedule
6 No. 1 approved by the FERC. The FERC's order approving this
7 market-based rate tariff is included as Exhibit _____ (TRE-3)
8 to my testimony. That rate schedule, which applies to all
9 sales by Calpine, provides that Calpine may enter into
10 agreements with willing wholesale purchasers of energy and
11 capacity provided by the Project.

12

13 Q: Has Calpine previously filed a ten-year site plan with the
14 Commission?

15 A: Yes. Calpine filed a ten-year site plan in the spring of 2000.
16

17 Q: What experience do Calpine Corporation and its subsidiaries
18 have in operating electrical power plants?

19 A: Calpine Corporation and its subsidiaries presently operate the
20 vast majority of the 47 existing power plants in which Calpine
21 Corporation holds ownership interests, including the 150 MW
22 Auburndale Power Plant. By the end of 2002, Calpine
23 Corporation's subsidiaries are projected to be operating more
24 than 13,000 MW of generating capacity in which Calpine

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1 Corporation will have an ownership interest. Such services
2 include the operation of power plants, geothermal steam fields,
3 wells and well pumps, gas fields, gathering systems, and gas
4 pipelines. Calpine Corporation's subsidiaries also supervise
5 maintenance, materials purchasing, and inventory control;
6 manage cash flow; train staff; and prepare operating and
7 maintenance manuals for each power generation facility that
8 they operate. As a facility develops an operating history,
9 Calpine Corporation's operation and management subsidiaries
10 analyze the facility's operation and may modify or upgrade
11 equipment or adjust operating procedures or maintenance
12 measures to enhance the facility's reliability or
13 profitability. These services are performed under the terms of
14 operating and maintenance agreements pursuant to which Calpine
15 Corporation's operation and maintenance subsidiaries are
16 generally reimbursed for certain costs and paid an annual
17 operating fee. Pursuant to the O&M agreements, these
18 subsidiaries may also be paid an incentive fee based on the
19 performance of each facility.

20

21 **Q: Why is Calpine interested in building and operating the Osprey**
22 **Energy Center in Florida?**

23 **A:** Calpine views the construction and operation of the Osprey
24 Energy Center as a mutually beneficial business opportunity for

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Calpine and Seminole, Seminole's Member cooperatives, and those
2 systems' member-consumers. Subject to the Project's output
3 being contractually committed to Seminole and to other
4 Peninsular Florida load-serving utilities, the Project will be
5 beneficial to those utilities and their ultimate consumers.

6 According to the 2000 Regional Load & Resource Plan
7 prepared by the Florida Reliability Coordinating Council and
8 dated July 2000 ("FRCC 2000 Resource Plan"), Peninsular Florida
9 needs more than 11,000 MW of new installed capacity in order to
10 maintain winter reserve margins generally between 7% and 13%
11 without exercising load management and interruptible resources
12 from the winter of 2000-2001 through the winter of 2009-2010.
13 Even with the exercise of load management and interruptible
14 resources, Peninsular Florida needs more than 11,000 MW of new
15 capacity, as forecast in the FRCC 2000 Resource Plan, to
16 maintain planned reserve margins through the same period.
17 Subject to the Project's output being contractually committed
18 to Seminole and to other Peninsular Florida load-serving
19 utilities, the Project will increase both summer and winter
20 reserve margins for Peninsular Florida and will enhance
21 Peninsular Florida's reliability. Assuming an average
22 coincident peak demand of 3.5 to 5.0 kW per residential
23 customer, the Project's capacity would be sufficient to
24 maintain electric service to between 99,000 homes (at 5.0 kW
25 per household, summer peak conditions) and 165,000 homes (at

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 3.5 kW per household, winter peak conditions) during an extreme
2 weather event.

3

4 **Q: Does Calpine expect to be represented on the Florida**
5 **Reliability Coordinating Council?**

6 **A:** Yes, Calpine expects to be represented on the FRCC with respect
7 to our Osprey Project and Blue Heron Energy Center, another
8 gas-fired combined cycle power plant that we described in our
9 2000 Ten-Year Site Plan.

10

11

THE OSPREY ENERGY CENTER

12 **Q: Please describe the Osprey Energy Center.**

13 **A:** The Osprey Energy Center is a natural gas-fired power plant
14 utilizing advanced combustion turbine technology in combined
15 cycle configuration with a heat recovery steam generator and an
16 electric steam turbine generator. The Project's rated capacity
17 at average ambient site conditions is 529 MW, based on expected
18 manufacturers' guarantees. The Project's rated winter capacity
19 is 578 MW and its rated summer capacity is 496 MW.
20 Construction of the Project will be managed by Calpine Eastern
21 Corporation or its affiliates or subsidiaries. The Project is
22 scheduled to achieve commercial in-service status during the
23 second quarter of 2003, and is projected to have a technical
24 and economic life in excess of 30 years. Firm delivered gas

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1 supply will be provided for the Project's operations pursuant
2 to a contract between Gulfstream Natural Gas System and Calpine
3 East Fuels, L.L.C., having an initial term of twenty years.

4 The Project will satisfy all applicable environmental
5 permitting requirements. Gas-fired combined cycle technology
6 is the most efficient and most environmentally benign electric
7 generation technology currently available and feasible on a
8 commercial basis. Analyses prepared by Slater Consulting and
9 reported in detail in the testimony and exhibits of Kenneth J.
10 Slater show that the Project's operations can be expected to
11 have a substantial net beneficial effect on total emissions
12 from power generation in Florida, reducing total combined
13 emissions of sulfur dioxide and nitrogen oxides by between
14 8,000 and 23,000 tons per year.

15

16 **Q: What is the approximate direct construction cost of the Osprey**
17 **Project?**

18 **A:** The estimated direct construction cost of the Project is \$194.8
19 million. This equates to \$357 per kW of capacity, calculated
20 on the basis of the Project's rated capacity of 545 MW at ISO
21 temperature and relative humidity conditions.

22

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 Q: Please give an overview of the financing plan for the Osprey
2 Energy Center.

3 A: The Project will be constructed and brought into commercial
4 service solely with funds provided by Calpine Corporation and
5 its subsidiaries. Calpine Corporation will provide the equity.
6 The debt will be provided by Calpine through a form of
7 revolving credit, provided by several investment banks, used to
8 simultaneously fund the debt portion of the construction and
9 development costs of multiple Calpine projects.

10

11 Q: Please summarize the transmission arrangements that Calpine
12 anticipates will be made for connecting the Osprey Project to
13 the Peninsular Florida transmission grid and for delivering the
14 Project's output to other Peninsular Florida utilities?

15 A: The Project will be interconnected to the Peninsular Florida
16 transmission system at Tampa Electric Company's ("TECO") Recker
17 Substation. Pursuant to TECO's transmission tariff, Calpine
18 will obtain sufficient transmission capacity to permit the
19 delivery of the Project's full output to other Peninsular
20 Florida utilities on a firm basis. The actual transmission
21 upgrades required have been determined in accordance with
22 TECO's open access transmission tariff. Pursuant to Calpine's
23 request and TECO's tariff, TECO issued the Transmission Service
24 Request Facilities Study report on August 31, 2000. The report

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

1 estimated the cost to interconnect the Osprey Project to TECO's
2 Recker Substation at \$2.4 million. In addition, the cost of
3 the network upgrades required to provide firm transmission
4 service was estimated at \$11.5 million.

5

6 **Q: What is the status of the Osprey Project in the development**
7 **process?**

8 A: Preliminary engineering for the Osprey Project is complete,
9 and detailed design engineering will begin in March 2001.
10 Calpine has filed the site certification application for the
11 Osprey Project, which was deemed complete by the Florida
12 Department of Environmental Protection ("DEP") on April 7,
13 2000. On December 11, 2000, DEP issued notice of its
14 determination that the Osprey site certification application
15 was sufficient. The draft air permit is complete, the Project
16 site has been annexed into the City of Auburndale, and all work
17 relative to land use approvals is complete.

18 Calpine has secured, by the payment of substantial
19 deposits, the rights to a significant number of combustion
20 turbine generators for delivery between the present and 2004.
21 As permitting of the Osprey Project goes forward and the
22 Project's construction timetable becomes firmly established,
23 two of these already-secured CTGs will be designated for use in
24 the Osprey Project.

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1 Our affiliate, Calpine East Fuels, L.L.C., has entered
2 into a Precedent Agreement with Gulfstream Natural Gas System,
3 L.L.C., for firm gas transportation service for the Project.
4 With regard to transmission, TECO has completed the
5 transmission interconnection study and its Transmission Service
6 Request Facilities Study report. We have formally requested
7 the reservation of sufficient capacity on TECO's transmission
8 system, and have submitted the requisite deposit, to
9 accommodate power deliveries from the Project to Seminole and
10 to other Peninsular Florida utilities on a firm basis. (In the
11 event that Seminole does not elect to purchase all of the
12 Project's output at a given point in time, Calpine would
13 endeavor to market any available power to other Peninsular
14 Florida load-serving utilities pursuant to appropriate, cost-
15 effective contracts.)

16

17 **Q: When is the Osprey Project expected to achieve commercial in-**
18 **service status?**

19 **A:** Based on the present schedule, Calpine expects to bring the
20 Osprey Project into commercial operation by June 1, 2003.

21

22 **Q: Please introduce Calpine's other witnesses and the subject**
23 **matter of their testimony and exhibits.**

24 **A:** Detailed technical information regarding the Osprey Energy

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1 Center is presented in the testimony and exhibits of Ted S.
2 Baldwin, whose testimony describes the engineering aspects of
3 the Project; Richard A. Zwolak, AICP, whose testimony addresses
4 environmental and permitting issues; Michael D. Petit, who
5 addresses fuel transportation and fuel supply issues; Kenneth
6 J. Slater, who addresses the potential impacts of the Osprey
7 Project's operations on Peninsular Florida power supply costs,
8 fuel use for power generation, and environmental emissions
9 associated with power generation; and Michel P. Armand, P.E.,
10 who addresses transmission issues.

11

12 **Q: What other companies and entities are assisting in developing**
13 **and permitting the Osprey Project?**

14 **A:** Golder Associates is providing environmental analysis and
15 permitting support for the Project. Navigant Consulting has
16 provided certain transmission load flow studies in support of
17 Calpine's site certification application for the Project. TECO
18 has provided interconnection studies and transmission system
19 impact studies and will, pursuant to its FERC-approved
20 transmission tariff, provide transmission service to
21 accommodate delivery of the Project's output to Seminole and to
22 the other Peninsular Florida utilities that purchase power from
23 the Project. Gulfstream Natural Gas System will provide gas
24 transportation service to the Project. Slater Consulting and

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1 R.W. Beck and Associates have provided assistance with respect
2 to economic evaluations of the Project in support of the Joint
3 Petition.

4

5 GENERATING AND NON-GENERATING ALTERNATIVES CONSIDERED

6 Q: What generating alternatives did Calpine consider to the
7 particular configuration that was actually selected for the
8 Osprey Project?

9 A: The major available generating alternatives that were examined
10 and evaluated in arriving at the decision to use the selected
11 generating technology for the Osprey Energy Center were gas-
12 fired and oil-fired combustion turbines, gas-fired and oil-
13 fired combined cycle units, gas-fired steam generation units,
14 conventional pulverized coal steam units, nuclear steam units,
15 renewable energy technology, and integrated coal gasification
16 combined cycle units. Exhibit _____ (TRE-4) lists the
17 generating alternatives evaluated, and Exhibit _____ (TRE-5)
18 summarizes our cost-effectiveness evaluation of the alternative
19 technologies.

20

21 Q: Why did Calpine select natural gas-fired combined cycle
22 technology for the Osprey Energy Center?

23 A: Exhibit _____ (TRE-5) shows that gas-fired combined cycle
24 technology is expected to have the lowest levelized life-cycle

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1 cost in either intermediate load operation or base load
2 operation. Projections prepared for Calpine indicate that the
3 Osprey Project will, subject to the Project's output being
4 contractually committed to Seminole and to other Peninsular
5 Florida load-serving utilities, operate as a base load unit,
6 with annual capacity factors in the range of 86 to 93 percent,
7 dependent on the routine maintenance planned for each
8 respective year. These evaluations clearly indicate that the
9 best choice for Calpine, considering economics and cost-
10 effectiveness, is gas-fired combined cycle capacity.

11 The selected gas-fired combined cycle technology also
12 exhibits favorable reliability, long-term flexibility,
13 environmental, and strategic characteristics. This technology
14 is proven and extremely reliable, with a forced outage rate of
15 approximately 2 percent. The technology also has great
16 flexibility for both intermediate and base load operation; our
17 design choice allowing for duct-firing and power augmentation
18 also allows for additional flexibility of operation to meet
19 extreme demand conditions in Peninsular Florida. As stated
20 above and in Mr. Slater's testimony, the Project is expected to
21 have a net beneficial impact on emissions from power generation
22 for Peninsular Florida, reducing total sulfur dioxide and
23 nitrogen oxides emissions by approximately 8,000 to 23,000 tons
24 per year. Additionally, the chosen technology is favorable
25 considering strategic factors, both from Calpine's and

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1 Seminole's perspectives. The Project will be fueled by
2 domestically produced natural gas rather than by imported fuel
3 that may be subject to interruption due to political or other
4 events. The Project has a low installed cost and a highly
5 efficient heat rate, assuring its long-term economic viability.
6 The Project's gas-fired combined cycle technology is
7 exceptionally clean and minimizes airborne emissions. Since
8 the Project will use clean natural gas as its fuel, there is
9 substantially less risk (than with older, less efficient, and
10 more polluting power plants) that the Project will be adversely
11 affected by future changes in environmental regulations.

12 Subject to the Project's output being contractually
13 committed to Seminole and to other Peninsular Florida load-
14 serving utilities, the Project will also conserve primary
15 energy consumed for electricity production in Florida by
16 displacing generation from less efficient, and less cost-
17 effective, oil-fired, natural gas-fired, and coal-fired units.
18 In so doing, the Project will enhance both the overall
19 efficiency of electricity production and the overall efficiency
20 of natural gas use, as well as reduce the consumption of
21 petroleum fuels for electricity generation in Florida, thereby
22 reducing environmental emissions.

23 The desirability of Calpine's technology choice is further
24 supported by the fact that other Florida utilities are planning
25 to add capacity of similar technology and design, and by the

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1 fact that the type of power plant proposed by Calpine is the
2 technology of choice for the large majority of new power plant
3 capacity planned in the United States.

4

5 **Q: What, if any, non-generating alternatives did Calpine consider**
6 **in the processes that led it to proceed with the Osprey**
7 **Project?**

8 **A:** There are no viable non-generating alternatives to the Osprey
9 Project. Calpine is in the business of providing efficient,
10 cost-effective wholesale power to other utilities. Based on my
11 experience, as a wholesale-only power supplier, Calpine does
12 not engage in end-use conservation programs and is not required
13 to have conservation goals pursuant to the Florida Energy
14 Efficiency and Conservation Act. Accordingly, Calpine did not
15 consider non-generating alternatives to constructing and
16 operating the Osprey Project.

17

18 **Q: Notwithstanding your position that Calpine does not engage in**
19 **direct end-use energy conservation programs, will the Osprey**
20 **Energy Center have any energy conservation effects?**

21 **A:** Yes. The Project, like other gas-fired combined cycle units,
22 provides energy efficiency benefits by using less primary fuel
23 to produce a given quantity of electricity and provides
24 environmental benefits in the form of reduced emissions that

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1 would otherwise occur if oil-fired or gas-fired steam turbine
2 plants, or other fossil fuel baseload or peaking units, were
3 dispatched instead of the Project. Accordingly, subject to the
4 Project's output being contractually committed to Seminole and
5 to other Peninsular Florida load-serving utilities, the Project
6 promotes and is specifically consistent with the Florida
7 Legislature's declared goals of enhancing the overall
8 efficiency and cost-effectiveness of electricity production and
9 natural gas use, and of conserving expensive resources,
10 particularly petroleum fuels. The Project is also expected to
11 provide environmental benefits in the form of reduced sulfur
12 dioxide and nitrogen oxides emissions that would otherwise
13 occur if oil-fired or gas-fired steam turbine plants, or other
14 fossil fuel-fired baseload or peaking units, were dispatched
15 instead of the Project.

16

17 **THE SEMINOLE-CALPINE POWER PURCHASE AGREEMENT**

18 **Q: What is the status of Calpine's and Seminole's efforts to reach**
19 **final contractual arrangements for the purchase and sale of the**
20 **Osprey Project's output?**

21 **A: Calpine Energy Services, an affiliate of Calpine, and Seminole**
22 **executed the PPA on December 14, 2000. The PPA sets forth all**
23 **of the detailed commercial principles -- e.g., pricing,**
24 **duration, and other key terms and conditions -- for the**

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1 Seminole-Calpine power purchase and sale arrangement.

2

3 **Q: Please describe the basic terms of the PPA.**

4 A: The PPA provides for Calpine to sell and for Seminole to
5 purchase 350 MW of firm capacity and associated energy from
6 June 1, 2004 through May 22, 2020, subject to periodic
7 contractual "reopeners." The "reopener" provisions are
8 triggered at five-year intervals, and if neither Seminole nor
9 Calpine affirmatively terminates the PPA, then it will continue
10 in full force and effect. Additionally, Seminole has the
11 option to purchase the entire capacity of the Osprey Project
12 from the Project's commercial in-service date (expected June
13 2003) through May 31, 2004, to the extent that this capacity
14 has not been firmly committed to other Florida load-serving
15 utilities at the time that Seminole wishes to exercise this
16 option. In addition, beginning on June 1, 2004, Seminole has
17 the option to purchase the entire remaining capacity of the
18 Project, i.e., the Project's capacity above the 350 MW already
19 committed to Seminole on a firm basis, to the extent that this
20 additional capacity has not been firmly committed to other
21 Florida load-serving utilities. Throughout the PPA's term,
22 Seminole has the right, pursuant to notice and pricing
23 provisions set forth in the PPA, to purchase all of the
24 Project's energy output associated with the amounts of firm

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1 capacity that Seminole is purchasing at any time.

2

3

CALPINE'S USE OF THE OSPREY ENERGY CENTER

4 **Q: For what purposes will Calpine use the Osprey Energy Center?**

5 **A:** Calpine will use the Osprey Project primarily to fulfill its
6 contractual obligations to Seminole. Calpine may also use the
7 Project to serve the power supply needs of other Peninsular
8 Florida load-serving utilities that elect to contract with
9 Calpine for the Project's output.

10

11 **Q: Please give an overview of the projected operations of the**
12 **Osprey Energy Center.**

13 **A:** Mr. Kenneth J. Slater's analyses of the Florida bulk power
14 supply market and of the Project's operating economics yield
15 projections that the Project, with an availability factor of
16 greater than 94 percent, would be expected to operate between
17 7,500 and 8,500 hours per year, when operated on an economic
18 dispatch basis within the Peninsular Florida power supply
19 system and subject to the Project's output being contractually
20 committed to Seminole and to other Peninsular Florida load-
21 serving utilities. We anticipate that the Project will provide
22 approximately 578 MW (winter) and 496 MW (summer) of capacity,
23 and between 4,000,000 MWH and 4,400,000 MWH per year of cost-
24 effective, environmentally beneficial electrical energy, on a

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1 wholesale basis, to Seminole and to other Peninsular Florida
2 utilities that elect to contract for the Project's output.

3

4 **Q: How likely is it that the Project would make sales of capacity**
5 **or energy or both to utilities outside Florida, under any**
6 **scenario?**

7 **A:** It is unlikely that any significant amount of the Project's
8 output would be sold outside Peninsular Florida under any
9 scenario. This is a function of several factors, including
10 relatively low generation costs in the Southeastern Electric
11 Reliability Council ("SERC") region as compared to those within
12 Peninsular Florida, recent power shortages and projected tight
13 reserves in Peninsular Florida, and limited transmission export
14 capacity from Florida into the SERC region. Of course, this is
15 why we are seeking the Commission's determination of need that
16 will enable us to build the Osprey Energy Center in Peninsular
17 Florida, and why the transmission interconnection facilities
18 are being designed to accommodate deliveries of power from the
19 Project to utilities located within the State of Florida. This
20 is also why Calpine asked Navigant Consulting and TECO to
21 perform transmission studies for power deliveries exclusively
22 to load-serving utilities in Peninsular Florida. No out-of-
23 state export studies were contemplated.

24

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1 Q: Does Calpine either plan to sell electricity at retail in
2 Florida or anticipate making retail power sales in Florida?

3 A: No. Selling at retail is not a part of Calpine's development
4 marketing, or strategic plans.

5

6 Q: What, if any, additional benefits could the Osprey Energy
7 Center provide to Florida, its citizens, and its electric
8 ratepayers?

9 A: In addition to fairly dramatic power supply cost savings, the
10 Project can, subject to the Project's output being
11 contractually committed to Seminole and to other Peninsular
12 Florida load-serving utilities, provide enhanced reliability of
13 electric supply, both through additional generation capacity
14 and through fuel diversity. This results in reduced losses to
15 the people and businesses of Florida from service
16 interruptions. The Project can also be expected to enhance
17 environmental quality; stimulate economic development through
18 lower overall electricity costs, increased employment, and
19 increased local government tax revenues; and transfer the
20 financial risks associated with owning and operating an
21 electrical generation facility away from electric ratepayers to
22 Calpine.

23

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1 Q: What, if any, adverse effects would occur if the Osprey Project
2 were not brought into service, or was delayed in being brought
3 into service, as proposed by Seminole and Calpine?

4 A: Seminole, other Peninsular Florida load-serving utilities that
5 would choose to contract for the Project's output, and Florida
6 would lose all of the benefits that the Project would otherwise
7 provide. Specifically, Seminole, Seminole's Member cooperative
8 utilities, those utilities' member-consumers, other Florida
9 load-serving utilities who would elect to contract with Calpine
10 for the Project's output, and those utilities' retail customers
11 would lose the following:

- 12 1. More than 4,000,000 MWH per year of clean, efficient,
13 cost-effective generation;
- 14 2. The substantial cost savings that would result as the
15 Project's operation displaces generation from more costly
16 power plants, on the order of \$150 million per year;
- 17 3. The additional economic value provided by the Project
18 through (a) lower costs of ancillary services, (b) reduced
19 losses of economic productivity due to service
20 interruptions, and (c) enhanced economic development;
- 21 4. The environmental emissions reductions that would result
22 as the Project displaces generation from less efficient
23 generation resources;
- 24 5. The risk transference benefits of having Calpine own and

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1 operate the Project outside any retail-serving utility's
2 rate base; and

3 6. The economic development stimulation benefits of the
4 Project, including lower overall electricity costs,
5 increased employment, and enhanced local government tax
6 revenues.

7

8 **COST-EFFECTIVENESS AND ECONOMIC VIABILITY**

9 Q: Is the Osprey Project the most cost-effective alternative
10 available to Calpine to meet its projected needs for serving
11 its anticipated wholesale customers?

12 A: Yes. As shown in Exhibit _____ (TRE-5), gas-fired combined
13 cycle generation capacity has the lowest expected total cost of
14 all technologies evaluated for both intermediate and base load
15 duty. Given our projections that the Osprey Project will
16 operate as a base load unit, the gas-fired combined cycle
17 technology that Calpine has chosen is the most cost-effective
18 alternative available.

19

20 Q: How were these alternatives evaluated?

21 A: These alternatives were evaluated by comparing the estimated
22 levelized life-cycle operating costs of the different
23 technologies in different modes of operation, i.e., operated in
24 peak, intermediate, and base load modes of operation. The

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1 analyses, which are summarized in Exhibit _____ (TRE-5), show
2 that the lowest levelized costs for any technology for
3 intermediate and base load applications are for the gas-fired
4 combined cycle technology that Calpine has selected for the
5 Osprey Energy Center.

6

7 **Q: Do you believe that the Osprey Project will be economically**
8 **viable? Why or why not?**

9 **A:** Yes, I believe that the Osprey Project will be economically and
10 financially viable over its entire useful life. Calpine, not
11 Florida electric ratepayers, bears the investment risk
12 associated with the Project, and as such, Calpine will have
13 very strong incentives to maintain and operate the Project as
14 efficiently and economically as possible. As noted above,
15 subject to the Project's output being contractually committed
16 to Seminole and to other Peninsular Florida load-serving
17 utilities, the Project is expected to operate, on an economic
18 dispatch basis, between 7,500 and 8,500 hours per year, with a
19 very high availability factor over the life of the Project.

20 Also, the gas-fired combined cycle technology that Calpine
21 has selected for the Project is the most efficient and the most
22 economical generation technology currently available on a
23 commercial basis. Indeed, it is the technology of choice
24 throughout the U.S. electric industry today.

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1 Q: What, if anything, could happen that would render the Osprey
2 Project no longer economically viable?

3 A: Power plant technology, as all technology, is constantly
4 advancing and being introduced to the market. At some point in
5 time, new technology will be implemented on a scale of
6 sufficient magnitude to render today's current best technology
7 obsolete. This natural obsolescence in generation technology
8 is traditionally thirty years in the U.S. power market.
9 Calpine expects that the economic life of the Osprey Project
10 would be in line with this natural obsolescence cycle.

11 From a more short-term perspective, it is difficult to
12 envision a circumstance or situation that would render the
13 Project not economically viable. However, the Commission
14 should keep in mind that in the event that such an unforeseen
15 event may occur, Calpine will bear the capital and investment
16 risk of the Project and that Florida electric customers will
17 not be exposed to any stranded cost risk or other risks
18 associated with the Project, as they would be if the same
19 amount of capacity had been built and included in a traditional
20 regulated utility's rate base.

21

22

AMENDED DIRECT TESTIMONY OF TIMOTHY R. EVES

REQUESTED COMMISSION ACTION

1

2 **Q: What action are Seminole and Calpine asking the Commission to**
3 **take in this proceeding?**

4 **A: Seminole and Calpine are petitioning the Commission to issue**
5 **its order granting an affirmative determination of need for the**
6 **Osprey Energy Center. The Osprey Project is needed to meet**
7 **Seminole's needs for system reliability and integrity and for**
8 **adequate, cost-effective electricity, and, as described in my**
9 **testimony, the Project is likewise consistent with Peninsular**
10 **Florida's needs for clean, reliable, cost-effective power**
11 **supplies. The Osprey Project will provide significant and**
12 **substantial economic, efficiency, environmental, and strategic**
13 **benefits to Seminole, Seminole's Member cooperatives, those**
14 **utilities' member-consumers, and to the other Peninsular**
15 **Florida utilities that elect to contract for the Project's**
16 **output, and accordingly, the Commission should grant the**
17 **requested determination of need.**

18

19 **Q: Does this conclude your direct testimony?**

20 **A: Yes, it does.**

21

22

23

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition for Determination of)
Need for the Osprey Energy Center in) DOCKET NO. 001748-EC
Polk County by Seminole Electric)
Cooperative, Inc. and Calpine) FILED: January 12, 2001
Construction Finance Company, L.P.)

AMENDED EXHIBITS

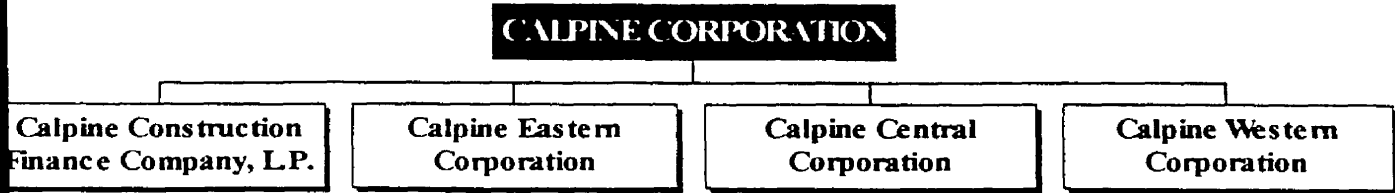
OF

TIMOTHY R. EVES

ON BEHALF OF

**CALPINE CONSTRUCTION FINANCE
COMPANY, L.P.**

CALPINE CONSTRUCTION FINANCE COMPANY, L.P. OWNERSHIP STRUCTURE



Calpine Corporation Portfolio
 of Generating Assets

Calpine


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Operating Gas Fired Power Plants	Baseload Capacity (megawatts)	Calpine Interest Percentage	Calpine Net Interest (megawatts)
<u>Agnews</u> San Jose, CA	26.5	100%	26.5
<u>Auburndale</u> Auburndale, FL	143.0	100%	143.0
<u>Bayonne</u> Bayonne, NJ	158.0	7.5%	11.9
<u>Bethpage</u> Hicksville, NY	52.0	100%	52.0
<u>Clear Lake</u> Pasadena, TX	335.0	100%	335.0
<u>Dighton</u> Dighton, MA	162.0	50%	81.0
<u>Gilroy</u> Gilroy, CA	112.0	100%	112.0
<u>Gordonsville</u> Gordonsville, VA	233.0	50%	116.5
<u>Grays Ferry</u> Philadelphia, PA	143.0	40%	57.2
<u>Greenleaf 1</u> Yuba City, CA	50.0	100%	50.0
<u>Greenleaf 2</u> Yuba City, CA	50.0	100%	50.0
<u>Hidalgo</u> Edinburg, TX	502.0	78.5%	394.1
<u>Kennedy</u> Jamaica, NY	95.0	100%	95.0
<u>King City</u> King City, CA	103.0	100%	103.0
<u>Lockport</u> Lockport, NY	177.0	11.36%	20.1
<u>Morris</u> Morris, IL	155.0	86.45%	134.0
<u>Newark</u> Newark, NJ	47.0	80%	37.6
<u>Parlin</u> Parlin, NJ	89.0	80%	71.2

<u>Pasadena</u> Pasadena, TX	231.0	100%	231.0
<u>Pasadena Expansion</u> Pasadena, TX	520.0	100%	520.0
<u>Philadelphia</u> Philadelphia, PA	22.0	66.4%	14.6
<u>Pittsburg</u> Pittsburg, CA	64.0	100%	64.0
<u>Pryor</u> Pryor, OK	109.0	80%	87.2
<u>Stony Brook</u> Stony Brook, NY	36.0	100%	36.0
<u>Sumas</u> Sumas, WA	120.0	70%	84.0
<u>Texas City</u> Texas City, TX	465.0	100%	465.0
<u>Tiverton</u> Tiverton, RI	240.0	62.8%	150.7
<u>Watsonville</u> Watsonville, CA	29.0	100%	29.0
Operating Geothermal Power Plants	Baseload Capacity (megawatts)	Calpine Interest Percentage	Calpine Net Interest (megawatts)
<u>Aidlin</u> Middletown, CA	20.0	100%	20.0
<u>Bear Canyon</u> Middletown, CA	20.0	100%	20.0
<u>Calistoga</u> Middletown, CA	73.0	100%	73.0
<u>Lake County (2 power plants)</u> Middletown, CA	145.0	100%	145.0
<u>Sonoma</u> Middletown, CA	53.0	100%	53.0
<u>Sonoma County (12 power plants)</u> Middletown, CA	512.0	100%	512.0
<u>West Ford Flat</u> Middletown, CA	27.0	100%	27.0
Under Construction	Baseload Capacity (megawatts)	Calpine Interest Percentage	Calpine Net Interest (megawatts)

<u>Acadia</u> Eunice, LA	1,080.0	50%	540.0
<u>Aries</u> Pleasant Hill, MO	516.0	50%	258.0
<u>Baytown</u> Baytown, TX	704.0	100%	704.0
<u>Channel</u> Houston, TX	519.0	100%	519.0
<u>Decatur</u> Decatur, AL	659.0	100%	659.0
<u>Delta</u> Pittsburg, CA	798.0	50%	399.0
<u>Freestone</u> Freestone County, TX	1,002.8	100%	1,002.8
<u>Hermiston</u> Hermiston, OR	530.0	100%	530.0
<u>Los Medanos</u> Pittsburg, CA	493.0	100%	493.0
<u>Lost Pines I</u> Austin, TX	522.0	50%	261.0
<u>Magic Valley</u> Edinburg, TX	687.0	100%	687.0
<u>Morgan</u> Decatur, AL	660.0	100%	660.0
<u>Oneta</u> Coweta, OK	960.3	100%	960.3
<u>Ontelaunee</u> Ontelaunee, PA	511.0	100%	511.0
<u>Rumford</u> Rumford, ME	237.0	66.7%	158.1
<u>South Point</u> Bullhead City, AZ	526.0	100%	526.0
<u>Sutter</u> Yuba City, CA	516.0	100%	516.0
<u>Westbrook</u> Westbrook, ME	487.0	100%	487.0
Under Development	Baseload Capacity (megawatts)	Calpine Interest Percentage	Calpine Net Interest (megawatts)
<u>Blue Heron</u> Indian River County, FL	1,080.0	100%	1,080.0
<u>Calgary Energy Centre</u> Calgary, Alberta	198.0	100%	198.0

<u>Fremont</u> Fremont, Ohio	500.0	100%	500.0
<u>Haywood</u> Haywood County, TN	763.0	100%	763.0
<u>Hillabee</u> Tallapoosa County, AL	700.0	100%	700.0
<u>Lawrence</u> Hamilton Township, OH	850.0	100%	850.0
<u>Lone Oak</u> Lowndes County, MS	763.0	100%	763.0
<u>Metcalf</u> San Jose, CA	533.0	50%	266.5
<u>Osprey</u> Auburndale, FL	540.0	100%	540.0
<u>Teayawa</u> Thermal, CA	530.0	100%	530.0
<u>Towantic</u> Oxford, CT	508.0	100%	508.0
<u>Wawayanda</u> Middletown, NY	530.0	100%	530.0
<u>West Phoenix</u> Phoenix, AZ	511.0	50%	255.5

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90 FERC ¶ 61,164

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

February 23, 2000

Docket Nos. ER00-939-000
ER00-1049-000
ER00-1115-000

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Dear Sirs:

You submitted for filing with the Commission rate schedules under which applicants will engage in wholesale electric power and energy transactions at market-based rates. Your submittals, as modified below, comply with the Commission's requirements for market-based rates and are accepted for filing. They are designated and made effective as indicated in Appendix A to this order.

Calpine Construction Finance Company, L.P. (Calpine) requests authority to engage in the sale of certain ancillary services (listed in its proposed rate schedule) at market-based rates into the markets administered by the California ISO, the New England Power Pool markets administered by ISO New England, Inc., the New York Power Pool markets administered by the New York Independent System Operator, and into the

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Docket No. ER00-939-000, et al. -2-

Pennsylvania-New Jersey-Maryland Interchange Energy Market. ¹ We will grant this request. ²

Any waivers or authorizations requested by the applicants are granted to the extent specified in Appendix B to this order. Waiver of the prior or advance notice requirements, if requested, is granted to the extent specified in Appendix A. The applicants must comply with the reporting requirements and other requirements specified in Appendix B to this order. ³

The codes of conduct submitted by the applicants are accepted if consistent with Appendix C, which reflects requirements adopted in previous Commission orders. Any code of conduct inconsistent with Appendix C is rejected and in such case Appendix C has been designated as the applicant's code of conduct. The codes of conduct submitted by the applicants covered by this order are consistent with Appendix C.

Calcasieu Power, L.L.C.'s (Calcasieu) proposed rate schedule fails to include a prohibition on power sales to affiliates, absent prior Commission approval under section

¹Calpine also proposes to provide Replacement Reserve service at market-based rates. The Commission has determined that Replacement Reserve service is not an ancillary service, and the granting of market-based rate authority for sales of energy and capacity includes the granting of market-based rate authority for Replacement Reserve service. See, e.g., AES Redondo Beach, L.L.C., et al., 85 FERC ¶ 61,123 at 61,452, 61,464 (1998), order on reh'g, 87 FERC ¶ 61,208 (1999) (AES).

²See AES; New England Power Pool, 85 FERC ¶ 61,379 (1998), reh'g pending; Central Hudson Gas & Electric Corporation, et al., 86 FERC ¶ 61,062, order on reh'g, 88 FERC ¶ 61,138 (1999); Atlantic City Electric Company, et al., 86 FERC ¶ 61,248, clarified, 86 FERC ¶ 61,310 (1999).

³On May 27, 1999, the Commission issued an order in which it modified the reporting requirements for long-term transactions applicable to public utilities without ownership or control over generation or transmission facilities that are authorized to sell power at market-based rates (power marketers). Southern Company Services, et al., 87 FERC ¶ 61,214 (1999), reh'g pending (Southern). Specifically, with respect to any long-term transaction agreed to by a power marketer after 30 days from the date of issuance of a final order in the Southern case, the power marketer must file a service agreement with the Commission within 30 days after service commences, rather than reporting transactions thereunder in its quarterly transaction summaries.

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205 of the Federal Power Act (FPA), 16 U.S.C. § 824d (1994). Calcasieu is directed, within 30 days of the date of this order, to revise its rate schedule accordingly.

Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (1999), an entity's filing of a timely notice of intervention or a timely, unopposed motion to intervene in a proceeding makes it a party to that proceeding.

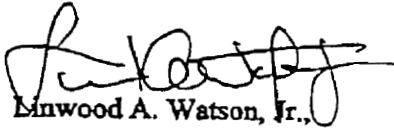
Should an applicant or any of its affiliates deny, delay, or require unreasonable terms, conditions, or rates for natural gas fuel or services to a potential electric competitor in bulk power markets, then that electric competitor may file a complaint with the Commission that could result in the applicant's or its affiliate's authority to sell power at market-based rates being suspended.⁴

Sales of accounts receivable are not dispositions of jurisdictional facilities and are not within the scope of section 203 of the FPA. To the extent an applicant seeks a case-specific finding on this or any related point, it may file a petition for a declaratory order with the Commission.

Calcasieu and Lake Worth Generation L.L.C. (Lake Worth) seek Commission approval to reassign transmission capacity. We find their requests to be consistent with our requirements.

Lake Worth and Calcasieu must inform the Commission of the dates service commences.

By direction of the Commission.


Minwood A. Watson, Jr.,
Acting Secretary.

⁴See, e.g., Louisville Gas & Electric Co., 62 FERC ¶ 61,016 at 61,148 (1993).

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APPENDIX A

Applicants are hereby informed of the following rate schedule designations:

Lake Worth Generation L.L.C.

Docket No. ER00-939-000

Rate Schedule Designation

Effective Date: Date Service Commences

<u>Designation</u>	<u>Description</u>
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FERC Electric Tariff, Original Volume No. 1, Original Sheet No. 1	Market-Based Rate Tariff
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Calcasieu Power, LLC

Docket No. ER00-1049-000

Rate Schedule Designations

Effective Date: Date Service Commences

<u>Designation</u>	<u>Description</u>
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FERC Electric Tariff, Original Volume No. 1 Original Sheet Nos. 1-2	Market-Based Rate Tariff and Code of Conduct
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Calpine Construction Finance Company, L.P.

Docket No. ER00-1115-000

Rate Schedule Designation

Effective Date: March 14, 2000

<u>Designation</u>	<u>Description</u>
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FERC Electric Tariff, Original Volume No. 1 Original Sheet Nos. 1-2	Market-Based Rate Tariff
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APPENDIX B

(1) If requested, waiver of Parts 41, 101, and 141 of the Commission's regulations, with the exception of 18 C.F.R. §§ 141.14, .15 (1999), is granted. Licensees remain obligated to file the Form No. 80 and the Annual Conveyance Report.

(2) Within 30 days of the date of this order, any person desiring to be heard or to protest the Commission's blanket approval of issuances of securities or assumptions of liabilities by those applicants who have sought such approval should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.211 and 385.214.

(3) Absent a request to be heard within the period set forth in Paragraph (2) above, if the applicants have requested such authorization, the applicants are hereby authorized to issue securities and assume obligations or liabilities as guarantor, indorser, surety, or otherwise in respect of any security of another person; provided that such issue or assumption is for some lawful object within the corporate purposes of the applicants, compatible with the public interest, and reasonably necessary or appropriate for such purposes.

(4) If requested, until further order of this Commission, the full requirements of Part 45 of the Commission's regulations, except as noted below, are hereby waived with respect to any person now holding or who may hold an otherwise proscribed interlocking directorate involving the applicants. Any such person instead shall file a sworn application providing the following information:

- (a) full name and business address; and
- (b) all jurisdictional interlocks, identifying the affected companies and the positions held by that person.

(5) The Commission reserves the right to modify this order to require a further showing that neither the public nor private interests will be adversely affected by continued Commission approval of the applicants' issuances of securities or assumptions of liabilities, or by the continued holding of any affected interlocks.

(6) If requested, waiver of the provisions of Subparts B and C of Part 35 of the Commission's regulations, with the exception of sections 35.12(a), 35.13(b), 35.15 and 35.16, is granted for transactions under the rate schedules at issue here.

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(7) (a) Applicants who own generating facilities may file umbrella service agreements for short-term power sales (one year or less) within 30 days of the date of commencement of short-term service, to be followed by quarterly transaction summaries of specific sales (including risk management transactions if they result in actual delivery of electricity). For long-term transactions (longer than one year), applicants must submit the actual individual service agreement for each transaction within 30 days of the date of commencement of service. To ensure the clear identification of filings, and in order to facilitate the orderly maintenance of the Commission's files and public access to documents, long-term transaction service agreements should not be filed together with short-term transaction summaries. For applicants who own, control or operate facilities used for the transmission of electric energy in interstate commerce, prices for generation, transmission and ancillary services must be stated separately in the quarterly reports and long-term service agreements.

(b) Applicants who do not own generating facilities must file quarterly reports detailing the purchase and sale transactions undertaken in the prior quarter (including risk management transactions if they result in actual delivery of electricity). Applicants who are power marketers should include in their quarterly reports only those risk management transactions that result in the actual delivery of electricity.

(8) The first quarterly report filed by an applicant in response to Paragraph (7) above will be due within 30 days of the end of the quarter in which the rate schedule is made effective.

(9) Each applicant must file an updated market analysis within three years of the date of this order, and every three years thereafter. The Commission reserves the right to require such an analysis at any time. The applicants must also inform the Commission promptly of any change in status that would reflect a departure from the characteristics the Commission has relied upon in approving market-based pricing. These include, but are not limited to: (a) ownership of generation or transmission supplies; or (b) affiliation with any entity not disclosed in the applicants' filing that owns generation or transmission facilities or inputs to electric power production, or affiliation with any entity that has a franchised service area. Alternatively, the applicants may elect to report such changes in conjunction with the updated market analysis required above. Each applicant must notify the Commission of which option it elects in the first quarterly report filed pursuant to Paragraph (7) above.

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APPENDIX C

[APPLICANT]
SUPPLEMENT NO. _ TO RATE SCHEDULE NO. _

STATEMENT OF POLICY
AND CODE OF CONDUCT
WITH RESPECT TO THE RELATIONSHIP BETWEEN
[POWER MARKETER] AND [PUBLIC UTILITY]

Marketing of Power

1. To the maximum extent practical, the employees of [Power Marketer] will operate separately from the employees of [Public Utility].
2. All market information shared between [Public Utility] and [Power Marketer] will be disclosed simultaneously to the public. This includes all market information, including but not limited to, any communication concerning power or transmission business, present or future, positive or negative, concrete or potential. Shared employees in a support role are not bound by this provision, but they may not serve as an improper conduit of information to non-support personnel.
3. Sales of any non-power goods or services by [Public Utility], including sales made through its affiliated EWG's or QF's, to [Power Marketer] will be at the higher of cost or market price.
4. Sales of any non-power goods or services by the [Power Marketer] to [Public Utility] will not be at a price above market.

Brokering of Power

To the extent [Power Marketer] seeks to broker power for [Public Utility]:

5. [Power Marketer] will offer [Public Utility's] power first.
6. The arrangement between [Power Marketer] and [Public Utility] is non-exclusive.
7. [Power Marketer] will not accept any fees in conjunction with any Brokering services it performs for [Public Utility].

OSPREY ENERGY CENTER GENERATING ALTERNATIVES EVALUATED

GENERATING TECHNOLOGIES CONSIDERED

COMBUSTION TURBINE-OIL

COMBUSTION TURBINE-GAS

COMBINED CYCLE-GAS

COMBINED CYCLE-OIL

PULVERIZED COAL STEAM

CONVENTIONAL GAS STEAM

COAL GASIFICATION-COMBINED CYCLE

NUCLEAR STEAM

RENEWABLE ENERGY

OSPREY ENERGY CENTER COST-EFFECTIVENESS ANALYSES OF ALTERNATIVE GENERATION TECHNOLOGIES

Comparison of Generation Alternatives

Technology Type	Levelized Life-Cycle Cost at Assumed Capacity Factor (2000 \$/MWh)		
	Peaking Operation (10% CF)	Intermediate Oper. (50% CF)	Base Load Oper. (90% CF)
Combined Cycle - Gas Fired	\$ 98 - 118	\$ 37 - 45	\$ 30 - 37
Combined Cycle - Oil Fired	111 - 134	50 - 61	43 - 53
Simple Cycle - Gas Fired	85 - 116	52 - 73	45 - 68
Simple Cycle - Oil Fired	110 - 144	71 - 101	64 - 97
Steam - Coal	200 - 220	52 - 59	35 - 42
Steam - Gas	124	53	45
Steam - Nuclear	283	61	36
IGCC Technology	196 - 245	49 - 61	32 - 40
Renewable Energy	121 - 1072	67 - 240	47 - 147

Source: R. W. Beck and Associates.