



CALPINE



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CONSTRUCTION FINANCE
COMPANY, L.P.

DOCUMENT NUMBER DATE

05037 JUN-68

FPSC-COMMISSION CLERK

*Ten-Year Site Plan
2003-2012*

April 2003

CALPINE CONSTRUCTION FINANCE COMPANY, L.P.

**TEN-YEAR SITE PLAN
FOR ELECTRICAL GENERATING FACILITIES
AND ASSOCIATED TRANSMISSION LINES,
2003-2012**

Submitted to:

**STATE OF FLORIDA
PUBLIC SERVICE COMMISSION**

April 2003

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EXECUTIVE SUMMARY

Pursuant to Rule 25-22.071, Florida Administrative Code ("F.A.C."), and Section 186.801, Florida Statutes (2002), Calpine Construction Finance Company, L.P. ("Calpine" or "CCFC") hereby submits its Ten-Year Site Plan for Electrical Generating Facilities and Associated Transmission Lines, 2003-2012.

Calpine Corporation, Calpine's parent company, owns through its subsidiaries 100 percent of the ownership interests in the Auburndale Power Plant, a 150 MW natural gas and oil-fired qualifying cogeneration facility located in Polk County, Florida, and the Auburndale Peaker Energy Center ("Auburndale Peaker Project"), a 120 MW (nominal net) natural gas and oil-fired combustion turbine plant located on the site of the Auburndale Power Plant in Polk County. Calpine presently plans to develop, own, and operate three natural gas-fired combined cycle generating plants in Florida. The electrical power plants under development are the Osprey Energy Center ("Osprey Project"), the Blue Heron Energy Center ("Blue Heron Project"), and the Santa Rosa Energy Center ("Santa Rosa Project"). Calpine has identified one additional potential power plant site which may be located in southwest Florida. (All six projects are collectively referred to as the "Calpine Projects".)

Based on Calpine's current power sales agreements and projected resource needs, Calpine is constructing the Osprey Energy Center, an approximately 529 MW (based on manufacturer's guarantees

at average ambient site conditions) natural gas-fired combined cycle generating unit to be located in the City of Auburndale in Polk County, Florida, and the Santa Rosa Energy Center, a 241 MW natural gas-fired combined cycle generating unit to be located in Santa Rosa County, Florida. Calpine is presently developing the Blue Heron Energy Center, a 1,058 MW natural gas-fired combined cycle generating unit to be located in Indian River County, Florida. Based upon Calpine's anticipated future resource needs, the company has identified one potential site, as defined in Rule 25-22.070, F.A.C., for future generation planning purposes. Calpine plans to develop a 540 MW (nominal) natural gas-fired combined cycle generating plant at this potential site, which is in southwest Florida.

Natural gas will be provided to the Osprey Project and the Blue Heron Project by Gulfstream Natural Gas System, L.L.C. ("Gulfstream"), which owns and operates a new trans-Florida natural gas pipeline that became operational in May 2002. The Osprey Project and Blue Heron Project will be significant customers of this second, major, trans-Florida natural gas pipeline. Natural gas will be provided to Gulfstream receipt points in the Mobile Bay area by natural gas producers or marketing companies (or both) for delivery on a firm transportation basis through the Gulfstream pipeline to the Osprey Project and the Blue Heron Project. Natural gas will be provided to the Santa Rosa Project by Gulf South Pipeline. Calpine will procure the needed gas supplies (commodity)

for the Calpine Projects through an optimized combination of short-term contract purchases, long-term contract purchases, and spot market purchases.

Calpine's planned combined cycle generating units utilize high efficiency generation technology with high reliability and availability rates. In addition, the Calpine Projects will have environmentally responsible emissions profiles with the use of clean-burning natural gas, good combustion practice, and additional emissions control technologies that will minimize sulfur dioxide, nitrogen oxides, carbon monoxide, and volatile organic compound emissions. The Calpine Projects' exceptionally clean technology will protect against risks associated with future changes in environmental regulations while improving the overall environmental profile of electricity generation in Florida.

Presently, 114 MW of the Auburndale Power Project is committed to Florida Power Corporation ("FPC") pursuant to a long-term cogeneration contract, and the full output of the Osprey Energy Center is committed to Seminole Electric Cooperative, Inc. ("Seminole") pursuant to a long-term power purchase agreement (the "Seminole-Calpine PPA" or the "PPA"). Power produced from the other Calpine Projects will be sold at wholesale to other utilities and power marketers for use in Florida. Calpine expects that virtually all of the sales from the Calpine Projects will be made to other utilities and power marketers for use in Peninsular Florida, that is, within the Florida Reliability Coordinating

Council region, and for use in the Panhandle of Florida, that is, within the Southeastern Electric Reliability Council ("SERC") region.¹ As such, subject to their being committed to Florida load-serving utilities, the other Calpine Projects will significantly and substantially enhance the State of Florida's generation reserve margins.

¹ The Santa Rosa Project is interconnected to Gulf Power Company, which is in the SERC region. Accordingly, Calpine expects to make wholesale sales of electricity from the Santa Rosa Project to Gulf Power or its sister companies in the Southern Company system.

CHAPTER 1,

CALPINE CONSTRUCTION FINANCE COMPANY, L.P.

Calpine Construction Finance Company, L.P., a Delaware limited partnership, will be the developer and owner of the Calpine Projects. As the developer and owner of the Calpine Projects, Calpine either has obtained, is currently arranging for, or will be arranging for the permitting, engineering, procurement and construction of the Calpine Projects and for any other services necessary to bring the Calpine Projects into commercial operation.

On February 23, 2000, the Federal Energy Regulatory Commission ("FERC") approved Calpine's Rate Schedule No. 1, which permits Calpine to enter into negotiated wholesale power sales agreements with willing purchasers. Calpine Construction Finance Company, L.P., 90 FERC ¶61,164. Calpine is filing this Ten-Year Site Plan pursuant to Section 186.801, Florida Statutes (2002) and, pursuant to a stipulation accepted by the Commission in its order determining need for the Osprey Energy Center, Calpine will continue to file ten-year site plans and other information requested by the Commission. In Re: Petition for Determination of Need for the Osprey Energy Center in Polk County by Seminole Electric Cooperative and Calpine Construction Finance Company, L.P., Order No. 01-0421-FOF-EC (Fla. P.S.C., February 21, 2002).

CHAPTER 2

DESCRIPTION OF EXISTING FACILITIES

Calpine Construction Finance Company, L.P. has no existing electric generation or transmission facilities located in Florida. However, Calpine Corporation, Calpine's parent company, owns through its subsidiaries 100 percent of the ownership interests in the Auburndale Power Plant, a 150 MW natural gas and oil-fired qualifying cogeneration facility located in Polk County, Florida, immediately adjacent to the Osprey Project Site, and the Auburndale Peaker Project, a natural gas and oil-fired, combustion turbine generating unit within the site of the existing Auburndale Power Plant. (See Schedule 1.). The Auburndale Peaker Project has 115 MW of capacity at summer peak conditions and 134 MW of capacity at winter peak conditions. The Auburndale Peaker Project achieved commercial in-service status in August 2002, and its output has been sold and will continue to be sold in the wholesale market to Peninsular Florida retail-serving utilities. (As discussed herein, CCFC is constructing the 529 MW Osprey Energy Center and the 241 MW Santa Rosa Energy Center.)

CHAPTER 3

FORECAST OF ELECTRIC POWER DEMAND AND ENERGY CONSUMPTION

Preliminary electric power demand and energy analyses have been completed for the Osprey and Blue Heron Projects based on economic dispatch within the Peninsular Florida bulk power grid.

Over the planning horizon covered in this Ten-Year Site Plan, the Osprey Project is projected to operate approximately 8,275 hours per year, with projected generation of approximately 4,300,000 megawatt-hours ("MWH") per year, reflecting a total capacity factor of approximately 94.5 percent. All of the Osprey Project's output over the 2003-2012 planning horizon is available to Seminole pursuant to the Seminole-Calpine PPA.

Over the planning horizon covered in this Ten-Year Site Plan, the Blue Heron Project is projected to operate approximately 8,275 hours per year, with projected generation of approximately 8,600,000 MWH per year, reflecting a total capacity factor of approximately 94.5 percent.

As noted elsewhere in this Ten-Year Site Plan, all of the electricity sales from the Calpine Projects will be made at wholesale to Seminole, FPC and other utilities. Thus, Schedules 2.1 and 2.2, which require data for retail power sales, are not applicable. Schedule 2.3 presents the total forecasted number of wholesale customers and sales for resale. Schedules 3.1, 3.2, and 3.3 present total forecasted summer peak demand, winter peak demand, and net energy for load for the Auburndale Power Project, Osprey Project, Auburndale Peaker Project, Blue Heron Project,

and the Santa Rosa Project. Because of the Calpine Projects' high efficiency and low-cost position, in the overall supply stack for Florida, Calpine anticipates that the electricity sales from the Osprey Project, Auburndale Peaker Project, Blue Heron Project, and Santa Rosa Project at the times of the summer and winter peaks (both the system peak experienced by Calpine and the State of Florida coincident system peak), will be at the respective Projects' full rated output, i.e., 496 MW at the time of the summer peak and 578 MW at the time of the winter peak for the Osprey Project, 115 MW at time of the summer peak and 134 MW at the time of the winter peak for the Auburndale Peaker Project, 992 MW at the time of the summer peak and 1,156 MW at the time of the winter peak for the Blue Heron Project, and 223 MW at time of the summer peak and 249 MW at the time of the winter peak for the Santa Rosa Project. (These projections do not include the additional output that may be available from duct-firing and power augmentation.)

Schedule 4 is not applicable to Calpine because it calls for retail sales and peak demand data. Schedules 5, 6.1, and 6.2 present information regarding fuel requirements and energy sources for Calpine. Schedules 7.1 and 7.2 present information regarding forecasts of capacity, demand, and scheduled maintenance at the time of summer and winter peaks. Due to their high efficiency and relative low-cost position within the available generation resources in Florida, Calpine expects that in both summer and winter peak conditions, all of the capacity of

the Calpine Projects will be committed on a firm basis to other Florida utilities, even if only on a week-ahead, day-ahead, or hourly basis. Accordingly, Calpine forecasts that its firm summer and winter coincident peak demands will be the sum of the full rated outputs of the Calpine Projects, for each respective season.

CHAPTER 4

FORECASTING METHODS AND PROCEDURES

Analyses of the projected operations of the Osprey Energy Center and the Blue Heron Energy Center were prepared using the PROMOD IV® computer model. PROMOD IV® is a probabilistic model that simulates the operations of electric power systems. PROMOD IV® is primarily used as a production costing model and can also be used to evaluate electric system reliability. It can be used to prepare utility fuel budget forecasts, evaluate the economics and operations of proposed capacity additions, project utility operating costs, estimate the prices of firm power and energy in defined markets, project hourly marginal energy costs, and calculate avoided energy and capacity costs.

The inputs to PROMOD IV® include generating unit data for existing and planned power plants in a defined power supply system, fuel consumption and fuel cost data, load and other utility system data, and data regarding transactions within the system. The primary outputs are individual utility or system production costs, generation by unit, fuel usage, and reliability information. PROMOD IV® utilizes computationally efficient algorithms that yield results identical to those that would be produced with direct specification of values for all availability states of all units in a power supply system.

CHAPTER 5

FORECAST OF FACILITIES, REQUIREMENTS

Schedules 7.1 and 7.2 present information regarding forecasts of capacity, demand, and scheduled maintenance at the time of summer and winter peaks. Because of their high efficiency and relatively low-cost position within the available generation resources in Florida, Calpine expects that in both summer and winter peak conditions, all of the capacity of the Calpine Projects will be committed on a firm basis to Seminole, FPC, and other Florida utilities (and, from the Santa Rosa Project, to Gulf Power or its sister companies in the Southern Company system). Accordingly, Calpine projects that its firm summer and winter peak demands will in fact be the full rated output of the Calpine Projects for each respective season. Calpine believes that this will be representative of the coincident peak seasonal demands imposed on the Calpine Projects at the time of the State of Florida summer and winter coincident peaks. Schedule 8 presents information regarding planned and prospective generating facility additions and changes.

I. Osprey Energy Center

The Osprey Energy Center will be a natural gas-fired, combined cycle electrical power plant located in the City of Auburndale, Polk County, Florida. Expected to achieve commercial in-service status in the second quarter of 2004, the Osprey Energy Center will supply capacity and associated energy for sale, at wholesale, to Seminole and, in the event that Seminole

does not elect to exercise its rights under the Calpine-Seminole PPA to purchase all of the Osprey Project's output at certain times, to other Peninsular Florida utilities.

A. Description of the Osprey Energy Center

The Osprey Energy Center will be a natural gas-fired, combined cycle electrical power plant. The Osprey Project will consist of two advanced technology Siemens-Westinghouse Model 501F combustion turbine generators ("CTGs") with the capability to use power augmentation to increase the CTGs' power output, two matched heat recovery steam generators ("HRSGs") that include duct-firing capability, and one steam turbine generator rated for the full steam production capacity of the HRSGs. The Osprey Project will have a heat rate of approximately 6,800 Btu per kWh at average ambient conditions based on the Higher Heating Value ("HHV") of natural gas. The Osprey Project's process and make-up water to the cooling towers will be supplied by reclaimed water from the City of Auburndale and on-site groundwater wells.

Calpine's current projections indicate that the Osprey Project will operate approximately 8,275 hours per year, with projected generation of approximately 4,300,000 MWH per year, all of which will be sold at wholesale to Seminole and possibly to other Florida utilities.

B. Osprey Energy Center Site and Location

The Osprey Energy Center site ("Osprey Site") is located in the City of Auburndale, Polk County, Florida. (See Figure 2.) The Osprey Site consists of approximately 19.5 acres situated

approximately 1.5 miles south of downtown Auburndale. The Osprey Site was formerly a citrus grove and was unused until construction of the Osprey Project began. Land uses adjacent to the Osprey Site include the Tampa Electric Company ("TECO") Recker Substation and existing TECO 230 kV transmission line; the existing Auburndale Power Plant, a 150 MW cogeneration plant; the existing Auburndale Peaker Energy Center, a 120 MW combustion turbine power plant; the Auburndale Memorial Park cemetery; commercial and industrial businesses; and two small residential enclaves. (See Figure 3.) The Osprey Project is consistent with the City of Auburndale's zoning category and comprehensive plan future land use designation applicable to utility uses.

**C. Osprey Energy Center Directly Associated
Transmission Facilities**

The Osprey Energy Center will be electrically interconnected to the Peninsular Florida transmission grid at the TECO Recker Substation and associated 230 kV transmission line located adjacent to the southeast boundary of the Osprey Site. (See Figure 1.) Transmission system impact studies prepared for Calpine included load flow analyses, short circuit studies, and transient stability studies. The transmission system impact studies indicate that under normal operating conditions, i.e., with all facilities in service, the Osprey Project will not materially burden the transmission system or violate any transmission constraints. Transmission system upgrades required to accommodate the delivery of the Osprey Project's output on a firm basis at all times will be paid for by Calpine pursuant to

TECO's open access transmission tariff.

D. Osprey Energy Center Gas Supply Arrangements and Facilities

Natural gas will be provided to the Osprey Project via firm transportation service through the Gulfstream pipeline, which became operational in May 2002. Gas will be supplied via a 16-inch lateral diameter pipeline that will connect the Osprey Project to the main Gulfstream pipeline. Natural gas transportation service will be provided pursuant to a Precedent Agreement between Calpine and Gulfstream. Pursuant to the Precedent Agreement, Gulfstream has committed to provide firm gas transportation service to operate the Osprey Project for a term of 20 years with renewal provisions beyond the initial term.

E. Osprey Energy Center Water Supply Arrangements and Associated Facilities

Reclaimed water will be provided to the Osprey Project from the City of Auburndale's Allred Municipal Wastewater Treatment Plant. Reclaimed water pipelines will be required by the Osprey Project to intertie with the City of Auburndale's wastewater treatment facilities. The pipelines to the Allred Municipal Wastewater Treatment Plant will be approximately one mile in length and will be constructed in existing public right-of-way. Additionally, other minor pipeline modifications will be made to enhance discharge capability. The water and wastewater pipelines will be permitted and constructed separately by the City of Auburndale and paid for by Calpine.

F. Osprey Energy Center Regulatory and Permitting Schedules

Calpine filed a complete site certification application ("SCA") for the Osprey Energy Center with the Florida Department of Environmental Protection ("DEP"). The Florida Public Service Commission granted its affirmative determination of need for the Osprey Energy Center by its Order No. 01-0421-FOF-EC, issued on February 21, 2001. The land use hearing was held in January 2001, and the Siting Board approved the Land Use Order on April 24, 2001. The site certification hearing was held on April 17, 2001 and a site certification Recommended Order was issued by the Administrative Law Judge on May 23, 2001. On June 27, 2001 the Siting Board issued its final order certifying the Osprey Energy Center.

G. Status of Power Purchase Agreement Between Calpine and Seminole Electric Cooperative, Inc.

Pursuant to the Commission's Order No. PSC-01-0421-FOF-EC, by which the Commission determined need for the Osprey Project, Calpine makes the following report with respect to the Project and the Calpine-Seminole PPA. The Project is under construction with a currently anticipated commercial in-service date in the second quarter of 2004. Effective June 1, 2004, Seminole will begin buying 350 MW of committed firm capacity and associated energy from the Osprey Project. Also pursuant to the PPA, Seminole will have the opportunity to buy up to the full uncommitted capacity of the Osprey project from the Project's commercial in-service date through May 31, 2009. The PPA also

contains renewal and reopener provisions by which Seminole may purchase up to the full output of the Osprey Project from June 1, 2009 through May 22, 2020. (This ultimate expiration date was agreed upon by Seminole and Calpine because May 22, 2020, is the date on which Seminole's master agreement with its ten member electric distribution cooperatives expires.) Calpine and Seminole have been performing, and continue to perform, their obligations under the PPA.

III. Blue Heron Energy Center

The Blue Heron Energy Center will be a natural gas-fired, combined cycle electrical power plant located west of Vero Beach in Indian River County. Expected to achieve commercial in-service status in late 2005, the Blue Heron Project will supply capacity and energy at wholesale to Peninsular Florida load-serving utilities.

A. Description of Blue Heron Energy Center

The Blue Heron Energy Center will be a natural gas-fired, combined cycle electrical power plant. The Blue Heron Project will consist of four advanced technology Siemens-Westinghouse Model 501F combustion turbine generators with the capability to use power augmentation to increase the CTGs' power output, four matched HRSGs that include duct-firing capability, and two steam turbine generators rated for the full steam production capacity of the HRSGs. The Blue Heron Project is anticipated to have a heat rate of approximately 6,800 Btu per kWh at average ambient conditions based on the HHV of natural gas. The Blue Heron

Project's process and make-up water to the cooling towers will be supplied primarily from the Indian River Farms Water Control District canal system; water from the Indian River County reclaimed water system may also be used as a supplemental source of cooling water on an as-available basis.

Calpine's current projections indicate that the Blue Heron Project will operate approximately 8,275 hours per year, with projected generation of approximately 8,600,000 MWH per year, all of which will be sold at wholesale to other Peninsular Florida utilities.

B. Blue Heron Energy Center Site and Location

The Blue Heron Project site ("Blue Heron Site") is located west of the City of Vero Beach in Indian River County, Florida. (See Figure 4.) The Blue Heron Site consists of approximately 47 acres situated approximately 4.5 miles southwest of Vero Beach, east of Interstate 95. The Blue Heron Site is primarily undeveloped and is currently unused. Land uses adjacent to the Blue Heron Site include the OceanSpray spray field, Interstate 95, agricultural uses, a correctional institution, a landfill and low density residential areas. (See Figure 5.) The Blue Heron Project is consistent with the Indian River County zoning category and comprehensive plan future land use designation applicable to utility uses.

**C. Blue Heron Energy Center Directly Associated
Transmission Facilities**

The Blue Heron Project is planned to be electrically tied to the Peninsular Florida transmission grid by interconnecting to

two of Florida Power & Light Company's ("FPL") 230 kV transmission lines, specifically those running from Malabar to Midway and from Malabar to Emerson. Interconnection and system impact studies have been completed, and an Interconnection and Operations Agreement ("IOA") between FPL and Calpine has been executed and is in place. The IOA addresses those upgrades of transmission facilities that will be required to accommodate power deliveries from the Blue Heron Project to other utilities in Peninsular Florida. The identified upgrades will be paid for by Calpine pursuant to FPL's open access transmission tariff as identified in the IOA.

D. Blue Heron Energy Center Gas Supply Arrangements and Facilities

Calpine expects natural gas transportation service to be provided to the Blue Heron Project by Gulfstream. Physically, gas will be supplied through an approximately 15-mile, 16-inch lateral pipeline to be constructed by Gulfstream that will connect the Blue Heron Project to the main Gulfstream pipeline.

E. Blue Heron Energy Center Water Supply Arrangements and Associated Facilities

Plant make-up water for the cooling tower and process water requirements, as well as wastewater generation have been estimated. The Blue Heron Project's source of process and makeup water to the cooling towers will be excess surface water from the canal system of the Indian River Farms Water Control District. Water from the Indian River County reclaimed water system may also be used as a supplemental source of cooling water on an as-

available basis. The Project will utilize wet cooling towers and will feature a zero liquid discharge system that will ensure that no liquids from the plant's operations will be discharged into the watercourses of Florida. Water pipelines will be required by the Blue Heron Project to interconnect with the Indian River Farms Water Control District and with Indian River County stormwater/reclaimed water sources. The design of the interconnection locations and facilities is currently under way. There will not be any on-site wells.

F. Blue Heron Energy Center Regulatory and Permitting Schedules

Calpine filed the site certification application ("SCA") for the Blue Heron Project in October 2000. The land use hearing was held on February 6, 2002, and the Administrative Law Judge issued a Land Use Recommended Order on March 5, 2002. A site certification hearing is anticipated in 2003. However, pending the execution of letters of intent or agreements for the sale of the Blue Heron Project's output to other Peninsular Florida utilities, Calpine has not yet filed its petition for determination of need for the Blue Heron Project.

III. Santa Rosa Energy Center

The Santa Rosa Energy Center will be a natural gas-fired facility located within the boundary of the Sterling Fiber Chemical Plant in Santa Rosa County, Florida. Expected to achieve commercial in-service status in the third quarter of 2003, the Santa Rosa Project will supply the process steam requirements of the adjacent thermal host, and provide capacity

and energy at wholesale to Florida load-serving utilities.

A. Description of Santa Rosa Energy Center

The Santa Rosa Energy Center will be a natural gas-fired, combined cycle cogeneration power plant. The Santa Rosa Project will consist of one advanced technology GE Model 7FA combustion turbine generator having a nominal capacity of 167 MW with a supplementary-fired heat recovery steam generator capable of raising sufficient steam to generate another 74 MW for a GE steam turbine generator and to meet the process steam requirements of the adjacent thermal host.

Calpine's current projections indicate that the Santa Rosa Project is projected to operate approximately 6,000 hours per year after achieving commercial in-service status, all of which will be sold at wholesale to other Florida utilities.

B. Santa Rosa Energy Center Site and Location

The Santa Rosa Energy Center site ("Santa Rosa Site") consists of approximately 11 acres located within the boundary of the Sterling Fiber Chemical Plant in Santa Rosa County, Florida. (See Figure 7.) The Santa Rosa Project has been planned and designed to be consistent with Santa Rosa County's zoning category and comprehensive plan future land use designation applicable to utility and industrial uses.

**C. Santa Rosa Energy Center Directly Associated
Transmission Facilities**

The Santa Rosa Energy Center will be electrically interconnected to the State of Florida transmission grid at Gulf

Power Company's Alligator Swamp Substation through an existing eight mile radial loop 230 kV transmission line connecting the Sterling Fiber Chemical Plant transmission substation. (See Figure 8.) An Interconnect Agreement between Calpine and the Southern Company is in place.

D. Santa Rosa Energy Center Gas Supply Arrangements and Facilities

Natural gas will be provided to the Santa Rosa Site through the Gulf South Company ("Gulf South") pipeline. Natural gas transportation service will be provided pursuant to a Transport Agreement between Calpine and Gulf South. Pursuant to the Transport Agreement, Gulf South has committed to provide firm gas transportation service to operate the Santa Rosa Project for a term of 20 years with renewal provisions beyond the initial term.

E. Santa Rosa Energy Center Water Supply Arrangements and Associated Facilities

Plant make-up water for the cooling tower and process water requirements will be provided to the Santa Rosa Project from on-site wells pursuant to an agreement between the Sterling Fiber Chemical Plant, the thermal host, and the Santa Rosa Energy Center.

F. Santa Rosa Energy Center Regulatory and Permitting Schedules

The Florida Department of Environmental Protection issued the air construction (PSD) permit for the Project on December 4, 1998.

IV. Potential Sites

A. Southwest Florida Site

Based upon its projected future resource needs, Calpine has identified an additional potential site in Southwest Florida for the Sandpiper Energy Center, a nominal 540 MW natural gas-fired combined cycle generating unit. Calpine projects that the Sandpiper Project will make only wholesale sales of power directly to, or for use by, Peninsular Florida retail-serving utilities.

The Sandpiper Energy Center site was identified due to its close proximity to a major load center and transmission resources. The Sandpiper Project site is primarily agricultural. Due to the confidential nature of the Project site, Calpine is unable to disclose the location of the Project at this time. However, general information relating to the Sandpiper Project may be disclosed at this time.

The power plant will consist of two Siemens-Westinghouse Model 501F advanced technology dry, low-NO_x combustion turbine generators with the capability to use steam for power augmentation to increase the CTGs' power output, two matched heat recovery steam generators that may include duct-firing capability, and one steam turbine generator. The combustion turbines are extremely efficient and extremely reliable. In addition, the gas-fired combined cycle technology is exceptionally clean and will contribute to improving the overall environmental profile of electricity generation in Florida.

CHAPTER 6

OTHER PLANNING ASSUMPTIONS AND INFORMATION

This chapter addresses the twelve discussion items identified as other planning assumptions and information in Form FPSC/EAG 43.

Modeling Transmission Constraints

Transmission constraints and contingencies for the Osprey Energy Center were modeled using the General Electric MAPPS transmission system modeling software. The transmission system impact study for the Osprey Project included load flow analyses, transient stability analyses, and short circuit analyses. The transmission system impact studies indicate that, with certain planned upgrades of transmission facilities, the existing Peninsular Florida transmission grid will accommodate the delivery of the Osprey Project's net output to Seminole for use in Peninsular Florida. The studies also indicate that, under normal operating conditions, that is, with all facilities in service, the Osprey Project will not materially burden the transmission system or violate any transmission constraints or contingencies in Peninsular Florida. The actual transmission upgrades required to accommodate firm delivery of the Osprey Project's output at all times have been determined in accordance with TECO's open access transmission tariff. Pursuant to Calpine's request and TECO's tariff, TECO issued the Transmission Service Request Facilities Study report on August 31, 2000.

The contingency lists for both the power flow and stability analyses were developed in compliance with the FRCC Planning

Principles and Guides, dated September 25, 1996. The primary data for the transmission system impact study were obtained from the FRCC 1999 series summer and winter power flow cases for the year 2003, which were downloaded from the FERC Form 715 data site.

With respect to the Blue Heron Project, Calpine has entered into an Interconnection and Operations Agreement with FPL. The actual upgrades required to interconnect the Blue Heron Energy Center have been determined pursuant to FPL's open access transmission tariff.

Analysis of Overall Project Economics

Calpine's Ten-Year Site Plan provides for the construction and operation of the Osprey Energy Center, Blue Heron Energy Center, and Santa Rosa Energy Center as well as consideration of the potential Southwest Florida site. At this time, the overall economics of the Osprey Project and Blue Heron Project have been evaluated by estimating how much energy the Projects will generate within the Peninsular Florida power supply system based on economic dispatch modeling using the PROMOD IV® computer model. Because the Osprey Project and Blue Heron Project are significantly cost-effective, both operationally and in terms of the Projects' installed cost, no sensitivity cases with respect to variations in the load forecast were analyzed for this Ten-Year Site Plan.

Derivation of Base Case Fuel Price Forecast

The projected operations of the Osprey Project, Auburndale Peaker Project, Blue Heron Project, and Santa Rosa Project reported in this Ten-Year Site Plan were based on representative fuel prices

paid historically for electric fuels in Florida.

Sensitivity Analyses of Fuel Price Differentials

One sensitivity analysis of the Osprey Project's and Blue Heron Project's operations was prepared using a high natural gas price forecast. The results of this sensitivity indicated slightly lower capacity factors for the Osprey and Blue Heron Projects but slightly greater reductions in Peninsular Florida wholesale power supply costs resulting from those Projects' more efficient operations within the Peninsular Florida power supply system.

Generating Unit Performance Modeling

Performance of both the Osprey Project and the Blue Heron Project was modeled at an estimated equivalent availability factor of approximately 94.5 percent. Both Projects were modeled with a forced outage rate of approximately 2.0 percent and a maintenance outage rate of approximately 3.5 percent on an annual average basis. The Osprey and Blue Heron Projects were modeled as part of an integrated least-cost dispatch of the Peninsular Florida power supply system using the PROMOD IV® model. These analyses yielded projected capacity factors of approximately 92% to 95% for each Project over the 2003-2012 analysis period.

Financial Assumptions

The financial analyses prepared using the PROMOD IV® model assumed a total installed project cost of \$333 per kilowatt for both the Osprey Project and the Blue Heron Project.

Integrated Resource Planning Process

Calpine generally considered all, reasonably feasible and available supply-side alternatives in selecting the generation technology for the Osprey Project. Several technologies, such as waste-to-energy, were eliminated from consideration because they are not cost-effective. Screening analyses were prepared for the following technologies: gas-fired and oil-fired combustion turbines, gas-fired and oil-fired combined cycle units, gas-fired steam generation units, integrated coal gasification combined cycle units, and conventional pulverized coal-fired steam units, nuclear units, and renewable energy. These screening analyses are applicable to all of the Calpine Projects.

Generation and Transmission Reliability Criteria

Calpine selected natural gas-fired combined cycle generating technology for the Osprey, Blue Heron, and Santa Rosa Projects on the basis of their overall efficiency and reliability. Calpine plans to operate its plants to maximize their availability for supplying power into the Florida wholesale power market. Calpine did not apply a specific minimum availability criterion to its selection of the generation technology.

Durability of Demand Side Management Program Energy Savings

This item is not applicable to Calpine because as a wholesale-only utility, Calpine does not engage directly in end-use demand side management programs.

Strategic Concerns

Calpine considered relevant strategic factors in evaluating

alternatives for the Calpine Projects. Among other factors, Calpine considered that:

1. the Osprey, Blue Heron, and Santa Rosa Projects will be fueled by domestically produced natural gas, which is not subject to interruption due to political or other events;
2. the Osprey, Blue Heron, and Santa Rosa Projects' use of natural gas and advanced emissions control technology will protect Florida's environment while reducing Calpine's exposure to possible future changes in environmental regulations; and
3. the Osprey, Blue Heron, and Santa Rosa Projects' high efficiencies will ensure their long-term viability.

Procurement Process for Supply-Side Resources

Calpine evaluated various gas-fired combined cycle generators based on generally available industry information. At this time, Calpine plans to utilize Siemens-Westinghouse Model 501F combustion turbines for the Calpine Osprey and Blue Heron Projects, and a GE Model 7FA combustion turbine and GE steam turbine for the Santa Rosa Project. All of the major equipment (i.e., the combustion turbine generators, the heat recovery steam generators, and the steam turbine generators) for the Osprey Project and the Santa Rosa Project have been purchased and are installed. The combustion turbines have been secured for the Blue Heron Project by deposit. Full release of these combustion turbines has already occurred and these components are in a delivery queue. Full release of the heat recovery steam

generators and the steam turbine generators for the Blue Heron Project will be issued before construction begins.

Transmission Construction and Upgrade Plans

Calpine's power plant construction plans do not require the construction or upgrade of any electric utility system transmission lines that would require certification under the Transmission Line Siting Act.

CHAPTER 7

ENVIRONMENTAL AND LAND USE INFORMATION

This chapter provides brief descriptions of the Calpine Projects as well as discussions of respective land and environmental features, water supply, and projected air and noise emissions information.

I. Osprey Energy Center

A. Site Description

The Osprey Project Site is located in the City of Auburndale, Polk County, Florida. (See Figure 2.) The Osprey Site consists of approximately 19.5 acres situated approximately 1.5 miles southwest of downtown Auburndale. Access to the Osprey Project Site will be from Derby Avenue, a two-lane county collector road that runs along the north boundary of the Osprey Site.

B. Land and Environmental Features

The Osprey Site was a non-producing citrus grove which was unused. There are no sensitive natural resources, scenic or cultural lands, or archaeological or historic resources on the site. There are no sensitive human receptors, such as hospitals, near the Osprey Site. Land uses adjacent to the Osprey Site include the TECO Recker Substation and 230 kV transmission line, the existing 150 MW Auburndale Power Plant, two small residential enclaves, a cemetery, and commercial and industrial operations, as shown in Figure 3. The Osprey Site was selected because it has no environmentally sensitive features (e.g., wetlands or

surface water bodies), because it is adjacent to existing, required infrastructure (e.g., access, road, natural gas and water pipelines, substation and transmission lines), and because it is predominantly surrounded by commercial and industrial development and non-residential uses. Further, the Osprey Site's terrain is favorable for power plant siting and is of sufficient size to accommodate the Osprey Project. Locating the Osprey Project at the proposed site takes advantage of the existing adjacent electrical infrastructure (TECO's Recker Substation) and nearby reclaimed water supply and wastewater disposal facilities (Auburndale's Allred Wastewater Treatment Plant). Development of this land minimizes potential environmental impacts that might otherwise be associated with the construction of a power plant at a previously undeveloped site. On a MW per acre basis, the Osprey Project maximizes the land use while simultaneously minimizing environmental impacts.

C. Water Supply

Plant make-up water for the cooling tower and process water requirements, as well as wastewater generation, have been estimated. The Osprey Project will utilize a combination of reclaimed water and well water for its supply. Over time, Calpine will utilize any additional reclaimed water that becomes available, and will correspondingly reduce the use of groundwater for the Osprey Project's make-up and process water requirements. Reclaimed water will be supplied from the City of Auburndale's Allred Wastewater Treatment Plant. Reclaimed water pipelines

will be required by the Osprey Project to intertie with the City of Auburndale wastewater treatment facilities. The pipeline from the Allred wastewater treatment facilities will be approximately one mile in length and will be constructed in existing public right-of-way. The reclaimed water supply pipeline will run along the north Recker Highway right-of-way to the Osprey Project Site boundary. A new discharge pipeline will be constructed in existing public right-of-way to connect the Osprey Project to the City's new regional sprayfield. The water and wastewater pipelines will be permitted and constructed separately by the City of Auburndale.

D. Air and Noise Emissions

With its state-of-the-art combined cycle technology and natural gas fuel, the Osprey Project is projected to have relatively low air emissions.

Calpine has obtained, and will operate the Osprey Project in compliance with, a valid and effective variance from the City of Auburndale's applicable noise ordinances.

II. Blue Heron Energy Center

A. Site Description

The Blue Heron Project is located southwest of the City of Vero Beach in Indian River County, Florida. (See Figure 4.) The site consists of approximately 47 acres situated approximately 4.5 miles southwest of Vero Beach and immediately east of Interstate 95. Access to the site will be from Range Line Road or 74th Avenue.

B. Land and Environmental Features

The Blue Heron Site is vacant, undeveloped property. There are no scenic or cultural lands, nor any archaeological or historic resources on the site. Vegetation on the Blue Heron Site consists of dry flatwoods dominated by slash pine. Gallberry and saw palmetto dominate the understory. Two small wetlands are located on the Blue Heron Site. A small herbaceous marsh is located on the central portion of the site and a larger shrub swamp is located on the northern portion. The Blue Heron Site is bordered on the north and east by drainage and irrigation canals. In addition to past logging activities on the Blue Heron Site, existing disturbances adjacent to the site include Interstate 95, which borders the west side of the site, and sprayfield operations to the east. The Blue Heron Project's construction and operation are not expected to impact any of the wetlands on the Blue Heron Site.

Wildlife on the Blue Heron Site consists of species typical for the south Florida flatwoods ecosystem. Only two listed species were observed on-site, the gopher tortoise and little blue heron, both common to the region. The Blue Heron Site does not represent unique habitat for any listed species.

Land uses adjacent to or near the Blue Heron Site include the OceanSpray wastewater spray field, Interstate 95, agricultural uses, a correctional institution, a landfill and low density residential areas. (See Figure 4.) The Blue Heron Site is adjacent to or near existing, required infrastructure (e.g.,

access roads and transmission lines), and is predominantly surrounded by industrial development and agricultural uses. Further, the terrain is favorable for power plant siting and is of sufficient size to accommodate the Blue Heron Project. On a MW per acre basis, the Blue Heron Project has been designed to minimize the amount of land used and simultaneously minimize the environmental impacts.

C. Water Supply

Plant make-up water for the cooling tower and process water requirements, as well as wastewater generation have been estimated. The Blue Heron Project's source of process and makeup water to the cooling towers will be excess surface water from the canal system of the Indian River Farms Water Control District. Water from the Indian River County reclaimed water system may also be used as a supplemental source of cooling water on an as-available basis. The Project will utilize wet cooling towers and will feature a zero liquid discharge system that will ensure that no liquids from the plant's operations will be discharged. Water pipelines will be required by the Blue Heron Project to interconnect with the Indian River Farms Water Control District, and may be required to connect with Indian River County reclaimed water sources. The design of the interconnection locations and facilities is currently under way. There will not be any on-site wells.

D. Air and Noise Emissions

With its state-of-the-art combined cycle technology and natural gas fuel, the Blue Heron Project is projected to have relatively low air emissions.

Based on the adjacent land uses, the Blue Heron Project is not expected to have a significant impact on the existing noise levels at the Blue Heron Site. The Blue Heron Project will be in compliance with all local noise ordinances.

IV. Santa Rosa Energy Center

A. Site Description

The Santa Rosa Project is located within the boundary of the Sterling Fiber Chemical Plant in Santa Rosa County, Florida. (See Figure 7.) The site consists of approximately 11 acres situated south of Pace, Florida. Access to the site will be from State Highway 281.

B. Land and Environmental Features

The Santa Rosa Site is developed property. There are no scenic or cultural lands, nor any archaeological or historic resources on the site. The Santa Rosa Project is located on the site of an existing chemical plant for which the Santa Rosa Project will meet the process steam requirements of the adjacent thermal host.

Land uses adjacent to or near the Santa Rosa Site include State Highway 90, agricultural uses, and the east shore of Escambia Bay. (See Figure 7.) The Santa Rosa Site is adjacent to or near existing, required infrastructure (e.g., access roads,

transmission substation and lines), and is predominantly surrounded by industrial development and agricultural uses. Further, the site of the existing Sterling Fiber Chemical Plant is of sufficient size to accommodate the Santa Rosa Project. On a MW per acre basis, the Santa Rosa Project has been designed to minimize the amount of land used and simultaneously minimize the environmental impacts.

C. Water Supply

Plant make-up water for the cooling tower and process water requirements, as well as wastewater generation have been estimated. Water requirements will be provided to the Santa Rosa Project from on-site wells pursuant to an agreement between the Sterling Fiber Chemical Plant, the thermal host, and the Santa Rosa Energy Center.

D. Air and Noise Emissions

With its state-of-the-art combined cycle technology and natural gas fuel, the Santa Rosa Project is projected to have relatively low air emissions.

Based on the adjacent land uses, the Santa Rosa Project is not expected to have a significant impact on the existing noise levels at the Sterling Fiber Chemical Plant site. The Santa Rosa Project will be in compliance with all local noise ordinances.

CALPINE CONSTRUCTION FINANCE COMPANY, L.P.

TEN-YEAR SITE PLAN, 2003-2012

SCHEDULES AND FIGURES

Calpine Construction Finance Company, L.P.
 Schedule 1
 Existing Generating Facilities
 As of December 31, 2002

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<u>Plant Name</u>	<u>Unit No.</u>	<u>Location</u>	<u>Unit Type</u>	<u>Pri</u>	<u>Fuel Alt</u>	<u>Fuel Pri</u>	<u>Transport Alt</u>	<u>Alt. Days Use</u>	<u>Commercial In-Service Month/Year</u>	<u>Expected Retirement Month/Year</u>	<u>Gen. Max. Nameplate KW</u>	<u>Net Capability Summer MW</u>	<u>Net Capability Winter MW</u>
Auburndale	1	Polk Co.	CC	NG	FO2	PL	TRK	8	8/1994	unknown	160	150	150
Auburndale Peaker	1	Polk Co.	CT	NG	--	PL	--	8	8/2002	unknown	135	115	134

Calpine Construction Finance Company, L.P.
Schedule 2.1
History and Forecast of Energy Consumption and
Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Year</u>	<u>Population</u>	<u>Members Per Household</u>	<u>GWH</u>	<u>Average No. of Customers</u>	<u>Average KWH Consumption Per Customer</u>	<u>GWH</u>	<u>Average Number of Customers</u>	<u>Average KWH Consumption Per Customer</u>
	<u>Rural and Residential</u>				<u>Commercial</u>			

Not Applicable

Calpine Construction Finance Company, L.P.
 Schedule 2.2
 History and Forecast of Energy Consumption and
 Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>Year</u>	<u>GWH</u>	<u>Industrial Average Number of Customers</u>	<u>Average KWH Consumption Per Customer</u>	<u>Railroads and Railways GWH</u>	<u>Street & Highway Lighting GWH</u>	<u>Other Sales to Public Authorities GWH</u>	<u>Total Sales to Ultimate Consumers GWH</u>

Not Applicable

Calpine Construction Finance Company, L.P.
Schedule 2.3
History and Forecast of Energy Consumption and
Number of Customers by Customer Class, 2002-2012

(1)	(2)	(3)	(4)	(5)	(6)
<u>Year</u>	Sales For Resale <u>GWH</u>	Utility Use & Losses <u>GWH</u>	Net Energy For Load <u>GWH</u>	Estimated Wholesale Customers <u>(Average No.)</u>	Total Estimated Number Of <u>Customers</u>
2002	1,295		1,295	3	3
2003	2,353		2,353	3	3
2004	6,159		6,159	7	7
2005	7,908		7,908	8	8
2006	15,942		15,942	8	8
2007	16,009		16,009	8	8
2008	15,771		15,771	8	8
2009	15,782		15,782	8	8
2010	16,007		16,007	8	8
2011	15,900		15,900	8	8
2012	15,991		15,991	8	8

Calpine Construction Finance Company, L.P.
Schedule 3.1
History and Forecast of Summer Peak Demand in MW

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Year</u>	<u>Total</u>	<u>Wholesale</u>	<u>Retail</u>	<u>Interruptible</u>	<u>Residential Load Management</u>	<u>Residential Conservation</u>	<u>Comm./Ind. Load Management</u>	<u>Comm./Ind. Conservation</u>	<u>Net Firm Demand</u>
2002	265	265	0	N/A	N/A	N/A	N/A	N/A	265
2003	488	488	0	N/A	N/A	N/A	N/A	N/A	488
2004	984	984	0	N/A	N/A	N/A	N/A	N/A	984
2005	984	984	0	N/A	N/A	N/A	N/A	N/A	984
2006	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976
2007	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976*
2008	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976
2009	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976
2010	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976
2011	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976
2012	1,976	1,976	0	N/A	N/A	N/A	N/A	N/A	1,976

Calpine Construction Finance Company, L.P.
 Schedule 3.2
 History and Forecast of Winter Peak Demand in MW

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Year</u>	<u>Total</u>	<u>Wholesale</u>	<u>Retail</u>	<u>Interruptible</u>	<u>Residential Load Management</u>	<u>Residential Conservation</u>	<u>Comm./Ind. Load Management</u>	<u>Comm./Ind. Conservation</u>	<u>Net Firm Demand</u>
2002/03	284	284	0	N/A	N/A	N/A	N/A	N/A	284
2003/04	533	533	0	N/A	N/A	N/A	N/A	N/A	533
2004/05	1,111	1,111	0	N/A	N/A	N/A	N/A	N/A	1,111
2005/06	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2006/07	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2007/08	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2008/09	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2009/10	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2010/11	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2011/12	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267
2012/13	2,267	2,267	0	N/A	N/A	N/A	N/A	N/A	2,267

Calpine Construction Finance Company, L.P.
 Schedule 3.3
 History and Forecast of Annual Net Energy for Load - GWH

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Year</u>	<u>Total</u>	<u>Residential Conservation</u>	<u>Comm./Ind. Conservation</u>	<u>Retail</u>	<u>Wholesale</u>	<u>Utility Use & Losses</u>	<u>Net Energy for Load *</u>	<u>Load ** Factor %</u>
2002	1,276	N/A	N/A	0	1,276		1,276	51.3
2003	2,353	N/A	N/A	0	2,353		2,353	50.4
2004	6,159	N/A	N/A	0	6,159		6,159	63.1
2005	7,908	N/A	N/A	0	7,908		7,908	39.8
2006	15,942	N/A	N/A	0	15,942		15,942	83.1
2007	16,009	N/A	N/A	0	16,009		16,009	83.4
2008	15,771	N/A	N/A	0	15,771		15,771	81.9
2009	15,782	N/A	N/A	0	15,782		15,782	82.2
2010	16,007	N/A	N/A	0	16,007		16,007	83.4
2011	15,900	N/A	N/A	0	15,900		15,900	82.8
2012	15,991	N/A	N/A	0	15,991		15,991	83.1

Notes:

* Net Energy for Load for is based on actual 3rd Quarter 2002 in-service for Auburndale Peaker Energy Center, a projected 3rd Quarter 2003 in-service for Santa Rosa Energy Center, a 2nd Quarter 2004 in-service for Osprey Energy Center, and a projected 4th Quarter 2005 in-service date for the Blue Heron Energy Center.

**Load Factor calculations are based on projected annual winter peak output of units in service.

Calpine Construction Finance Company, L.P.
Schedule 4
Previous Year and 2-Year Forecast of Retail Peak Demand
and Net Energy For Load by Month

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Month</u>	<u>Actual</u>		<u>Forecast</u>		<u>Forecast</u>	
	Peak Demand <u>MW</u>	NEL <u>GWH</u>	Peak Demand <u>MW</u>	NEL <u>GWH</u>	Peak Demand <u>MW</u>	NEL <u>GWH</u>
January	Not Applicable					
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						

Calpine Construction Finance Company, L.P.
Schedule 5
Fuel Requirements

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				<u>Actual</u>	<u>Actual</u>										
<u>Fuel Requirements</u>			<u>Units</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
(1)	Nuclear		Trillion BTU												
(2)	Coal		1000 Ton												
(3)	Residual	Total	1000 BBL												
(4)		Steam	1000 BBL												
(5)		CC	1000 BBL												
(6)		CT	1000 BBL												
(7)		Diesel	1000 BBL												
(8)	Distillate	Total	1000 BBL	33.03	11.56	11.60	11.60	11.60	11.60	11.60	11.60	11.60	11.60	11.60	11.60
(9)		Steam	1000 BBL												
(10)		CC	1000 BBL	33.03	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56
(11)		CT	1000 BBL			0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
(12)		Diesel	1000 BBL												
(13)	Natural Gas	Total	1000 MCF	8,396	9,106	15,583	44,007	56,537	110,924	110,924	110,924	110,924	110,924	110,924	110,924
(14)		Steam	1000 MCF												
(15)		CC	1000 MCF	8,396	8,485	14,807	42,455	54,984	109,371	109,371	109,371	109,371	109,371	109,371	109,371
(16)		CT	1000 MCF		621	776	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553
(17)	Other (Specify)		Trillion BTU												

Calpine Construction Finance Company, L.P.

Schedule 6.1

Energy Sources (Units)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
<u>Energy Sources</u>			<u>Units</u>	<u>Actual</u> <u>2001</u>	<u>Actual</u> <u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
(1)	Annual Firm Interchange		GWH												
(2)	Nuclear		GWH												
(3)	Residual	Total	GWH												
(4)		Steam	GWH												
(5)		CC	GWH												
(6)		CT	GWH												
(7)		Diesel	GWH												
(8)	Distillate	Total	GWH	23	8	38	38	38	38	38	38	38	38	38	38
(9)		Steam	GWH												
(10)		CC	GWH	23	8	8	8	8	8	8	8	8	8	8	8
(11)		CT	GWH			30	30	30	30	30	30	30	30	30	30
(12)		Diesel	GWH												
(13)	Natural Gas	Total	GWH	1,071	1,268	2,315	6,121	7,870	15,904	15,971	15,733	15,744	15,969	15,862	15,953
(14)		Steam	GWH												
(15)		CC	GWH	1,071	1,192	2,126	5,932	7,681	15,715	15,782	15,544	15,555	15,780	15,673	15,764
(16)		CT	GWH		76	189	189	189	189	189	189	189	189	189	189
(17)	Other (Specify)		GWH												
(18)	Net Energy for Load		GWH	1,094	1,276	2,353	6,159	7,908	15,942	16,009	15,771	15,782	16,007	15,900	15,991

Calpine Construction Finance Company, L.P.
Schedule 6.2
Energy Sources (Percent)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
<u>Energy Sources</u>			<u>Units</u>	<u>Actual</u>	<u>Actual</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
(1)	Annual Firm Interchange		%												
(2)	Nuclear		%												
(3)	Residual	Total	%												
(4)		Steam	%												
(5)		CC	%												
(6)		CT	%												
(7)		Diesel	%												
(8)	Distillate	Total	%	2.1	0.6	1.6	0.6	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2
(9)		Steam	%												
(10)		CC	%	2.1	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(11)		CT	%			1.3	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2
(12)		Diesel	%												
(13)	Natural Gas	Total	%	97.9	99.4	98.4	99.4	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8
(14)		Steam	%												
(15)		CC	%	97.9	93.5	90.4	96.3	97.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6
(16)		CT	%		6.0	8.0	3.1	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2
(17)	Other (Specify)		%												
(18)	Net Energy for Load		%	100	100	100	100	100	100	100	100	100	100	100	100

Calpine Construction Finance Company, L.P.

Schedule 7.1

Forecast of Capacity, Demand, and Scheduled Maintenance at Time of Summer Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Year	Total Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	QF MW	Total Capacity Available MW	System Firm Summer Peak Demand(1) MW	Reserve Margin before Maintenance MW	% of Peak	Scheduled Maintenance MW	Reserve Margin after Maintenance MW	% of Peak
2002	265	0	0	0	265	265	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2003	488	0	0	0	488	488	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2004	984	0	0	0	984	984	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2005	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2006	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2007	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2008	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2009	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2010	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2011	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2012	1,976	0	0	0	1,976	1,976	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)

Notes:

(1) As predominantly base load plants with low planned outage rates, Calpine expects to deliver the full rated output of the Calpine Projects at the time of summer peak.

Calpine Construction Finance Company, L.P.

Schedule 7.2

Forecast of Capacity, Demand, and Scheduled Maintenance at Time of Winter Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Year	Total Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	QF MW	Total Capacity Available MW	System Firm Winter Peak Demand(1) MW	Reserve Margin before Maintenance MW	Reserve Margin % of Peak	Scheduled Maintenance MW	Reserve Margin after Maintenance MW	Reserve Margin % of Peak
2002	284	0	0	0	284	284	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2003	533	0	0	0	533	533	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2004	1,111	0	0	0	1,111	1,111	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2005	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2006	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2007	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2008	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2009	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2010	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2011	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)
2012	2,267	0	0	0	2,267	2,267	N/A (1)	N/A (1)	0	N/A (1)	N/A (1)

Notes:

(1) As predominantly base load plants with low planned outage rates, Calpine expects to deliver the full rated output of the Calpine Projects at the time of winter peak.

Calpine Construction Finance Company, L.P.

Schedule 8

Planned and Prospective Generating Facility Additions and Changes

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Plant Name	Unit No.	Location	Unit Type	Fuel Pri	Alt	Fuel Transport Pri	Alt	Const. Start Date	Commercial In-Service Mo/Yr	Expected Retirement Mo/Yr	Gen. Max. Nameplate KW	Net Capability Summer MW	Winter MW	Status
Santa Rosa	1	Santa Rosa	CC	NG	N/A	PL	N/A	2Q/2000	3Q/2003	unknown	250,000	223	249	Testing
Osprey	1	Polk	CC	NG	N/A	PL	N/A	3Q/2001	2Q/2004	unknown	527,000	496	578	Under Const.
Blue Heron	1	Indian River	CC	NG	N/A	PL	N/A	4Q/2003	4Q/2005	unknown	1,054,000	992	1,156	Under Devel.
Sandpiper	1	Confidential	CC	NG	N/A	PL	N/A	-	-	-	527,000	496	578	Potential

**Calpine Construction Finance Company, L.P.
 Schedule 9 - Osprey Energy Center
 Status Report and Specifications of Proposed Generating Facilities**

(1) Plant Name and Unit Number	Osprey Energy Center
(2) Capacity	
a. Summer:	496 MW
b. Winter:	578 MW
(3) Technology Type:	Combined Cycle
(4) Anticipated Construction Timing	
a. Field construction start - date:	3rd Quarter 2001
b. Commercial in service - date:	2nd Quarter 2004
(5) Fuel	
a. Primary fuel:	Natural Gas
b. Alternate fuel:	N/A
(6) Air Pollution Control Strategy:	Dry Low-NOx Burners, Selective Catalytic Reduction (SCR) and Good Combustion Practices
(7) Cooling Method:	Wet Cooling Tower
(8) Total Site Area:	19.5 acres
(9) Construction Status:	Under Construction
(10) Certification Status:	Need Determination Order issued 2/2001; Land Use Order approved 4/2001; Site Certification Order issued 6/2001
(11) Status With Federal Agencies:	Calpine has obtained Market Based Rate Authority from the FERC
(12) Projected Unit Performance Data	
Planned Outage Factor (POF):	2.5%
Forced Outage Factor (FOF):	1.5%
Equivalent Availability Factor (EAF):	96.0%
Estimated Capacity Factor (%):	96.0%
Average Net Operating Heat Rate (ANOR):	6,800 BTU/kWH (HHV)
(13) Projected Unit Financial Data	
Book Life (Years):	30
Total Installed Cost (In-Service Year \$/kW):	N/A
Estimated Direct Construction Cost (\$/kW):	333/kW (Based on ISO Capacity)
AFUDC Amount (\$/kW):	N/A
Escalation (\$/kW):	N/A

**Calpine Construction Finance Company, L.P.
 Schedule 9 - Blue Heron Energy Center
 Status Report and Specifications of Proposed Generating Facilities**

(1)	Plant Name and Unit Number	Blue Heron Energy Center
(2)	Capacity	
	a. Summer:	992 MW
	b. Winter:	1,156 MW
(3)	Technology Type:	Combined Cycle
(4)	Anticipated Construction Timing	
	a. Field construction start - date:	4th Quarter 2003
	b. Commercial in service - date:	4th Quarter 2005
(5)	Fuel	
	a. Primary fuel:	Natural Gas
	b. Alternate fuel:	N/A
(6)	Air Pollution Control Strategy:	Dry Low-NOx Burners, Selective Catalytic Reduction (SCR) and Good Combustion Practices
(7)	Cooling Method:	Wet Cooling Tower
(8)	Total Site Area:	47 acres
(9)	Construction Status:	Planned
(10)	Certification Status:	Site Certification Application filed October 2000; Need Determination Petition targeted for 3rd Quarter 2003 Land Use Hearing held 1/2002; Recommended Land Use Order published by ALJ 3/5/2002
(11)	Status With Federal Agencies:	Calpine has obtained Market Based Rate Authority from the FERC
(12)	Projected Unit Performance Data	
	Planned Outage Factor (POF):	2.5%
	Forced Outage Factor (FOF):	1.5%
	Equivalent Availability Factor (EAF):	96.0%
	Estimated Capacity Factor (%):	96.0%
	Average Net Operating Heat Rate (ANOR):	6,800 BTU/kWH (HHV)
(13)	Projected Unit Financial Data	
	Book Life (Years):	30
	Total Installed Cost (In-Service Year \$/kW):	N/A
	Estimated Direct Construction Cost (\$/kW):	333/kW (Based on ISO Capacity)
	AFUDC Amount (\$/kW):	N/A
	Escalation (\$/kW):	N/A

**Calpine Construction Finance Company, L.P.
 Schedule 9 - Santa Rosa Energy Center*
 Status Report and Specifications of Proposed Generating Facilities**

(1)	Plant Name and Unit Number	Santa Rosa Energy Center
(2)	Capacity	
	a. Summer:	223 MW
	b. Winter:	249 MW
(3)	Technology Type:	Combined Cycle Cogeneration
(4)	Anticipated Construction Timing	
	a. Field construction start - date:	2nd Quarter 2000
	b. Commercial in service - date:	3rd Quarter 2003
(5)	Fuel	
	a. Primary fuel:	Natural Gas
	b. Alternate fuel:	N/A
(6)	Air Pollution Control Strategy:	Dry Low-NOx Burners, and Good Combustion Practices
(7)	Cooling Method:	Wet Cooling Tower
(8)	Total Site Area:	11 acres
(9)	Construction Status:	Construction Complete - in testing
(10)	Certification Status:	Permitted
(11)	Status With Federal Agencies:	PURPA Qualifying Facility; Calpine has obtained Market Based Rate Authority from the FERC
(12)	Projected Unit Performance Data	
	Planned Outage Factor (POF):	2.5%
	Forced Outage Factor (FOF):	1.5%
	Equivalent Availability Factor (EAF):	96.0%
	Estimated Capacity Factor (%):	96.0%
(13)	Projected Unit Financial Data	
	Book Life (Years):	30
	Total Installed Cost (In-Service Year \$/kW):	N/A
	Estimated Direct Construction Cost (\$/kW):	400/kW (Based on ISO Capacity)
	AFUDC Amount (\$/kW):	N/A
	Escalation (\$/kW):	N/A

* The Santa Rosa Energy Center is owned by Santa Rosa Energy, LLC, an affiliate of CCFC.

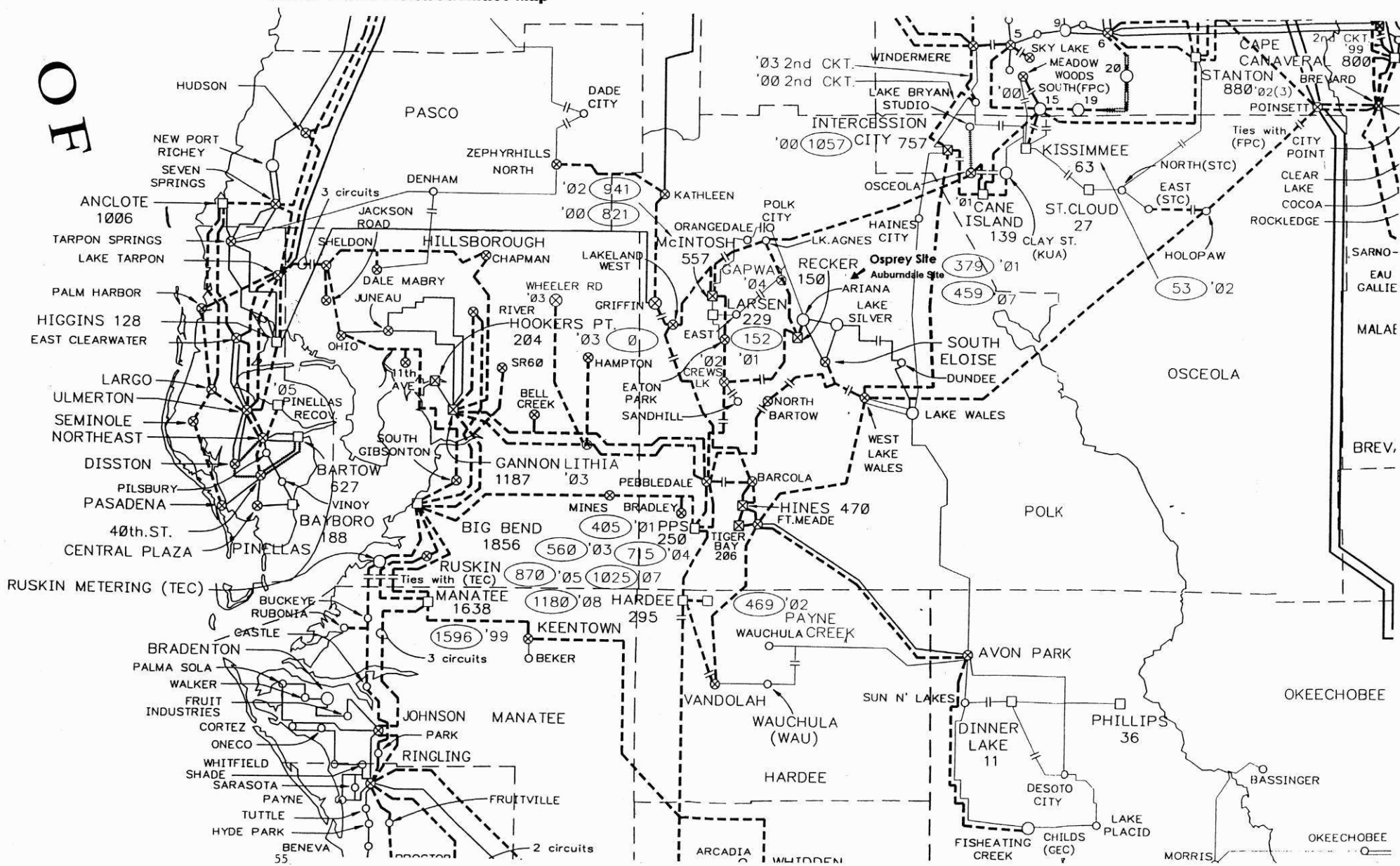
Calpine Construction Finance Company, L.P.
Schedule 10 - Osprey Energy Center
Status Report and Specifications of Proposed Directly Associated Transmission Lines

- (1) Point of Origin and Termination: N/A
- (2) Number of Lines: (Loop existing 230 kV line)
- (3) Right-of-Way: None required, all interconnection facilities will be located at the Project site.
- (4) Line Length: Approximately 1000 feet.
- (5) Voltage: 230 kV.
- (6) Anticipated Construction Time: 12 months.
- (7) Anticipated Capital Investment: \$2 million to \$3 million, depending on specific upgrade options selected.
- (8) Substations: System impact studies prepared for Calpine indicate that transmission line upgrades Recker to Ariana, and increased transformer capacity at the Ariana 230/69 kV station may be necessary, and advancing by one year the upgrade to the Recker to Lake Agnes in 2003.
- (9) Participation with Other Utilities: Possible participation with Tampa Electric to advance the upgrade of Lake Agnes.

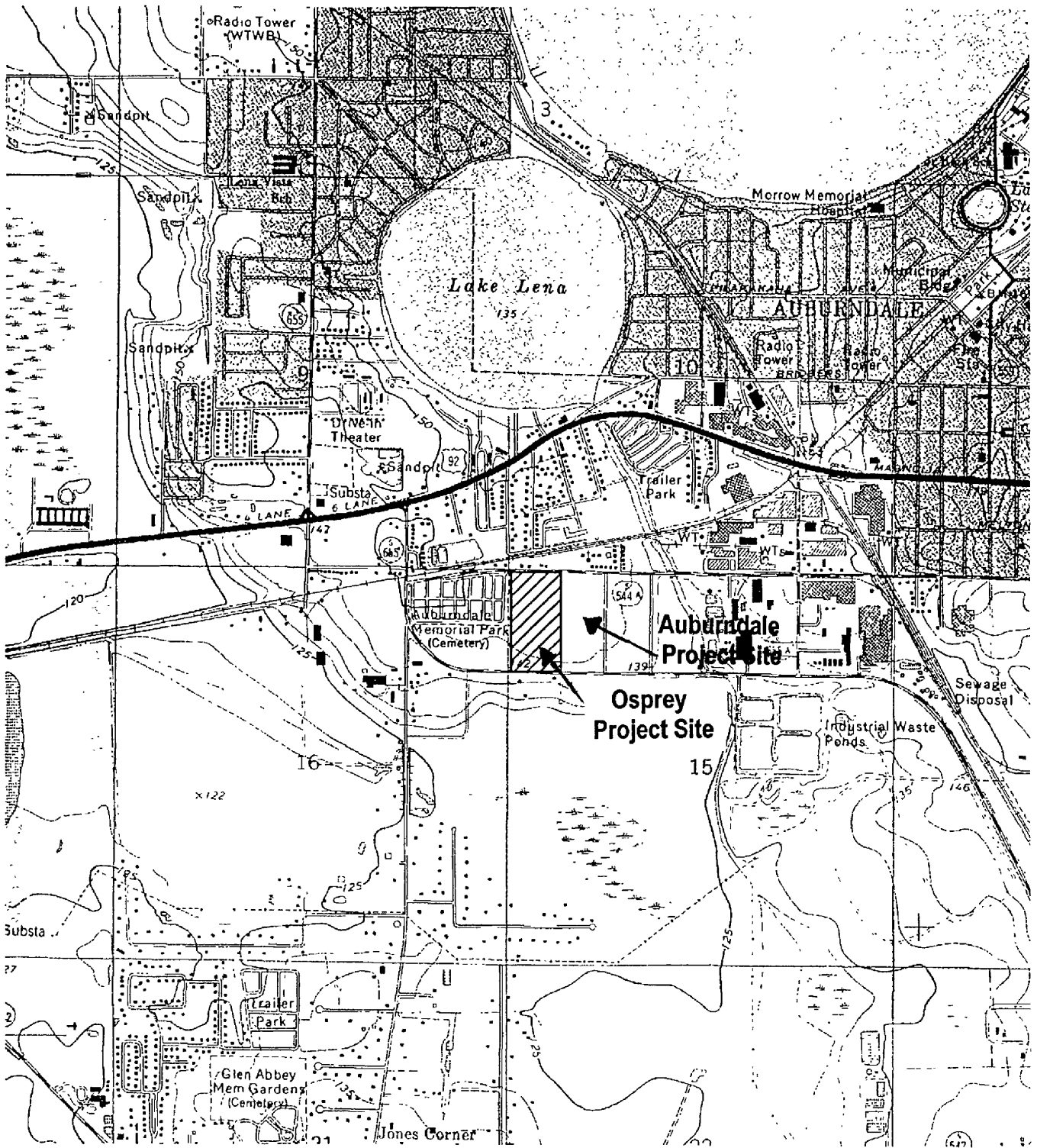
Calpine Construction Finance Company, L.P.
Schedule 10 - Blue Heron Energy Center
Status Report and Specifications of Proposed Directly Associated Transmission Lines

- (1) Point of Origin and Termination: N/A
- (2) Number of Lines: (Interconnection to adjacent existing 230 kV lines)
- (3) Right-of-Way: The interconnection facilities will be located on the Project site, which abuts Interstate Highway 95 in the public right-of-way associated with I-95 and in the right-of-way for FPL's existing 230 kV lines, the right-of-way for which is adjacent to I-95 on the west side of the highway.
- (4) Line Length: Less than 1000 feet.
- (5) Voltage: 230 kV.
- (6) Anticipated Construction Time: 12 months.
- (7) Anticipated Capital Investment: Approximately \$8 million to \$10 million, depending on specific upgrade options required.
- (8) Substations: New substation to be located at the Blue Heron Project Site; direct interconnect to 230 kV lines.
- (9) Participation with Other Utilities: The interconnection will be made pursuant to FPL's open access transmission tariff.

**Osprey Energy Center and
Auburndale Peaker Energy
Center Transmission Facilities Map**



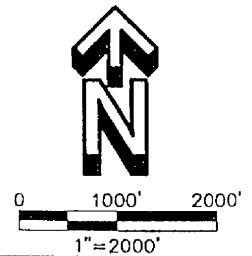
OF



LEGEND
 PROJECT SITE 

REFERENCE

USGS 7.5 Minute Topographical Quadrangle, Auburn, Florida

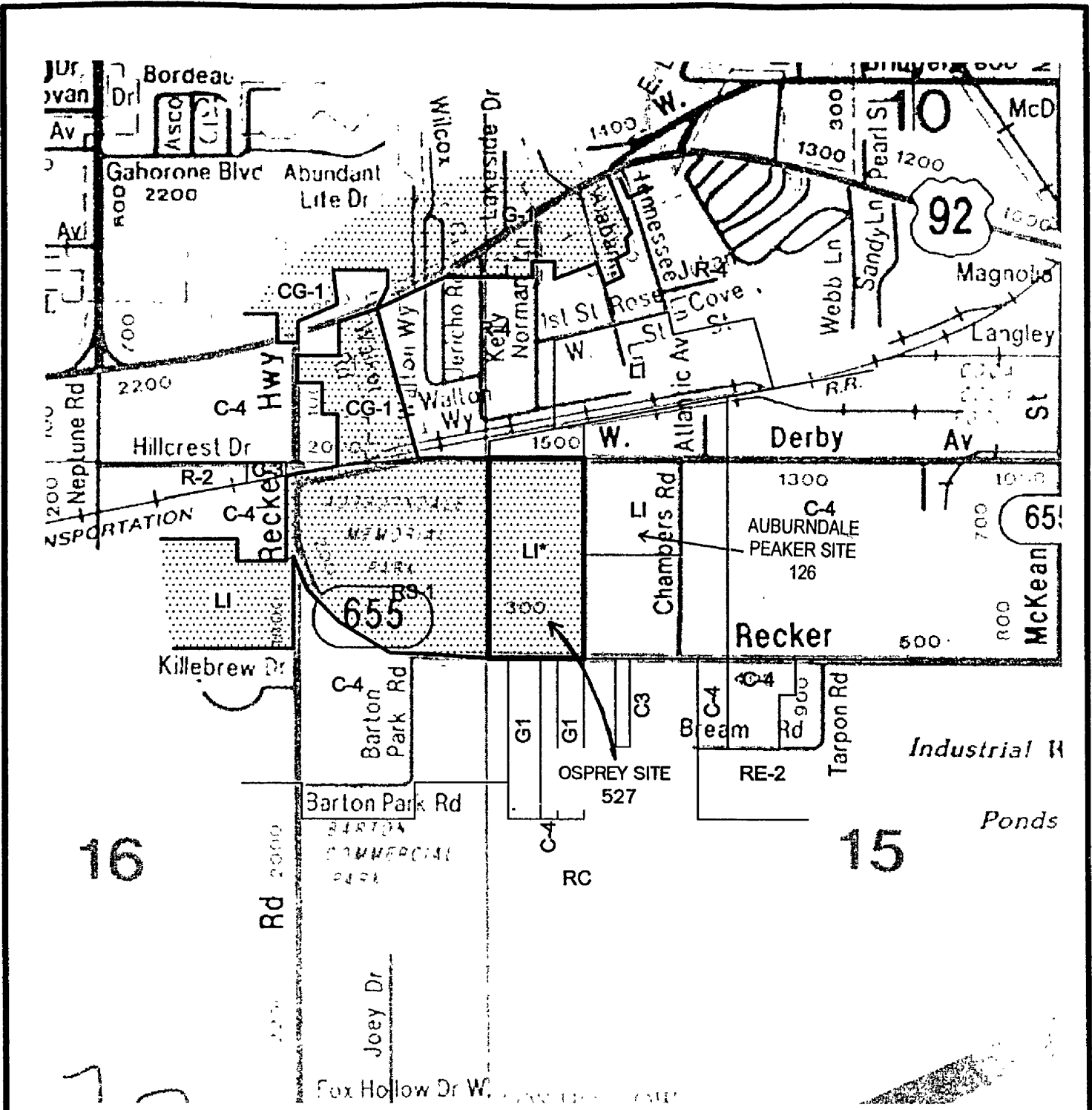


 **Golder Associates**
 Figure 2
 Tampa, Florida

Project Site Location

Client / Project
Osprey Energy Center & Auburndale Peaker Energy Center Site Location 56

CAD BY: CDT	SCALE: 1"=2000'	Job No. 993-9570
CHK BY: RAZ	DATE: 02/04/00	FIGURE
REV BY: -	FILE No.: fig1_3_2-2.dwg	



- Auburndale Zoning Districts**
- LI Light Industry
 - RS-1 Single Family Residential
 - G1 General Industrial

- Polk County Zoning Districts**
- C-3 Regional Commercial
 - C-4 Heavy Commercial
 - G1 General Industrial
 - R-4 Residential
 - RC Rural Conservation
 - RE-2 Rural Estates

REFERENCE

City of Auburndale Zoning Map
 Polk County Zoning Map, Feb., 2000

* Site has been annexed. Zoning designation is based on Auburndale District

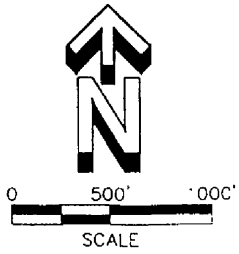


Figure 3
 Tampa, Florida

**Osprey Energy Center
 Site Location and Surroundings**

Client / Project
**Osprey Energy Center & Auburndale Peaker
 Energy Center Site Location and Surroundings** 57

CAD BY:	CDT	SCALE:	1"=1000'
CHK BY:	CA	DATE:	02/08/00
REV BY:	-	FILE No.:	fig2_2_2-2.dwg

Job No. 993-9570
 FIGURE

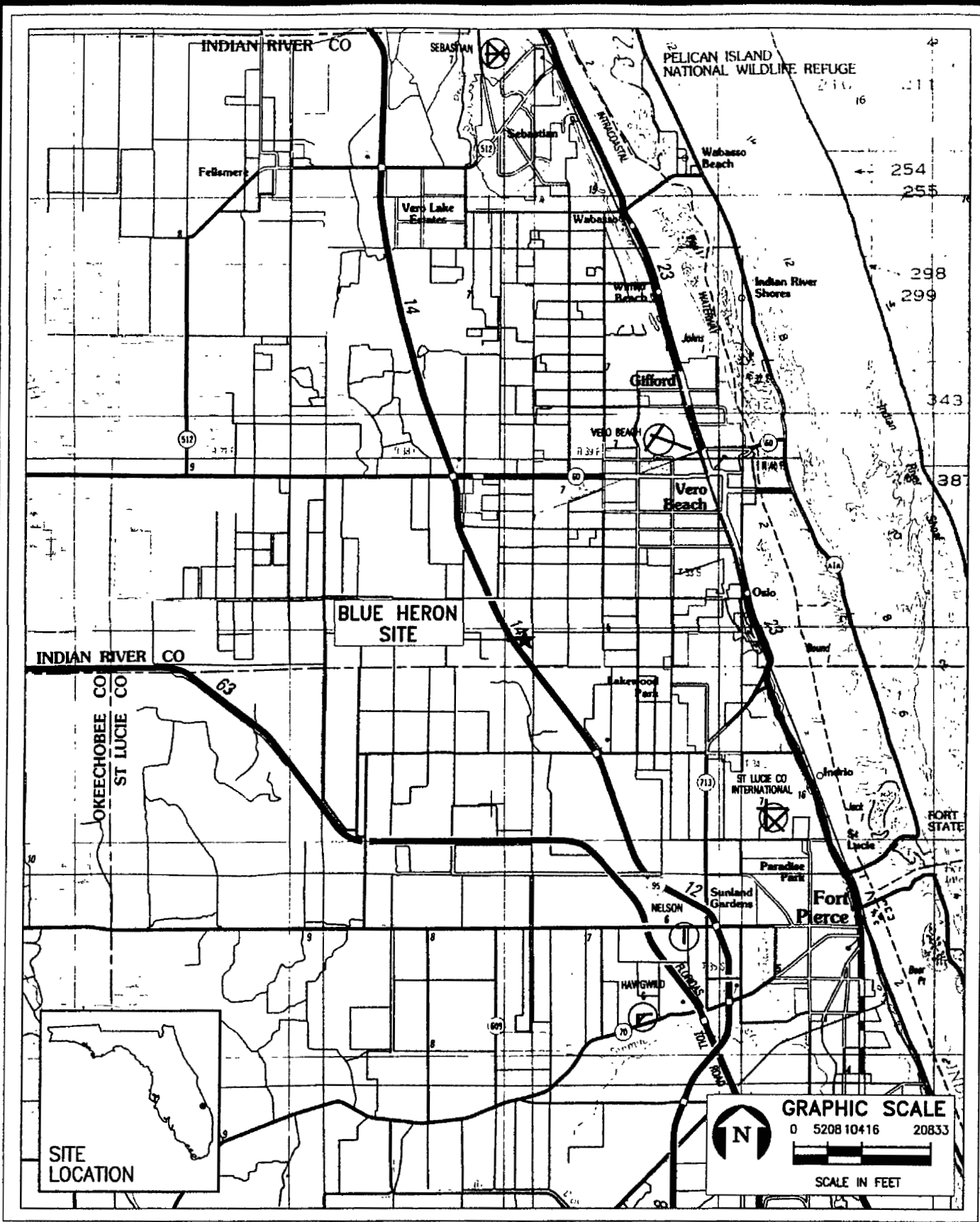


FIGURE 4.
BLUE HERON ENERGY CENTER SITE LOCATION

Source: USGS QUAD: FT. PIERCE, FL. 1988; ECT, 2000.

ECT
 Environmental Consulting & Technology, Inc.

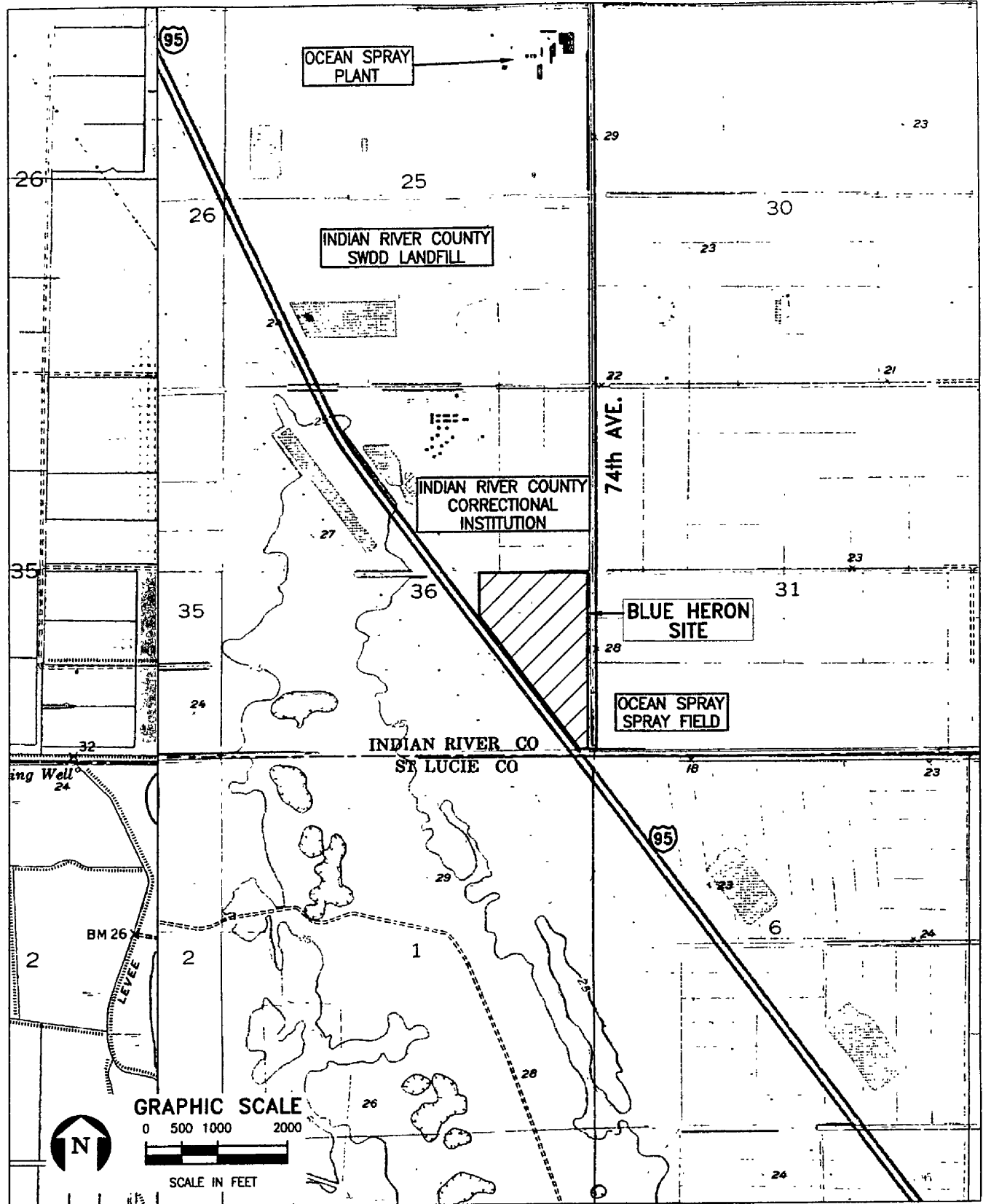


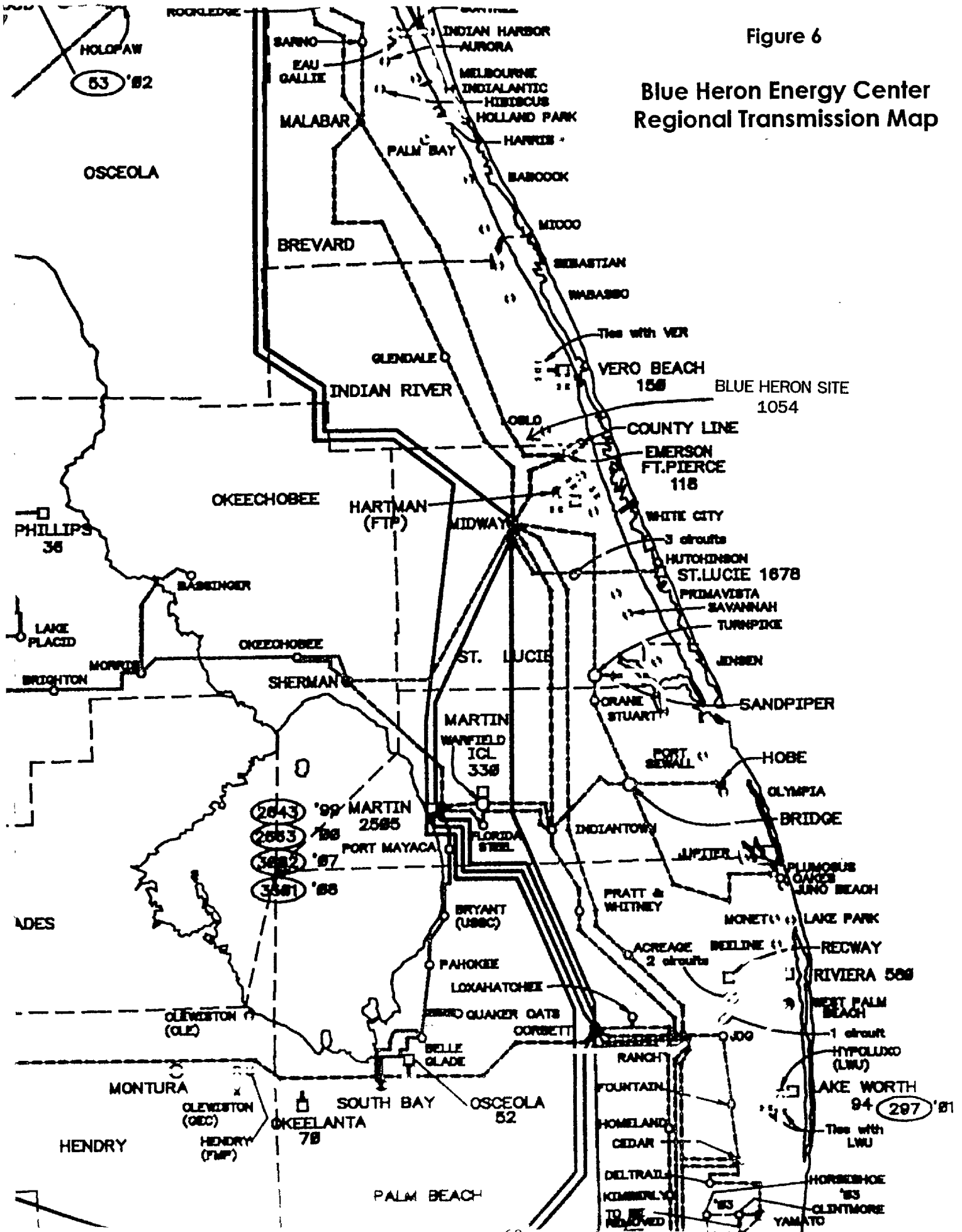
FIGURE 5.
BLUE HERON ENERGY CENTER SITE LOCATION
AND SURROUNDINGS

Source: USGS Quod: Oslo, FL, & East of Gum Slough, FL, 1983; ECT, 2000.



Figure 6

Blue Heron Energy Center Regional Transmission Map



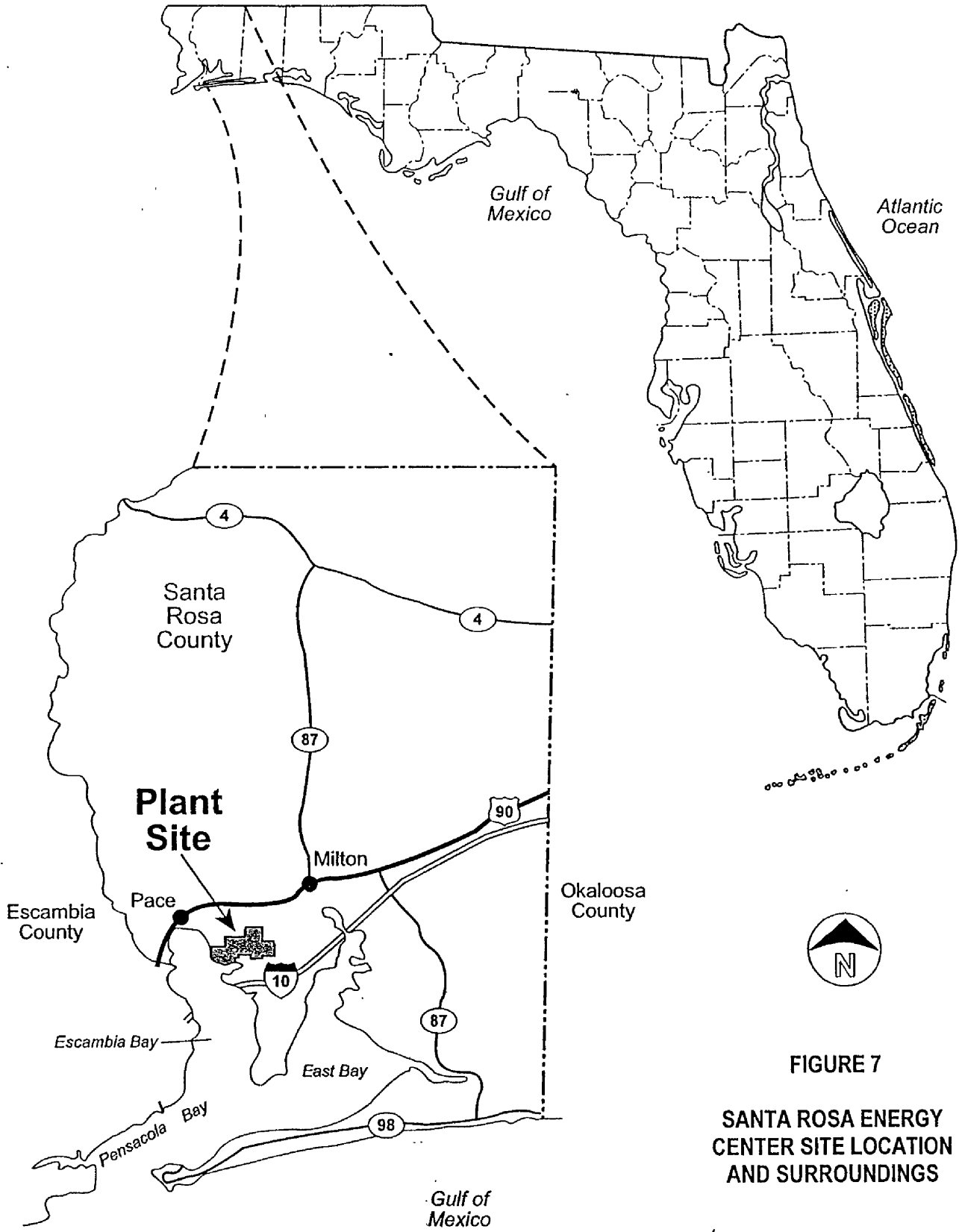


FIGURE 7

SANTA ROSA ENERGY CENTER SITE LOCATION AND SURROUNDINGS

Regional Location Map
Santa Rosa Plant, Pace, Florida

