# I. Meeting Packet

# State of Florida
Public Service Commission
# INTERNAL AFFAIRS AGENDA
Wednesday – January 12, 2011
9:30 a.m.
Room 140 - Betty Easley Conference Center

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1. Approve December 14, 2010, Internal Affairs Meeting Minutes. (Attachment 1)

2. Draft Reply Comments to FCC regarding Universal Service Reform and the Creation of a Mobility Fund. Approval of Comments is sought. Reply comments are due January 18th. (Attachment 2)

3. Staff's Review of the 2010 Ten-Year Site Plans. (Deferred from the December 14th Internal Affairs.) (Attachment 3)

4. Discussion of Legislation Filed for the 2011 Session. (Attachment 4)

5. Other matters, if any.

TD/sa

OUTSIDE PERSONS WISHING TO ADDRESS THE COMMISSION ON ANY OF THE AGENDAED ITEMS SHOULD CONTACT THE OFFICE OF THE EXECUTIVE DIRECTOR AT (850) 413-6068.

**Attachment 1**

Attachment 1

# State of Florida

**Public Service Commission**
**INTERNAL AFFAIRS MINUTES**
Tuesday - December 14, 2010
3:20 pm – 4:10 pm
Room 140 - Betty Easley Conference Center

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COMMISSIONERS PRESENT: Chairman Graham
Commissioner Edgar
Commissioner Skop
Commissioner Brisé
Commissioner Balbis

STAFF PARTICIPATING: Devlin, Kiser, Lester, Hinton, Casey, Miller, Polk, Cibula, Bellak

OTHERS PARTICIPATING: Vicki Gordon-Kaufman - FIPUG

1. Approve November 30, 2010, Internal Affairs Meeting Minutes.

   The minutes were approved with an amendment to Item 5b.

   Commissioners participating: Graham, Edgar, Skop, Brisé, Balbis

2. Discussion of comments regarding Hedging for Fuel Costs.

   Briefing only. The Commissioners requested a tutorial type meeting in January to bring them all up to date on this issue.

   Commissioners participating: Graham, Edgar, Skop, Brisé, Balbis

3. Staff's Review of the 2010 Ten-Year Site Plans. (Deferred from the November 30th Internal Affairs.)

   This item was deferred to the January 11, 2011, Internal Affairs Meeting.

4. Draft Comments to the FCC regarding its Nov. 3, 2010 Public Notice regarding a National Deaf-Blind Equipment Distribution Program.

   The draft comments were approved with corrections noted at the Internal Affairs Meeting.

   Commissioners participating: Graham, Edgar, Skop, Brisé, Balbis

5. Cover Letter for Annual Lifeline Report.

   The cover letter was approved with corrections noted at the Internal Affairs Meeting.

   Commissioners participating: Graham, Edgar, Skop, Brisé, Balbis

6. Follow-up discussion of 1st DCA's order.

   After some discussion, staff was directed to take appropriate action so that the Commission is able to rule on all pending Florida Power & Light items at the January 11, 2011, Commission Conference.

   Commissioners participating: Graham, Edgar, Skop, Brisé, Balbis

7. Other matters, if any.

   a. Commissioner Skop discussed some procedural issues.

   b. Commission procedures for Public Records Requests, including request forms, response times, exceptions and changes were discussed.

   Commissioners participating: Graham, Edgar, Skop, Brisé, Balbis

**Attachment 2**

**State of Florida**

# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

**DATE:** January 4, 2011

**TO:** Tim Devlin, Executive Director

**FROM:** Division of Regulatory Analysis (Fogleman, Miller, Shafer)
Office of the General Counsel (Miller)

**RE:** Draft Reply Comments to FCC regarding Universal Service Reform and the Creation of a Mobility Fund.
**Critical Information:** Please place on January 12th Internal Affairs.
Approval of Comments is sought. Reply comments are due January 18th.

On October 14, 2010, the Federal Communications Commission (FCC) released a Notice of Proposed Rulemaking (NPRM) addressing the creation of a Mobility Fund to build out wireless networks capable of providing broadband to unserved, rural, and insular areas.[1] This new high-cost program would use surrendered universal service support from Verizon Wireless and Sprint (approximately $100 to $300 million) to provide support to eligible carriers.[2] As a result, the creation of this program will not increase the size of the federal universal service fund. Staff circulated a memo summarizing this NPRM on December 2, 2010.

The Mobility Fund, as proposed, would provide non-recurring support to providers to deploy 3G (3rd generation wireless services) or better mobile networks to areas where it is not currently available. The FCC contends that mobility gaps are a challenge for residents, public safety first responders, businesses, public institutions, and travelers, particularly in rural areas. The proposed Mobility Fund would allow funds to be given to only one provider in each area. The FCC will utilize industry data to identify unserved areas.[3] The funds would go to wireless networks performing as well or better than current 3G networks.

To determine which entity receives funding, the FCC is considering using reverse auctions.[4] Carriers receiving support must demonstrate the timely deployment of service offerings in previously unserved areas. According to the proposed rules, carriers would receive one-third of support upon winning the auction, but the remaining support would be awarded in

[1] FCC, Notice of Proposed Rulemaking, FCC10-182, Released October 14, 2010.
[2] Merger requirements affecting Verizon Wireless/ALLTEL and Sprint Nextel/Clearwire specify that the carriers will phase out high-cost support within 5 years. See generally Verizon Wireless Merger Order, 23 FCC Rcd 17444 and Sprint Nextel Merger Order, 23 FCC Rcd 17570.
[3] Industry data was compiled by American Roamer, a company that researches and catalogs wireless coverage data.
[4] A reverse auction would allow carriers to competitively bid against each other based on the amount of high-cost support they would accept to provide service for a specific geographic area. The FCC would select the winner based on the carrier that would provide service for the least cost.

one-third increments as the carrier is able to offer services. The proposed plan is consistent with the FCC's National Broadband Plan.

Staff seeks approval of the attached draft reply comments (Attachment A). The proposed comments address the following issues:

- The FCC must first make a determination of the extent to which the four statutory criteria established in Section 254(c)(1) of the Telecommunications Act are satisfied by mobility services before distributing universal service support.
- The creation of the Mobility Fund is supported under the conditions that it uses reclaimed support, is non-recurring in nature, and does not adversely affect the fund size.
- The FCC's proposal to award funding to a single winner in one-third increments to ensure accountability is supported.
- Should the FCC conclude that additional support is needed to meet the objectives of the program, it should first look toward additional reclaimed support from Sprint and Verizon Wireless. Only after that should the FCC look to reallocate support from the existing high-cost programs. The FPSC is opposed to any expansion of the fund.
- Reiterate prior comments that the FCC should expedite the phase down of support that competitive eligible telecommunications carriers (CETCs) receive from Interstate Common Line Support (ICLS) and Interstate Access Support (IAS). For 2009, ICLS and IAS represented 44 percent of the high-cost support received by CETCs.

Attachment
cc: Charles Hill

**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| Universal Service Reform | ) | WT Docket No. 10-208 |
| | ) | |
| Mobility Fund | ) | |
| | ) | |

# REPLY COMMENTS OF THE FLORIDA PUBLIC SERVICE COMMISSION

CHAIRMAN ART GRAHAM

COMMISSIONER LISA POLAK EDGAR

COMMISSIONER RONALD A. BRISÉ

COMMISSIONER EDUARDO E. BALBIS

COMMISSIONER JULIE I. BROWN

January 12, 2010

## INTRODUCTION

The Florida Public Service Commission (FPSC) submits these reply comments in response to the Notice of Proposed Rulemaking (NPRM) released by the Federal Communications Commission (FCC) on October 14, 2010.[5] In general, the FCC seeks comment on creation of a Mobility Fund. The proposed Mobility Fund would provide non-recurring support to providers to deploy 3G (3rd generation wireless services) or better mobile networks to areas where it is not currently available, consistent with the recommendations of the National Broadband Plan. The FPSC supports reallocation of reclaimed high-cost support to expand the availability of broadband services in areas where there are none or where such services are deemed to be inadequate. The FPSC believes that the Mobility Fund has the potential to meet this objective. We support the creation of the Mobility Fund only under the conditions that it uses reclaimed support, is non-recurring in nature, and does not increase the overall size of the fund. However, we believe that prior to distributing universal service support through the Mobility Fund, the FCC must first make a determination of the extent to which the four statutory criteria established in the Telecommunications Act (Act) are satisfied by mobility services.[6]

## DEFINITION OF SUPPORTED SERVICES

Section 254 of the Act defines universal service as "an evolving level of telecommunications services."[7] The Act specifies four criteria that the Universal Service Joint Board and FCC should consider when determining if a service should be included within the definition of supported services. Those criteria the FCC must consider include that the services:

(A) are essential to education, public health, or public safety;

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[5] FCC, Notice of Proposed Rulemaking, FCC 10-182, WT Docket No. 10-208, released: October 14, 2010.
[6] 47 U.S.C. § 254(c)(1).
[7] Ibid.

(B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;

(C) are being deployed in public telecommunications networks by telecommunications carriers; and

(D) are consistent with the public interest, convenience, and necessity.[8]

In November 2007, the Universal Service Joint Board recommended expanding the definition of supported services to include mobile services.[9] Its recommendation was focused on wireless voice services to unserved areas.[10] The Joint Board also recommended that broadband services be supported but did not specify what speed constitutes broadband.[11] For these reasons, we believe that the FCC must first formally conclude that 3G mobility broadband services also meet the required standards in the Act. Absent such a record-based finding, the FCC's authority to implement the proposed Mobility Fund may not be legally sustainable. This position is consistent with the comments of the National Association of State Utility Consumer Advocates.[12]

**MOBILITY FUND STRUCTURE**

As proposed, the Mobility Fund would utilize reverse auctions, in which the potential providers of service in identified unserved areas compete for support from the Mobility Fund. Only the winner of the auction would receive support for a given geographic area. According to the draft rules, support would be disbursed in three stages. In the first stage, one third of the total amount of support would be awarded when a wireless carrier's long-form application for support is approved.

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[8] Because Section 254(c)(1) uses the verb "consider," the FPSC continues to believe that the Act affords the FCC and the Joint Board flexibility in expanding the definition of supported services to include services that do not meet all four criteria. Comments of the FPSC to the FCC in CC Docket 96-45, filed on April 11, 1996, October 22, 2001, and April 14, 2003.
[9] FCC-07J-4, ¶¶ 63-67.
[10] Ibid. ¶ 16.
[11] Ibid. ¶ 72.
[12] Comments of the National Association of State Utility Consumer Advocates, p. 3.

The second stage would award one-third of the total support when the wireless carrier files a report demonstrating coverage of 50 percent of the area previously deemed unserved. The final stage would award the remaining one-third of the total support once a carrier demonstrates coverage of 100 percent of the area previously deemed unserved. The FPSC supports this funding structure because it places the burden on carriers seeking support to demonstrate progress towards achieving the program objectives. The FPSC also supports capping funding for a geographic area based on the amount of support the winning wireless carrier bids in the reverse auction. This one-time support is a significant improvement over other existing high-cost programs that have become a perpetual entitlement.

**SUFFICIENCY OF THE MOBILITY FUND**

Several commenters, including CTIA – The Wireless Association (CTIA), California Public Utility Commission, and the Ohio Public Utility Commission (PUC), have asserted that the proposed support amount is not sufficient to meet the goals of the program. The FPSC does not believe that the program needs to be funded at such a level as to provide support for all unserved areas simultaneously. Using reverse auctions to award universal service support is something the FCC has not previously tried. The FCC should use the initial implementation period to gain experience administering such an auction and ensure accountability and transparency. By transitioning funding from existing programs to the Mobility Fund over time, we believe that the FCC will afford itself time to minimize potential waste and fraud. The FPSC opposes recommendations to increase the overall size of the federal universal service program.

As noted in the comments of the Ohio PUC, the total amount of support surrendered by Sprint and Verizon Wireless exceeds the amount of support the FCC is considering allocating to the Mobility

Fund.[13] The FCC has already directed the Universal Service Administrative Company (USAC) to hold in reserve any reclaimed support and has indicated that it may use those proceeds for any number of supplemental universal service funding applications, such as indexing the current cap on the schools and libraries program.[14] Should the FCC be persuaded that the proposed amount of support is not sufficient, the FCC should look to use additional resources recovered from Sprint and Verizon Wireless. As the FPSC has stated in prior comments, we do not believe that funds reclaimed from the high-cost programs should be reallocated to non-high-cost universal service programs.[15]

Currently, USAC estimates the contribution factor for the first quarter of 2011 will have to be set at 15.5 percent in order to collect sufficient funding for all of the universal service programs.[16] This represents a new record high assessment factor that is ultimately paid for by consumers. Any increase in the size of the Mobility Fund without a corresponding decrease within the universal service program is likely to further increase the contribution factor. Continued escalation of the size of the fund threatens the "affordability" criterion that the program was intended to safeguard. As the Tenth Circuit recognized, "excessive subsidization may affect the affordability of telecommunications services, thus violating the principle in §254(b)(1)."[17]

**REALLOCATION OF SUPPORT**

Should the FCC believe that it is necessary to expand the size of the Mobility Fund, the FPSC believes that the FCC should look to reallocate funding from existing high-cost programs. Given that most of the support received by competitive eligible telecommunications carriers (CETCs) is directed

[13] Comments of the Public Utilities Commission of Ohio, WT Docket No. 10-208, December 15, 2010.
[14] FCC Order and Notice of Proposed Rulemaking, FCC 10-155, Released: September 3, 2010.
[15] Comments of the Florida Public Service Commission, WC Docket No. 05-337 and CC Docket No. 96-45, October 21, 2010.
[16] The assessment factor is applied to carriers' interstate and international revenues. VoIP and wireless carriers generally are assessed based upon a safe harbor contribution factor.
[17] Qwest Communications International v. FCC, 398 F.3d 1222, 1234 (2005).

to wireless carriers, we believe that phasing down support provided to CETCs is reasonable. The National Broadband Plan also recommends the phase out of high-cost support for CETCs over a five-year period. We agree with Verizon that the phase down of CETC support should be expedited.[18] The FPSC has previously proposed that the phase down of support that CETCs receive from Interstate Common Line Support (ICLS) and Interstate Access Support (IAS) should be in the first year of the five-year plan.[19] Both IAS and ICLS were created in order to offset a portion of a mandated interstate access charge reduction considered to be an implicit universal service fund subsidy. However, CETC interstate access rates are not regulated and CETCs were never subject to mandatory access reductions. Thus, CETCs have no need to receive access replacement-related universal service monies. Furthermore, the FCC concluded that wireless carriers (which make up the majority of CETCs) have no right to impose access charges.[20]

**CONCLUSION**

The FPSC supports the general structure that the FCC has proposed for the Mobility Fund. We believe that the proposed funding structure is reasonable because it places the burden on carriers seeking support to demonstrate progress towards achieving the program objectives. The FPSC also supports limiting the amount of funds that carriers receive based on the winning carrier's bid. We believe that this structure achieves an equitable balance between the goals of the program and the burden of funding the program. We believe that before the FCC can move forward, however, it must address its statutory responsibilities to define the services it wishes to fund though this program as a "supported service." Prior to distributing universal service support through the Mobility Fund, the

[18] Comments of Verizon and Verizon Wireless, WC Docket No. 05-337 and CC Docket No. 96-45, October 21, 2010.
[19] Comments of the Florida Public Service Commission, WC Docket No. 10-90, GN Docket No. 09-51, and WC Docket No. 05-337, August 11, 2010.
[20] Declaratory Ruling, Petition of Sprint PCS and AT&T Corp. for Declaratory Ruling CMRS Access Charges, WT Docket No. 01-316, released July 3, 2002, at ¶¶ 1, 8-9.

FCC must first make a determination of the extent to which the four statutory criteria established in the Telecommunications Act (Act) are satisfied by mobility services. The FPSC opposes further growth in the universal service fund. Should the FCC conclude that additional support is needed to meet the objectives of the Mobility Fund, it should first look toward additional reclaimed support from Sprint and Verizon Wireless. Only after that should the FCC look to reallocate support from existing high-cost programs.

**Attachment 3**

State of Florida

# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

## -M-E-M-O-R-A-N-D-U-M-

**DATE:** November 1, 2010

**TO:** Timothy J. Devlin, Executive Director

**FROM:** Traci Matthews, Government Analyst I, Division of Regulatory Analysis

**RE:** Review of the 2010 *Ten-Year Site Plans* for Florida's Electric Utilities

**Critical Information:** Please place on November 9, 2010 Internal Affairs. Report is due December 31, 2010. Commission approval of report is sought.

Attached is a draft of the review of the Electric Utility 2010 *Ten-Year Site Plans*. Commission approval of this report will satisfy two statutory requirements:

1. Section 186.801, Florida Statutes, requires the Commission to review each utility's *Ten-Year Site Plan* for suitability, and forward the review to the Florida Department of Environmental Protection (DEP) within nine months of receipt of the Plans. Our review is due to DEP by December 31, 2010.

2. Section 377.703(2)e, Florida Statutes, requires the Commission to review electricity and natural gas forecasts for the Florida Energy and Climate Commission (FECC). Our review is due to the FECC by December 31, 2010.

Please place this item on the November 9, 2010 Internal Affairs conference agenda.

TM

Attachment

cc: Division of Regulatory Analysis (Salak, Trapp, Ballinger)
Division of Economic Regulation (Willis, Hinton, Stallcup)
Office of the General Council (Brubaker, Murphy)


# Review of the 2010 Ten-Year Site Plans

## for Florida's Electric Utilities

*Florida Public Service Commission*
*Tallahassee, Florida*
*October 2010*

# TABLE OF CONTENTS

# LIST OF FIGURES

# LIST OF TABLES

# LIST OF UTILITIES FILING A TEN-YEAR SITE PLAN

Investor-Owned Utilities

| | |
|---|---|
| FPL | Florida Power & Light Company |
| Gulf | Gulf Power Company |
| PEF | Progress Energy Florida, Inc. |
| TECO | Tampa Electric Company |

Municipal Utilities

| | |
|---|---|
| FMPA | Florida Municipal Power Agency |
| GRU | Gainesville Regional Utilities |
| JEA | JEA (formerly Jacksonville Electric Authority) |
| LAK | City of Lakeland |
| OUC | Orlando Utilities Commission |
| TAL | City of Tallahassee |

Rural Electric Cooperatives

| | |
|---|---|
| SEC | Seminole Electric Cooperative |

# LIST OF ACRONYMS

| | |
|---|---|
| AB | Agricultural Byproducts |
| Bcf | Billion Cubic Feet |
| CC | Combined Cycle generating unit |
| CT | Combustion Turbine generating unit |
| DEP | Florida Department of Environmental Protection |
| DOE | United States Department of Energy |
| DSM | Demand-Side Management |
| ECCR | Energy Conservation Cost Recovery Clause |
| EIA | Energy Information Administration |
| ERO | Electric Reliability Organization |
| FEECA | Florida Energy Efficiency and Conservation Act |
| FERC | Federal Energy Regulatory Commission |
| FGT | Florida Gas Transmission |
| FRCC | Florida Reliability Coordinating Council |
| GWh | Gigawatt-Hour |
| IGCC | Integrated Coal Gasification Combined Cycle generating unit |
| kWh | Kilowatt-hour |
| LFG | Landfill Gas |
| LNG | Liquefied Natural Gas |
| MMBtu | Million British Thermal Units |
| MSW | Municipal Solid Waste |
| MW | Megawatt |
| MWh | Megawatt-hour |
| NEL | Net Energy for Load |
| NERC | North American Electric Reliability Corporation |
| NUG | Non-Utility Generator |
| OBG | Biomass Gases |
| OBS | Biomass Solids |
| PPSA | Power Plant Siting Act |
| PURPA | Public Utility Regulatory Policies Act |
| REC | Renewable Energy Certificate |
| RPS | Renewable Portfolio Standard |
| RTO | Regional Transmission Organization |
| TLSA | Transmission Line Siting Act |
| TYSP | Ten-Year Site Plan |
| WAT | Water |
| WDS | Wood/Wood Waste Solids |

# 1. EXECUTIVE SUMMARY

Pursuant to Section 186.801(1), Florida Statutes (F.S.), each generating electric utility must submit to the Florida Public Service Commission (Commission) a Ten-Year Site Plan which estimates the utility's power generating needs and the general locations of its proposed power plant sites over a ten-year planning horizon. The Commission is required to perform a preliminary study of each plan and classify each one as either "suitable" or "unsuitable." All findings of the Commission are made available to the Florida Department of Environmental Protection (DEP) for its consideration at any subsequent electrical power plant site certification proceedings. A copy of this report is also posted on the Commission's Web site and is available to the public.

The Commission has reviewed the Ten-Year Site Plans filed by the eleven reporting utilities in Florida and finds that the projections of load growth appear reasonable.[1] For the second year in a row, utilities are reporting slow or negative growth in customers. In addition, the utilities have forecasted a continuation of diminished growth in peak demand and energy consumption. Over the ten-year planning period, current average annual summer peak demand forecasts are more than 1,500 MW less, and average annual net energy for load projections are nearly 23,000 GWh less than last year's forecasts.

In response to continued declines in load forecasts, the reporting utilities have deferred or cancelled several generation facilities. Only a single proposed unit, TECO's conversion of the Polk combustion turbine to a 970 MW combined cycle unit with an in-service date in 2019, would still require certification by the Commission. A need determination petition would be expected for this unit by 2015.

The 2010 Ten-Year Site Plans include the net addition of approximately 5,600 MW of natural gas-fired generation, the majority of which is either already certified as needed by the Commission or under construction. The 2009 Ten-Year Site Plans included roughly 11,000 MW of additional generation. This decline can be attributed in part to the continued decline of load forecasts in the 2010 Ten-Year Site Plans. Total generation additions and uprates are offset by unit retirements, deratings, and changes in the contractual status of purchases. As in past years, the majority of new capacity planned is expected to come from natural gas-fired units. Nuclear generation represents the next largest fuel source addition, although all of the planned additional nuclear units have now been delayed beyond the current ten-year horizon.

The Commission finds the 2010 Ten-Year Site Plans filed by the eleven reporting utilities to be suitable for planning purposes. While the plans are suitable for planning purposes, they are subject to modification due to factors such as changes to fuel cost, energy use projections, evolving technology, and shifting energy policy. Therefore, the Commission will continue to closely monitor the future rate of load growth in Florida and its effect on the need for additional generation and transmission facilities in the state.

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[1] Investor-owned utilities (IOUs) filing 2010 Ten-Year Site Plans include Florida Power & Light Company (FPL), Tampa Electric Company (TECO), Gulf Power Company (Gulf), and Progress Energy Florida, Inc. (PEF). Municipal utilities filing 2010 Ten-Year Site Plans include Florida Municipal Power Agency (FMPA), Orlando Utilities Commission (OUC), City of Lakeland (LAK), City of Tallahassee (TAL), JEA (formerly Jacksonville Electric Authority), and Gainesville Regional Utilities (GRU). Seminole Electric Cooperative (SEC) also filed a 2010 Ten-Year Site Plan.

## Reliable and Affordable Power

Pursuant to Section 366.03, F.S., each public utility has a statutory obligation to serve every customer within its service territory. Florida's utilities must continue to explore all available measures to ensure the most efficient means of producing and delivering reliable and affordable power to their customers. Multiple components are required to create an effective energy policy for Florida: conservation and demand-side management, renewable generation, modernization of existing utility generation resources, and new generation facilities.

Current forecasts are significantly affected by state and national economic conditions, which have resulted in dramatic reductions in energy consumption. Several utilities have reported net customer losses, and the state as a whole has reported a decline in population. Historically, however, utilities have seen an increase in energy sales following a recession. It is unclear at this time whether the decline in energy usage is a short-term phenomenon based on current economic conditions in Florida and the nation as a whole or is a portent of a longer downturn in population growth and energy use in the state.

## Conservation and Demand-Side Management

The first step in any resource planning process is to focus on the efficient use of electricity by consumers. Government mandates, such as building codes and appliance efficiency standards, provide the starting point for energy efficiency. Customer choice is the next step in reducing the state's dependence upon expensive fuels and lowering greenhouse gas emissions. Consequently, educating consumers to make smart energy choices is particularly important. Florida's utilities can efficiently serve their customers by offering demand-side management (DSM) and conservation programs designed to use fewer resources at lower cost.

In 2009, the Commission established aggressive new conservation goals for utilities to meet through their DSM and energy efficiency programs. The new conservation goals for some utilities are incorporated into the 2010 Ten-Year Site Plans. Both FPL and PEF have already included values for DSM equal to or greater than the total goals set forth by the Commission, but neither TECO nor Gulf incorporated the new goals into their DSM values for the 2010 Ten-Year Site Plans. The implementation of these goals remains in transition, as the DSM Plans have not yet been approved by the Commission. Florida's utilities have projected totals of more than 8,700 MW of summer demand peak load reduction, almost 8,200 MW of winter peak demand reduction, and nearly 15,400 GWh of annual energy savings over the planning period. When compared to the projections in the 2009 Ten-Year Site Plans, these figures correspond to 37 percent more summer peak demand savings, 26 percent more winter peak demand savings, and 85 percent more annual energy savings by 2019.

## Renewable Generation

Renewable generation is another key component of providing clean, reliable, and affordable power to Florida's electric utility customers. Approximately 1,220 MW of generation are currently operating in Florida. Roughly 467 MW are sold to Florida's utilities as firm capacity, and the remaining capacity is either sold on a non-firm basis or is used internally by the owners of the renewable generation facility.

Historically, relatively high capital and operating costs, as well as limited physical applications, have hampered the development of renewable energy in the state. The 2010 Ten-Year Site Plans indicate that new renewable projects totaling approximately 734 MW are planned through the year 2019, slightly more than half of which will come from biomass. In addition to biomass, there are several notable solar projects within the state, including 110 MW of generation authorized for cost recovery by Section 366.92(4), F.S., and multiple as-available energy contracts with solar energy providers. While these new projects are a significant increase from the existing level of renewable generation, the current firm generation capacity is approximately 58,420 MW for Florida, so the contribution toward fuel diversification from renewable energy remains relatively small.

The Commission has taken steps to promote renewable generation on the customer's side of the meter, as directed by the Legislature in Section 366.91(5), F.S. As part of the utility DSM Plans, the Commission has directed the investor-owned utilities to expend approximately $24 million on rebates and incentives for solar technology, including photovoltaics and thermal water heating. In addition, these solar energy systems will be provided free of charge to a limited number of public facilities and low-income residences. In April 2008, the Commission amended Rule 25-6.065, Florida Administrative Code (F.A.C.), relating to interconnection and net metering of small customer-owned renewable generation. The changes promote the development of small customer-owned renewable generation by streamlining the interconnection process and allowing monthly credits to accumulate and carry over for 12 months for excess on-site renewable generation on the retail customer's bill. In 2009, a large increase in the participation of net metering occurred, almost tripling the total number of customers taking advantage of the ability to offset their generation through renewable technologies. Currently, Florida's utilities report almost 1,600 residential interconnections with a total capacity of approximately 13 MW, an increase in capacity of more than 75 percent.

Pursuant to current state and federal law, payments for capacity and energy purchased by utilities to generation facilities using renewable energy sources are capped at the utility's avoided cost for capacity and energy. In spite of the downturn in load growth resulting in reduced need for new generation, renewable generation has increased. Compared to figures in the 2009 Ten-Year Site Plan Review, existing renewable generation facilities have grown by approximately 4.2 percent (49 MW). However, Progress Energy Florida recently announced the termination of two large renewable purchased power contracts, which had represented almost twenty percent of the state's planned new renewable generation. A 40 MW biomass project and a 60 MW refuse-to-energy project were both cancelled due to a lack of funding. As a result, when compared to the 2009 Ten-Year Site Plan Review, the amount of new renewable generation planned for the ten-year horizon has decreased by approximately 1.75 percent (13.1 MW).

## Modernization of Existing Utility Generation

Since the current projections indicate that the state's total energy demand will surpass projected DSM and energy efficiency programs offered by Florida's utilities and planned renewable generation, the remaining generation needs must be met by traditional utility generation.

When considering the addition of supply-side generation, Florida's electric utilities must consider how best to serve their customers cleanly, reliably, and affordably. The modernization of existing units plays a key role in addressing all of these issues. The term "modernization" refers to the upgrading of older, less efficient units in order to utilize more fuel efficient technologies. Such

projects may require the temporary removal of existing units, thus impacting reliability until the completion of the modernization. Given that several utilities are projecting high reserve margins, conditions are currently favorable for modernizations. Modernization of units allows for an increased output of power and improved fuel efficiency with the same or lower emission rates. The Commission has recently approved several projects involving modernization with a combined capacity of approximately 2,400 MW.

Only a portion of Florida's fossil fuel units have potential for modernization. Limiting factors for feasible modernization can include the physical plant layout and available space, availability of water supplies, natural gas transportation capacity, and the age of existing units. In addition to modernizing some of its units, FPL has announced plans to place several of its fossil-steam units in Inactive Reserve, approximately 1,940 MW of generation, which will improve the overall system efficiency. Before considering new generation, all of Florida's utilities should address the feasibility of modernization. The Commission encourages utilities to continue to explore potential modernization projects and report the feasibility of each conversion in next year's Ten Year-Site Plans.

## Strategic Concerns

Fuel diversity is a critical strategic concern. Maintaining a balanced mix of fuel sources enhances the reliability of supply and allows utilities to mitigate the effects of volatile price fluctuations. In previous Ten-Year Site Plans, Florida's utilities responded to fuel diversity concerns through the inclusion of multiple coal-fired power plants. Due to a combination of fuel cost uncertainties, high capital costs, and uncertainties regarding potential environmental costs related to possible carbon emission regulations, no new coal-fired generating capacity is currently planned in Florida. All previously planned units have been cancelled.

Because nuclear generation provides base-load capacity that produces no greenhouse gas emissions, nuclear energy has become an important component of an energy efficient Florida. In 2007 and 2008, the Commission approved the need for approximately 5,000 MW of additional nuclear capacity based primarily on projected fuel cost savings. All existing nuclear units are scheduled to receive capacity uprates totaling 565 MW, and the 4,400 MW of proposed new power plants will mark the first construction of new nuclear generation in Florida in almost 30 years. The 2010 Ten-Year Site Plan for PEF contains the first of two units, Levy Unit 1, coming online in 2019. However, since the publishing of its Ten-Year Site Plan, PEF projects that the Levy Units will enter service in 2021 and 2022. Neither of FPL's new nuclear units, Turkey Point Units 6 and 7, are in the current planning period, with in-service dates scheduled for 2022 and 2023, respectively. Even with the identified new nuclear units, Florida's dependence on natural gas is projected to increase from 48.5 percent in 2009 to 51.4 percent by 2019.

## New Generation Facilities

Generation planning requires considerable lead time, but changes in fuel cost, energy use projections, evolving technology, and changing energy policy can cause plans to be modified. The primary fuel types remaining in Florida as a viable option for new generation are natural gas or nuclear power plants, but at this time no new nuclear generating units are expected to enter service for

over a decade. Even though the modernization of existing units can increase the overall efficiency of natural gas-fired generation in the state, the current forecasts continue to indicate the need for additional natural gas-fired generation. The long permitting and construction periods involved with nuclear generating plants, coupled with the cancellation of all planned coal-fired generation, have led to natural gas becoming the default fuel of choice in Florida. Natural gas already provides approximately half of Florida's energy generation and is projected to provide the majority of new generation beyond the next ten years. Such growth in natural gas generation may impact the volatility of electricity prices to Florida's ratepayers.

As the state continues to construct new natural gas-fired generation, natural gas storage and supply become increasingly significant issues in ensuring the reliability of the state's electrical system. Multiple supply options and sufficient storage are critical factors in maintaining the integrity of Florida's electric system during supply disruptions due to severe storms and hurricanes. Florida's utilities have begun increasing the amount of natural gas storage that is available to the state. Utilities should continue to evaluate diversity within the fuel type, such as liquefied natural gas (LNG) and gas storage, as options to traditional sources and delivery methods for natural gas.

# 2. INTRODUCTION

The Ten-Year Site Plans give state, regional, and local agencies advance notice of proposed power plants and transmission facilities. The Commission receives comments from these agencies regarding various issues of concern. These comments are summarized in Chapter 8, and the agencies' comments as filed are included in Appendix A. Because a utility's Ten-Year Site Plan is a planning document containing tentative data, it may not contain sufficient information to allow regional planning councils, water management districts, and other reviewing agencies to evaluate site-specific issues within their jurisdictions. Each utility must provide detailed data, based on in-depth environmental assessments, during certification proceedings under the Power Plant Siting Act (PPSA), Sections 403.501-403.518, F.S., or the Transmission Line Siting Act (TLSA), Sections 403.52-406.5365, F.S.

## Statutory Authority

Section 186.801, F.S., requires that all major generating electric utilities in Florida submit a Ten-Year Site Plan to the Florida Public Service Commission for annual review. To fulfill the requirements of Section 186.801, F.S., the Commission has adopted Rules 25-22.070 through 25-22.072, F.A.C. Each utility's Ten-Year Site Plan contains projections of the utility's electric power needs, fuel requirements, and the general locations of proposed power plant sites and major transmission facilities. Utilities with existing generating capacities below 250 megawatts (MW) are exempt from this requirement unless the utility plans to build a new unit larger than 75 MW within the ten-year planning period.

In accordance with Section 186.801, F.S., the Commission performs a preliminary study of each Ten-Year Site Plan and is required to determine whether each one is **suitable** or **unsuitable**. The results of the Commission's study are contained in this report, *Review of the 2010 Ten-Year Site Plans*, which is forwarded to the Florida Department of Environmental Protection (DEP) for use in subsequent power plant siting proceedings.

Section 377.703(2)(e), F.S., requires the Commission to analyze and provide natural gas and electricity forecasts to the Florida Energy and Climate Commission. The *Review of the 2010 Ten-Year Site Plans* is forwarded to the Energy and Climate Commission to fulfill this statutory requirement.

## Information Sources

In April 2010, eleven utilities filed their Ten-Year Site Plans, and on August 5, 2010, the Commission held a public workshop to facilitate discussion of the plans. In addition to the individual utility filings, the Commission relies on cost and performance data obtained through supplemental data requests made to the reporting utilities, as well as on other sources. The Florida Reliability Coordinating Council (FRCC) annually publishes several documents that assess the adequacy and

reliability of Peninsular Florida's[2] generating units and transmission system. The Commission used the following FRCC documents to supplement this review:

- The *2010 Regional Load and Resource Plan* contains aggregate data on demand and energy, capacity and reserves, and proposed new generating unit and transmission line additions for Peninsular Florida as well as statewide. The FRCC submitted this study in July 2010.
- The *2010 Reliability Assessment* is an aggregate study of generating unit availability, forced outage rates, load forecast methodologies, and gas pipeline availability. The FRCC submitted this study in August 2010.
- The *Long Range Transmission Reliability Study* is an assessment of the adequacy of Peninsular Florida's bulk power and transmission system. The study includes both a short-term (2010-2014) detailed analysis and a long-term (2015-2019) evaluation of developing trends that would require transmission additions or other corrective action. The FRCC submitted an executive summary of this study in August 2010.

## Suitability

The Commission has reviewed the Ten-Year Site Plans filed by the eleven reporting utilities and finds that the projections of load growth appear reasonable and that the reporting utilities have identified additional generation facilities required in order to maintain an adequate supply of electricity at a reasonable cost. Therefore, the Commission finds the 2010 Ten-Year Site Plans filed by the reporting utilities to be **suitable** for planning purposes.[3]

Since the Ten-Year Site Plan is not a binding plan of action for electric utilities, the Commission's classification of a Ten-Year Site Plan as suitable or unsuitable does not constitute a finding or determination in docketed matters before the Commission. The Commission may address any concerns raised by a utility's Ten-Year Site Plan at a public hearing.

[2] Peninsular Florida refers to the FRCC region which includes all utilities with the exception of Gulf Power Company.
[3] Investor-owned utilities (IOUs) filing 2010 Ten-Year Site Plans include Florida Power & Light Company (FPL), Tampa Electric Company (TECO), Gulf Power Company (Gulf), and Progress Energy Florida, Inc. (PEF). Municipal utilities filing 2010 Ten-Year Site Plans include Florida Municipal Power Agency (FMPA), Orlando Utilities Commission (OUC), City of Lakeland (LAK), City of Tallahassee (TAL), JEA (formerly Jacksonville Electric Authority), and Gainesville Regional Utilities (GRU). Seminole Electric Cooperative (SEC) also filed a 2010 Ten-Year Site Plan.

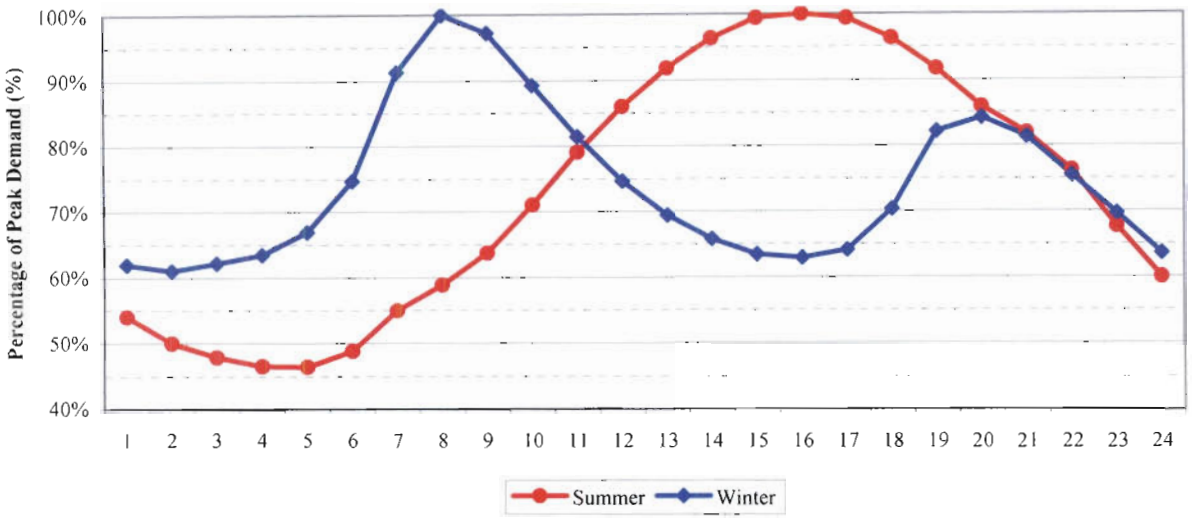
# 3. DEMAND AND ENERGY FORECASTS

Historical data forms the foundation for utility load and energy forecasts. These sets of historical data contain energy usage patterns, trends in population growth, economic variables, and weather data for each utility's service territory. Econometric forecast models are then used to quantify the historical impact of population growth, economic conditions, and weather on energy usage patterns. Finally, sets of forecast assumptions on future population growth, economic conditions, and weather are assembled and together with the forecast models, yield the final demand and energy forecasts. Each utility's peak demand and energy forecasts serve as the starting point for determining new capacity additions needed to reliably and efficiently serve the anticipated load.

Peak demand is the measure of the amount of electric power in MW required at any particular instant in time. The change in demand follows a pattern that depends on the season and the maximum value of demand is the quantity that determines the timing and size of planned capacity additions. Energy is the accumulation of demand over time, and the unit of measure for energy is the MWh, which is the total number of MW consumed over a particular period. The appropriate type of new generating capacity required is determined by energy requirements of the system. A load that remains relatively constant would require a base load unit, whereas a load with a great deal of variation would require a peaking or intermediate unit. Many factors exist which, when taken together, can allow a utility to determine both the type of generator and the fuel that best suit the circumstances.

Figure 1 below illustrates the typical daily load curve for summer and winter days in Florida. In the summer, customer demand begins to climb in the morning and peaks in the early evening, a pattern which corresponds to increasing air conditioning loads. In contrast, the winter load curve has two peaks, the largest in mid-morning followed by a smaller peak in the late evening. Both peaks correspond to heating loads.

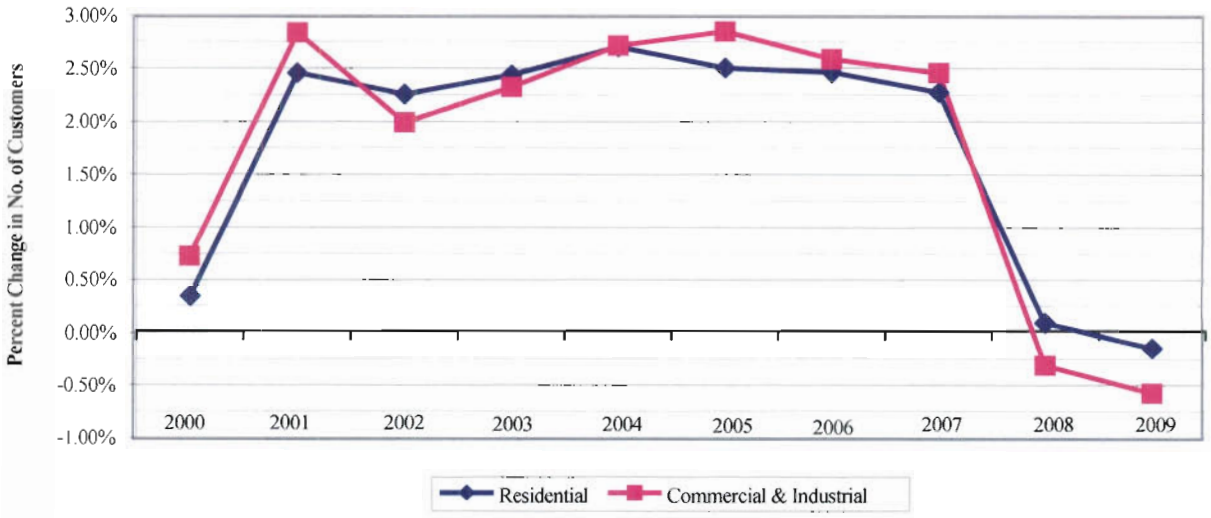
**Figure 1. Typical Daily Load Curve**




Change in the customer base is a critical factor in the process of forecasting load growth for electric utilities. Customer growth in Florida has been on the decline for the past few years. Having fewer new customer accounts leads to smaller increases in both demand and energy consumption.

Figure 2 below shows the annual customer growth rate for the period 2000 through 2009. While 2008 saw a significant reduction in growth, 2009 featured negative growth for all categories. The last positive changes in the residential and the commercial customer base were seen in 2004 and 2005, respectively.

**Figure 2. State of Florida: Annual Growth Rate (%) of Customers (2000 through 2009)**



Florida's electrical demand and energy requirements are heavily dependent on the energy consumption behaviors of residential customers. As shown in Table 1 below, residential customers make up close to 90 percent of Florida's electric customers and purchase more than 50 percent of the state's electric energy.

**Table 1. State of Florida: Characteristics of Florida's Electric Customers (2009 Actual)**

| Customer Class | Number of Customers | % of Customers | Energy Sales (GWh) | % of Sales |
|---|---|---|---|---|
| Residential | 8,338,964 | 88.7 | 113,341 | 52.7 |
| Commercial | 1,032,948 | 11.0 | 80,939 | 37.6 |
| Industrial | 27,627 | 0.3 | 20,811 | 9.7 |
| **Total** | **9,399,539** | **100.0** | **215,091** | **100.0** |

The deterioration of economic conditions and lower customer growth have brought about a significant reduction in demand and energy forecasts. Reduced load and energy requirements result in the deferral of additional generating capacity as well as reductions in the burning of fossil fuels.

## Role of Demand Side Management (DSM)

In recent years, Florida has gradually increased the standards for appliance efficiency and building codes in order to maximize energy savings. However, in large part, the responsibility for reducing the state's dependence on fossil fuels and improving the environment must fall on consumers. Encouraging responsible energy choices is extremely important in controlling load and energy usage. Once consumers are cognizant of behaviors that result in increased efficiency and reduced energy use, they are much more likely to participate in utility-sponsored DSM and energy conservation programs.

In addition to the effects of stricter building codes and increased appliance efficiency standards, since 1980 utilities have offered DSM programs to customers based on the requirements of the Florida Energy Efficiency and Conservation Act (FEECA).[4] FEECA emphasizes reducing the growth rates of weather-sensitive peak demand, reducing and controlling the growth rates of electricity consumption, reducing the consumption of scarce resources such as petroleum fuels, and encouraging use of renewable fuels. To accomplish these objectives, FEECA requires the Commission to establish conservation and DSM goals and requires all IOUs and any municipal or cooperative utility with annual energy sales of at least 2,000 GWh as of July 1, 1993, to implement DSM programs to meet the established goals. Demand and energy goals for the seven FEECA utilities (FPL, FPUC,[5] Gulf, JEA, OUC, PEF, and TECO) represent the minimum threshold that utilities must meet before building any major power plants.

[4] Sections 366.80-366.85 and 403.519, F.S.

[5] Florida Public Utilities Corporation (FPUC) is a non-generating, investor-owned utility subject to FEECA's requirements. FPUC does not file a Ten-Year Site Plan with the Commission.

The seven Florida utilities which are subject to FEECA currently offer more than 100 DSM and conservation programs to residential, commercial, and industrial customers. Energy audit programs provide a first step for utilities and customers to assess conservation opportunities for Florida's electric customers and serve as the foundation for all other DSM and conservation programs. All FEECA utilities are required to offer energy audits to residential customers, pursuant to Section 366.82(11), F.S., and most utilities also provide energy audits for commercial/industrial customers.

Load and energy savings from conservation or non-dispatchable DSM programs, such as ceiling insulation installation, enable utilities and customers to realize sustained energy savings over time. Savings from dispatchable DSM, such as load management and interruptible load programs, also play a significant role in any utility energy conservation plan. Load management and interruptible service are measures that allow reductions in system peak demand when needed. Load management programs offer monetary incentives for the participant to allow the utility to control the availability of certain electric appliances. Interruptible load programs allow a utility to interrupt specific services to a commercial or industrial customer.

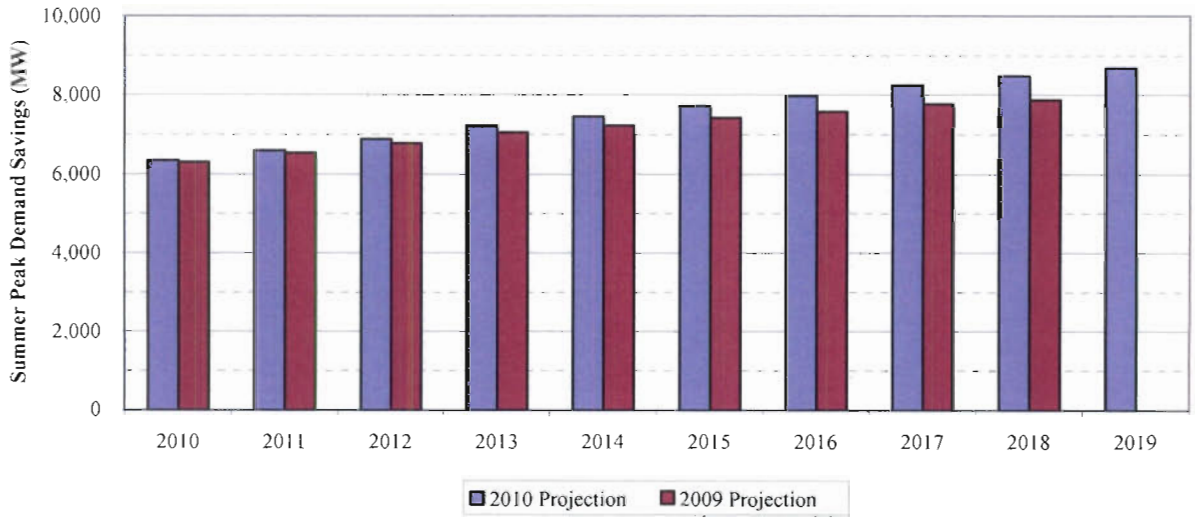
**Recent DSM Developments**

In 2008, the Legislature amended Section 366.82, F.S., which directs the Commission's process for establishing DSM and energy conservation goals. More specifically, the Commission must now consider an expanded scope of potential conservation and efficiency measures and the impact of demand-side renewable energy systems. Additional considerations include the need for incentives and the effect of greenhouse gas compliance costs.

New DSM goals were set on December 30, 2009, for the fourth time under FEECA. Both FPL and PEF have already included values for DSM equal to or greater than the total goals set forth by the Commission, but neither TECO nor Gulf incorporated the new goals into their DSM values for the 2010 Ten-Year Site Plans. The implementation of these goals remains in transition, as the DSM Plans have not yet been approved by the Commission. While Gulf has no planned generation units in the 2010 to 2019 period, TECO is planning construction of several units to meet peak demand and a unit that will be subject to the Power Plant Siting Act. The additional DSM represented by the new goals may have some effect upon the timing and size of units to be constructed. Staff expects that the 2011 Ten-Year Site Plans for all utilities should reflect the Commission's orders relating to conservation, including the new DSM goals.

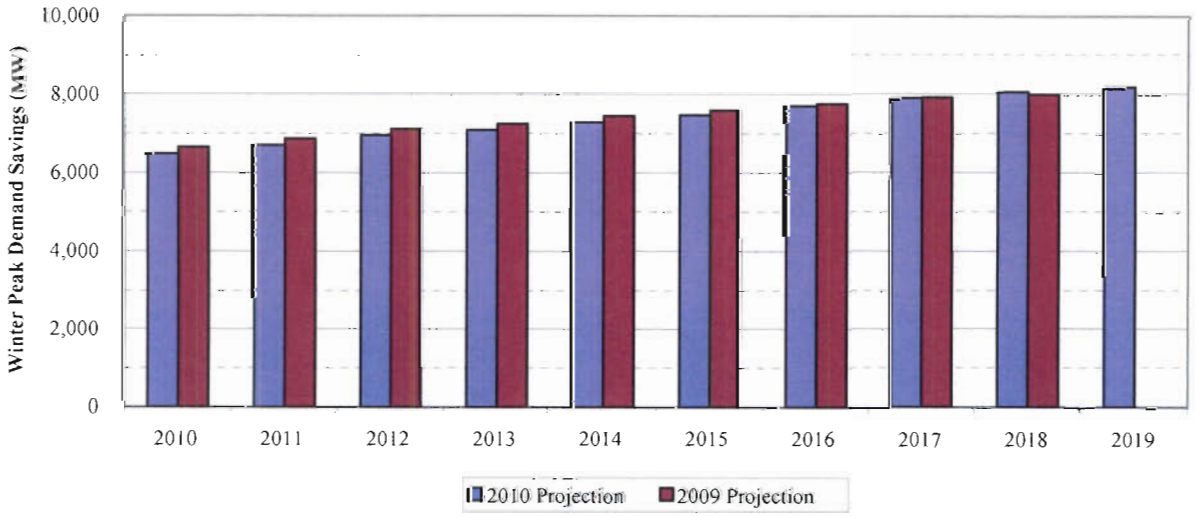
DSM is a critical component in the reduction of load requirements for both residential and commercial customers. DSM programs are projected to reduce summer peak demand by just over 6,300 MW in 2010, increasing to nearly 8,700 MW by 2019. Projections indicate a summer peak demand reduction of approximately 13 percent from DSM for each year between 2010 and 2019. Figure 3 below illustrates the projected total amounts of summer peak demand savings from utility-sponsored DSM programs over the ten-year planning horizon. The change from the 2009 projection to the 2010 projection is approximately 828 MW, primarily from the inclusion of the new PSC goals in several of the utilities' load forecasts.

**Figure 3. State of Florida: DSM Summer Peak Demand (MW) Savings**



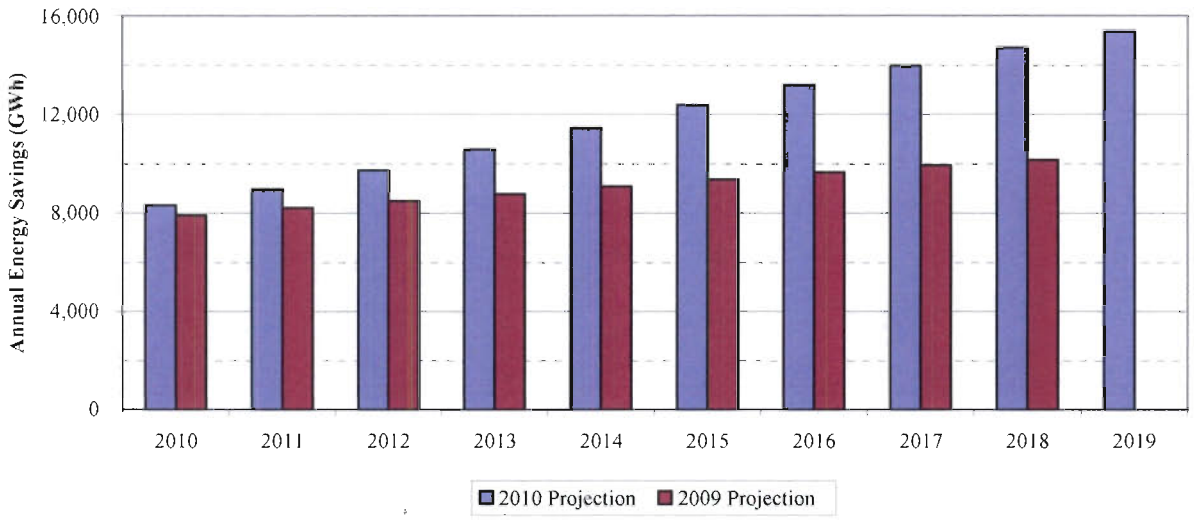

In contrast to summer peak demand savings, forecasted savings in winter peak demand due to DSM are reduced from last year at the beginning of the evaluation period. Conservation programs are estimated to result in a cumulative savings of 6,500 MW in 2010, increasing to 8,200 MW by the end of the period. These figures represent a reduction of approximately 170 MW at the beginning of the period, and a total net gain of only 190 MW over the ten-year period. This trend is illustrated in Figure 4 below.

**Figure 4. State of Florida: DSM Winter Peak Demand (MW) Savings**



Mandated building codes and appliance efficiency measures, voluntary conservation efforts, and customer participation in utility DSM programs are all contributors to declines in peak demand and annual energy consumption. Utility-sponsored DSM is projected to reduce annual energy consumption by 8,300 GWh in 2010, increasing to approximately 15,400 GWh in 2019. These high levels of energy savings allow utilities to avoid burning fossil fuels. Figure 5 below illustrates the projected total amounts of annual energy savings from utility-sponsored DSM programs over the ten-year planning horizon. The projected energy savings for 2010 represents an increase from the 2009 projection of 5,200 GWh, primarily from the inclusion of the new PSC-directed goals in some utility load forecasts.

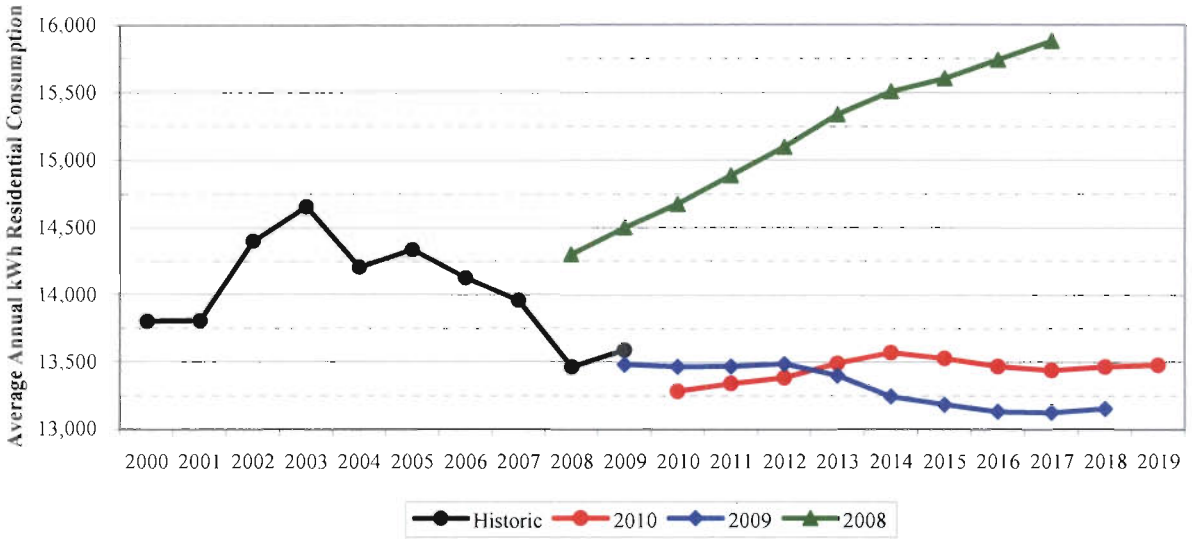
**Figure 5. State of Florida: DSM Net Energy for Load (GWh) Savings**




## Per Capita Energy Consumption

Per customer energy consumption, which is ultimately used to determine the utilities' net energy for load, is forecasted to increase slightly and then level off during the period 2010 through 2019. Illustrated in Figure 6 below, the current projection for per-capita residential consumption is a slow increase through 2014 that stabilizes around 13,500 kWh/year through the end of the decade. This trend is slightly different than the 2009 forecast, which featured stagnant consumption followed by a steady decrease before a similar plateau in the latter years of the forecast horizon. These changes appear to indicate a more optimistic forecast, with a slowly improving economy.

**Figure 6. State of Florida: Forecast Energy Consumption per Residential Customer (kWh/yr)**




## Energy and Demand Forecasts

Historically, Florida's actual electric demand has been highest in the summer. Consequently, the timing of future capacity additions, if necessary, will likely be governed by the projected summer peak demand. The utilities decreased their summer peak demand forecast greatly in 2009, and current forecasts reflect a continued reduction. Over the ten-year planning period, current annual summer peak demand forecasts are, on average, more than 1,500 MW less than the last year's forecasts. Figure 7 and Figure 8 illustrate the magnitude of the utilities' most recent reductions in peak demand forecasts when compared to prior forecasts.

**Figure 7. State of Florida: Historical Summer Peak Demand (MW) Forecasts by Forecast Year**

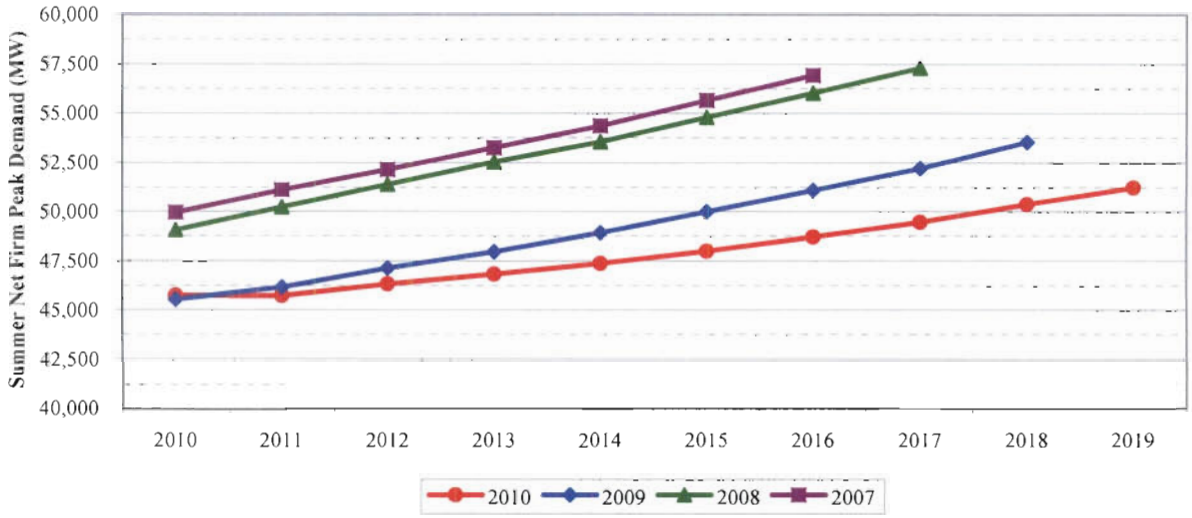
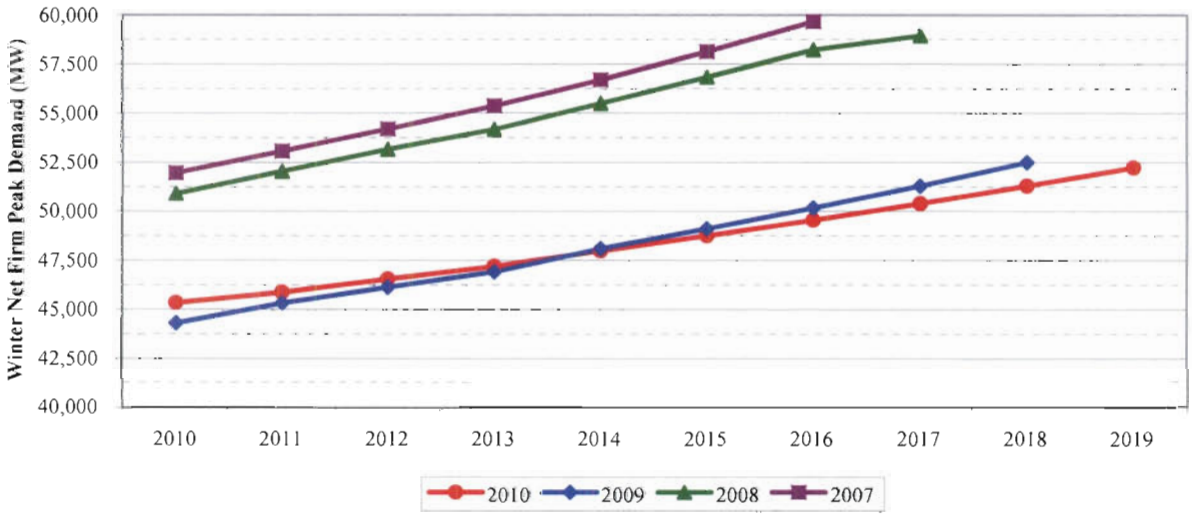


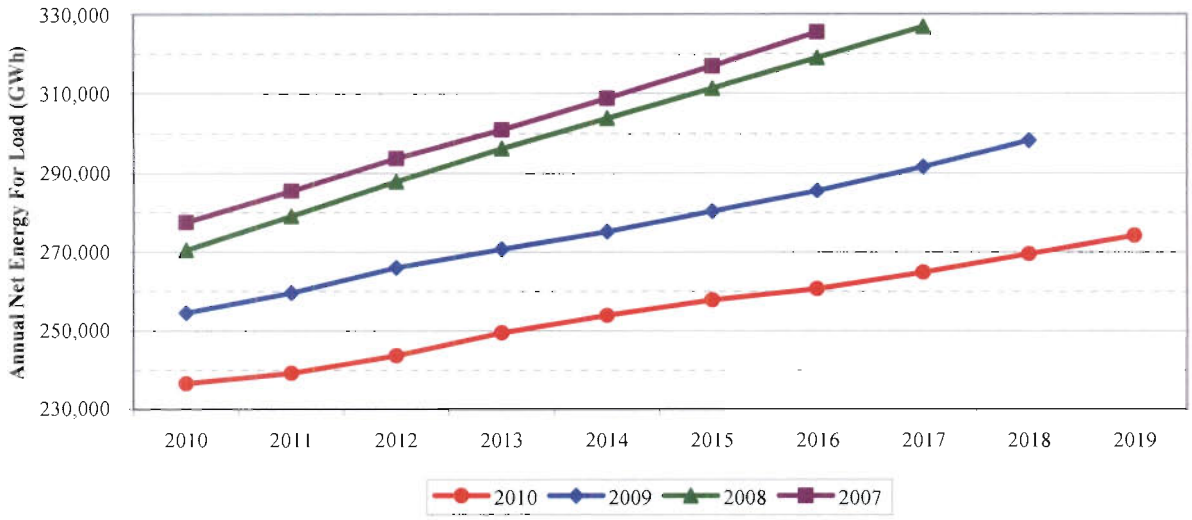

**Figure 8. State of Florida: Historical Winter Peak Demand (MW) Forecasts by Forecast Year**




Net energy for load, which is an accumulation of demand over time, represents the amount of energy (measured in GWh) necessary to meet a customer's need. While peak demand forecasts determine the size and timing of necessary generating capacity additions, net energy for load determines the type of generation that should be added. The utilities' current peak demand forecasts are significantly below previous years' forecasts, and a similar trend can be seen in the utilities'

energy forecasts as current annual net energy for load projections are on average nearly 23,000 GWh less than last year's projections. Figure 9 below illustrates the reduced energy forecasts when compared with prior years.

**Figure 9. State of Florida: Annual Net Energy for Load (GWh) Forecasts**




## Outlook

Current forecasts are significantly affected by state and national economic conditions. These conditions have resulted in dramatic reductions in energy consumption. Several utilities have reported net customer losses, and the state as a whole has reported a decline in population. Historically, however, utilities have seen an increase in energy sales following a recession. It is unclear at this time whether this decline is a short-term phenomenon based on current economic conditions in Florida and the nation as a whole, or is a portent of a longer downturn in population growth and energy usage in the state.

Another key element to future energy consumption is increasing conservation efforts. In Order Number PSC-09-0855-FOF-EG issued December 30, 2009, the Commission established aggressive conservation goals for the FEECA utilities, whose ratepayers make up a majority of customers in the state. The success of Florida's utilities in achieving sufficient customer participation in order to meet these increased conservation goals will have a significant impact upon future levels of demand and net energy for load.

# 4. RENEWABLE ENERGY GENERATION

## Federal Legislation

In 1978, the U.S. Congress enacted the Public Utility Regulatory Policies Act (PURPA), signed into law by President Carter on November 9, 1978. PURPA contained six titles and endorsed three broad national purposes: (1) conservation of electric energy, (2) increased efficiency in the use of facilities and resources by electric utilities, and (3) equitable rates for electricity consumers. Section 210 of Title II, entitled "Cogeneration and Small Power Production," requires electric utilities to interconnect and sell electric energy to qualifying cogeneration and small power production facilities, referred to as Qualifying Facilities, or QFs, and to purchase electric energy from these facilities at the utility's full avoided cost. The Federal Energy Regulatory Commission (FERC) was charged with adopting rules to implement PURPA. In addition, states were delegated authority to implement the FERC rules for electric utilities over which they had rate making authority.[6] In March 1980, the FERC issued its rules establishing the criteria for determining the qualifying status of a facility and setting out regulations for electric utility interconnection with, sales to, and purchases from QFs.[7]

## State Legislation

In response to PURPA in 1981, the Florida Legislature authorized the Commission to establish guidelines for the purchase and sale of capacity and energy from cogenerators and small power producers, which includes renewable generators. In 1989, the statutes were broadened with the enactment of Section 366.051, F.S., which declares that:

> Electricity produced by cogeneration and small power production is of benefit to the public when included as part of the total energy supply of the entire electric grid of the state or consumed by a cogenerator or small power producer. The electric utility in whose service area a cogenerator or small power producer is located shall purchase, in accordance with applicable law, all electricity offered for sale by such cogenerator or small power producer; or the cogenerator or small power producer may sell such electricity to any other electric utility in the state. The Commission shall establish guidelines relating to the purchase of power or energy by public utilities from cogenerators or small power producers and may set rates at which a public utility must purchase power or energy from a cogenerator or small power producer. In fixing rates for power purchased by public utilities from cogenerators or small power producers, the Commission shall authorize a rate equal to the purchasing utility's full avoided costs. A utility's "full avoided costs" are the incremental costs to the utility of the electric energy or capacity, or both, which, but for the purchase from cogenerators or

[6] In Florida, the Florida Public Service Commission has ratemaking jurisdiction over five investor-owned electric utilities: Florida Power & Light Company (FPL), Progress Energy Florida (PEF), Gulf Power Company (Gulf), Tampa Electric Company (TECO), and Florida Public Utilities Company (FPUC).

[7] QFs must meet all of the requirements of 18 C.F.R. §§ 292.203 and 292.204 for size and fuel use and be certified pursuant to 18 C.F.R. § 292.207.

small power producers, such utility would generate itself or purchase from another source.

In 2005 the Legislature enacted Section 366.91, F.S., which requires investor-owned utilities to continuously offer purchase contracts to producers of renewable energy. In 2006 the Legislature enacted Section 366.92, F.S., requiring the Commission to develop a draft rule, subject to ratification by the Legislature, establishing a Renewable Portfolio Standard (RPS) for Florida's investor-owned electric utilities. Subsection (3)(a)1, F.S., states:

> Notwithstanding s. 366.91(3)[8] and (4), upon the ratification of the rules developed pursuant to this subsection, the Commission may approve projects and power sales agreements with renewable power producers and the sale of renewable energy credits needed to comply with the renewable portfolio standard. In the event of a conflict, this subparagraph shall supersede s. 366.91 (3) and (4).

This section of the statutes is the first instance where the Legislature has given expressed authority for the Commission to approve cost recovery for renewable energy resources that are above the utility's avoided costs. The Commission submitted its draft rules implementing these provisions on October 2, 2008. To date, the Legislature has not ratified the draft rules.

## Commission Rules

Renewable facilities are permitted to enter into two types of contractual agreements for selling power: standard offer and negotiated contracts. Under these contracts, the energy can be sold as either "firm" or "as-available," depending on the characteristics of the output of the facility. When the output is continuous, except for occasional shutdowns for maintenance and repair, the utility also makes payments for the dependable capacity. These contract and payment options are outlined in Rule 25-17.0825 and Rule 25-17.0832, F.A.C.

*Standard Offer Contracts*

Standard offer contracts are pre-approved contracts for the purchase of firm capacity and energy from any renewable generating facility or small qualifying facility. Rule 25-17.230, F.A.C., requires each investor-owned electric utility to establish a standard offer contract for each fossil-fueled generating unit type identified in the utility's Ten-Year Site Plan. The renewable energy generator is allowed to select from a number of payment options that best fits its financing requirements as long as the total cumulative present value of such payments do not exceed full avoided cost and adequate security for front-end loaded payments is provided. For example, the Commission rules allow for levelized payments over the life of the contract which may include both capacity and energy costs.

[8] Section 366.91(3), F.S., adopts the avoided cost standard as defined in Section 366.051.

*Negotiated Contracts*

Renewable generating facilities are encouraged to negotiate purchase power contracts with investor-owned electric utilities pursuant to Rule 25-17.230, F.A.C. Payments to a qualified renewable generator pursuant to a negotiated contract may be recovered from ratepayers by the purchasing utility as long as the cumulative present value of the payments do not exceed the utility's full avoided cost and adequate security for front-end loaded payments is provided.

*Firm capacity payments:* Firm capacity is capacity (MW) produced and sold by a renewable energy generator pursuant to a standard offer contract or a negotiated contract subject to contractual commitments as to the quantity, time, and reliability of delivery. Firm capacity is purchased at rates specified in a standard offer contract which is equal to the utility's avoided capacity cost or at a negotiated rate which may not exceed the utility's avoided capacity cost. Full avoided cost is calculated by determining the cumulative present value of a year-by-year value of deferring each avoided unit over the term of the contract.

*Firm energy payments:* Firm energy is energy (kWh) produced and sold by a renewable energy generator pursuant to a negotiated contract or a standard offer contract subject to contractual commitments as to the quantity, time, and reliability of delivery. Generally, the rate of payment for firm energy, in cents per kWh, is the lesser of the fuel cost associated with the avoided unit or the utility's system decremental fuel cost.

*As-available energy payments:* As-available energy is energy (kWh) produced and sold by a renewable energy generator on an hour-by-hour basis for which contractual commitments as to the quantity, time, or reliability of delivery are not required. As-available energy is purchased at a rate in cents per kilowatt hour (kWh) equal to the utility's hourly decremental system fuel cost, which reflects the highest fuel cost of generation dispatched each hour. No capacity payments are made for as-available energy because no reliability benefits are received.

## Renewable Resource Outlook

In 2003, the Commission, in consultation with the Florida Department of Environmental Protection (FDEP), completed the 2003 Renewable Energy Assessment Report to identify renewable energy viability in Florida. According to the report, the most feasible sources of renewable energy in Florida are from biomass materials, such as agricultural waste products or wood residues, and industrial waste heat. The 2003 report also stressed that technical feasibility does not ensure economic cost-effectiveness when determining energy resource production.

In developing draft RPS rules pursuant to Section 366.92, F.S., the Commission, in conjunction with the Department of Energy and the Lawrence Berkeley National Laboratory, retained Navigant Consulting, Inc. to prepare a detailed assessment of Florida's renewable potential. The 2008 Navigant Consulting Renewable Energy Potential Assessment (the 2008 Navigant Consulting Report) reported on the existing renewable conditions, the projected potential for renewable development through 2020, compared cost-effective differences, and considered the potential levels of economic impact future renewables may have. The 2008 Navigant Consulting Report substantiated the Commission's 2003 assessment by observing that the majority of Florida's existing renewables consist of solid biomass plants and municipal solid waste facilities. Although the 2008 Navigant

Consulting Report considered solar technologies to have the largest technical potential of any renewable resource in Florida, only a portion of this potential can actually be achieved.

The 2008 Navigant Consulting Report described the comparison of the technical or physical potential versus the achievable potential. For example, although the technical potential for solar power in Florida may be relatively high according to Navigant Consulting, cost-effectiveness and siting issues significantly reduce the achievable potential to commercially develop solar energy technology. The driving forces to the expansion and sustainability of the renewable market depend on the overall value of renewable energy, a basis that is determined by the financial environment as well as government regulation and support. As noted in the 2008 Navigant Consulting Report, in order for the renewable market to have meaningful growth in Florida, the following key conditions must be met:

1. High fossil fuel costs
2. Access to low cost capital and debt rates
3. Continual government rebate programs and tax incentives
4. Established pricing of $CO_2$ emissions
5. Formation of a Renewable Energy Certificate (REC) market

Current economic and policy conditions generally coincide with Navigant Consulting's unfavorable scenario for future renewable development. Specifically, the unfavorable scenario for carbon assumes an initial price of $0/ton, scaling to $10/ton by 2020. Presently, no federal or state policy exists for establishing carbon pricing. The unfavorable scenario for the cost of debt was estimated to be approximately 8.5 percent, the cost of equity approximately 14 percent, and ready access to debt making up 50 percent of renewable project financing. Currently, credit markets are extremely tight and it is uncertain when conditions will improve. Navigant Consulting assumes natural gas costs to be $5-$6/MMBtu in the unfavorable scenario. Currently, natural gas is trading at $3.95/MMBtu, and most forecasts project natural gas prices to increase over the long term.

In the unfavorable scenario, Navigant Consulting estimated that Florida's solar rebate program would expire in 2010, with a $5 million annual funding level. The Florida Energy and Climate Commission was authorized to provide $25.4 million in rebates for solar energy equipment between 2006 and 2009. Currently the authorized budget has been depleted and many program participants are still owed rebates amounting to $54 million. Additionally, as mentioned previously, the Draft RPS Rule submitted by the Commission has not been ratified, so currently no REC market exists.

## Existing Renewable Resources

Currently, renewable energy facilities provide almost 1,220 MW of firm and non-firm capacity. Consistent with the 2008 Navigant Report, the majority of existing renewable facilities consist of biomass and municipal solid waste facilities. Table 2 below summarizes Florida's existing renewable resources.

**Table 2. State of Florida: Existing Renewable Resources**

| Fuel Type | Capacity (MW) |
|---|---|
| Solar | 34.5 |
| Wind | 0.0 |
| Biomass | 408.0 |
| Municipal Solid Waste | 398.1 |
| Waste Heat | 288.9 |
| Landfill Gas | 35.9 |
| Hydro | 54.5 |
| **Total** | **1,219.9** |

### Firm Renewable Contracts

A portion of Florida's renewable energy generation comes from renewable generators which sell to electric utilities under firm contracts. Capacity purchased under a firm contract from these renewable energy sources can defer the need for utilities to construct power plants. Florida's utilities currently purchase more than 466 MW of firm renewable generation, the majority from municipal solid waste facilities. Table 3 below lists firm contracts with the Ten-Year Site Plan utilities.

## Table 3. State of Florida: Contracts for Firm Renewable Energy

| Purchasing Utility | Facility Name | Fuel Type | Contracted Firm Capacity (MW) | Commercial In-Service Date |
|---|---|---|---|---|
| **Investor-Owned Utilities** | | | | |
| FPL | Broward-North | MSW | 56.0 | 1992 |
| FPL | Broward-South | MSW | 54.0 | 1991 |
| FPL | Palm Beach County | MSW | 50.0 | 2005 |
| PEF | Dade County Resource Recovery | MSW | 43.0 | 1991 |
| PEF | Lake County Resource Recovery | MSW | 12.8 | 1990 |
| PEF | Pasco County Resource Recovery | MSW | 23.0 | 1991 |
| PEF | Pinellas County Resource Recovery | MSW | 54.8 | 1983 |
| PEF | Ridge Generating Station | WDS | 39.6 | 1994 |
| TECO | City Of Tampa Refuse-To-Energy | MSW | 19.0 | 1985 |
| TECO | Hillsborough County Refuse-To-Energy | MSW | 23.0 | 1987 |
| | **Subtotal of IOUs** | | **375.2** | |
| **Municipal Utilities** | | | | |
| GRU | G2 Energy | LFG | 3.0 | 2008 |
| JEA | Trailridge | LFG | 9.6 | 2008 |
| | **Subtotal of Municipals** | | **12.6** | |
| **Cooperative Utilities** | | | | |
| SEC | Brevard Energy | LFG | 9.0 | 2008 |
| SEC | Seminole Landfill | LFG | 6.2 | 2007 |
| SEC | Timberline Energy | LFG | 1.6 | 2008 |
| SEC | Lee County Resource Recovery | MSW | 50.0 | 1999 |
| SEC | Telogia Power, LLC | WDS | 12.0 | 2004 |
| | **Subtotal of Cooperatives** | | **78.8** | |
| | **Total** | | **466.6** | |

### Non-Firm Renewable Energy Generators

Renewable energy facilities also produce almost 670 MW of non-firm capacity for sale to utilities on an as-available basis. Energy purchased on an as-available basis is considered non-firm capacity, so Florida's utilities do not count on this generation for reliability purposes. The energy produced by these facilities, however, can give a utility the ability to avoid burning fossil fuels from existing generators. Table 4 on the next page details the various non-firm energy purchases.

## Table 4. State of Florida: Non-Firm Renewable Energy Generators

| Purchasing Utility | Facility Name | Fuel Type | Non-Firm Capacity (MW) | Commercial In-Service Date |
|---|---|---|---|---|
| **Investor-Owned Utilities** | | | | |
| FPL | US Sugar-Bryant | OBS | 20.0 | 1980 |
| FPL | Georgia Pacific | WDS | 52.0 | 1983 |
| FPL | New Hope / Okeelanta | AB | 140.0 | 1985 |
| FPL | Tomoka Farms | LFG | 3.8 | 1998 |
| Gulf | Stone Container | WDS | 34.7 | 1960 |
| Gulf | International Paper Company | WDS | 42.8 | 1983 |
| Gulf | Montenay Bay LLC | MSW | 12.5 | 1987 |
| PEF | Proctor & Gamble (Buckeye) | WDS | 38.0 | 1954 |
| PEF | Potash Of Saskatchewan | WH | 42.0 | 1986 |
| TECO | South Pierce | WH | 23.0 | 1969 |
| TECO | New Wales | WH | 65.0 | 1984 |
| TECO | CF Industries | WH | 34.9 | 1988 |
| TECO | City Of Tampa Sewage | OBG | 1.6 | 1989 |
| TECO | Greenbay | WH | 0.0 | 1990 |
| TECO | Ridgewood | WH | 77.0 | 1992 |
| TECO | Millpoint | WH | 47.0 | 1995 |
| | **Subtotal of IOUs** | | **634.3** | |
| **Municipal Utilities** | | | | |
| FMPA | US Sugar Corporation | OBS | 26.5 | 1984 |
| GRU | Solar FIT Program | SUN | 8.0 | 2009 |
| OUC | Orange County Convention | SUN | 1.0 | 2009 |
| | **Subtotal of Municipals** | | **35.5** | |
| | **Total** | | **669.8** | |

### Existing Utility-Owned Renewable Resources

The utilities also own some renewable facilities, which represent a range of technologies. Table 5 below lists some of the larger utility-owned resources, which consist mostly of non-firm or intermittent resources. Because the energy is non-firm, these facilities serve more to reduce fuel consumption than to eliminate system capacity. Several utilities also own smaller systems, including over 500 kW of distributed solar PV systems. A more indirect renewable system is the landfill gas purification system, which cleans the renewable gas such that it can be used in existing natural gas-fired turbines, thereby displacing fossil fuels.

**Table 5. State of Florida: Existing Utility Owned Renewable Generation**

| Purchasing Utility | Facility Name | Fuel Type | Capacity (MW) | Commercial In-Service Date |
|---|---|---|---|---|
| **Investor-Owned Utilities** | | | | |
| FPL | DeSoto | SUN | 25.0 | 2009 |
| Various | Distributed Solar Installations (Aggregate) | SUN | 0.1 | Varies |
| | **Subtotal of IOUs** | | **25.1** | |
| **Municipal Utilities** | | | | |
| JEA | North Landfill | LFG | 1.5 | 1997 |
| JEA | Girvin Landfill | LFG | 1.2 | 1999 |
| JEA | Buckman | OBG | 0.8 | 2003 |
| TAL | Corn Hydro | WAT | 11.0 | 1985 |
| Various | Distributed Solar Installations (Aggregate) | SUN | 0.4 | Varies |
| | **Subtotal of Municipals** | | **14.9** | |
| **Other Utilities** | | | | |
| UCEM | Jim Woodruff | WAT | 43.5 | 1957 |
| | **Subtotal of Others** | | **43.5** | |
| | **Total** | | **83.5** | |

### Self-Service Renewable Generation

In addition to those facilities which provide renewable energy to the grid through contracts or as-available energy tariffs, several self-service renewable facilities also produce energy. Facilities such as these do not deliver energy to the grid, but rather meet or reduce their own energy requirements through the use of renewable energy. These facilities cannot be counted on for reliability purposes, similar to non-firm renewables, but they do still play a role in reducing Florida's dependence upon fossil fuel-fired generation.

## Net Metering

Net metering is an arrangement between a utility and a customer with renewable generation capability whereby the customer's energy usage is offset by the amount of energy generated. If the customer's energy usage is less than that produced by the renewable generator, then the utility will credit the customer's account for that energy. Conversely, the customer will be billed for any energy consumed that exceeds the energy generated. Typically, two meters are used to keep account of the amount of energy consumed and the amount of energy generated.

In April 2008, the Commission amended Rule 25-6.065, F.A.C., on interconnection and net metering for customer-owned renewable generation. The rule requires the IOUs to offer a standard interconnection agreement with an expedited interconnection process and net metering for all types of renewable generation up to 2 MW in capacity. Customers first benefit from such renewable systems by reducing their energy purchases from the utility. Net metering provides an additional benefit by allowing customers with excess renewable energy production to reduce future energy purchases from the utility.

The Commission's rule requires all electric utilities to annually report data associated with their interconnection and net metering programs. Data submitted in April 2009 show that the number of customers owning renewable generation systems in Florida is growing. Electric IOUs report that 1,044 customers owned solar photovoltaic systems in 2009, up from 383 in 2008. For all electric utilities, about 13,236 kilowatts (13.2 MW) of solar photovoltaic capacity from 1,590 systems have been installed statewide. Florida's utilities reported the following information on customer-owned renewable generation for 2009, listed on Table 6 below.

**Table 6. State of Florida: Customer-Owned Renewable Generation**

| Utility Type | Connections | Non-Firm Capacity (MW) |
|---|---|---|
| Investor-Owned | 1,044 | 7.903 |
| Municipal | 303 | 3.378 |
| Rural Electric Cooperatives | 243 | 1.955 |
| **Total** | **1,590** | **13.236** |

## Proposed Renewable Generation

Florida's utilities plan to construct or purchase an additional 734 MW of renewable generation over the ten-year planning period. The majority of the additions are currently proposed to come from biomass, with significant amounts from solar and municipal solid waste as well. Table 7 below summarizes the planned renewable resources through the planning horizon.

**Table 7. State of Florida: Planned Renewable Resource Net Additions**

| Fuel Type | Capacity (MW) |
|---|---|
| Solar | 296.2 |
| Wind | 13.8 |
| Biomass | 372.0 |
| Municipal Solid Waste | 20.0 |
| Waste Heat | 0.0 |
| Landfill Gas | 32.3 |
| Hydro | 0.0 |
| **Total** | **734.3** |

On the following pages, Table 8, Table 9, and Table 10 provide detailed lists of the renewable resources planned for construction over the ten-year period in Florida. Table 8 below shows that of the renewable firm capacity in Florida planned over the ten-year horizon, the majority is MSW that will be purchased by IOUs.

## Table 8. State of Florida: List of Planned Renewable Firm Capacity

| Purchasing Utility | Facility Name | Fuel Type | Contracted Firm Capacity (MW) | Commercial In-Service Date |
|---|---|---|---|---|
| **Investor-Owned Utilities** | | | | |
| FPL | Palm Beach County Resource Recovery Uprate | MSW | 5.0 | 2012 |
| PEF | BG&E #2 | WDS | 75.0 | 2011 |
| PEF | Hathaway Units 1-3 | OBS | 48.0 | 2013 |
| PEF | BG&E #1 | WDS | 45.0 | 2013 |
| PEF | FB Energy | AB | 60.0 | 2014 |
| | **Subtotal of IOUs** | | **233.0** | |
| **Municipal Utilities** | | | | |
| GRU | G2 Energy | LFG | 0.8 | 2010 |
| GRU | Gainesville Renewable Energy Center | WDS | 100.0 | 2013 |
| JEA | Trailridge | LFG | 6.0 | 2011 |
| | **Subtotal of Municipals** | | **106.8** | |
| **Cooperative Utilities** | | | | |
| SEC | Hillsborough Waste to Energy Uprate | MSW | 15.0 | 2010 |
| SEC | Bee Ridge | LFG | 3.2 | 2010 |
| SEC | Timber Energy | WDS | 13.0 | 2010 |
| SEC | Hendry County | AB | 25.0 | 2012 |
| | **Sub-Total of Cooperatives** | | **56.2** | |
| | **Total** | | **396.0** | |

Similar to planned firm capacity purchases, Table 9 below shows that most of the non-firm capacity planned in Florida will be purchased by IOUs. However, unlike firm capacity, it will be almost exclusively solar powered.

**Table 9. State of Florida: List of Planned Renewable Non-Firm Capacity**

| Purchasing Utility | Facility Name | Fuel Type | Non-Firm Capacity (MW) | Commercial In-Service Date |
|---|---|---|---|---|
| **Investor-Owned Utilities** | | | | |
| FPL | WM Renewable Energy | LFG | 8.0 | 2010 |
| PEF | Eliho | OBS | 6.0 | 2010 |
| PEF | Blue Chip Energy | SUN | 10.0 | 2010 |
| PEF | National Solar #1-6 | SUN | 127.0 | Varies |
| | **Subtotal of IOUs** | | **151.0** | |
| **Municipal Utilities** | | | | |
| GRU | Solar FIT Program | SUN | 20.0 | Varies |
| JEA | Jacksonville Solar | SUN | 15.0 | 2010 |
| LAK | SunEdison PV Projects | SUN | 24.0 | Varies |
| OUC | Solar Farm | SUN | 9.4 | 2011 |
| OUC | Solar Aggregation Project | SUN | 0.8 | 2011 |
| OUC | Harmony | SUN | 5.0 | 2013 |
| | **Subtotal of Municipals** | | **74.2** | |
| | **Total** | | **225.2** | |

Table 10 below shows that ninety percent of the utility-owned renewable projects planned in Florida in the next ten years will be owned by IOUs. The remaining ten percent is planned by municipal utilities.

**Table 10. List of Planned Utility-Owned Renewable Additions**

| Purchasing Utility | Facility Name | Fuel Type | Capacity (MW) | Commercial In-Service Date |
|---|---|---|---|---|
| **Investor-Owned Utilities** | | | | |
| FPL | Space Coast Next Generation Solar Energy Center | SUN | 10.0 | 2010 |
| FPL | Martin Next Generation Solar Energy Center | SUN | 75.0 | 2010 |
| FPL | St Lucie Wind | WND | 13.8 | TBD |
| Gulf | Perdido | LFG | 3.0 | 2010 |
| | **Subtotal of IOUs** | | **101.8** | |
| **Municipal Utilities** | | | | |
| OUC | STC LFG | LFG | 2.0 | 2011 |
| OUC | Holopaw LFG | LFG | 9.3 | 2013 |
| | **Subtotal of Municipals** | | **11.3** | |
| | **Total** | | **113.1** | |

Pursuant to current state and federal law, payments for capacity and energy purchased by utilities to generation facilities using renewable energy sources are capped at the utility's avoided cost for capacity and energy. In spite of the downturn in load growth resulting in reduced need for new generation, renewable generation has increased. Compared to figures in the 2009 Ten-Year Site Plan Review, existing renewable generation facilities have grown by approximately 4.2 percent (49 MW). However, in September 2010, Progress Energy Florida announced the termination of two large renewable purchased power contracts, which had represented almost twenty percent of the state's planned new renewable generation. A 40 MW biomass project and a 60 MW refuse-to-energy project were both cancelled due to a lack of funding. As a result, when compared to the 2009 Ten-Year Site Plan Review, the amount of new renewable generation planned for the ten-year horizon has decreased by approximately 1.75 percent (13.1 MW).

## Updated Navigant Consulting Report

The Commission contracted with Navigant Consulting in early 2010 to update their 2008 analysis with current conditions. In June 2010, Navigant Consulting released new comparisons of cost estimates for different renewable generating facilities. Navigant Consulting also provided additional detail pertaining to Florida's renewable resource which they identified as having the most technical potential for growth, solar photovoltaic facilities. Findings from the report are summarized below.

In the 2010 Navigant Consulting Report Update, the most meaningful findings include changes in prices of renewable technologies. PV module prices have fallen and commodity costs for PV units have decreased during the recession, but both are returning to near their pre-recession levels. Wind power prices have also decreased due to the recession, while utility turbine prices have risen as worldwide demand catches up with supply. According to the 2010 Navigant Consulting Report Update, no large performance breakthroughs occurred for any technology. Because Navigant Consulting found solar resource to hold the most potential in Florida, the remainder of the 2010 Navigant Consulting Report Update focuses on solar power.

The 2010 Navigant Consulting Report Update estimates that solar power systems have increased in efficiency while overall prices have decreased up to 40 percent from 2008. In spite of these changes, solar power systems continue to have some of the highest capital costs per kW of any renewable generating system. Varying the methods of using solar energy involving solar tracking technology and alternating solar film receptors produce a slight range of energy output and net capacity factors. In addition, the ability of solar PV systems to provide energy are limited to daytime hours. Supplemental battery storage units may alleviate this issue, but the costs of batteries are not included in Navigant Consulting's estimates and would therefore increase the capital and operating and maintenance (O&M) costs shown below in Table 11.

## Table 11. Solar Technology Comparison

| Category | Unit | High Efficiency with Tracking | | | High Efficiency without Tracking | | | Fixed Thin Film | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Summer Peak Output | $MW_{AC}$ | 6.85 | | | 6.76 | | | 6.82 | | |
| Winter Peak Output [A] | $MW_{AC}$ | 7.89 | | | 7.89 | | | 7.66 | | |
| Net Capacity Factor [B, C] (DC to AC) | % | 18.4-18.8% | | | 14.6-14.8% | | | 15.8-16.1% | | |
| Net Capacity Factor [C] (AC to AC) | % | 23.0-23.5% | | | 18.3-18.5% | | | 19.8-20.1% | | |
| **Projected Year** | | **2010** | **2015** | **2020** | **2010** | **2015** | **2020** | **2010** | **2015** | **2020** |
| Installed Cost [D] | $\$/kW_{DC}$ | $5,800 | $5,000 | $4,200 | $5,100 | $4,500 | $3,900 | $4,600 | $4,000 | $3,250 |
| Fixed O&M [E] | $\$/kW_{DC}$-yr | $35 | $30 | $26 | $28 | $24 | $21 | $40 | $34 | $30 |

Chart Notes

(A) Winter output is higher because the inverse relationship between temperature and output balances out the fact that the sun is directly overhead in the summer.

(B) The range accounts for slight weather variations between north and south Florida. The values reported here are first year capacity projections. System output will degrade at between 0.3% and 0.7%/Year

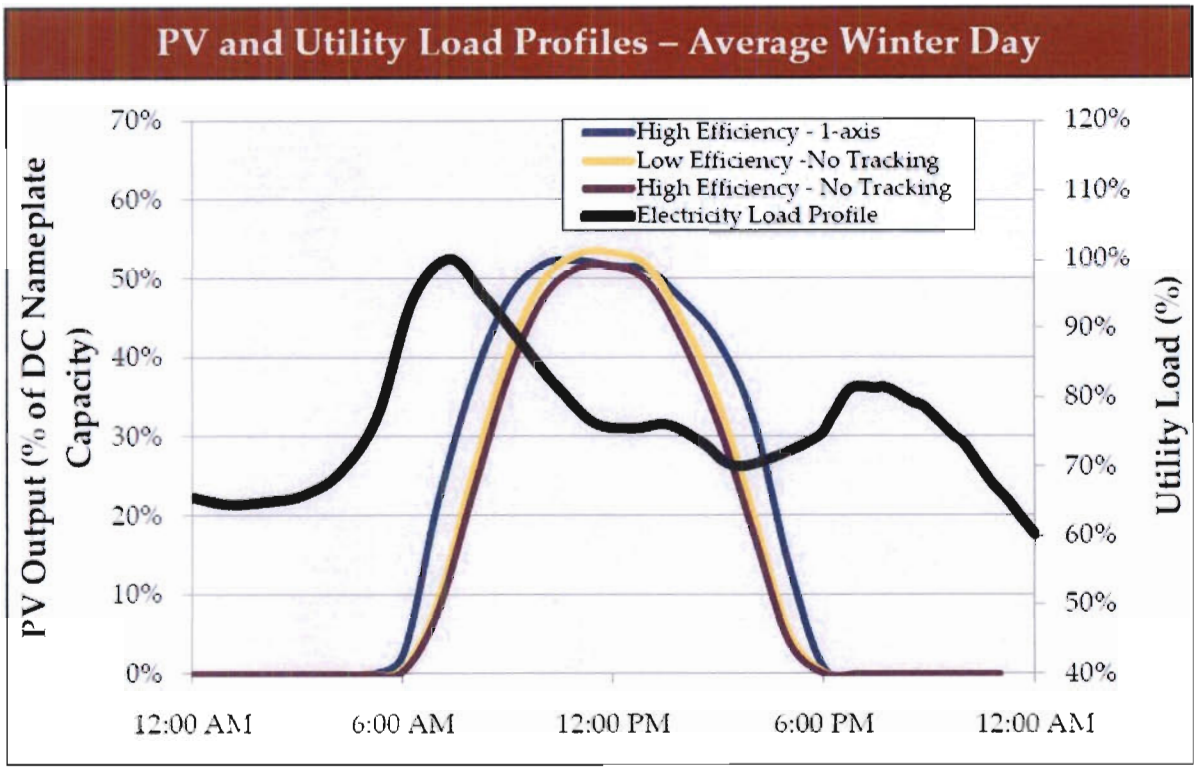
(C) Peak output and capacity factors calculated simulating systems in Florida using the National Renewable Energy Laboratory's Solar Advisory Model

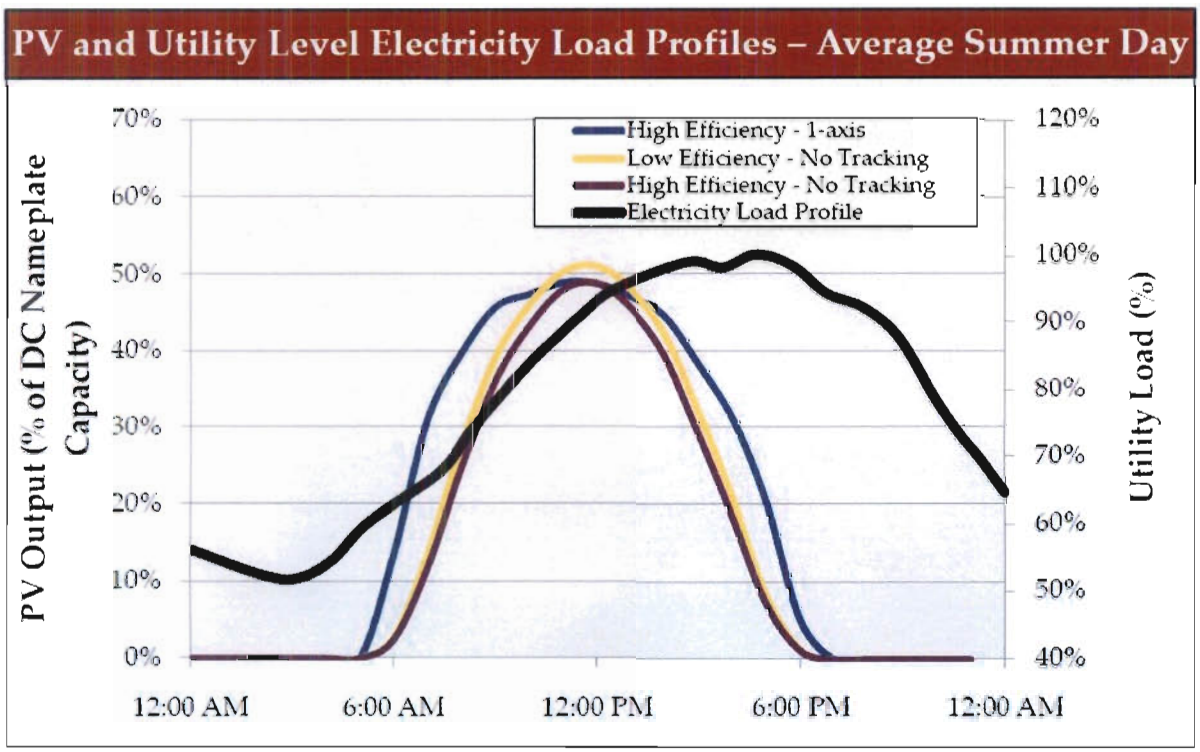
(D) This cost includes permitting and interest during construction, but does not include interconnection, transmission, or substation upgrade costs.

(E) This estimate does not include property taxes.

Even with these advancements, capacity factors of solar panels are projected to remain below 25 percent. Such results indicate that solar PV facilities operate more like a conventional peaking unit and will not replace the need for base-load generating facilities. However, Navigant Consulting also reported that operating characteristics for these systems do not correlate with daily peak load hours. Figure 10 below shows the varying hourly capacity potential against the average daily demand in Florida. Navigant Consulting estimates that the peak output from solar PV facilities reaches a maximum of approximately 50 percent of the rated capacity and occurs after the system's winter peak hour and before the system's summer peak hour. As a result, a solar PV facility's ability to provide reliability benefits appears limited.

**Figure 10. Solar PV Output and Utility Seasonal Load Profiles**



## Florida's Large Solar Projects

The development of new renewable energy facilities in the state, such as solar, continues to depend largely on continued government subsidies and rebates. To demonstrate the feasibility and viability of clean energy systems, the Florida Legislature passed amendments to Section 366.92, F.S., during the 2008 legislative session. One amendment allows full cost recovery under the environmental cost recovery clause for certain renewable energy projects up to a total of 110 MW.

On July 15, 2008, the Commission approved FPL's petition for the approval of eligibility of cost recovery of three solar energy projects totaling 110 MW, pursuant to Section 366.92(4), F.S. FPL's DeSoto Solar and Space Coast Solar generate 25 MW and 10 MW, respectively. DeSoto Solar uses tracking array solar photovoltaic (PV) panels, while Space Coast Solar uses fixed array solar PV panels. FPL's largest project, Martin Solar, will be a 75 MW solar thermal steam generating facility at the existing Martin Power Plant Site in Martin County, Florida. Martin Solar involves the installation of solar thermal technology integrated into the existing steam cycle for Martin 8, a natural gas-fired combined cycle generating unit. The supplemental steam to be supplied by Martin Solar will be generated from concentrating solar radiation through parabolic trough solar collectors. By using this technology, Martin Solar is designed to serve as a fuel substitution resource and will not provide additional capacity.

At the time of the filing, FPL estimated that the three solar facilities would cost an additional $573 million above traditional generation costs over the life of the facilities. FPL currently estimates that the three solar facilities will cost an additional $535 million above avoided cost over the life of the facilities, a slight reduction from what was originally estimated. The result is a monthly increase to a typical residential bill of approximately $1.01 by 2011, the first full year of operation for the three facilities. The solar facilities are expected to reduce the consumption of oil by 991,000 barrels, natural gas by 44,487,000 MMBtu, and $CO_2$ production by over 3 million tons over the next 30 years. While the economic impact of reducing oil and natural gas consumption is accounted for in FPL's estimates, the strategic benefits of reducing the use of a finite fossil fuel source are not captured. In addition, if/when Congress passes legislation that regulates the cost of greenhouse gas emissions, then the cost of traditional generation technology will increase, adding to the net value of non-emitting facilities such as solar PV facilities.

# 5. TRADITIONAL ENERGY GENERATION

Load forecasts continue to indicate that the state's electrical energy needs will exceed even the increased DSM and energy efficiency programs described earlier. While reduced demand has led to the recent delay of several projects, additional traditional generation will be necessary to satisfy reliability requirements and provide sufficient energy to Florida's consumers. Florida's electric utilities must carefully weigh several factors in selecting a supply-side resource for future traditional generation projects. Any capacity addition has certain economic impacts based on the capital required for the project. Typically, more fuel-efficient units have higher capital costs, and the trade-offs between these two characteristics must be carefully considered. The type of fuel used is also important, as a heavy reliance upon any single fuel for a utility's generation fleet exposes the utility's ratepayers to increased risk of fuel price volatility and availability.

Florida's utilities must also contend with increasing environmental concerns, especially those relating to carbon dioxide emissions. Discussions regarding emissions requirements for greenhouse gases are underway at a national level. Potential incremental environmental requirements and costs must be considered to fully evaluate any new supply-side resources.

## Capacity Types

Traditional generating plants are generally classified as one of three capacity types: base load, peaking, or intermediate. A utility's goal for a base load unit is continuous operation, with the exception of planned outages for maintenance requirements. Base load units are characterized by high capital costs, low fuel costs, and long permitting and construction lead times. Peaking units, on the other hand, are operated least frequently at times of highest demand only. These units have lower capital costs, highest fuel costs, and the shortest lead times. Intermediate units supply the middle ground, providing power to follow load for longer durations than peaking units, but not the continuous output of a base load power plant. Correspondingly, the capital costs, fuel costs, and lead times of intermediate units are between those of base load and peaking units.

Once the timing of capacity additions is determined to meet reliability criteria, the technology and fuel type can be determined. The selection of a particular unit can be influenced by various factors, including fuel prices, availability, reliability, and transmission limitations. A utility's daily operations are guided by the principle of economic dispatch, wherein variations in the price of fuel and other market concerns are evaluated to determine the least expensive means of producing electric power. As a result of market fluctuations, the relative usage of each unit varies based on operating fuel costs, and any particular unit may fall into more than one category.

Combustion turbines are the typical peaking unit selected for new generation by Florida's utilities. They are commonly fueled by natural gas, though some have dual-fuel capability with light oil as an alternative. Small utilities also utilize internal combustion engines as peaking units. Steam generators form the backbone of existing base load generation in Florida, with either coal-fired boilers or nuclear steam. Except for new nuclear generation, most new base load generation in Florida is planned to be natural gas-fired combined cycle units, which can also be dispatched as intermediate units.

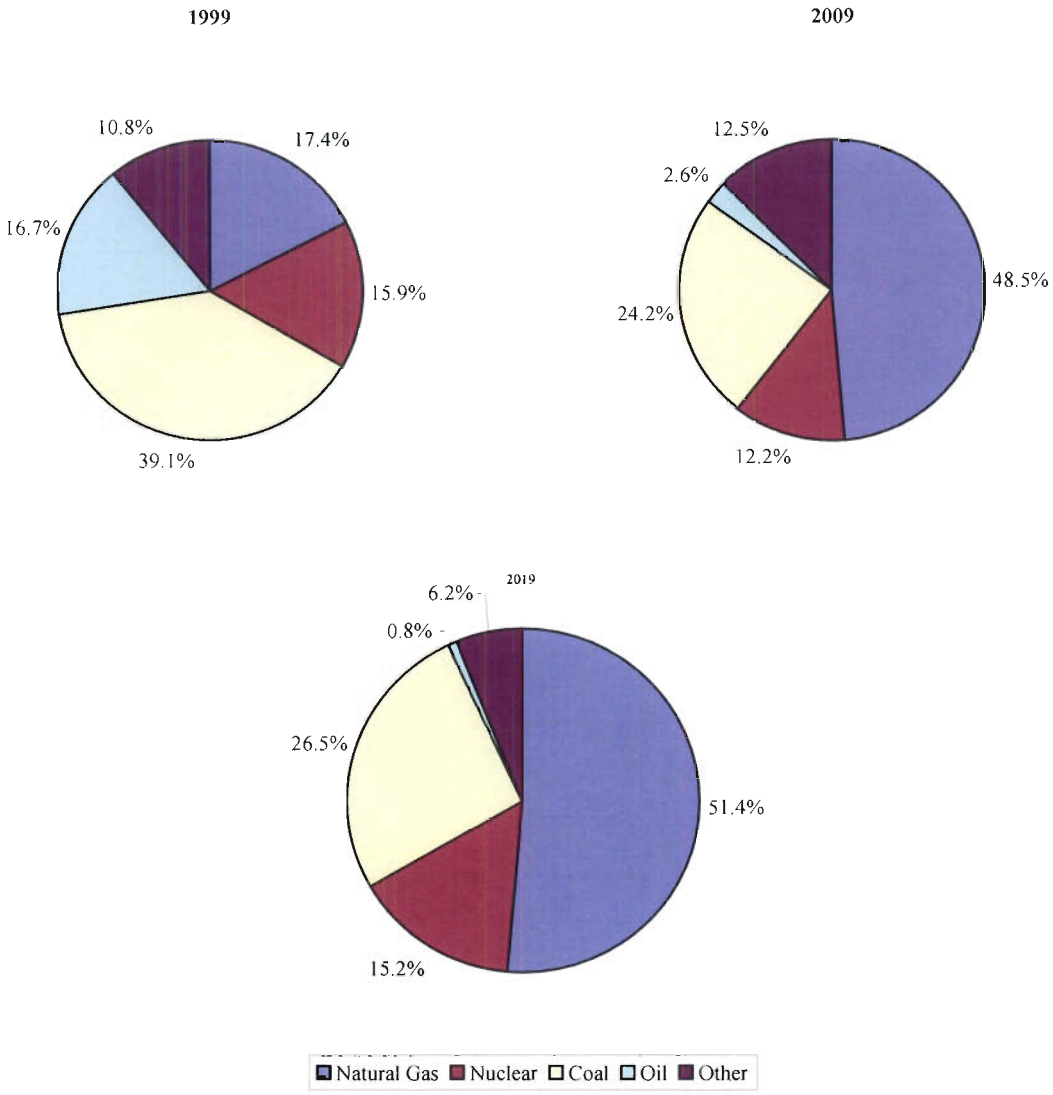
## Fuel Diversity

Prior to the dramatic increase in oil prices in the late 1970s, Florida's utilities used oil as the primary fuel source for generating electricity. In accordance with energy policy established by the Legislature and implemented by the Commission, Florida's utilities made a concerted effort to add generating units that used solid fuels. One early response was the purchase of economical "coal-by-wire" from the Southern Company, which had a temporary surplus of coal-fired generation resources already constructed. The Commission led the utilities' efforts to maintain fuel diversity with regulatory programs such as the Oil Backout Cost Recovery Factor, which gave utilities an incentive to recover costs of converting from oil-based generation to other fuels, and the Energy Broker, a computerized system which matched buyers and sellers of economy energy to minimize the real time fuel costs of the participating utilities.

In 1987, the U.S. Congress repealed the Power Plant and Industrial Fuel Use Act, which restricted the use of natural gas as a boiler fuel and contributed to a significant oversupply of natural gas. Shortly after the repeal, a new era of highly efficient, flexible, environmentally preferred combustion turbine (CT) and combined cycle (CC) units entered the market in response to falling natural gas prices. The addition of these technologies by Florida's utilities fostered an increase in the use of natural gas to produce electricity. Due to the state's continued increase in the demand for electricity and the relatively low natural gas prices during the 1990s, Florida's utilities continued to add gas-fired generating units to satisfy economic and reliability needs.

Natural gas has become the chief fuel used by Florida's electric utilities, with an increase from nearly 17.4 percent of the state's electricity requirements in 1999 to 48.5 percent in 2009. This trend is expected to continue, with projections indicating that natural gas-fired generation will supply 51.4 percent of the state's electrical requirements by 2019. Figure 11 on the next page illustrates Florida's energy generation by fuel type, clearly showing the increasing dependency on a single fuel source.

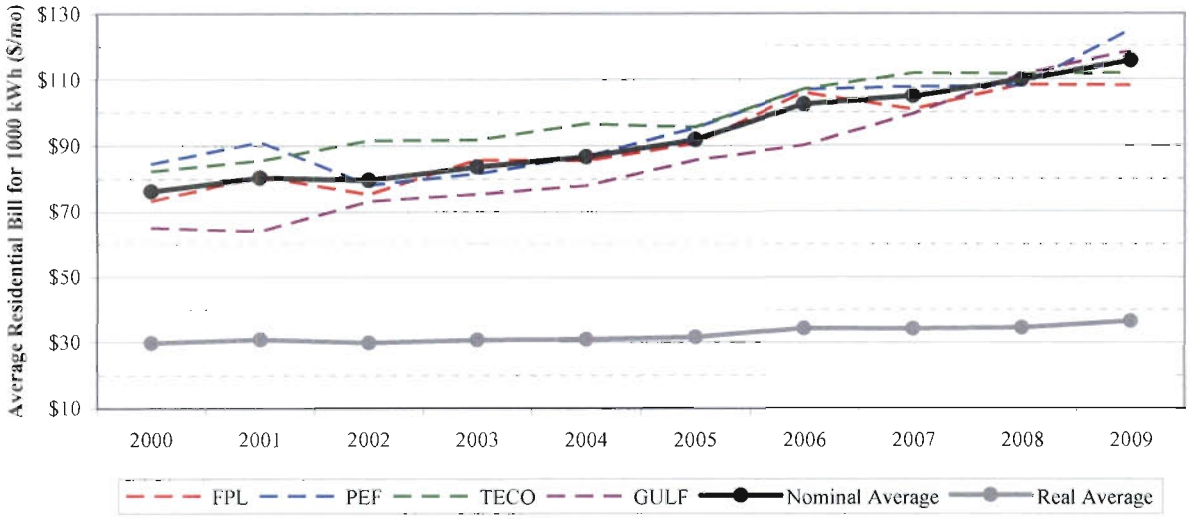
**Figure 11. State of Florida: Energy Generation by Fuel Type (Percent of Total)**




## Impact on Customer Bills

Between 1980 and 2000, moderate fuel prices, as well as a balanced planning approach used by Florida's utilities, resulted in relatively stable nominal average electricity prices for Florida's ratepayers with real prices actually declining. In 2001, natural gas prices began to increase nationwide, and as a result, electricity prices have increased as well. This trend has continued throughout the decade although real prices have remained relatively stable and show only a slight rate of increase. Figure 12 below illustrates this trend for the four largest IOUs.

**Figure 12. IOUs: Average Residential Electric Bill (2000 through 2009)**




Electricity prices have been increasing consistently since 2003, when natural gas prices began to increase nationwide. Natural gas tends to feature a high degree of price volatility, ranging from short-term spikes due to natural gas supply disruptions (such as in 2005 caused by hurricanes and tropical storms in the Gulf of Mexico), to the more dramatic price spike in 2008. Natural gas prices returned to significantly lower levels and remained there during 2009. Volatile natural gas prices have had a dramatic effect on customer bills in Florida and have resulted in several mid-term adjustments of the Fuel Clause. Of customer's retail bills, approximately half is comprised of fuel or purchased power costs, for which the IOUs are not allowed to earn a profit. Such events illustrate the importance of a balanced fuel supply, since fuel diversity can serve as a risk mitigation strategy by providing a dampening effect on fuel price volatility caused by daily market fluctuations.

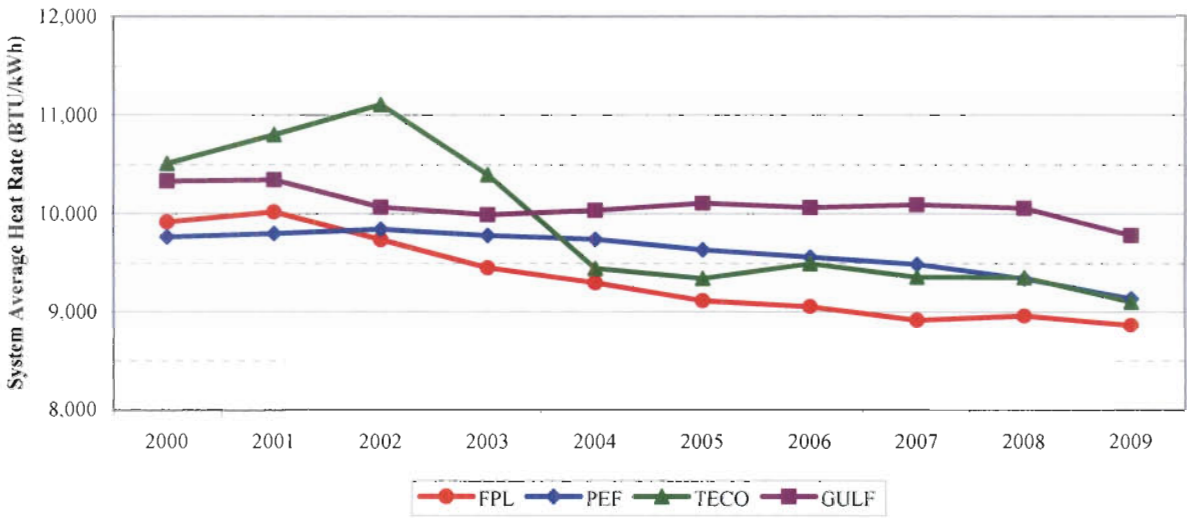
Over the last 20 years, Florida's utilities have increasingly relied upon natural gas to satisfy the state's growing energy demand. Any overdependence upon a single fuel, however, leads to significant risks relating to supply disruptions or price fluctuations, which can result in customer rate increases. Having multiple generating units with different fuel types increases the overall capital cost of a system, but also gives operational advantages. Maintaining a fleet capable of using a variety of fuels allows Florida's electric utilities to better adapt to changes in the economic and regulatory landscape by utilizing the least expensive fuel and meeting emissions standards at a minimum incremental cost to customers.

**Utility Generation Efficiency and Modernization**

Maintaining an efficient generation fleet plays an important role in meeting the many environmental, economic, and reliability issues that Florida's electric utilities must address. Increased efficiency results in reduced fuel consumption, which lowers fuel costs, fuel transport requirements, and environmental emissions. Overall, Florida's investor-owned utilities have steadily increased the efficiencies of their generating fleets, as shown in the system average heat rates illustrated in Figure 13 below. A lower heat rate value indicates a more fuel efficient system. Improved efficiency can be

accomplished by the construction of new efficient generating units, the retirement of older and less efficient generating units, or the modernization of existing generating units.

**Figure 13. IOUs: System Average Heat Rates**




The modernization of existing generating units allows for significant improvements in both performance and emissions, typically at a price lower than new construction. Modernization typically involves the conversion of generating units from less efficient fossil steam generation to combined cycle generation. This conversion increases capacity while improving the thermal efficiency of the existing unit, resulting in decreased fuel use and lower emissions. Steam generation can also be improved by installing more advanced equipment, such as the nuclear uprates discussed below.

Since the existing unit must be removed from service for a period of time, a utility's reliability is affected during the conversion process. As a result, scheduling modernizations during periods of temporary excess capacity is more desirable. With the forecasted decline in load, several of Florida's utilities may have sufficient reserve margins to allow some of their smaller units to be converted, and the upcoming ten-year planning horizon appears to be an ideal window for completing these types of projects. Not all sites are candidates for modernization due to site layout and other concerns, and to minimize rate impacts, modernization of existing units should be investigated before considering new construction. Utilities should continue to explore potential conversion projects and report the feasibility and economic viability of each conversion in next year's Ten-Year Site Plans and before any need determination filing.

In response to a staff data request, the Ten-Year Site Plan utilities identified the following facilities that are potentially capable of conversion. Table 12 below summarizes their responses.

## Table 12. IOUs: Fossil Steam Facilities to Consider for Conversion

| Company | Plant Name | Fuel & Unit Type | Combined Summer Capacity (MW) | In-Service Year(s) | Unit Notes |
|---|---|---|---|---|---|
| FPL | Riviera Units 3 & 4 | Oil Steam | 565 | 1962 - 1963 | Approved for Modernization |
| FPL | Cape Canaveral Units 1 & 2 | Oil Steam | 792 | 1965 - 1969 | Approved for Modernization |
| FPL | Cutler Units 5 & 6 | Natural Gas Steam | 205 | 1954 - 1955 | Inactive Reserve (2010) Not to Return |
| FPL | Manatee Units 1 & 2 | Oil Steam | 1,624 | 1976 - 1977 | - |
| FPL | Martin Units 1 & 2 | Oil Steam | 1,652 | 1980 - 1981 | - |
| FPL | Sanford Unit 3 | Oil Steam | 138 | 1959 | Inactive Reserve (2010) Not to Return |
| FPL | Turkey Point Unit 1 | Oil Steam | 396 | 1967 | - |
| FPL | Turkey Point Unit 2 | Oil Steam | 392 | 1968 | Inactive Reserve (2010) Returns 2018 |
| FPL | Port Everglades ST1-4 | Oil Steam | 1,205 | 1960 - 1965 | Inactive Reserve (2010-11) Unit 3 Returns 2019 |
| PEF | Crystal River 1 & 2 | Coal Steam | 869 | 1966 - 1969 | - |
| PEF | Suwannee Steam Plants | Oil Steam | 131 | 1953 - 1956 | - |
| PEF | Anclote Steam Plants | Oil Steam | 1,011 | 1974 - 1978 | - |
| Gulf | Plant Scholz Coal Units | Coal Steam | 92 | 1953 | - |
| Gulf | Plant Smith Coal Unit | Coal Steam | 357 | 1965 - 1967 | - |
| | **Total Capacity** | | **9,429** | | |

The Commission has already granted determinations of need for two conversions from fossil steam to combined cycle units. The approved conversions, located at FPL's Cape Canaveral and Riviera sites, represent a significant increase in generating capacity while reusing the plant site and reducing fuel usage and emissions. PEF has also recently conducted a conversion of its Bartow plant from fossil steam to a combined cycle unit. This conversion did not require a PPSA determination of need. PEF currently plans the retirement of Crystal River Units 1 and 2 after Levy Unit 2 has completed its first fuel cycle, due to stipulations relating to environmental issues. Gulf also is evaluating the conversion of two of its smaller coal units, Scholz Units 1 and 2, to biomass fuel.

In its 2009 Ten-Year Site Plan, FPL revealed plans to remove from service several of its natural gas-fired and oil-fired steam units and place them into "Inactive Reserve" status. These units, named in Table 12, are all considered candidates for modernization. FPL has determined that by temporarily removing these units, which have high operating costs, the utility can more affordably serve its customers. Changes in customer demand, recent construction of more efficient generating units, and other capacity additions have created excess capacity in FPL's system; therefore, these units are not required to serve customer demand and will not adversely affect FPL's reliability due to their unavailability. These units will continue to be maintained and can be returned to service as needed, dependent upon load forecasts.

### Reserve Margin Requirements

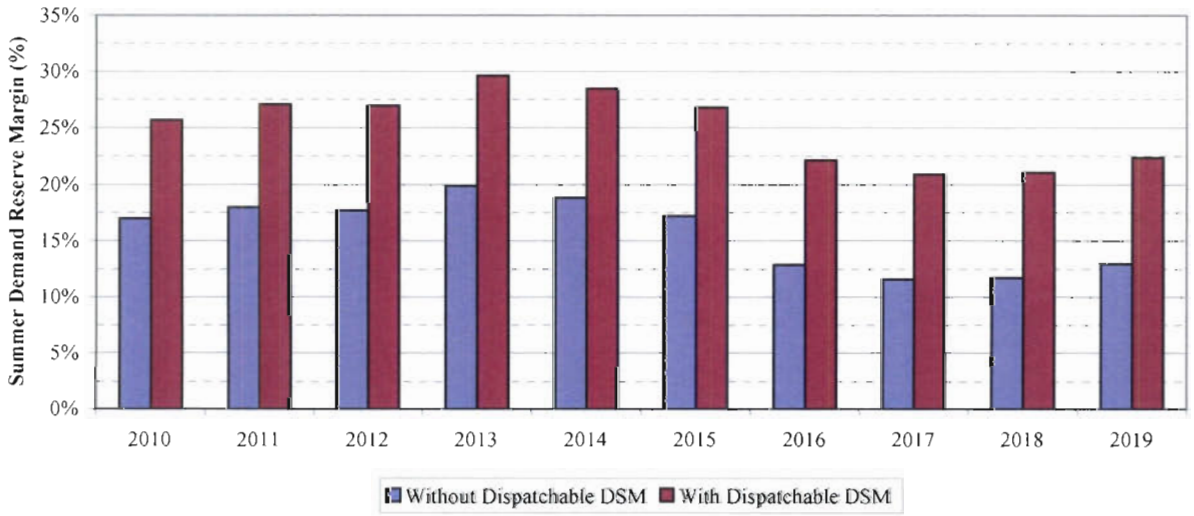
Florida's utilities adjust their system output constantly to meet the electric demand of customers from moment to moment. In addition, the utilities must be prepared to meet unexpected

spikes in demand due to unforeseen circumstances. Although peak demand is carefully monitored, each utility must maintain a certain amount of "reserve" capacity in the event that demand rises above forecasted levels. This "extra" generating capacity is expressed as a percentage of firm demand and is referred to as the "reserve margin." Although the FRCC requires a minimum reserve margin of 15 percent, many Florida utilities including FPL, PEF, and TECO maintain a reserve of 20 percent above peak demand. Reserve margins approach the minimum FRCC criteria primarily in the summer season. The lower summer reserve margin is partially due to load forecasting, but the fact that generating units can operate at a higher capacity in the winter than the summer due to ambient temperatures is also a contributing factor.

Although the 20 percent reserve margin employed by FPL, PEF, and TECO provides increased reliability to the state's system, it is paramount that, in an era of rising rates, utilities should study all options available to mitigate price increases, including possible modification of current planning criteria.

DSM, such as load management and interruptible load, is also included in the region's reserve margin. Although the FRCC has not set a standard limiting the percentage of the reserve margin that can be met with DSM, utilities have found that when these types of programs are used frequently, customers are more likely to leave the program. The sudden loss of DSM participants can lead to a lower system reliability, so utilities must balance the reserve margin between DSM and generation. As shown in Figure 14 below, the projected reserve margins with DSM are at or above 20 percent for the ten-year period.

**Figure 14. FRCC: Summer Peninsular Reserve Margin Projections**



## Proposed Generating Units by Fuel Type

The Florida Public Service Commission is given exclusive jurisdiction by the Legislature, through the Power Plant Siting Act, to be the forum for determining the need for electric power plants. Any proposed steam or solar generating unit of at least 75 MW requires certification under the Power Plant Siting Act. The Commission has granted determinations of need for several generating units of various technology types in recent years.

Approximately 7,200 MW of new generating units are planned to enter service over the next 10-year period, consisting primarily of natural gas-fired combustion turbines and combined cycle units. A majority of this capacity has already received a determination of need from the Commission or is exempted from the statutory requirements of the PPSA. Only one unit, a 970 MW natural gas-fired combined cycle, still requires certification, and a petition requesting this determination of need is expected by approximately 2014.

### Coal

Due to a combination of high capital costs and uncertainties regarding fuel costs and potential environmental costs, no plans currently exist to construct coal-fired capacity in Florida. An element of the economic uncertainty relating to coal units is the possibility of a cost for carbon dioxide emissions. While no such state or federal regulation has yet been enacted, a significant concern relating to environmental costs of new generation does exist.

Previously, Seminole Electric Cooperative had received final certification of Seminole Unit 3, a 750 MW coal-fired power plant, but elected to discontinue the project in January 2010. While no major retirements of coal-fired generation are planned during the 2010-2019 period, coal remains a significant portion of Florida's capacity resources. Excluding coal, the only traditional generating fuels remaining available for use are nuclear and natural gas.

### Nuclear

Nuclear generation is a technology that produces no greenhouse gas emissions. Strides have been made nationally to bring nuclear generation back to the forefront, including new standardized plant designs pre-approved by the Nuclear Regulatory Commission and streamlined safety and operating licensing to expedite construction. Nevertheless, licensing, certification, and construction of a new nuclear power plant in Florida is expected to take approximately ten years. Coupled with extremely high capital costs, due in part to worldwide industrialization and demand for construction materials and labor, the commitment to the construction of new nuclear power plants entails its own set of financial risks. In an effort to mitigate the economic risks associated with nuclear power plants, the Florida Legislature enacted Section 366.93, F.S., in 2006. This statute directed the Commission to establish new rules to provide early cost recovery mechanisms for costs related to the siting, design, licensing, and construction of nuclear power plants in Florida. Rule 25-6.0423, F.A.C., adopted April 8, 2007, implements the legislative standard for nuclear power plant cost recovery.

Increased nuclear capacity will significantly contribute to both greater system fuel diversity and lower greenhouse gas emissions. Additionally, nuclear generation does not face the same supply

disruptions as fossil fuel generation because nuclear fuel is replenished during refueling outages which typically take place once every 18 to 24 months.

Both FPL and PEF have included additional nuclear capacity from expansion (uprates) of their existing nuclear generating units in their 2010 Ten-Year Site Plans. Combined, the nuclear uprates will add approximately 565 MW of additional nuclear capacity.

In 2008, the Commission also granted both PEF and FPL determinations of need for new nuclear generation. PEF's Levy Units 1 and 2 are planned for construction on a greenfield site near its existing Crystal River power plant, and FPL's Turkey Point Units 6 and 7 are planned for an existing nuclear site. All four new units are anticipated to be the new AP 1000 nuclear design with a projected rating of approximately 1,100 MW. The Governor and Cabinet have certified PEF's Levy Units 1 and 2, but have not yet certified FPL's Turkey Point Units 6 and 7. Both PEF and FPL have experienced delays in their construction timelines from those presented at the time of need determination.

PEF included Levy Unit 1 in its current Ten-Year Site Plan filing, with plans to begin commercial service in June 2019. However, in its 2010 nuclear cost recovery clause filings, PEF revised the in-service dates to 2021 and 2022 for the two Levy Nuclear units. The delay is a result of multiple factors, including the failure to receive a Limited Work Authorization from the Nuclear Regulatory Commission and an ongoing review on the AP1000 design.

Similarly, FPL's nuclear units have experienced delays which have pushed the units out of the scope of this Ten-Year Site Plan. In its 2010 nuclear cost recovery clause filings, FPL states that for planning purposes, the in-service dates are approximately 2022 for Unit 6 and 2023 for Unit 7. As a result of these delays, no new nuclear generating units are expected to be built within the 2010 through 2019 period, and the only addition of nuclear capacity will come from the unit uprates previously discussed. A summary of the new nuclear capacity additions is found in Table 13, below.

**Table 13. State of Florida: Nuclear Capacity Additions**

| Utility | Generating Unit Name | Summer Capacity (MW) | Dates | | |
|---|---|---|---|---|---|
| | | | Need Approved (Commission) | PPSA Certified | In-Service Date |
| PEF | Crystal River 3 | 4 & 156 | 2 / 2007 | 8 / 2008 | 2010 & 2011 |
| FPL | St Lucie 1 | 103 | 1 / 2008 | 9 / 2008 | 2011 |
| FPL | Turkey Point 3 | 104 | 1 / 2008 | 10 / 2008 | 2012 |
| FPL | St. Lucie 2 | 94.3 | 1 / 2008 | 9 / 2008 | 2012 |
| FPL | Turkey Point 4 | 104 | 1 / 2008 | 10 / 2008 | 2012 |
| PEF | Levy 1 | 1,092 | 5 / 2008 | 8 / 2009 | 2021 |
| PEF | Levy 2 | 1,092 | 5 / 2008 | 8 / 2009 | 2022 |
| FPL | Turkey Point 6 | 1,100 | 3 / 2008 | - | 2022 |
| FPL | Turkey Point 7 | 1,100 | 3 / 2008 | - | 2023 |
| **Total Capacity** | | **4,949** | | | |

Nuclear power plant construction is capital-intensive and has a long lead time. The Commission, however, reviews the continued feasibility of both Levy Units 1 and 2 and Turkey Point 6 and 7 during its annual nuclear cost recovery proceedings. Such proceedings provide the Commission with a forum to ensure that construction of the nuclear units continues to be in the best interest of ratepayers.

## Natural Gas

Natural gas accounts for the majority of capacity being added to Florida's generation base, followed by nuclear and renewable resources. The 2010 Ten-Year Site Plans include the addition of approximately 6,640 MW of natural gas-fired generation. This figure is a significant decline from the 2009 Ten-Year Site Plan, which estimated approximately 11,000 MW of natural gas-fired generation. This reduction in additional capacity can be attributed to the lower load forecasts and increased DSM goals.

A total of 800 MW of natural gas-fired combustion turbine capacity is expected to enter service by 2019. Because these units are not steam-fired capacity, they do not require siting under the PPSA. A list of all combustion turbine units entering service is included in Table 14.

**Table 14. State of Florida: Natural Gas - Combustion Turbine Additions**

| Utility | Generating Unit Name | Summer Capacity (MW) | In-Service Date |
|---|---|---|---|
| JEA | Greenland Energy Center CT1 & 2 | 284 | 2011 |
| TECO | Future CT1 - CT4 | 224 | 2013 |
| TECO | Future CT5 | 56 | 2014 |
| TECO | Future CT6 | 56 | 2016 |
| SEC | Unnamed CT1 - CT4 | 632 | 2017-2019 |
| PEF | Unknown CT 1 | 178 | 2018 |
| **Total Capacity** | | **1,430** | |

The remainder of the natural gas-fired additions come from combined cycle units, which have greater than 75 MW of steam capacity and therefore fall under the PPSA. A majority of the capacity to be added during the current ten-year period has already received a determination of need from the Commission, excluding a single proposed unit. TECO's Ten-Year Site Plan lists a 970 MW combined cycle unit with an in-service date of May 2018. Given typical lead times associated with combined cycle units, a petition would be expected for this unit by 2014. Table 15 below includes all combined cycle units planned to enter service by 2019.

**Table 15. State of Florida: Natural Gas - Combined Cycle Additions**

| Utility | Generating Unit Name | Summer Capacity (MW) | Dates | | |
|---|---|---|---|---|---|
| | | | Need Approved (Commission) | PPSA Certified | In-Service Date |
| OUC | Stanton B | 298 | 6 / 2006 | 12 / 2006 | 2 / 2010 |
| FMPA | Cane Island 4 | 300 | 8 / 2008 | 12 / 2008 | 5 / 2011 |
| FPL | West County 3 | 1,220 | 9 / 2008 | 11 / 2008 | 6 / 2011 |
| FPL | Cape Canaveral Clean Energy Center | 1,210 | 9 / 2008 | 10 / 2009 | 6 / 2013 |
| FPL | Riviera Beach Clean Energy Center | 1,212 | 9 / 2008 | 11 / 2009 | 6 / 2014 |
| TECO | Polk CC Conversion | 970 | - | - | 5 / 2018 |
| **Total Capacity** | | **5,210** | | | |

## Resource Additions

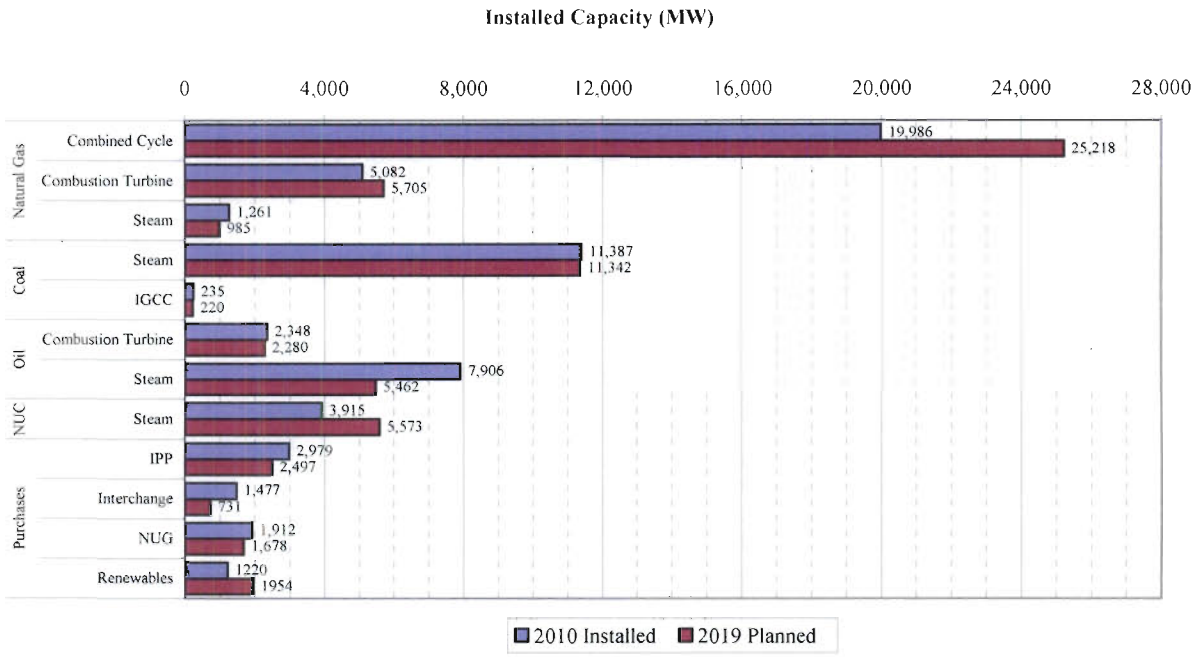
Table 16 below reflects the aggregate net capacity additions contained in the reporting utilities' 2010 Ten-Year Site Plans. At the time of filing, the state's electric utilities planned to add a net summer capacity of 3,203 MW over the next 10 years. This figure is a net value because generation additions and uprates are offset by unit retirements and deratings, in addition to changes in the contractual status of purchases. For example, the unit type of natural gas-fired combustion turbines has a new capacity of 1,430 MW from unit additions, but it only has a net capacity of 623 MW over the planning period due to a combination of unit uprates, derates, retirements, and conversion to combined cycle systems. Negative values in the table reflect the retirement or down rating of fossil steam units or the expiration of firm capacity contracts in excess of any possible unit additions, uprates, or purchases. If new contracts are signed in the future to replace those that expire, these resources will once again be included in the state's capacity mix. The subsequent effects of these additions as well as recent changes are discussed throughout this report. These proposed capacity changes represent a decrease of approximately 7,022 MW in net summer capacity from the 2009 Ten-Year Site Plans. As in past years, the majority of new capacity planned in the 2010-2019 period is expected to come from natural gas-fired units with nuclear generation representing the next largest fuel source.

## Table 16. State of Florida: Proposed Capacity Changes As Reported

| Unit Type | Net Summer Capacity Changes (MW) | |
|---|---|---|
| | 2009 Ten-Year Site Plan (2009-2018) | 2010 Ten-Year Site Plan (2010-2019) |
| **Natural Gas (NG)** | | |
| Combined Cycle | 8,861 | 5,232 |
| Combustion Turbine | 2,130 | 623 |
| Steam | -277 | -276 |
| **Coal** | | |
| Steam | 489 | -45 |
| Integrated Coal Gasification | 0 | -15 |
| **Oil** | | |
| Combustion Turbine & Diesel | -141 | -68 |
| Steam | -2,497 | -2,444 |
| **Nuclear (NUC)** | | |
| Steam | 3,838 | 1,658* |
| **Firm Purchases** | | |
| Independent Power Producer (IPP) | -1,993 | -482 |
| Interchange | -954 | -746 |
| Non-Utility Generator (NUG) | 384 | -234 |
| Renewables | 385 | 734 |
| **Net Capacity Additions** | **10,225** | **3,937** |
| * Includes Levy 1 which has been delayed beyond 2019 after the Ten-Year Site Plan filing | | |

Figure 15 below illustrates the present and future aggregate capacity mix. The capacity values in Figure 15 incorporate all proposed additions, changes, and retirements from Table 16.

**Figure 15. State of Florida: Electric Utility Summer Capacity (MW) Mix As Reported**




## Outlook

Florida's utilities are projecting fewer capacity additions in the 2010 through 2019 period compared to that of the 2009 Ten-Year Site Plan. While load forecasts are declining, new generation capacity will be required to continue to reliably meet Florida's energy requirements. A majority of this generation has already received regulatory approval, with only a single generating unit in the planning horizon that has not yet received a determination of need.

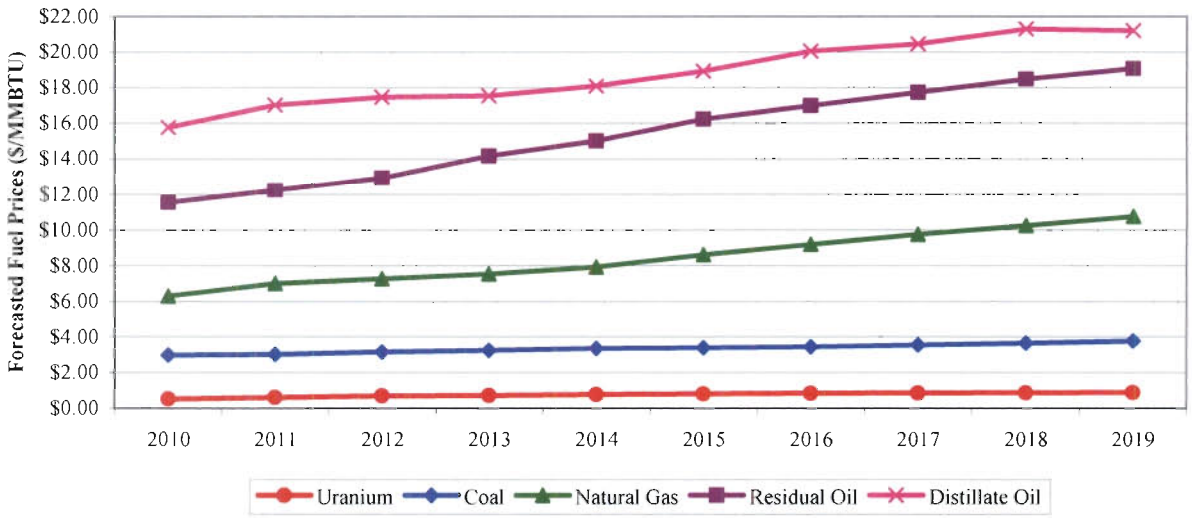
While generation planning requires considerable lead time, plans are subject to change due to factors including changes in fuel cost, energy use projections, evolving technology, and changing energy policy. The primary fuel types remaining in Florida as a viable option for new generation are natural gas or nuclear power plants, but nuclear generation has been delayed to the extent that no new generating units are expected to enter service for over a decade. Natural gas already provides approximately half of Florida's energy generation and is projected to provide the majority of new generation over the next ten years. Such growth in natural gas generation may impact the volatility of electricity prices to Florida's ratepayers.

# 6. FUEL PRICE, SUPPLY, AND TRANSPORTATION

Utilities must decide which type of plant to build many years in advance: approximately four years for combined cycle, seven years for coal, and ten or more years for nuclear. Fuel price forecasts play an important role in generation expansion planning. However, because long-term fuel prices cannot be predicted precisely, factors other than price such as supply, transportation, and fuel diversity are also influential.

Section 377.703(2)(e), F.S., requires the Commission to analyze and produce natural gas and electricity forecasts in coordination with the Florida Energy and Climate Commission. Figure 16 below illustrates the weighted average forecasted fuel price for the ten reporting utilities. The forecasted price for each fuel type is weighted by fuel consumption, meaning that utilities that generate large amounts of electricity from a particular fuel type will have more of an influence on the average. Prices for solid fuels, such as nuclear and coal, are forecasted to remain stable compared to oil and natural gas prices.

**Figure 16. Reporting Utilities: 2010 Weighted Average Fuel Price Forecast**




## Natural Gas Price Forecasts and Supply

The reporting utilities provided forecasts of natural gas prices in nominal dollars on a delivered basis. Natural gas prices are driven by factors including weather, inventories, macroeconomic conditions, and refined petroleum products prices. Different assumptions for these factors contained in utilities' forecasting models result in varied forecasts of natural gas prices. For example, the forecasted 2019 prices range from $8.08 to $12.87 per million Btu (MMBtu), with the weighted average at $10.75 per MMBtu.

Based on a comparison of the average prices for equivalent energy shown in Figure 16, the utilities continue to expect a significant cost differential between natural gas and refined petroleum

products (distillate oil and residual oil, which are considered to be close substitutes). For example, the average forecasted 2019 price of natural gas, expected to be $10.46 per MMBtu lower than that of distillate oil, has been an important factor in electric power generation and industrial use.

Differences in supply and demand conditions between natural gas and fuel oil contribute to the cost differential, on a dollar per MMBtu basis, for the two fuels. Natural gas has rather limited applicability and requires pipelines for transportation from wellheads to users. Historical prices show volatility due to short-term supply issues, such as hurricanes and tropical storms in the Gulf of Mexico. Long-term investment in relatively new natural gas uses, such as electric generation, may have been limited by this price volatility and concerns over declines in production from the mature conventional natural gas regions of the Gulf Coast onshore, Gulf Coast offshore, and Permian Basin.

Evidence of abundant domestic supply is growing due to recent developments in unconventional natural gas production (shale, tight sands, and coal bed methane). Unconventional natural gas production is expected to increase from about 26.5 billion cubic feet per day (Bcf/d) in 2010 to about 44.9 Bcf/d by 2019. Long-term supply reliability and price stability are further improved by recent development and expansion in pipelines, storage, and LNG (liquefied natural gas) facilities. The cost advantage and improving supply will likely drive demand growth for natural gas, resulting in a moderate rise in natural gas prices over the planning period. Other factors, such as climate change legislation, may decrease demand for coal while increasing demand and prices for natural gas.

**Transportation**

In Florida, greater dependence on natural gas could reduce the reliability of electric utility generation, primarily from the possible disruption of the natural gas supply or its transportation. The North American Electric Reliability Corporation (NERC) established a Gas/Electricity Interdependency Task Force to determine reliability impacts and to recommend mitigating measures in the event reliability risks arise. The NERC task force completed a study in May 2004, concluding in part that natural gas pipeline reliability can substantially impact electric generation and that electric system reliability can also have an impact on natural gas pipeline operations. The FRCC continues to review the recommendations made by the NERC task force to determine where to focus future analyses. The FRCC has recommended that Peninsular Florida maintain adequate pipeline capacity for reliability purposes for both current and future natural gas demand.

Florida has relied primarily on two natural gas pipeline companies, Florida Gas Transmission (FGT) and Gulfstream Natural Gas (Gulfstream), to supply natural gas to electric utilities, large industrial customers, and local distribution companies. FGT operates approximately 5,000 miles of pipeline nationwide, including 3,300 miles in Florida. FGT's system has undergone 7 expansions since its inception in 1959, increasing pipeline capacity from its original 0.278 Bcf/day to its current 2.3 Bcf/day. FGT's Phase VII Expansion Project began service in May 2007. FGT's Phase VIII Expansion Project, authorized by FERC in November 2009, will add 0.82 Bcf/day of capacity. The project consists of approximately 483.2 miles of pipeline facilities and is expected to be completed and in service in the spring of 2011.

Gulfstream has a system pipeline capacity of 1.25 Bcf/day. The first phase of Gulfstream's system, which entered service in 2002, crosses the Gulf of Mexico with more than 430 miles of 36-

inch diameter pipe between Pascagoula, Mississippi, and Manatee County, Florida. The Phase II expansion, a 110-mile extension to FPL's Martin plant site in Martin County, entered service in February 2005. The Phase III expansion, which began service in the summer of 2008, provides service to FPL's West County Energy Center. The Phase IV expansion, completed in the first quarter of 2009, provides pipeline capacity for PEF's Bartow site in Pinellas County.

The newest pipeline system serving Florida is the Cypress Pipeline. Phase I of this project connects the Elba Island LNG facility near Savannah, Georgia, to FGT's system near Jacksonville, Florida. The pipeline began service in May 2007 and provides natural gas to PEF's Hines' units, and provides an incremental 220 million cubic feet per day (MMcf/d) of takeaway capacity. Subsequently, compression facilities installed on the pipeline expand its capacity.

In addition to the Cypress Pipeline, one other LNG project is proposed to serve Florida. Höegh LNG – Port Dolphin, a proposed offshore terminal and submerged buoy system, would be 28 miles offshore and be connected to Port Manatee near Tampa Bay by a 42-mile pipeline. The project is planned with the capability to expand to a peak send-out capacity of 1.2 Bcf/day. The project was approved by the Governor on September 11, 2009, and received its federal deepwater port license in April 2010. Construction of Port Dolphin will proceed in two phases lasting a total of approximately 22 months, with the port expected to commence operations in 2013.

Out-of-state pipeline projects also increase supply options for Florida. The Southeast Supply Header (SESH) project is a 274-mile pipeline from the Perryville hub in Louisiana to interconnect with the Gulfstream Pipeline at Pascagoula, Mississippi. This pipeline began service in September 2008. Major shippers include Southern Co., Tampa Electric Co., Florida Power & Light Co., and Progress Energy Florida. Another out-of-state pipeline, the Destin Pipeline, originates in central Mississippi, terminates at offshore wells in the Mobile Bay area, and interconnects with several pipelines, including FGT and Gulfstream, and with storage facilities such as Petal Gas Storage and Southern Pines Gas Storage. The SESH and the Destin Pipeline are expected to be expanded within the planning period, providing additional capacity to transport unconventional shale gas from Texas and Louisiana to Gulfstream and FGT. In addition, Transcontinental Gas Pipe Line (Transco) is in the process of expanding their Mobile Bay (Zone 4A) lateral, which runs from west central Alabama (Transco compressor station 85) to Mobile and which interconnects with FGT. This lateral will provide additional capacity to allow transport of shale gas into Florida.

## Coal Price Forecasts and Supply

The reporting utilities forecasted coal prices on a delivered basis, resulting in differences in the forecasted prices depending on the location of the particular utility's coal plant and the mode of transportation. The forecasts use existing long-term contract prices and estimates of the spot market prices.

The reporting utilities see relatively stable coal prices over the planning horizon. Ample supply of domestic coal and the availability of imported coal, primarily from Colombia and Venezuela, should provide support for stable commodity prices. However, rising transportation costs may contribute to higher delivered prices. Transportation options for reporting utilities include rail and waterborne transportation.

The Surface Transportation Board (STB) has had increased concern about rising rates imposed by the railroads in recent years. Trade groups such as Consumers United for Rail Equity (CURE) and the National Industrial Transportation League (NIT) have aggressively advocated legislation regarding rail rates, the level of regulation, and ending railroad antitrust exemptions. The American Association of Railroads opposes such legislation. Since the outcome of this dispute remains uncertain, coal prices could be further impacted.

Greater globalization of the waterborne solid fuel trade could also increase the cost of waterborne transportation for Florida electric utilities. Since the supply of coal vessels/ocean barges is limited, more frequent and rapid changes in shipping costs could occur based on global economic conditions. While existing agreements would mitigate the impact of more volatile costs, spot transactions would be immediately affected.

Figure 16 shows that the utilities continue to expect coal prices to be less expensive compared with other fossil fuels, based on equivalent energy contained in the fuel. While new coal plants will likely be challenged by higher capital and environmental costs, existing coal plants will likely continue play a meaningful role in fuel diversity and lower fuel costs for customers.

## Residual and Distillate Oil Price Forecast and Supply

Oil prices depend on global economic growth, other competing energy developments, and geopolitics. Economic growth in India, China, and the Pacific Rim countries has increased demand, and Platts, an energy information service, states that a geopolitical risk premium in oil prices will always exist. Sources of geopolitical risk for oil prices are Venezuela, Nigeria, Russia, the former Soviet states, and the Middle East, which have all contributed to the increased volatility of crude oil prices in recent years. Since residual oil and distillate oil are refined products of crude oil, the prices for these products will track with crude oil.

Only three Florida electric utilities continue to use residual fuel oil (heavy oil) for generation, with declining usage over the planning period. Six Florida electric utilities also use distillate oil (No. 2 fuel oil), but only as a back-up fuel for natural gas plants that are fuel switchable and as a starter fuel for coal plants. Due to the cost advantage and improving supply reliability of natural gas, distillate oil and residual oil are likely to continue their declining significance as a source of electric generation in Florida.

## Nuclear Fuel Price Forecasts and Supply

Until about 2004, uranium traded below the $20/lb price range, mostly driven by excess inventories. Since that time, the uranium market has undergone a period of price volatility due to a change in fundamentals (supply and demand) and the effect of speculation. First, the "nuclear renaissance" – the period, roughly from 2005 to 2008, of increased interest in building new nuclear plants and uprating existing plants – led to the projection of significant increase in demand for uranium. Supply was also reduced due to accidents in major uranium mines between 2006 and 2007. The tight uranium supply attracted interests of hedge funds and speculation that pushed the price up to a market peak at $137/lb in 2007.

Consequently, the high price of uranium led to plans for increased production at existing mines and the development of new mines. In addition, postponements of new nuclear projects beginning in 2009 led to lower projected demand. With the new supply and demand conditions and reduced speculative demand resulting from the recent financial crisis, prices have come down faster than anticipated. In the future, nuclear fuel is forecasted to be priced closer to basic supply and demand pricing, with a moderate upward trend and some periodic increases due to speculative demand. As with fuel procurement in general, long-term contracts for nuclear fuel can mitigate price volatility.

# 7. TRANSMISSION PLANS

As generation capacities increase, the transmission system must grow accordingly to maintain the capability of delivering the energy to the end user. The Commission has been given broad authority pursuant to Chapter 366, F.S., to require reliability within Florida's coordinated electric grid and to ensure the planning, development, and maintenance of adequate generation, transmission, and distribution facilities within the state. In addition, the Commission must determine the need for transmission lines of 230 kV and larger pursuant to the TLSA.

## Reliability Standards

Nationwide, electric utilities plan their bulk power systems (100 kV and higher) to comply with the NERC and regional reliability standards. The NERC's mission is to verify that the bulk electric system in North America is reliable, adequate, and secure. Since its formation in 1968, the NERC operated successfully as a self-regulatory organization, and the electric industry voluntarily complied with the NERC's reliability standards. In 2005, Congress required the Federal Energy Regulatory Commission (FERC) to develop a new mandatory system of reliability standards and compliance. The Energy Policy Act of 2005 authorized the creation of an electric reliability organization (ERO) with the statutory authority to enforce compliance with reliability standards among all market participants. The NERC received certification as the ERO from the FERC in July 2006.

NERC/FRCC works with all stakeholder segments of the electric industry, including electricity users, to develop standards for the reliable planning and operation of the bulk power systems. Fundamentally, a power system should always operate in such a way that no credible contingency could trigger cascading outages or another form of instability. Reliability standards are generally applied as follows:

- Under a single-contingency criterion, a utility's transmission system experiences no equipment overloads, voltage violations, or instability following a contingency outage of the single most crucial element, whether that piece of equipment is a generator, a transmission line, or a transformer. The single-contingency criterion is generally the minimum reliability standard at which electric utilities plan their bulk power systems.

- Under a multiple-contingency criterion, a utility's transmission system must withstand the simultaneous failure of two or more elements with a controlled loss of load and no cascading outages which affect neighboring utilities. The transmission system must subsequently be able to adjust so that all elements operate within their emergency ratings for the duration of the outage.

In response to congressional actions to require mandatory reliability standards, which were supported by the Commission, the FRCC has implemented a program that will monitor and enforce compliance with the NERC and the FRCC reliability standards. The program relies on self-assessment, periodic reporting, and on-site audits for compliance. In administering the compliance program, the FRCC works closely with all owners, operators, and users of the state's bulk electric

system. The Commission staff attends FRCC meetings and maintains an open dialog with the FRCC on reliability matters affecting the state. The Commission will continue to work closely with the FRCC, NERC, and FERC to guarantee the adequacy and reliability of Florida's electric grid.

## FRCC Transmission Planning Process

One of the benefits attributed to the formation of a regional transmission organization (RTO) is centralized, coordinated transmission planning. In April 2006, the Commission closed a lengthy investigation into the prudence of forming an RTO, known as GridFlorida, because the RTO did not appear to be cost-effective. The Commission directed Peninsular Florida's utilities to coordinate their transmission planning activities through the FRCC in an effort to capture the benefits of an RTO in a more cost-effective fashion and yield a more complete transmission expansion plan from a peninsular perspective. Such a process will make sure that the reliability standards and criteria established by the NERC and the FRCC are met and will use the specific design, operating, and planning criteria employed by Peninsular Florida transmission owners. The Commission staff continues to monitor the FRCC's meetings on transmission planning and, if necessary, will exercise its Grid Bill authority to ensure the adequacy and reliability of Florida's transmission system.

The FRCC performs a long range, ten-year study, as well as a study of the interface between Florida and the Southern Company (Southern). Sensitivity studies test the robustness of Peninsular Florida's transmission system under various conditions and are performed within both studies. Examples of the sensitivities studied are as follows:

- Transmission and/or generation facilities unavailable due to scheduled and/or forced outages
- Weather extremes for summer and winter periods
- Different load levels (e.g., 100-, 80-, 60-, and 40 percent) and/or seasons of the year
- Various generation dispatches that will test or stress the transmission system
- Reactive supply and demand assessment (generator reactive limits and power factor)
- Specific areas of combination/cluster of generation and load serving capability among various transmission owners/providers in the FRCC that continually experience or are expected to experience significant congestion
- Other scenarios or system conditions, such as stability analysis

Consistent with the FRCC transmission planning process, these sensitivity studies will not necessarily call for the construction of transmission facilities identified in the studies, but will furnish insight into how robust the planned transmission system is expected to be.

## 2010-2019 Long Range Transmission Study

The long range transmission study is a steady-state assessment of the adequacy of the FRCC's bulk and 69 kV transmission system for 2010-2019. The NERC Transmission Planning Standards are used to gauge the adequacy of the transmission system. These transmission planning standards state that the transmission system must remain stable within the applicable thermal and voltage rating limits without cascading outages, under normal system conditions, as well as during single and multiple contingency events. The FRCC's Long Range Transmission Reliability Study covers both near-term and long-term portions of the planning horizon. The near-term part examines years two through five (2010-2014) and analyzes in detail specific remedies identified for all thermal and/or voltage screening criteria exceptions. The long-term section examines years six through ten (2015-2019) to determine if any trends are developing that would require attention.

The Long Range Transmission Reliability Study for transmission facilities, 69kV and greater, within the FRCC Region concluded that potential thermal and voltage screening criteria violations can be resolved by operator intervention meeting the NERC Transmission Planning Standards. The resolutions were thoroughly reviewed by the transmission owners and found to be adequate to maintain acceptable system performance under all conditions and events. The FRCC found no major projects requiring long lead times.

## Florida-Southern Interface Transfer Capability Study

Currently, Peninsular Florida imports 1,500 MW of firm capacity into the FRCC region from the Southern Control Area within the Southeastern Reliability Council (SERC) region (Southern). The remaining transferrable capacity, nearly 2,100 MW, is available for non-firm energy sales. Firm capacity exports to Southern do not occur at this time, nor are they forecasted to occur during the planning horizon. The FRCC and Southern annually perform an interregional transmission study to confirm the maximum import and export capability between the two regions and to make sure that the transmission plans of both regions jointly meet the NERC reliability standards. Based on studies performed by the FRCC and Southern, there do not appear to be any reliability constraints at the Florida-Southern interface at this time concerning the current use of interface capacity. The 2010 study confirmed the total transfer capabilities between the FRCC and Southern, which are shown in Table 17 below.

**Table 17. Florida-Southern Interface Transfer Capability**

| Transfer | Transfer Capability (MW) | |
|---|---|---|
| | Summer | Winter |
| Southern to Florida (import) | 3,600 | 3,800 |
| Florida to Southern (export) | 1,000 | 1,800 |

## Proposed Transmission Lines Requiring Certification

Many of the transmission lines proposed by the FRCC as needing to be built require TLSA certification. To require certification under Florida's TLSA, a proposed transmission line must meet the following criteria: a rating of at least 230 kV, crossing a county line, and a length of at least 15 miles. Proposed lines in an existing corridor are exempt from TLSA requirements. The Commission determines the reliability need for and the proposed starting and ending points for lines requiring TLSA certification. The Commission must issue a final order granting or denying a determination of need within 90 days of the petition filing. The proposed corridor route is determined by the DEP during the certification process. The Governor and Cabinet sitting as the Siting Board ultimately must approve or deny the overall certification of the proposed line.

Table 18 below lists all proposed transmission lines in the Ten-Year Site Plans that require TLSA certification.

**Table 18. State of Florida: Proposed Transmission Lines Requiring Certification**

| Line Owner | Transmission Line | Line Length (Miles) | Nominal Voltage (kV) | Dates | | In-Service Date |
|---|---|---|---|---|---|---|
| | | | | Need Approved | TLSA Certified | |
| FPL | Manatee - Bob White | 30 | 230 | 8 / 2006 | 10 / 2008 | 12 / 2012 |
| FPL | St. Johns - Pringle | 25 | 230 | 5 / 2005 | 4 / 2006 | 12 / 2013 |
| TEC | Polk - FishHawk | 30.5 | 230 | - | - | 5 / 2019 |

# 8. SUMMARY OF STATE, REGIONAL, AND LOCAL COMMENTS

## All Ten-Year Site Plan Utilities

Fish and Wildlife Conservation Commission: In the interest of providing feedback to the Ten-Year Site Plan Utilities in a proactive manner, the FWC suggest that it would be helpful for the Ten-Year Site Plan Utilities to include point-of-contact information with their submitted update materials.

Florida Department of Transportation: The Siting Coordination Office has reviewed the Ten-Year Site Plans and find these are suitable as planning documents.

## Investor-Owned Utilities

- **Florida Power & Light Company**

Fish and Wildlife Conservation Commission: FPL's Ten-year plan has addressed the wildlife related issues raised in our previous comment concerning the 2009 plan; therefore, we find the 2010 update to FPL's 10-year site plan adequate for planning purposes.

East Central Florida Regional Planning Council: The Ten-Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council encourages Florida Power and Light to continue its efforts towards the incorporation of renewable energy projects.

Treasure Coast Regional Planning Council: FPL's Ten-Year Site Plan is inconsistent with Strategic Regional Policy Plan Goal 9.1, decreased vulnerability of the region to fuel price increases and supply interruptions; and Strategy 9.1.1, reduce the Region's reliance on fossil fuels. The Council urges FPL and the State of Florida to continue developing new programs to: (1) reduce the reliance on fossil fuels as future energy sources, (2) increase conservation activities to offset the need to construct new power plants, and (3) increase the reliance on renewable energy sources to produce electricity. The Council encourages the Florida Legislature to adopt a Renewable Portfolio Standard during the next legislative session in order to provide a mechanism to expand the use of renewable energy in Florida. FPL should address in the next Ten-Year Site Plan about the potential need to provide service to a significant number of additional customers in Indian River County.

St. Johns River Water Management District: In general, the District requires that all new uses and requested increase in consumptive use permit (CUP) allocations demonstrate the use of the lowest quality source; justify the need for the requested allocation; demonstrate efficient use; and not impact springs, wetlands, water bodies, water quality, or existing legal uses. In addition, all other CUP criteria must also be met. When locating a site for a power facility, FPL should consider the availability of water to meet the proposed demands of the facility and potential impacts due to facility water use, as well as the cumulative impacts of locating a facility at a given location.

- **Gulf Power Company**

Fish and Wildlife Conservation Commission: The FWC finds that Gulf Power's Ten-Year Site Plan 2010-2019 document is suitable for planning purposes. We have determined that Gulf Power proposes no development plans that pose significant fish and wildlife resources issues or potential conflicts for this planning period.

- **Progress Energy Florida, Inc.**

Fish and Wildlife Conservation Commission: The FWC finds PEF's Ten-Year Site Plan document to be suitable for planning purposes.

East Central Florida Regional Planning Council: The Ten-Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council commends Progress Energy on its efforts towards the incorporation of alternative energy supplies, public and commercial incentive programs, conservation, and education efforts.

Withlacoochee Regional Planning Council: WRPC finds PEF's 2010 Ten-year site plan to contain positive content that is consistent and well supported by the Strategic Regional Policy Plan for the Withlacoochee Region (SRPP). Furthermore, SRPP policies strongly support increased utilization of renewable energy system technology in power generation as well as collocation of planned facilities with other compatible economic uses. On the preceding basis, WRPC staff would recommend that Progress' TYSP should be considered "suitable" from the perspective of this regional review.

Southwest Florida Water Management District: All new facilities and expansions within the Southern Water Use Caution Area (SWUCA) will have to conform to applicable rules. Heightened concerns regarding groundwater as well as air quality controls that add to water demands of power generating facilities must be considered.

- **Tampa Electric Company**

Fish and Wildlife Conservation Commission: The FWC found TECO's 2010 Ten-Year Site Plan document to be suitable for planning purposes.

Southwest Florida Water Management District: All new facilities and expansions within the Southern Water Use Caution Area (SWUCA) will have to conform to applicable rules. Heightened concerns regarding groundwater as well as air quality controls that add to water demands of power generating facilities must be considered.

## Municipal Utilities

- **Florida Municipal Power Agency**

Fish and Wildlife Conservation Commission: The FWC finds the 2010 Update to FMPA's 10-year Site Plan to be adequate for planning purposes.

East Central Florida Regional Planning Council: The Ten-Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council commends the agency on its partnerships and continued work towards alternative energy supplies and conservation efforts.

- **Gainesville Regional Utilities**

Fish and Wildlife Conservation Commission: We recommend that the environmental issues and recommendations identified during the site amendment process for the Gainesville Renewable Energy Center be incorporated into the Ten-year Site Plan. If GRU includes the environmental conditions information recently developed for the Gainesville Renewable Energy Center, we would recommend that the PSC find the 2010 update to Gainesville Regional Utility's Ten-Year Site Plan to be adequate for planning purposes.

Withlacoochee Regional Planning Council: While this utility does not propose to develop projects within the region during the planning period, it has ownership interests in the Crystal River Nuclear Unit 3. The Strategic Regional Policy Plan for the Withlacoochee Region assigns regionally significant status to all power plants due to the necessity to maintain ample regional energy supply. WRPC would recommend that this Ten-Year Site Plan be considered "suitable" from the perspective of this regional review.

Alachua County: The GRU 2010 Ten-Year Site Plan is generally suitable as a planning document. Issues related to the protection of natural resources near the Deerhaven site, fuel procurement and the use of reclaimed water at the Gainesville Renewable Energy Center, and energy demand management and fuel price forecasts are of interest.

- **JEA**

Fish and Wildlife Conservation Commission: We do not find the 2010 update to JEA's Ten-Year Site Plan document to be adequate for planning purposes. This update to the JEA Ten-Year Site Plan report does not have an environmental and land-use section. Specifically, we recommend that JEA include a section on anticipated environmental issues and land-use changes. Further, we recommend that this section include color aerial photographic maps for each of their plants and associated facilities.

Northeast Florida Regional Planning Council: The Northeast Florida Regional Council supports JEA and the State of Florida's efforts to continue to develop new programs to: (1) reduce the reliance on coal and oil as energy sources, (2) increase conservation activities to offset the need to construct new power plants, and (3) plan to develop an environmentally sound power supply strategy that may provide reliable electric service at the lowest practical cost.

- **City of Lakeland**

Fish and Wildlife Conservation Commission: The FWC found Lakeland Electric's Ten-Year Site Plan document to be suitable for planning purposes. If Lakeland Electric decides to expand or enhance existing sites to develop new sites in the future, more detailed information can be provided regarding site location, wildlife occurrences, and habitats, as well as surrounding natural resources.

- **Orlando Utilities Commission**

Fish and Wildlife Conservation Commission: The FWC finds the 2010 Update to OUC's Ten-Year Site Plan to be adequate for planning purposes.

East Central Florida Regional Planning Council: The Ten-Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council commends the commission on its progress towards alternative energy supplies, reducing the commission's carbon footprint and conservation and education efforts.

Withlacoochee Regional Planning Council: While this utility does not propose to develop projects within the region during the planning period, it has ownership interests in the Crystal River Nuclear Unit 3. The Strategic Regional Policy Plan for the Withlacoochee Region assigns regionally significant status to all power plants due to the necessity to maintain ample regional energy supply. WRPC would recommend that this Ten-Year Site Plan be considered "suitable" from the perspective of this regional review.

- **City of Tallahassee**

Fish and Wildlife Conservation Commission: Fish and wildlife resources are not likely to be affected by Tallahassee's facilities plan since no facility projects or enhancements are currently planned; however, fish and wildlife resources will need to be considered if improvements are planned to improve the transmission capabilities of the City. The City of Tallahassee's Ten-Year Site Plan 2010-2019 document is suitable for planning purposes.

## Rural Cooperatives

- **Seminole Electric Cooperative**

Fish and Wildlife Conservation Commission: The FWC does not find the 2010 update to Seminole Electric Cooperative's Ten-Year Site Plan document to be adequate. For future reference, we would recommend that Seminole Electric: (1) Perform a GIS analysis of any proposed power plant or transmission line sites and include summary reports of that information in their Ten-Year Site Plan updates, (2) Contact us in advance of preparing their next update if they have any questions about how to address fish and wildlife resources in the vicinity of their properties, and (3) Include contact information in their updates so that we can share our comments with them in a timely fashion.

Withlacoochee Regional Planning Council: While this utility does not propose to develop projects within the region during the planning period, it has ownership interests in the Crystal River Nuclear Unit 3. The Strategic Regional Policy Plan for the Withlacoochee Region assigns regionally significant status to all power plants due to the necessity to maintain ample regional energy supply. WRPC would recommend that this Ten-Year Site Plan be considered "suitable" from the perspective of this regional review.

Southwest Florida Water Management District: All new facilities and expansions within the Southern Water Use Caution Area (SWUCA) will have to conform to applicable rules. Heightened concerns regarding groundwater as well as air quality controls that add to water demands of power generating facilities must be considered.

Appendix A

# Agency Comments

# State Agencies

## Fish & Wildlife Commission

Florida Fish and Wildlife Conservation Commission

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June 28, 2010

Mr. Phillip O. Ellis
Strategic Analysis & Government Affairs
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: 2010 Update to the Florida Power and Light Company 10-Year Site Plan, Multi-County

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the 2010 update to Florida Power and Light Company's (FPL) 10-Year Site Plan and provides the following comments and recommendations in accordance with Section 186.801 of the Florida Statutes.

**Project Description**

Section 186.801, Florida Statutes, requires electric generating facilities to submit a ten-year site plan to the Florida Public Service Commission. The 2010 update to FPL's plan identifies modifications, uprates, or expansions at six sites that have been or currently are undergoing review under the Power Plant Siting Act (PPSA): the West County Energy Center; St. Lucie nuclear plant site; Turkey Point nuclear plant site; Cape Canaveral plant site; Riviera plant site; and the Martin County plant site. In addition to ongoing development, the update anticipates a new site for solar generation in Brevard County. Also, this update discusses the potential to develop ten additional sites. Six of the ten are within or adjacent to existing power generation facilities. One of these six potential sites, the Ft. Myers site in Lee County was cause for concern in FPL's 2009 10-year site plan update because of the proposed use of the Caloosahatchee River as a water source. The Ft. Myers site is still being considered as an additional generation site in the 2010 10-year site plan, and the Caloosahatchee River is still the proposed water source. As we mentioned during our 2009 review, the Caloosahatchee River provides habitat for State of Florida listed species, and therefore the FPL should be anticipating the need to address entrainment and impingement issues as well as the potential to impact habitat in the Caloosahatchee River and downstream estuary.

Beyond the six sites mentioned above, there are four sites that are described only down to County level of specificity. These four general locations are as follows:

- Glades County - Florida Heartland Solar, which is located only down to the roadway from which it might be accessed;
- Hendry County - the update indicates that 1500 acres will be needed for a future photovoltaic facility delivering up to 100 megawatts of electricity;
- Northeast Okeechobee County - no detail provided;
- Southwest Indian River County - no detail provided.

**Recommendations**

As FPL is further investigating potential locations for additional generation facilities, we recommend they coordinate with the FWC to identify locations with the least potential for impacting fish and wildlife resources in those areas. FPL is aware that the Caloosahatchee River provides habitat for a variety of listed species, and they have indicated that they will account for both wildlife impingement/entrainment as well as downstream water quality impacts when considering site selection for the additional Ft. Myers location.

FPL's 10-year plan has addressed the wildlife-related issues raised in our previous comment concerning the 2009 plan; therefore, we find the 2010 update to FPL's 10-year site plan adequate for planning purposes. If you or your staff has any specific questions regarding our comments, I encourage them to contact Jennifer Goff (561-625-5122) or by email at jennifer.goff@MyFWC.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/jdg
ENV 2-11-4/3
FPL 2010_2781_062810

Florida Fish and Wildlife Conservation Commission

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May 7, 2010

Ms. Traci Matthews
Division of Regulatory Analysis
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

2010 MAY 11 AM 9:26
DIVISION OF
REGULATORY COMPLIANCE

RE: Gulf Power 10-Year Site Plan; 2010-2019, Multi-County

Dear Ms. Matthews:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the Gulf Power 10-Year Site Plan and provides the following comments and recommendations.

**Project Description**

Section 186.801, Florida Statutes, requires electric generating facilities to submit a ten-year site plan to the Florida Public Service Commission. Gulf Power owns and operates four plants in Northwest Florida: Plant Crist (Escambia County), Plant Lansing Smith (Bay County), Plant Sholtz (Jackson County), and Pea Ridge (Santa Rosa County), and it holds interest in plants in Mississippi and Georgia.

In order to meet its future capacity needs, Gulf Power has continued to evaluate the construction of generating facilities or the acquisition of equivalent capacity resources in coordination with other Southern Electric System (SES) operating companies. Gulf Power indicates that it has satisfied its need for firm capacity through the May 2023 time period. Any new facility construction is deferred during the 2010-2019 planning cycle. However, Gulf Power anticipates the need to develop additional capacity at Plant Crist, Plant Lansing Smith, Plant Scholtz, or at a newly identified site, referred to as the Shoal River property in Walton County, before 2023. Gulf Power anticipates no future upgrades at the Pea Ridge facility.

**Potentially Affected Resources**

Plant Crist (Escambia County) is located adjacent to the Escambia River, which has been designated as Critical Habitat for the Gulf Sturgeon (*Acipenser oxyrinchus desotoi* - Florida-Species of Special Concern (SSC); Federal-Threatened [T]). The undeveloped portion of the site is mixed hardwoods/pines and mixed scrub.

Plant Lansing Smith (Bay County) is located along North Bay of the St. Andrews Bay system. The undeveloped portion of the site is predominantly pine plantation with some wetland areas. It is adjacent to areas that are identified for conservation under the Bay County Sector Plan.

Plant Scholtz (Jackson County) is located adjacent to the Apalachicola River. The site consists of a mixture of pine and hardwood forests. The Apalachicola River adjacent to Plant Scholtz has been designated Critical Habitat for the Gulf Sturgeon (*Acipenser oxyrinchus desotoi* - Florida-SSC; Federal-T), and proposed critical habitat for the purple bankclimber (*Elliptoides sloatianus* - Federal-T) and fat three-ridge (*Amblema neislerii* - Federal- Endangered [E]).

The undeveloped Shoal River Site (Walton County) is located on the Shoal River approximately three miles northwest of Mossy Head, Florida. The property is predominantly in pine plantation. The site:

- falls within a federally designated red-cockaded woodpecker consultation area;
- contains primary and secondary habitat for the Florida black bear (*Ursus americanus floridanus* - State- T); and
- is within close proximity to known occurrences of southern sandshell mussel (*Hamiota australis* - federal candidate-E), blackmouth shiner (*Notropis melanostomus* - State-E), bluenose shiner (*Pteronotropis welaka* - State-SSC, Eastern indigo snake (*Drymarchon couperi* - State-T; Federal-T), alligator snapping turtle (*Macrochelys temminckii* - State-SSC), gopher tortoise (*Gopherus polyphemus* - State-T), and pine barrens treefrog (*Hyla andersonii* - State-SSC).

We find that Gulf Power's 10-year Site Plan 2010-2019 document is suitable for planning purposes. We have determined that Gulf Power proposes no development plans that pose significant fish and wildlife resources issues or potential conflicts for this planning period. If you or your staff would like to coordinate further on the recommendations contained in this report, please contact me at 850-410-5272, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Theodore Hoehn at 850-488-3831 or by email at ted.hoehn@myFWC.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/tsh
ENV 2-11-4/3
Gulf Power 2010_2787_050710
cc: Susan Ritenour, Gulf Power, SDRITENO@southernco.com

Florida Fish and Wildlife Conservation Commission

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June 28, 2010

Mr. Phillip O. Ellis
Electric Reliability and Cost Recovery Section
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: Progress Energy Florida, Inc. 2010 Ten-Year Site Plan for Electrical Generating Facilities and Associated Transmission Lines

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the Progress Energy Florida, Inc. (PEF) 2010 Ten-Year Site Plan and provides the following comments and recommendations in accordance with Section 186.801, Florida Statutes.

**Project Description**

Section 186.801, Florida Statutes, requires electricity-generating facilities to submit a ten-year site plan to the Florida Public Service Commission. PEF's 10-year plan includes continued operation of the Crystal River Nuclear, P.L. Bartow and Suwannee River plants and installation of a nuclear power unit at the Levy County Greenfield site.

*Crystal River Nuclear, P.L. Bartow, and Suwannee River Power Plants* - PEF's 10- year plan does not anticipate expansions of these sites for the foreseeable future. We do not recommend any additional information be developed for these sites at this time.

*Levy County Nuclear Facility* - The Levy County site is located 8 miles inland from the Gulf of Mexico, 2.5 miles from the Cross Florida Barge Canal, and 10 miles north of the existing PEF Crystal River Energy Complex. The Levy County site is approximately 3,100 acres, of which 10% will be occupied. The remainder of the site is proposed as a buffer preserve and exclusionary boundary. Chapter 4 of the plan indicates that the site is characterized by pine flatwoods and silviculture. PEF purchased an additional 2,100 acre tract contiguous with the southern boundary of the power plant for the purpose of securing access to a water supply for the site from the Cross Florida Barge Canal, as well as transmission corridors from the plant site.

The FWC is working diligently with PEF and the Siting Office to ensure that minimization and mitigation for potential adverse impacts from the plant and associated facilities, transmission lines, and discharges, as they relate to threatened and endangered species, wildlife species, and aquatic life (freshwater and marine), will be addressed through compliance with the Site Certification Conditions. We have not identified any additional wildlife-related planning information needs for this site at this time. However, in the interest of providing feedback to PEF in a proactive manner, we suggest that it

would be helpful for PEF to include point-of-contact information with their submitted update materials.

In summary, we found PEF's Ten-Year Site Plan document to be suitable for planning purposes. If you or your staff would like to coordinate further on the issues contained in this report, please contact me at 850-410-5272, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Dr. Joseph Walsh at 778-772-5094 or via email Joe.Walsh@myfwc.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/sr
ENV 2-11-4/3
Progress Energy 2010_2784_062510

Florida Fish and Wildlife Conservation Commission

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May 14, 2010

Ms. Traci Matthews
Division of Regulatory Analysis
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: Tampa Electric Company 2010 Ten-Year Site Plan for Electrical Generating Facilities and Associated Transmission Lines

Dear Ms. Matthews:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the Tampa Electric Company (TECO) 2010 Ten-Year Site Plan and provides the following comments and recommendations.

**Project Description**

Section 186.801, Florida Statutes, requires electricity-generating facilities to submit a ten-year site plan to the Florida Public Service Commission. Tampa Electric Company's existing generating facilities are located at five plant sites: Big Bend Power Station (Big Bend), H.L. Culbreath Bayside Power Station (Bayside), Partnership Power Station (Partnership), Polk Power Station (Polk), and J.H. Phillips Power Station (Phillips). The Big Bend, Bayside, and Partnership sites are located in Hillsborough County; the Polk Power Station is located in southwestern Polk County; and Phillips is located in Highlands County. All of TECO's power stations have multiple generating units with different technologies and fuel types.

**Referenced Sites and Recommendations**

*Big Bend Power Station* – The Big Bend site (1,500 acres) operates four pulverized coal-fired steam units with a total maximum net capacity of 1,590 megawatts (MW) and is equipped with desulfurization scrubbers and electrostatic precipitators. In addition, the station operates one aeroderivative combustion turbine that entered into service in August 2009 and can be fired with natural gas or distilled oil. The station's coal-fired units are currently undergoing the addition of air pollution control systems known as Selective Catalytic Reduction (SCR). Three of the units have been modified and the remaining coal unit will be modified by the end of spring 2010. The planning document does not anticipate any modifications to the existing site's footprint in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*H.L. Culbreath Bayside Power Station* – The Bayside site (213 acres) operates two natural gas-fired combined-cycle units with a total maximum net capacity of 1,839 MW. The planning document does not anticipate any modifications to the existing site's footprint in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*Partnership Power Station* – The Partnership site operates two natural gas-fired internal combustion engines with a total maximum net capacity of 6 MW. This site was developed in partnership with TECO and the City of Tampa. The planning document is not proposing any

modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*Polk Power Station* – The Polk site operates five generating units with a total maximum net capacity of 972 MW. One unit is an integrated gasification combined-cycle unit fired with synthetic gas produced from gasified coal and other carbonaceous fuels. The remaining units are combustion turbines fired primarily with natural gas. Three of the units at this site can also be fired with distilled oil. The planning document does not anticipate any modifications to the existing site's footprint in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*J.H. Phillips Power Station* – The Phillips site operates two residual or distillate oil-fired diesel engines with a total maximum net capacity of 36 MW. The planning document is not proposing any modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time.

Please note that TECO anticipates adding seven power-generating units, scheduled for construction between 2012 and 2015. While the document indicates that TECO has already developed foundations at their facilities to accommodate these expansions and that no additional lands are required, the distribution of the new units between their existing facilities was not apparent; therefore, if the need to clear additional lands at their facilities should arise, we would anticipate needing to assess any changes for potential impacts to fish and wildlife resources.

In summary, we found Tampa Electric Company's 2010 Ten-Year Site Plan document to be suitable for planning purposes. If you or your staff would like to coordinate further on the issues contained in this report, please contact me at 850-410-5272, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Luis F. Gonzalez by telephone at 863-648-3200 or by email at luis.gonzalez@myfwc.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/lg
ENV 2-11-4/3
Tampa Electric Company 2010_2779_051410
cc: Stanley Kroh
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601

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June 10, 2010

Mr. Phillip O. Ellis
Strategic Analysis & Government Affairs
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: 2010 Update to Florida Municipal Power Agency 10-Year Site Plan, Multi-County

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the 2010 update to Florida Municipal Power Agency's (FMPA) 10-Year Site Plan and provides the following comments and recommendations.

No new proposals for the FMPA facilities have been submitted at this time and none are expected for the next 10 years. If new proposals for the FMPA generating facilities or transmission facilities occur in the future, the FWC will review the submitted information for potential impacts to fish and wildlife and their habitats.

We find the 2010 Update to FMPA's 10-year Site Plan to be adequate for planning purposes. For future reference, we encourage the Public Service Commission to communicate to FMPA that by including company point-of-contact information in their hard copy reports, they can facilitate receipt of any comments we might offer in a timely fashion. If you or your staff would like to coordinate further on this review, please contact Mary Ann Poole in the Office of Policy and Planning Coordination at phone 850-410-5272, or email maryann.poole@MyFWC.com. If your staff has any specific questions regarding our comments, I encourage them to contact Steve Lau (772-778-6354) or by email at steve.lau@MyFWC.com.

Sincerely,

Scott Sanders
Habitat & Species Conservation Section Leader

ss/map/sl
ENV 1-3-2
Florida Municipal Power Agency 2010_2788_061010

June 28, 2010

Mr. Phillip O. Ellis
Strategic Analysis & Government Affairs
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: 2010 Gainesville Regional Utilities 10-Year Site Plan Review

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the 2010 Gainesville Regional Utilities (GRU) 10-Year Site Plan and provides the following comments and recommendations, in accordance with Section 186.801, Florida Statutes.

**Project Description**

Section 186.801, Florida Statutes, requires electric generating facilities to submit a ten-year site plan to the Florida Public Service Commission (PSC). The FWC recognizes the efforts on the part of GRU to include alternative and sustainable resources as part of their energy production with the Gainesville Renewable Energy Center, LLC, for biomass energy sources.

**Referenced Sites and Recommendations**

***Deerfield Plant*** – The GRU has identified the need to expand the Deerfield generating facility. In 2009, GRU and Gainesville Renewable Energy Center (GREC) filed a joint application for a biomass power plant in Alachua County. The existing 1,146-acre generating plant site would be expanded with the addition of 2,328 acres. In accordance with Florida Power Plant Siting Act, FWC recommended conditions of certification for the site certification amendment. We recommend that the environmental issues and recommendations identified during the site amendment process for the Gainesville Renewable Energy Center be incorporated into the 10-year site plan. In the interest of providing feedback to GRU in a proactive manner, we suggest that it would be helpful for GRU to include point-of-contact information with their submitted update materials.

If GRU includes the environmental conditions information recently developed for the Gainesville Renewable Energy Center, we would recommend that the PSC find the 2010 update to Gainesville Regional Utilities' 10-year Site Plan to be adequate for planning purposes. If you or your staff would like to coordinate further on the issues contained in this report, please contact me at 850-410-5272, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I

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encourage them to contact Dr. Joseph Walsh at 772-778-6354 or via email Joe.Walsh@myfwc.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/sr
ENV 2-11-4/3
Gainesville Regional Utilities 2010_2783_062510

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June 29, 2010

2010 JUN 30 AM 9:43

Mr. Phillip O. Ellis
Strategic Analysis & Government Affairs
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: 2010 Update to Jacksonville Electric Authority (JEA) 10-Year Site Plan, Multi-County

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the 2010 update to Jacksonville Electric Authority's 10-Year Site Plan and provides the following comments and recommendations, in accordance with Section 186.801 of the Florida Statutes.

**Project Description**

Section 186.801, Florida Statutes, requires electricity-generating facilities to submit a ten-year site plan to the Florida Public Service Commission (PSC). The Jacksonville Electric Authority (JEA) maintains three generating facilities in the Jacksonville area, holds financial interest in two generating facilities (the St. Johns River Power Park in northeast Florida and the Robert W. Scherer Generating Station in Georgia), and is proposing development of two additional facilities in Florida.

*The JEA Electric System* consists of generating facilities located on three plant sites within the City: the J. Dillon Kennedy Generating Station (Kennedy), the Northside Generating Station (Northside), and the Brandy Branch Generating Station (Brandy Branch). According to this update to the 10-year site plan, JEA does not anticipate any land-use changes associated with these sites; we did not identify any additional information needs related to fish and wildlife issues for these sites during this review.

*St. Johns River Power Park* - The St. Johns River Power Park is jointly owned by JEA and Florida Power & Light. According to the current 10-year site plan, JEA does not anticipate any land-use changes with this site; we did not identify any additional information needs related to fish and wildlife issues for this location during this review.

*Robert W. Scherer Generating Station* - Robert W. Scherer Unit 4 is a coal-fired generating unit, located in Monroe County, Georgia. According to the current 10-year site plan, JEA does not anticipate any land use changes with this site; being that this site is not in Florida, we did not identify any information needs related to fish and wildlife issues associated with this site.

*Taylor Energy Center* - This site is proposed on 3000 acres located 5 miles southeast of Perry, Florida, within Taylor County. The site is bordered by Highway 27 to the north and Fenholloway River to the west. According to JEA, the need for power petition was submitted in September 2006 to the PSC, and the need hearing was held in January 2007. There is no updated information on this proposed site in the 2010 site plan. Once the PSC has indicated a ruling on the petition and when more detailed information is developed as part of the site specific

permitting process, the FWC will review the submitted information for potential impacts to fish and wildlife and their habitats.

*Greenland Energy Center* - The Greenland Energy Center is proceeding with installation of two combustion engine turbines. It is anticipated that the site will be cleared and developed to include a stormwater retention pond system; however, it is unclear as to the vegetation communities and wildlife usage existing or potentially occurring onsite. As we pointed out in our report in 2009, this update to the JEA 10-year site plan report does not have an environmental and land-use section. Specifically, we recommend that JEA include a section on anticipated environmental issues and land-use changes. Further, we recommend that this section include color aerial photographic maps for each of their plants and associated facilities.

Regarding the anticipation of land-clearing activity, we would anticipate the need to assess any changes for potential impacts to fish and wildlife resources. Minimization and mitigation for potential adverse impacts from the plant and associated facilities, transmission lines, and discharges as they relate to threatened and endangered species, wildlife species, and aquatic life (freshwater and marine) would need to be addressed through compliance with the Site Certification Conditions.

No new proposals for the other JEA facilities have been submitted at this time that would impact fish and wildlife resources. If new proposals for the JEA electrical system, the St. Johns River Power Park bulk power system, or the Robert W. Scherer bulk power system are made, the FWC will review the submitted information for potential impacts to fish and wildlife and their habitats. Also, in the interest of providing feedback to JEA in a proactive manner, we suggest that it would be helpful for JEA to include point-of-contact information with their submitted update materials.

In summary, we do not find the 2010 update to Jacksonville Electric Authority's 10-year Site Plan document to be adequate for planning purposes. If you or your staff would like to coordinate further on the issues contained in this report, please contact me at 850-410-5272, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Dr. Joseph Walsh at 772-778-6354 or email at Joe.Walsh@myfwc.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/sr
ENV 2-11-4/3
JEA 2010_2786_062910

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June 1, 2010

Ms. Traci Matthews
Division of Regulatory Analysis
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: Lakeland Electric Polk County 2010 Ten-Year Site Plan for Electrical Generating Facilities and Associated Transmission Lines

Dear Ms. Matthews:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the Lakeland Electric 2010 Ten-Year Site Plan and provides the following comments and recommendations.

**Project Description**

Section 186.801, Florida Statutes, requires electric generating facilities to submit a ten-year site plan to the Florida Public Service Commission. Lakeland Electric's existing generating units are located at three different plant sites: Charles Larsen Memorial (Larsen), C.D. McIntosh Jr. (McIntosh), and Winston Peaking Station (Winston). The two main plant sites are located on Lake Parker and the peaking station is approximately 5 miles west of Lake Parker. All of the facilities are found within Polk County. The three plants have multiple units with different technologies and fuel types.

**Referenced Sites and Recommendations**

*Charles Larsen Memorial* - The Larsen site is located on the southeast shore of Lake Parker in Lakeland. The site has three units with a total net maximum capacity of 151 megawatts (MW). The units burn natural gas as a primary fuel with diesel as a backup. The planning document does not anticipate any modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*C.D. McIntosh Jr.* - The McIntosh site is located in the City of Lakeland along the northeastern shore of Lake Parker and encompasses 513 acres. The McIntosh site currently includes seven units with a total net maximum capacity of 760 MW. The units burn natural gas and pulverized coal as a primary fuel with diesel as backup. The planning document does not anticipate any modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*Winston Peaking Station* – The Winston site is located in the southeast quadrant of Old Tampa Highway and Airport Road (CR 572), approximately 2.3 miles north of the Lakeland Airport. Lakeland Electric constructed this 50 MW electric peaking station to provide additional quick start generation for Lakeland's system during times of peak

loads. The station consists of 20 reciprocating cylinder engines driving 2.5 MW generators. The units are currently fueled by oil but have the capacity to burn a mix of 5% oil and 95% natural gas. The planning document does not anticipate any modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time.

In summary, we found Lakeland Electric's Ten-Year Site Plan document to be suitable for planning purposes. If Lakeland Electric decides to expand or enhance existing sites or develop new sites in the future, more detailed information can be provided regarding site location, wildlife occurrences and habitats, as well as surrounding natural resources. If you or your staff would like to coordinate further regarding this report, please contact Mary Ann Poole at 850-410-5272, or email her at maryann.poole@MyFWC.com, and she will be glad to help make the necessary arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Luis F. Gonzalez by telephone at 863-648-3200 or by email at luis.gonzalez@myfwc.com.

Sincerely,

Scott Sanders
Habitat & Species Section Leader

ss/jdg/lg
ENV 2-11-4/3
Lakeland Electric 2010_2782_060110
cc: John Juiseppi, Lakeland Electric (john.juiseppi@lakelandelectric.com)

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June 10, 2010

Mr. Phillip O. Ellis
Strategic Analysis & Government Affairs
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: 2010 Update to Orlando Utilities Commission 10-Year Site Plan, Multi-County

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the 2010 update to Orlando Utilities Commission's (OUC) 10-Year Site Plan and provides the following comments and recommendations.

No new proposals for the OUC facilities have been submitted at this time and none are expected for the next 10 years. If new proposals for the OUC generating facilities or transmission facilities occur in the future, the FWC will review the submitted information for potential impacts to fish and wildlife and their habitats.

We find the 2010 Update to OUC's 10-year Site Plan to be adequate for planning purposes. For future reference, we encourage the Public Service Commission to communicate to OUC that by providing point-of-contact information with their hard copy reports, they could ensure receipt of any comments we might offer in a timely fashion. If you or your staff would like to coordinate further on the issues contained in this report, please contact Mary Ann Poole in the Office of Planning and Policy Coordination at phone 850-410-5272, or email at maryann.poole@MyFWC.com. If your staff has any specific questions regarding this review, I encourage them to contact Steve Lau (772-778-6354) or by email at steve.lau@MyFWC.com.

Sincerely,

Scott Sanders
Habitat & Species Conservation Section Leader

ss/map/sl
ENV 1-3-2
Orlando Utilities Commission 2010_2785_061010

Florida Fish and Wildlife Conservation Commission

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May 7, 2010

Ms. Traci Matthews
Division of Regulatory Analysis
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: City of Tallahassee 10-Year Site Plan: 2010-2019, Leon County

Dear Ms. Matthews:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the City of Tallahassee 10-Year Site Plan (2010 – 2019) and provides the following comments.

**Project Description**

Section 186.801, Florida Statutes, requires electric generating facilities to submit a ten-year site plan to the Florida Public Service Commission. The City of Tallahassee (City) has three plants providing power to the City: Purdom (St. Marks, Florida), Hopkins (Tallahassee), and Corn (Lake Talquin). The City expects that no additional power supply resources will be required in the reporting period to meet future system needs.

The City has been working with its neighboring utilities, Progress Energy and Southern Company, to identify improvements that would ensure the continued reliability and commercial viability of the transmission systems in and around Tallahassee. The City's continuing evaluation of infrastructure indicates that additional projects are needed to address either (1) improvements in capability to deliver power from the Hopkins Plant (on the west side of the City's service territory) to the load center, or (2) the strengthening of the system on the east side of the City's service territory to improve the voltage profile in that area and enhance response to contingencies. If the demand side management does not perform as expected throughout the planning period, a 230-kilovolt (kV) transmission line loop around the City would be necessary by 2016.

**Comments**

Fish and wildlife resources are not likely to be affected by Tallahassee's facilities plan since no facility projects or enhancements are currently planned; however, fish and wildlife resources will need to be considered if improvements are planned to improve the transmission capabilities of the City. The City of Tallahassee's 10-year Site Plan 2010 – 2019 document is suitable for planning purposes.

If you or your staff would like to coordinate further on the recommendations contained in this report, please contact me at 850-410-5272, or email me at maryann.poole@MyFWC.com, and I will be glad to help make the necessary

arrangements. If your staff has any specific questions regarding our comments, I encourage them to contact Theodore Hoehn at 850-488-3831 or by email at ted.hoehn@myFWC.com.

Sincerely,

Mary Ann Poole

Mary Ann Poole
Commenting Program Administrator

map/th
City of Tallahassee Electric Utility 2010_2789_050710
ENV 1-3-2
cc: Paul Clark, City of Tallahassee: paul.clark@talgov.com

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June 10, 2010

Mr. Phillip O. Ellis
Strategic Analysis & Government Affairs
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

2010 JUN 11 AM 9:28
DIVISION OF
REGULATORY COMPLIANCE

RE: 2010 Update to Seminole Electric Cooperative's 10-Year Site Plan, Multi-County

Dear Mr. Ellis:

The Division of Habitat and Species Conservation, Habitat Conservation Scientific Services Section, of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated our agency's review of the 2010 update to Seminole Electric Cooperative's 10-Year Site Plan and provides the following comments and recommendations.

**Project Description**

Section 186.801, Florida Statutes, requires electricity-generating facilities to submit a ten-year site plan to the Florida Public Service Commission. Seminole Electric Cooperative (SEC) identifies the need to develop a new power-generating facility, two transmission rights-of-way, and a switch station.

**Potential Information Needs and Recommendations**

*Seminole Generating Station, Putnam County*: The planning document does not anticipate any modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time. An additional power generating unit that was proposed last year has been canceled.

*Midulla Generating Station, Hardee and Polk Counties*: The planning document does not anticipate any modifications to this site in the foreseeable future. We do not recommend any additional information needs for this site at this time.

*Gilchrist Generating Station Site*: The plan outlines SEC's intention to develop this 530-acre site for four new power generating units. In addition, the plan calls for the development of two transmission line rights-of-way and a switching station located at a future intersection with Progress Energy-Florida's Ft. White-Newberry transmission line. Although they provide a general description of the environmental conditions at the proposed new generating station site and a very large scale location map with few details, they do not provide enough detail for a complete site analysis that would enable us to make additional planning recommendations for any of the facilities associated with this project. For example, our review of geographic information system-available data shows that this site within an area of the State that is likely to provide potential habitat for a variety of listed species. Based on known range and preferred habitat, the following table

identifies wildlife species, including 12 that are protected by federal and/or state laws potentially occur within the general area of the project site.

Table: List of Potentially Occurring Protected Wildlife Species

| **Common Name** | ***Scientific Name*** | **Status*** |
|---|---|---|
| Gopher frog | *Rana capito* | SSC |
| American alligator | *Alligator mississippiensis* | SSC; FT |
| Gopher tortoise | *Gopherus polyphemus* | ST |
| Eastern indigo snake | *Drymarchon corais couperi* | ST; FT |
| Short-tailed snake | *Stilosoma extenuatum* | ST |
| Little blue heron | *Egretta caerulea* | SSC |
| Snowy egret | *Egretta thula* | SSC |
| White ibis | *Eudocimus albus* | SSC |
| Wood stork | *Mycteria americana* | SE; FE |
| Sherman's fox squirrel | *Sciurus niger shermani* | SSC |
| Florida black bear | *Ursus americanus floridanus* | ST |
| Florida mouse | *Podomys floridanus* | SSC |

* SSC - Species of Special Concern; ST - State Threatened; SE - State Endangered; FT - Federally Threatened; FE - Federally Endangered

In summary, we do not find the 2010 update to Seminole Electric Cooperative's 10-year Site Plan document to be adequate. For future reference, we would recommend that Seminole Electric:

- Perform a GIS analysis of any proposed power plant or transmission line sites and include summary reports of that information in their 10-year site plan updates;
- Contact us in advance of preparing their next update if they have any questions about how to address fish and wildlife resources in the vicinity of their properties; and
- Include contact information in their updates so that we can share our comments with them in a timely fashion.

If you or your staff would like to coordinate further on this review, please contact Mary Ann Poole in the Office of Planning and Policy Coordination at phone 850-410-5272, or email maryann.poole@MyFWC.com. If your staff has any specific questions regarding our comments, I encourage them to contact Steve Lau at (772) 778-6354, or email steve.lau@myFWC.com.

Sincerely,

Scott Sanders
Habitat & Species Conservation Section Leader

ss/map/sl
ENV 2-11-4/3
Seminole Electric 2010_2780_061010

# State Agencies

## Department of Transportation

*Florida Department of Transportation*

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

June 21, 2010

Traci Matthews
Division of Regulatory Analysis
Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Dear Ms. Matthews:

The Siting Coordination Office has reviewed the ten-year site plans and find these are suitable as planning documents. If you have any questions please feel free to call me at (850)414-4572.

Sincerely,

Connie Mitchell
Staff Director
Siting Coordination Office

# Regional Planning Councils

## Central Florida

SERVING THE COUNTIES OF • DESOTO • HARDEE • HIGHLANDS • OKEECHOBEE • POLK

June 30, 2010

Traci Matthews
State of Florida Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Blvd
Tallahassee, FL 32399

Dear Ms. Matthews,

The CFRPC received a ten year power plant plan (2010 – 2019) from Tampa Electric (TECO). This plan was completed in April 2010. No report was received from Florida Power and Light (FPL), Progress Energy Florida, Orlando Utilities Commission, Seminole Electric Cooperative, or Lakeland Electric Company (City of Lakeland). However, the CFRPC reviewed the ten year power plant plans for these entities on the Public Service Commission's website.

A portion of Polk County receives electrical service from TECO. TECO offers a Renewable Energy Program that has been recently upgrading from a pilot program to permanent program status. Recently, the State of Florida placed a requirement on local governments to reduce greenhouse gases and improve energy efficiency. This program will help the communities served by TECO meet the state's requirement.

Thank you for the opportunity to review this ten year power plant plan.

Sincerely,

Marisa M. Barmby, AICP
Senior Planner

CENTRAL FLORIDA REGIONAL PLANNING COUNCIL
555 EAST CHURCH STREET, BARTOW, FL 33830-3931; P.O. BOX 2089 BARTOW, FL 33831-2089
(863) 534-7130 • FAX (863) 534-7138 • TOLL FREE (800) 297-8041 • WEBSITE WWW.CFRPC.ORG

# Regional Planning Councils

## East Central Florida

EAST CENTRAL FLORIDA REGIONAL PLANNING COUNCIL

309 Cranes Roost Blvd. Suite 2000 · Altamonte Springs, Fl 32701
Phone (407).262.7772 · Fax (407).262.7788 · www.ecfrpc.org

Philip Laurien, AICP
Executive Director

## MEMORANDUM

**To:** Traci Matthews, Division of Regulatory Analysis, Florida Public Service Commission

**From:** George Kinney, AICP, Planning Manager
Tara M. McCue, AICP

**Date:** June 24, 2010

**Subject:** 2010 Ten-Year Site Plans Review
- Florida Power and Light
- Florida Municipal Power Agency
- Orlando Utilities Commission
- Progress Energy

East Central Florida Regional Planning Council staff has completed a review of the 2010 Ten-Year Site Plans for the agencies listed above. Staff comments to each utility are italicized below.

**Florida Power and Light**
*The 10 Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council encourages Florida Power and Light to continue its efforts towards the incorporation of renewable energy projects.*

**Florida Municipal Power Agency**
*The 10 Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council commends the agency on its partnerships and continued work towards alternative energy supplies and conservation efforts.*

**Orlando Utilities Commission**
*The 10 Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council commends the commission on its progress towards alternative energy supplies, reducing the commission's carbon footprint and conservation and education efforts.*

**Progress Energy**

*The 10 Year Site Plan did not include any proposed projects or sites which conflict with the ECFRPC Regional Strategic Policy Plan. The Council commends Progress Energy on its efforts towards the incorporation of alternative energy supplies, public and commercial incentive programs, conservation and education efforts.*

Council staff will provide further comments on environmental impacts when new units, projects or transmission lines are proposed and related environmental and wildlife studies are provided.

If you require any further information or comments, please contract Tara McCue, AICP at tara@ecfrpc.org or by phone at (407) 262-7772.

# Regional Planning Councils

## North Central Florida

**North Central Florida Regional Planning Council**

2009 N.W. 67 PLACE, SUITE A, GAINESVILLE, FLORIDA 32653-1603
(352) 955-2200 SUNCOM 625-2200 FAX (352) 955-2209

## REGIONAL CLEARINGHOUSE INTERGOVERNMENTAL COORDINATION AND RESPONSE

Date: 6-29-10

**PROJECT DESCRIPTION**

#85- Gainesville Regional Utilities 2010 Ten-year Site Plan

TO: Traci Mathews
Division of Regulatory Analysis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

___ **COMMENTS ATTACHED**

_X_ **NO COMMENTS REGARDING THIS PROJECT**

IF YOU HAVE ANY QUESTIONS REGARDING THESE COMMENTS, PLEASE CONTACT STEVEN DOPP, SENIOR PLANNER, AT THE NORTH CENTRAL FLORIDA REGIONAL PLANNING COUNCIL AT (352) 955-2200 OR SUNCOM 625-2200, EXT 109.

Serving "The Original Florida"

**North Central Florida Regional Planning Council**

2009 N.W. 67 PLACE, SUITE A, GAINESVILLE, FLORIDA 32653-1603
(352) 955-2200 SUNCOM 625-2200 FAX (352) 955-2209

REGIONAL CLEARINGHOUSE INTERGOVERNMENTAL COORDINATION AND RESPONSE

Date: 6-29-10

**PROJECT DESCRIPTION**

#84 - Seminole Electric Cooperative, Inc., Ten Year Site Plan 2010 - 2019

TO: Traci Mathews
Division of Regulatory Analysis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

___ **COMMENTS ATTACHED**

_X_ **NO COMMENTS REGARDING THIS PROJECT**

IF YOU HAVE ANY QUESTIONS REGARDING THESE COMMENTS, PLEASE CONTACT STEVEN DOPP, SENIOR PLANNER, AT THE NORTH CENTRAL FLORIDA REGIONAL PLANNING COUNCIL AT (352) 955-2200 OR SUNCOM 625-2200, EXT 109.

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# Regional Planning Councils

## Northeast Florida

Northeast Florida Regional Council

*Bringing Communities Together*

Baker • Clay • Duval • Flagler • Nassau • Putnam • St. Johns

June 15, 2010

Ms. Jeanette Sickel
Florida Public Service Commission
Division of Economic Regulation
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Tom Ballinger

Dear Ms. Sickel:

Please find attached the Northeast Florida Regional Council's ten-year site plan review for JEA.

JEA Ten-year Site Plan: The ten-year site plan, as required by Section 186.801 of the Florida Statutes (F.S.), was reviewed by the Northeast Florida Regional Council staff.

> ***Action taken:*** Staff's review was approved by the Council and authorized its transmittal to the Florida Public Service Commission.

If you have any further requests or questions, please contact Ms. Ameera Sayeed, Senior Regional Planner, (904) 279-0885, ext. 151 or asayeed@nefrc.org.

Sincerely,

Margo Moehring, AICP, MRTPI
Director
Planning & Strategic Initiatives

attachment



6850 Belfort Oaks Place • Jacksonville, FL 32216 • (904) 279-0880 • Fax (904) 279-0881 • Suncom 874-0880 • Suncom Fax 874-0881
Web Site: www.nefrc.org • Email: nefrc@nefrc.org
Equal Opportunity Employer

Northeast Florida Regional Council

*Bringing Communities Together*

Baker • Clay • Duval • Flagler • Nassau • Putnam • St. Johns

# MEMORANDUM

**DATE:** May 24, 2010

**TO:** Northeast Florida Regional Council

**THRU:** Planning and Growth Management Policy Committee

**FROM:** Ameera Sayeed, Senior Regional Planner

**RE:** Review of JEA Ten-Year Power Plant Site Plan 2010-2019

## INTRODUCTION

Each year every electric utility in the State of Florida produces a ten-year site plan that includes an estimate of future electric power generating needs. The purpose of the ten year site plan is to disclose the general location of proposed power plant sites and facilitate coordinated planning efforts. Pursuant to Section 186, Florida Statues, Council staff reviewed the most recent ten-year site plan prepared by the Jacksonville Electric Authority (JEA). The purpose of this report is to summarize JEA's plans for future power generation and provide comments for transmittal to the Florida Public Service Commission (Commission).

## STATUTORY AUTHORITY

Section 186.801, Florida Statutes, requires that all major generating electric utilities in Florida submit a *Ten-Year Site Plan* to the Commission for review. Each *Ten-Year Site Plan* contains projections of the utility's electric power needs for the next ten years and the general location of proposed power plant sites and major transmission facilities. In accordance with the statute, the Commission performs a preliminary study of each *Ten-Year Site Plan* and must determine whether it is "suitable" or "unsuitable." In conducting its review, the Commission considers the views of appropriate local and state agencies. The Northeast Florida Regional Council reviews electric utility Ten-Year Site Plans within the region and submits comments to the Commission for review. The

Commission forwards the *Ten-Year Site Plan* review, upon completion, to the Florida Department of Environmental Protection (DEP) for use in subsequent power plant siting proceedings. To fulfill the requirements of Section 186.801, Florida Statutes, the Commission has adopted Rules 25-22.070 through 25-22.072, Florida Administrative Code. Electric utilities must file the *Ten-Year Site Plan* by April 1st.

**PURPOSE**

The intent of the *Ten-Year Site Plans* is to give state, regional, and local agencies advance notice of proposed power plants and transmission facilities. However, the *Ten-Year Site Plans* are not a binding plan of action on electric utilities. As such, the Commission's classification of a *Ten-Year Site Plan* as suitable or unsuitable has no binding effect on the utility. Such a classification does not constitute a finding or determination in docketed matters before the Commission. The Commission may address any concerns raised by a utility's *Ten-Year Site Plan* at a public hearing. Because the *Ten-Year Site Plans* are planning documents containing tentative data, they may not contain sufficient information to allow regional planning councils, water management districts, and other review agencies to evaluate site-specific issues within their jurisdictions. Each utility is responsible for providing detailed data, based on in-depth environmental assessments, during Power Plant Siting Act or Transmission Line Siting Act certification proceedings.

**Summary of the Plan**

The evaluation has revealed that JEA included in their ten-year plan the necessary analysis to determine the current plan. The existing JEA electric supply resources, forecasts of customer energy requirements and peak demands, forecasts of fuel process and availability, and an analysis of alternative for resources that would meet JEA's future capacity and energy needs were reported in the ten-year plan. JEA forecasts accounted for the system peak demand growth and energy consumption resource plan, in addition to cost considerations, environmental and land use considerations were amply factored into the ten-year plan. JEA covers approximately 900 square miles and services 417,000 customers. JEA had proved population estimates in previous ten year site plans and it appears that the current plan no longer includes the population forecast and accompanying discussion.

JEA consists of three separate entities: The JEA Electric system, the St. Johns River Power Park and the Robert W. Scherer system. The JEA Electric System consists of generating facilities located on three plant sites within the City; the J. Dillon Kennedy generating station, the Northside generating station and the Brandy Branch generating

station. These are two dual fired plants, meaning petroleum and coke or coal burning. The St. Johns River Power Park is jointly owned by JEA (80 percent and FP&L (20 percent). These are coal fired units. Although JEA is the majority owner of SJRPP, both owners are entitled to 50 percent of the output of SJRPP. The Robert Scherer Unit 4 is a coal fired generating unit with a net output of 846 MW located in Monroe County, Georgia. JEA has a 23.6 percent ownership interest in Unit 4 and proportionate ownership interest in associated common facilities and coal stock pile.

JEA also pursues purchasing power from Southern Company, which is also coal powered and will provide capacity and energy per contract through May 31, 2010. Constellation Energy Commodities Group has been added from the previous year site plan. Constellation and JEA entered into an agreement in October 2006. The Energy Authority (TEA) is generally able to acquire capacity when any of JEA's members require additional resources. Co-generation facilities reduce the demand from JEA's facilities and JEA has customers having Qualifying Facilities located with the JEA service area/territory. Four of these "co-generators" are Anheuser-Busch, Baptist Hospital, Ring Power Landfill and St. Vincent's Hospital.

JEA continues to establish a Clean Power Capacity goal of 7.5 percent clean power capacity by 2015. To support these goals, the JEA has solar photovoltaic panels on high schools and other community buildings. JEA also has the Solar Incentive Program to promote solar energy. Another measure taken by JEA is the Residential Net Metering Policy to encourage the use of customer sited solar photovoltaic systems. JEA also has programs that offer indoor and outdoor lighting services to help in designing efficient light systems and retrofits.

**Nuclear Generation**
In March 2008, JEA approved the policy of pursuing nuclear energy partnerships with the goal of providing 10 percent of JEA's power from nuclear sources. In June 2008, JEA entered in to a purchase power agreement with the Municipal Electric Authority of Georgia (MEAG) for a portion of MEAG's entitlement to the Vogtle Units 3 and 4, which are proposed new nuclear units to be constructed at the existing Plant Vogtle located in Burke County, Georgia. JEA is entitled to net firm capacity of 200 MW from the proposed units.

**Clean Power and Renewable Energy**
JEA has pursued several clean power initiatives and is in the process of evaluating potential renewable energy resources. JEA has worked with the Sierra Club of Northeast Florida, the American Lung Association and local environmental groups to establish a process to maintain an action plan entitled "Clean Power Action Plan". This

Plan includes an advisory Panel which is comprised of community representatives. Also, JEA has included in their review and planning installation of solar photovoltaics, solar thermal, landfill and wastewater treatment biogas capacity and wind capacity.

**Solar**
In 2009 JEA purchased a power agreement with Jacksonville Solar, LLC to provide energy from a 15.0 MW DC rated solar farm, the facility is located in western Duval County ad will consist of 200,000 photovoltaic panels on 100 acres and will generate approximately 22,340 MWh of electricity per year.
**Landfill**
JEA owns three internal combustion engine generators that are fueled by the methane gas produced by the landfill. JEA also receives landfill gas from the North landfill, which is fed to the Northside Generating station and is used to generate power at Northside Unit 3.
**Wind**
JEA purchases 10MW of wind capacity from NPPD's (Nebraska Public Power District) and in turn the NPPD buys back the energy at specified on/off peak charges. JEA receives environmental credits associated with green projects.
**Biomass**
JEA has been in research efforts continues to conduct and evaluate the feasibility of this energy source.
**Other renewable** efforts include offshore wind, tidal and energy crops, all requiring more research and development before implementation.

**Greenland Energy Center**
The GEC is a new site and JEA has proceeded with the installation of two combustion units. The scheduled commercial operation date for these units is June 2011. The GEC will convert two simple cycle combustion turbines for operation at the Center site. This site will be dual fueled with natural gas as the primary fuel and oil as a backup fuel. The air quality and water use at the GEC are subject to the review of the FDEP and St. Johns River Water Management District guidelines.

**Staff Evaluation**

Council staff supports JEA and the State of Florida's efforts to continue to develop new programs to: 1) reduce the reliance on coal and oil as energy sources; 2) increase conservation activities to offset the need to construct new power plants; and 3) plan to develop an environmentally sound power supply strategy that may provide reliable electric service at the lowest practical cost.

As stated previously, JEA has submitted in the past data and analyses pertaining to

population estimates and forecast and it's relation to energy demand and supply. This ten year site plan does not include this data.

**Recommendation**

**Staff recommends that the Committee and Council approve this report and authorize its transmittal to the Florida Public Service Commission.**

# Regional Planning Councils

## Treasure Coast

TREASURE COAST REGIONAL PLANNING COUNCIL

INDIAN RIVER - MARTIN - PALM BEACH - ST. LUCIE

June 23, 2010

Ms. Traci Matthews
Division of Regulatory Analysis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Subject: 2010 Ten Year Power Plant Site Plans

Dear Ms. Matthews:

Treasure Coast Regional Planning Council has reviewed the ten year power plant site plan prepared by Florida Power and Light Company. Council approved the comments in the attached report at a board meeting on June 18, 2010. The report concludes that the FPL Ten Year Power Plant Site Plan, 2010-2019 is inconsistent with Strategic Regional Policy Plan Goal 9.1, decreased vulnerability of the region to fuel price increases and supply interruptions; and Strategy 9.1.1, reduce the Region's reliance on fossil fuels. Council urges FPL and the State of Florida to continue developing new programs to: 1) reduce the reliance on fossil fuels as future energy sources; 2) increase conservation activities to offset the need to construct new power plants; and 3) increase the reliance on renewable energy sources to produce electricity. The report encourages the Florida Legislature to adopt a Renewable Portfolio Standard during the next legislative session in order to provide a mechanism to expand the use of renewable energy in Florida. The report also includes a concern for FPL to address in next years ten year site plan about the potential need to provide service to a significant amount of additional customers in Indian River County.

Please contact me if you have any questions.

Sincerely,

Peter G. Merritt, Ph.D.
Regional Ecologist

Attachment

*"Regionalism One Neighborhood At A Time" • Est. 1976*

421 S.W. Camden Avenue - Stuart, Florida 34994
Phone (772) 221-4060 - Fax (772) 221-4067 - www.tcrpc.org

TREASURE COAST REGIONAL PLANNING COUNCIL

Report on the

Florida Power & Light Company Ten Year Power Plant Site Plan, 2010-2019

June 18, 2010

Introduction

Each year every electric utility in the State of Florida produces a ten year site plan that includes an estimate of future electric power generating needs, a projection of how those needs will be met, and disclosure of information pertaining to the utility's preferred and potential power plant sites. The Florida Public Service Commission (FPSC) has requested that Council review the most recent ten year site plan prepared by Florida Power and Light Company (FPL). The purpose of this report is to summarize FPL's plans for future power generation and provide comments for transmittal to the FPSC.

Summary of the Plan

The FPL plan describes three primary factors that are driving changes in the 2010 ten year plan. The first primary factor is the FPL plan based on a new long-term load forecast that projects lower growth in electrical demand and energy starting in 2015 compared to the previous forecast. As a result of this new lower load forecast, FPL's current projected need for new resources in the 2010 – 2019 time period is significantly lower than had been projected in 2009. A second primary factor driving changes in the current ten year plan is the FPSC's decision in 2009 to impose significantly higher goals for demand side management (DSM) resources for FPL to add in the 2010 – 2019 period. DMS programs include both conservation initiatives and load management. The third primary factor driving changes in the 2010 plan is that due to regulatory and commercial developments in 2009, the project schedule for Turkey Point nuclear units 6 & 7 is under review. For planning purposes, it is now assumed that the in-service for these future units will not be within the ten year reporting period of the 2010 plan.

Despite the increase in DSM programs, FPL will still require additional capacity from conventional power plants to meet the future demand. The ten year site plan indicates FPL is proposing to add 39 megawatts (MW) of summer capacity to its system from 2010 to 2019 (Exhibit 1). FPL plans to meet some of its needs through power purchases from utilities and other entities. In addition, FPL is planning to increase capacity through modifying existing power plants and developing new generating facilities.

Major additions to FPL's generating capacity are as follows:

- In 2011, FPL plans to add West County Energy Center (WCEC) Unit 3 (1,219 MW) in Palm Beach County;

- In 2012, FPL plans existing nuclear units capacity upgrades to St. Lucie 1 (103 MW), St. Lucie 2 (88 MW) in St. Lucie County, and Turkey Point 3 (104 MW) in Miami-Dade County;
- In 2013, FPL plans to place in service the Cape Canaveral Next Generation Clean Energy Center (1,210 MW) in Brevard County, and existing nuclear units capacity upgrades to Turkey Point 4 (104 MW) in Miami-Dade County; and
- In 2014, FPL plans to place in service the Riviera Beach Energy Center (1,212 MW) in the City of Riviera Beach.

Based on the projection of future resource needs, FPL has identified seven preferred sites for future power generating facilities. The preferred sites include: 1) the WCEC, which is adjacent to the existing Corbett substation in Palm Beach County; 2) the existing St. Lucie Plant site located in St. Lucie County; 3) the existing Turkey Point Plant site in Miami-Dade County; 4) the existing Cape Canaveral Plant site in Brevard County; 5) the existing Riviera Plant site in Palm Beach County; 6) the Space Coast Solar Energy Center in Brevard County; and 7) the Martin Solar Energy Center at the existing Martin Plant site in Martin County.

Also, FPL has identified ten potential sites for new or expanded power generating facilities. The potential sites include: 1) the Babcock Ranch site in Charlotte County; 2) the DeSoto Solar Expansion site in DeSoto County; 3) Florida Heartland Solar in Glades County; 4) the existing Fort Myers Plant site in Lee County; 5) an unidentified location in Hendry County for a photovoltaic facility; 6) the existing Lauderdale Plant site in Broward County; 7) the existing Manatee Plant site in Manatee County; 8) an unidentified location in northeastern Okeechobee County; 9) an unidentified location in southwestern Indian River County; and 10) the West Broward site at the Andytown Substation site in Broward County. The identification of potential sites does not represent a commitment by FPL to construct new power generating facilities at these sites.

In addition to the factors described above, the FPL plan also describes several other items that will also influence FPL's resource planning work. Two on-going system concerns are: 1) maintaining/enhancing fuel diversity in the FPL system, and 2) maintaining a balance between load and generating capacity in southeastern Florida. A third factor that will influence FPL's ongoing resource planning efforts is the Executive Order directive issued by Governor Crist in 2007 calling for reductions in greenhouse gas emissions and for increased contribution from renewable energy resources. A fourth factor that could affect FPL's resource planning is the possibility of the establishment of a Renewable Portfolio Standard (RPS) by the state legislature in the future.

Evaluation

One of the main purposes of preparing the ten year site plan is to disclose the general location of proposed power plant sites. The FPL ten year site plan identified four preferred sites and one potential site for future power generating facilities in the Treasure Coast Region (Exhibit 2). The first preferred site is the WCEC. Units 1 and 2 are 1,219 MW natural gas-fired units that were constructed on this site and went into commercial

operation in August, 2009. Unit 3 has been approved by the FPSC and the Secretary of the Florida Department of Environmental Protection (FDEP) in lieu of the Governor and Cabinet and is currently under construction.

The second preferred site is the St. Lucie Plant, which is located on Hutchinson Island in St. Lucie County. The St. Lucie site has been selected as a preferred site for the addition of two types of new generation. The first type of generating capacity addition is an "uprate" project to increase the capacity of the two existing nuclear generating units. FPL is modifying the two 840 MW nuclear generating units to increase their capacity by about 103 MW each. This capacity uprate has been approved by the FPSC. The second type of generating capacity addition is the proposed installation of wind generation turbines at the plant site. Six wind turbines are being proposed that would have a total maximum output of approximately 13.8 MW. The in-service date will depend on the approval and permitting process.

The third preferred site is the Riviera Plant site located in the City of Riviera Beach. This site currently houses two operational 300 MW oil-fired units. FPL will replace the existing units with a high-efficiency combined cycle natural gas unit capable of producing 1,250 MW of electricity. The new design will be sleeker with stacks about half as tall as the existing ones. The modernized plant will have significant economic and environmental benefits. The increase in efficiency will result in the new facility using 33 percent less fuel to produce the same amount of electricity. The new facility will improve air quality by reducing particulate emissions by 88 percent, and the rate of carbon dioxide emissions will improve by 50 percent. The project received final state certification on November 24, 2009, through the issuance of a final order signed by the Secretary of FDEP. The proposal to upgrade this facility is consistent with past requests by Council and the City of Riviera Beach to upgrade this facility.

The fourth preferred site is the Martin Solar Energy Center (MSEC), which will be situated on the existing Martin Power Plant, located west of Indiantown in Martin County. The 11,300-acre Martin Plant site was identified in 1987 as a preferred location for generating facilities. The site has a generating capacity of 3,700 MW derived from two oil-fired units and three natural gas-fired units. The site also has a 10 kilowatt photovoltaic facility in operation. The MSEC project will be constructed in an approximately 600-acre area on the Martin Plant site. The site has been selected as a preferred site for the addition of approximately 75 MW of solar thermal generation. The facility will produce steam that will replace steam that would otherwise have been produced by burning natural gas in one of the existing generating units at the site. The MSEC site certification has been approved and the facility is expected to be in operation by the end of 2010. Council continues to support development of the Martin Solar Energy Center and encourages FPL to develop other projects based on renewable resources.

The only potential site identified in the Treasure Coast Region is an unidentified location in southwestern Indian River County. This area is not projected to have significant future growth. Therefore, selection of a site in southwestern Indian River County does not

appear to be consistent with satisfying FPL's concern for maintaining a balance between load and generating capacity in southeastern Florida.

The ten year plan indicates that fossil fuels will be the primary source of energy used to generate electricity by FPL during the next 10 years (Exhibit 3). The plan indicates in 2010 fossil fuels will account for 65.9 percent of FPL's electric generation (5.7 percent from coal, 1.7 percent from oil, and 58.5 percent from natural gas). In 2019, the plan predicts that 72.9 percent of FPL's electric generation will be derived from fossil fuels (5.4 percent from coal, 1.0 percent from oil, and 66.5 percent from natural gas). During the same period, nuclear sources are predicted to change from 21.8 percent in 2010 to 20.7 percent in 2019.

In regard to utilizing renewable energy, FPL has committed to add 110 MW of solar generating capacity by 2010 through a 75 MW solar thermal facility at the Martin Solar Energy Center, a 25 MW photovoltaic facility in DeSoto County, and a 10 MW facility in Brevard County. Council supports these renewable projects. However, the plan does not predict an increase in the proportion of electricity derived from renewable resources over the next ten years. Furthermore, the plan does not provide an accounting of the amount of electricity derived from renewable resources. Renewable resources are included in the "Other" category in Exhibit 3, which also includes fossil fuel derived energy. Council recommends that future ten year site plans provide an estimate of the amount of electricity produced from renewable resources in each year of the planning period.

Other Issues

The City of Vero Beach electric utility provides power to a large number of residents living in unincorporated Indian River County and in the Town of Indian River Shores. The City provides this power through franchise agreements with these other local governments. These franchise agreements expire in the year 2017 and 2016, respectively.

During its review of FPLs ten-year plan, Council received communications from Indian River County and the Town of Indian River Shores that they were exploring the possibility of changing their electric utility provider from the City of Vero Beach to FPL. This change will require approval from the Florida Public Service Commission.

If Indian River County and the Town of Indian River Shores are successful in switching to FPL, it will add within the ten-year planning period, over 20,000 new customers to FPLs current system. **It is recommended that FPL describe in next years Ten-Year Power Plant Site Plan any actions FPL has taken or might take to accommodate the new customers.** It should be noted that FPL is currently in discussions with the City of Vero Beach regarding its utility. They both are conducting due diligence to determine if acquiring that system would be in the best interests of FPL customers and the City of Vero Beach.

Conclusion

**The elements of the ten year site plan that do not predict a reduction in reliance on fossil fuels and do not predict an increase in reliance on renewable energy are inconsistent with Strategic Regional Policy Plan Goal 9.1, decreased vulnerability of the region to fuel price increases and supply interruptions; and Strategy 9.1.1, reduce the Region's reliance on fossil fuels. Over the last ten years, Council's findings of inconsistency with the FPL ten-year plans have remained relatively unchanged, because FPL has made little progress toward addressing Council's concerns. One of the main reasons for this is because the State of Florida does not have a Renewable Portfolio Standard or other policies designed to encourage electric utilities to increase fuel diversity by adding a greater proportion of energy from renewable sources, such as solar and wind energy. Council encourages the Florida Legislature to adopt a Renewable Portfolio Standard during the next legislative session in order to provide a mechanism to expand the use of renewable energy in Florida.**

In addition to the current efforts by FPL to expand solar and wind derived energy in the region, Council recommends that FPL consider two new strategies to expand reliance on renewable sources. First, FPL should develop a program to install, own, and operate photovoltaic units on the rooftops of private and public buildings. Such a program could be modeled after the Southern California Edison plans to install 250 MW of solar energy on more than 100 buildings in the greater Los Angeles area. This program is currently being expanded. The shift to rooftop photovoltaic systems distributed throughout the area of demand could reduce the reliance on large transmission lines and reduce costs associated with owning property; purchasing fuel; and permitting, constructing, and maintaining a power plant. Another advantage of this strategy is that photovoltaics do not require water for cooling. The incentive for owners of buildings to participate in this strategy is they could be offered a reduced rate for purchasing electricity.

Second, FPL should examine the feasibility of developing an offshore wind farm for generating electricity. An offshore wind farm could take advantage of greater wind speeds available over the ocean, compared with onshore locations. In addition, the development of offshore transmission lines and infrastructure could be beneficial for the future development of ocean current technology, which is currently under investigation by the Florida Atlantic University Center of Excellence in Ocean Energy.

**Council considers the FPL Ten Year Power Plant Site Plan for 2010-2019 to be inconsistent with Regional Goal 9.1 and Strategy 9.1.1 of the SRPP. Council urges FPL and the State of Florida to continue developing new programs to: 1) reduce the reliance on fossil fuels as future energy sources consistent with the Governor's Executive Order 07-127 calling for utilities to produce at least 20 percent of their electricity from renewable sources with a strong focus on solar and wind energy; 2) increase conservation activities to offset the need to construct new power plants; and 3) increase the reliance on renewable energy sources to produce electricity. The complete costs of burning fossil fuels, such as the costs to prevent environmental**

**pollution and costs to the health of the citizens need to be considered in evaluating these systems. State legislators should adopt a Renewable Portfolio Standard and amend the regulatory framework to provide financial incentives for the power providers and the customers to increase conservation measures and to rely to a greater extent on renewable energy sources. Also, the State should reconsider the currently used test for energy efficiency and choose a test that will maximize the potential for energy efficiency and renewable energy resources. The phasing in of photovoltaic and other locally available energy sources will help Florida to achieve a sustainable future.**

Attachments

**EXHIBIT 1**

Table III.B.1: Projected Capacity Changes for FPL

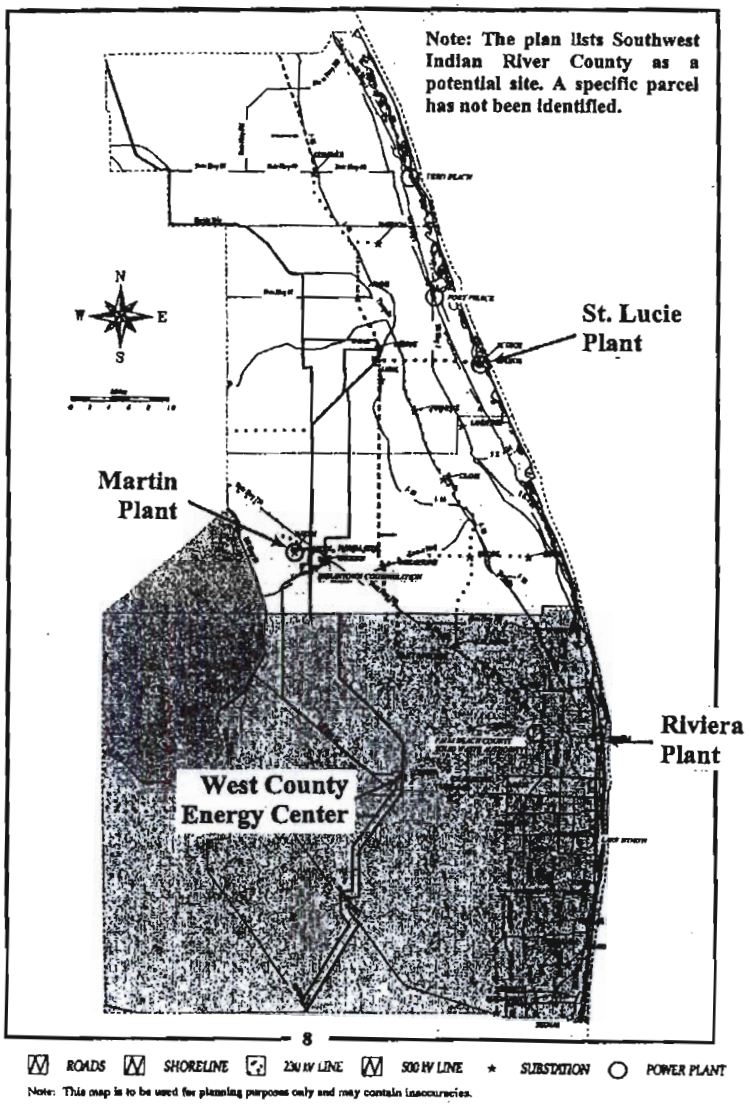
| Projected Capacity Changes and Reserve Margins for FPL [1] | | | |
|---|---|---|---|
| Year | Projected Capacity Changes | Net Capacity Changes (MW) Winter [2] | Summer [3] |
| 2010 | Martin Next Generation Solar Energy Center (Solar Thermal) [7] | — | — |
| | Space Coast Next Generation Solar Energy Center (PV) [8] | — | — |
| | Changes to Existing Purchases [4] | — | (50) |
| | Riviera Unit 3 - offline for modernization | (280) | (277) |
| | Riviera Unit 4 - offline for modernization | (291) | (288) |
| | Cape Canaveral Unit 1 - offline for modernization | — | (396) |
| | Cape Canaveral Unit 2 - offline for modernization | — | (396) |
| | Changes to Existing Units | 149 | 15 |
| | Inactive Reserve of Existing Units - offline [8] | (775) | (769) |
| 2011 | Changes to Existing Purchases [4] | (90) | (45) |
| | Cape Canaveral Unit 1 - offline for modernization | (396) | — |
| | Cape Canaveral Unit 2 - offline for modernization | (396) | — |
| | West County Unit 3 [5] | — | 1,219 |
| | Inactive Reserve of Existing Units - offline [8] | (394) | (1,171) |
| | Changes to Existing Units | 0 | 0 |
| 2012 | Changes to Existing Purchases [4] | — | (100) |
| | West County Unit 3 [5] | 1,335 | — |
| | Changes to Existing Units | 3 | 3 |
| | Inactive Reserve of Existing Units - offline [8] | (783) | — |
| | Existing Nuclear Units Capacity Uprates - St. Lucie 1 | 103 | 103 |
| | Existing Nuclear Units Capacity Uprates - St. Lucie 2 | — | 88 |
| | Existing Nuclear Units Capacity Uprates - Turkey Point 3 | — | 104 |
| 2013 | Changes to Existing Purchases [4] | (180) | — |
| | Cape Canaveral Next Generation Clean Energy Center | — | 1,210 |
| | Existing Nuclear Units Capacity Uprates - St. Lucie 2 | 88 | — |
| | Existing Nuclear Units Capacity Uprates - Turkey Point 3 | 104 | — |
| | Existing Nuclear Units Capacity Uprates - Turkey Point 4 | 104 | 104 |
| 2014 | Cape Canaveral Next Generation Clean Energy Center | 1,355 | — |
| | Riviera Beach Next Generation Clean Energy Center | — | 1,212 |
| 2015 | Riviera Beach Next Generation Clean Energy Center | 1,344 | — |
| 2016 | Changes to Existing Purchases [4] | (931) | (1,306) |
| 2017 | Changes to Existing Purchases [4] | (375) | — |
| 2018 | Inactive Reserve of Existing Units - online [8] | 0 | 392 |
| 2019 | Inactive Reserve of Existing Units - online [8] | 394 | 387 |
| | TOTALS = | 64 | 99 |

(1) Additional information about these resulting reserve margins and capacity changes are found on Schedules 7 & 8 respectively.
(2) Winter values are forecasted values for January of the year shown. FPL's actual 2010 Winter peak was significantly higher than forecasted.
(3) Summer values are forecasted values for August of the year shown.
(4) These are firm capacity and energy contracts with QF, utilities, and other entities. See Table I.B.1 and Table I.B.2 for more details.
(5) All new unit additions are scheduled to be in-service in June of the year shown. All additions assumed to start in June are included in the Summer reserve margin calculation starting in that year and in the Winter reserve margin calculation starting with the next year.
(6) Because of the intermittent nature of the photovoltaics (PV) resource, FPL is currently assigning no firm capacity benefit to these generating additions. FPL will reassess this once actual operating data from the PV facilities at these locations is available. This location-specific information is needed in order to gauge consistent output during the peak hours which are accounted for in FPL's reserve margin calculations.
(7) The Martin solar thermal facility is designed to provide steam for FPL's existing Martin Unit 8 combined cycle unit, thus reducing FPL's use of natural gas. No additional capacity (MW) will result from the operation of the solar thermal facility.
(8) A number of existing FPL power plants are being temporarily removed from service and placed on Inactive Reserve status. FPL plans to return these units to active service in the future as needed. The timing of the return of these units to full-time active status is uncertain at this time primarily due to the uncertainty regarding FPL's future load. However, for planning purposes, FPL is showing in this document that these units begin to return to active service starting in 2018.

Florida Power & Light Company 7

**EXHIBIT 2**

*Treasure Coast Region*
**FPL Preferred and Potential Power Plant Sites**




Note: This map is to be used for planning purposes only and may contain inaccuracies.

## EXHIBIT 3

**Schedule 6.3**
**Energy Sources % by Fuel Type**

| | Energy Source | Units | Actual 1/ 2008 | 2009 | Forecasted 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | Annual Energy Interchange 2/ | % | 9.1 | 8.5 | 7.7 | 5.5 | 5.1 | 4.8 | 4.7 | 4.8 | 0.5 | 0.0 | 0.0 | 0.0 |
| (2) | Nuclear | % | 21.6 | 20.8 | 21.8 | 20.0 | 20.8 | 23.5 | 22.7 | 21.9 | 21.8 | 21.8 | 21.1 | 20.7 |
| (3) | Coal | % | 5.8 | 6.7 | 6.7 | 6.6 | 5.5 | 6.4 | 5.6 | 6.6 | 5.7 | 5.5 | 5.5 | 5.4 |
| (4) | Residual (FO6) -Total | % | 5.1 | 4.1 | 1.7 | 1.2 | 0.8 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 | 1.0 | 1.0 |
| (5) | Steam | % | 5.1 | 4.1 | 1.7 | 1.2 | 0.8 | 0.4 | 0.4 | 0.4 | 0.8 | 0.8 | 1.0 | 1.0 |
| (6) | Distillate (FO2) -Total | % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| (7) | Steam | % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| (8) | CC | % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| (9) | CT | % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| (10) | Natural Gas -Total | % | 53.0 | 58.4 | 58.6 | 62.3 | 62.9 | 60.7 | 61.4 | 61.3 | 65.5 | 66.5 | 66.2 | 66.8 |
| (11) | Steam | % | 6.8 | 7.8 | 1.8 | 2.5 | 1.8 | 0.8 | 0.8 | 0.9 | 1.7 | 1.8 | 2.1 | 2.8 |
| (12) | CC | % | 46.3 | 48.2 | 56.5 | 59.7 | 61.1 | 58.8 | 60.6 | 60.1 | 63.8 | 62.7 | 64.0 | 63.8 |
| (13) | CT | % | 0.2 | 0.3 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| (14) | Other 3/ | % | 5.3 | 4.7 | 4.7 | 4.4 | 5.1 | 5.1 | 5.3 | 6.1 | 5.7 | 6.1 | 5.3 | 5.4 |
| | | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

1/ Source: A Schedules.
2/ The projected figures are based on estimated energy purchases from SJRPP and the Southern Companies.
3/ Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, net of Economy and other Power Sales.

May 17 10 12:30p City Manager Office 561-840-3353 p.2

**EXHIBIT 4**

# CITY OF RIVIERA BEACH

600 WEST BLUE HERON BLVD. • RIVIERA BEACH, FLORIDA 33404
(561) 845-4010 FAX (561) 840-3353

OFFICE OF
CITY MANAGER

**RECEIVED**
MAY 17 2010
TREASURE COAST
REGIONAL PLANNING COUNCIL

May 13, 2010

Peter Merritt. Ph.D.
Regional Ecologist
TCRPC
421 S.W. Camden Avenue
Stuart, Fl. 34994

Subject: FPL 10 Year Power Plant Site Plan

Dear Mr. Merritt:

This letter is drafted in response to your letter dated April 29, 2010 requesting comments on FPL's 10 Year Power Plant Site Plan. We have reviewed the information you provided, specifically as it relates to the City of Riviera Beach and offer the following comments.

The City of Riviera Beach approved a site plan in 2009 for the proposed Riviera Beach Next Generation Clean Energy Center (RBEC). The RBEC plan proposes to remove the existing steam units from the site and replace the plant with a highly efficient, lower emission clean energy center.

By way of the City's approval of the RBEC site plan, the City endorses the chapter of the FPL 10 Year Power Plant Site Plan that references the improvements for the City.

Thank you for providing us the opportunity to comment on the Plan. If you need any additional information, please do not hesitate to contact Mary McKinney, Director of Community Development at (561) 845-4060.

Sincerely,

Ruth C. Jones
City Manager

Cc Pamala Ryan, City Attorney
Paul White, Assistant City Manager
Mary McKinney, Director of Community Development
FPL Power Plant File

10

*BOARD OF COUNTY COMMISSIONERS*

*Peter D. O'Bryan*
*Chairman*
*District 4*

*Bob Solari*
*Vice Chairman*
*District 5*

*Wesley S. Davis*
*District 1*

*Joseph E. Flescher*
*District 2*

*Gary C. Wheeler*
*District 3*

February 2, 2010

Mr. Armando J. Olivera
President and Chief Executive Officer
Florida Power & Light
P. O. Box 025576
Miami, FL 33102

Subject: Franchise Agreement between Indian River County and the City Vero Beach

Dear Mr. Olivera:

Indian River County has a Franchise Agreement (Resolution 87-12) with the City of Vero Beach (COVB) which allows the City to use County right of way "to construct, maintain and operate an electric system in...certain unincorporated areas of Indian River County, FL". These areas of unincorporated Indian River County (County) are included in a 1981 Service Territory Agreement between Florida Power & Light (FP&L) and the COVB. Also, the County has Ordinance 2007-015 with FP&L which authorizes FP&L to operate an electric system in unincorporated portions of the County.

Section 12 of the 87-12 franchise agreement states "The Franchise Territory will be expanded or contracted to include or exclude lands," either by city annexation, "and/or the Service Territory Agreement between the Grantee (COVB) and Florida Power & Light is amended and the Public Service Commission of the State of Florida approves of such change(s) in service boundaries."

The franchise agreement will expire in March of 2017 if the County does not give notice by March 2012 to COVB of the County's intent to renew the franchise agreement.

During the last several years, there has been a considerable demand by some of the 19,000 County residents being served by the COVB to allow for another electric service provider. As the current electric service provider for the 55,000 customers in the remainder of the unincorporated County, FP&L would be a logical choice to take over the electric service area currently being serviced by the COVB.

*Building A*
*1801 27th Street*
*Vero Beach, FL 32960-3388*
*Telephone: 772-226-1490 FAX: 772-770-5334*

11

This letter requests FP&L to provide the County with information which the County could review, discuss with you, and make a decision on whether to request that you provide the electric service for the entire unincorporated area of the County. If that were the case, we would want to discuss with you how to approach the Public Service Commission (PSC) which must approve such a change by amending the existing Public Service Commission Service Territory Agreement between the COVB and FP&L to allow FP&L to provide electric service to **all areas** of unincorporated Indian River County that are currently being served by COVB, as allowed by Florida Statutes Ch. 366.04(2)(e).

Points that we would like to be included in your analysis, recommendations, and report should include, but are not limited to:

- How would/could FP&L transfer COVB customers in the County when County Resolution 87-12 expires in 2017?
- What are the pros and cons of such a transfer for the transferred County customers?
- What changes would the transferred County customers encounter with FP&L in billing, administration, service, reliability, etc., compared to COVB?
- What additional economic and financial benefits or disadvantages such as rebates, additional rate structures, etc., would the County customers experience compared to COVB?
- Would FP&L provide the same rates to COVB customers FP&L transferred in the County as it does to current FP&L customers in County?
- What does FP&L expect the retail rate comparisons with COVB to be over the next 10 years for common residential and commercial KWH usage categories?
- What would be the estimated assessed property tax value and increase in County/taxing districts tax revenue if FP&L purchased existing COVB facilities in County?
- What is the fair market value of COVB facilities located in the unincorporated area of Indian River County, e.g., Transmission & Distribution, and is that the price that FP&L would pay the COVB for such T&D?
- Would it be expected that the proceeds from such a purchase by FP&L of COVB facilities in the unincorporated County would be first used by COVB to defease any liabilities related to such a transfer of County customers from COVB to FP&L?
- Would FP&L request a change in the existing the PSC approved Territorial Agreement if requested to, and/or supported by, County? What is the mechanism for this?

Please contact me as soon as possible to initiate discussions and to advise us how long such a report would take considering that the County must give at least 5-years advance notice (in 2012) to COVB and the County must have time prior to 2012 to consider and discuss the report results within the County, with you, and with COVB and/or the Town of Indian River Shores as well.

Sincerely,

Peter D. O'Bryan, Chairman
Indian River County Board of County Commissioners

# Policy must match energy goals

By LEW HAY

Last year, for the first time, China built more wind farms than the United States. The year before, China leapfrogged the West to become the world's largest manufacturer of solar panels. And the "nuclear renaissance" we've been hearing so much about? It's happening. Elsewhere. More than 50 new nuclear plants are being built around the globe, compared with one here.

Hay

The United States hasn't lost the clean energy race, but we're falling further behind. The question is what we're going to do about it.

So far, the answer is not much. For all of the political rhetoric in support of clean and renewable energy, the fact remains that the United States has no price on greenhouse gas emissions, no national renewable energy standard, and no transmission superhighway to carry renewable energy to population centers.

We say we want clean energy, but let's not kid ourselves: The policies we have in place in the United States today are still incredibly pro-carbon. If nothing else, perhaps the gulf oil spill will remind us that fossil fuels can appear cheap but have high social costs that are seldom reflected in the price.

The simple fact is that clean and renewable energy do not compete on a level playing field with fossil fuels, and until we put a policy framework in place to enable them to do so, we will struggle to compete in energy industries that we invented, such as wind and nuclear power. Here's what has to happen.

*The U.S. is lagging on clean energy.*

First, we need a price on carbon. Only with the proper economic signals in the marketplace can we build a world class clean energy industry in the United States. Right now, carbon is not priced, which makes fossil fuel generation look artificially cheap. With a gradually escalating price on carbon that reflects the full social costs of burning fossil fuels, low-emissions fuel sources can compete on fair terms with their high-carbon counterparts.

Second, we need a national Renewable Energy Standard. Even if Congress acts to put a price on carbon, it will be many years before the price rises to a level sufficient to enable clean energy to deploy on its own. An RES that requires power producers to get a certain percentage of their electricity from renewable sources is the necessary bridge from our high-carbon electricity system to the low-carbon future.

Third, we need a stronger federal role in ensuring that high-voltage transmission lines get built. We need legislation to give the federal government siting authority for electric transmission, just as it has for other critical national infrastructure such as railroads and natural gas pipelines. And the Federal Energy Regulatory Commission should use the authority it already has to ensure that the cost of building new transmission lines is shared broadly and fairly.

Sens. John Kerry, D-Mass., and Joe Lieberman, I-Conn., have put forward energy and climate legislation that moves us in the right direction on all three of these issues. Clean energy companies are not asking for the kinds of subsidies that have been used in Europe and China to give their renewables industries a boost. We are asking that carbon carry a price equal to its cost to society, that we guarantee a market for renewables until that price phases in, and that we make transporting clean energy at least as high a national priority as moving natural gas.

At the state level, the sooner policymakers allow utilities to build more renewables, the faster we can continue the clean energy revolution our state so desperately needs to strengthen its economic and environmental security. Thirty states already have policies in place to encourage renewable energy. Florida is not one of them. We face the very real risk that the clean-energy economy we hope to build will find a home in California, Arizona, Texas or some other state.

Collectively, we need to decide what we want our energy future to look like. In its recent forecast for the U.S. energy sector, the Energy Information Administration predicted how the world will look 25 years from now if we keep our current energy policies in place: The amount of electricity generated by renewables will be stuck below 20 percent, and carbon dioxide emissions will rise by 9 percent.

In other words, we will have lost the clean energy race for good.

*Lew Hay is chairman and CEO of NextEra Energy Inc., parent company of Florida Power & Light Co. and NextEra Energy Resources.*

13

# Regional Planning Councils

## Withlacoochee

MICHAEL R. MOEHLMAN
EXECUTIVE DIRECTOR

1241 S.W. 10th Street
OCALA, FLORIDA 34471-0323

Telephone 352-732-1315
FAX 352-732-1319
email: mailbox@wrpc.cc
http://www.wrpc.cc

WITHLACOOCHEE REGIONAL PLANNING COUNCIL
SERVING LEVY, CITRUS, MARION, SUMTER AND HERNANDO COUNTIES



June 1, 2010

Ms. Traci Mathews
Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: Regional Review of *Progress Energy Florida, Inc. Ten-Year Site Plan, 2010-2019*

Dear Ms. Mathews:

Pursuant to Section 186.801 of the Florida Statutes and Rule 25-22.071 of the Florida Administrative Code, Withlacoochee Regional Planning Council (WRPC) staff hereby submits regional review comments for the above referenced site plan as applicable to Citrus, Hernando, Levy, Marion and Sumter counties. Documents forwarded annually by PSC staff are reviewed for consistency with the *Strategic Regional Policy Plan for the Withlacoochee Region* (SRPP). WRPC staff writes this statement for the benefit of the public and all interested parties to convey clearly any scope of impact on SRPP goals and policies.

During the planning period of 2010 to 2019, Progress Energy Florida (PEF) has scheduled power generation capacity and transmission projects for development within the region. Primarily, projects consist of the Levy Nuclear Plant and associated transmission lines. WRPC staff participated in the state-level, interagency application review process for the construction and operation of these facilities. Staff comments for the proposed Levy Nuclear Power Plant are contained in a final agency report dated December 8, 2008.

Overall, it should be noted ten-year site plan content complements SRPP policies relating to renewable energy resource development and energy conservation. WRPC staff note that during the planning period up to 205 MW of additional electric generation capacity will be added at one existing PEF plant location. Schedule 9, *Status Report and Specifications of Proposed Generating Facilities as of January 1, 2010*, on page 3-8, identifies natural gas and distillate fuel oil as intended primary and alternate fuels, respectively. WRPC staff would encourage PEF to consider how renewable energy, alternative fuels or hybrid technology might play a larger role in options for project development.

Ms. Traci Mathews
May 21, 2010
Page 2

In summary, WRPC staff finds PEF's 2010 ten-year site plan to contain positive content that is consistent and well supported by the SRPP. Furthermore, SRPP policies strongly support increased utilization of renewable energy system technology in power generation as well as collocation of planned facilities with other compatible economic uses. On the preceding basis, WRPC staff would recommend that the *Progress Energy Florida, Inc. Ten-Year Site Plan, 2010-2019* should be considered "suitable" from the perspective of this regional review. A copy of WRPC staff's Ten Year Site Plan Review has been enclosed for reference.

I look forward to future opportunities to participate in the annual plan review process.

Thank you.

Sincerely,

David Connolly, AICP
Senior Planner

Enclosure: WRPC Ten-Year Site Plan Review for the Florida Municipal Power Agency

Cc: Kevin Smith, Citrus County Planning Department
Shenley Neely, Levy County Planning Department
Ron Pianta, Hernando County Planning Department
Jimmy Massey, Marion County Planning Department
Brad Cornelius, Sumter County Planning Department

**TEN-YEAR SITE PLAN REVIEW**

REGIONAL IMPACT

Within the region, Citrus, Hernando, Levy, Marion and Sumter counties are located in the Progress Energy Florida, Inc. (PEF) service area. PEF owns numerous electric generating plants statewide, with installed capacity to generate up to 9,942 MW of electric power. The electric utility purchases an additional 1,645 MW of power. To transfer electricity to market, Progress Energy Florida maintains approximately 5,000 miles of transmission lines connecting to the electricity transmission grid as well as the systems of 22 municipalities and 9 rural electric cooperatives.

As summarized in its 2010 Ten-Year Site Plan, PEF has obtained state site certification to construct a new nuclear plant in unincorporated Levy County, Florida during the planning period. WRPC staff participated in the state-level, interagency application review process for the construction and operation of the .Levy Nuclear Plant (LNP) and associated transmission line facilities. Similarly, in 2007, an uprate of the existing Crystal River Energy Complex Nuclear Unit 3, which is now ongoing, was the subject of regional review pursuant to a site certification application. In both instances, WRPC final agency reports made necessary recommendations to ensure consistency with the region's adopted Strategic Regional Policy Plan (SRPP) but did not raise formal objection to project development.

Opportunities exist within the region to add electric generation capacity through the development of renewable energy systems. The *Strategic Regional Policy Plan for the Withlacoochee Region* would support the concept of enhanced use of solar, biomass, waste-to-energy, and/or hydrokinetic power to generate regional power supply. When implemented, renewable energy power generation projects would have regionally significant status. Currently, PEF purchases renewable energy from a variety of operations including municipal solid waste facilities, photovoltaic (solar), and residual sources. Commitment to greater and expanded use of renewable energy as proportion of total supply is demonstrated by Progress Energy Florida's request for proposals seeking additional suppliers of renewable energy.

Specifically, staff notes the planned addition of up to 205 MW as a result of combustion turbine technology at an existing plant location by 2018 as stated in the Base Expansion Plan. Because the Withlacoochee region has no available fossil fuel resources, the SRPP encourages all opportunities to diversify the supply of fuel inputs used to generate electric power. At a minimum, planned capacity addition may represent an opportunity to utilize renewable energy though biomass gasification, biodesiel,/biofuel or other alternative fuel input in a secondary or alternative capacity. PEF might also investigate whether use hybrid powers offer any benefits such as greater system efficiency, reliability or enhanced opportunities to collocate other economic uses onsite.

SRPP GOALS AND POLICIES CITED

| | |
|---|---|
| Goal 2.3 | Cultivate an economic climate that provides economic stability, maximizes job opportunities and increases per capita income for the region's residents. |
| Goal 2.12 | To provide for the development and maintenance of adequate infrastructure and resources to support continued economic development in areas identified for growth in the local government comprehensive plans. |
| Policy 2.3.10 | Increase intra-regional cooperation in attraction/expansion of industry dependant upon close proximity to one another or actual co-location. |
| Goal 4.14 | Maintain the region's concentrations of all air pollutants for which standards have been established at levels less than the maximums allowed by state and federal standards. |
| Goal 4.15 | Attain per capita renewable energy consumption rates in the region that equal or exceed state averages. |
| Policy 4.15.1 | Use renewable energy sources wherever feasible. |
| Goal 4.16 | Achieve a rate of per capita electrical energy consumption no greater than state averages. |
| Policy 4.16.1 | Encourage energy efficient building techniques, and enforce the Florida Energy Efficiency Code. |
| Policy 4.16.2 | Encourage electrical utilities to implement load management strategies to reduce the peak electrical demand of their customers, and energy efficiency programs to reduce the overall energy consumption of customers. |

RECOMMENDATION

Withlacoochee Regional Planning Council staff find Progress Energy Florida's 2009 Ten-Year Site Plan to contain positive content that is consistent and well supported by the *Strategic Regional Policy Plan for the Withlacoochee Region.* On the preceding basis, WRPC staff would recommend the *Progress Energy Florida, Inc. Ten-Year Site Plan, 2010-2019* should be considered "suitable" from the perspective of this regional review.

MICHAEL R. MOEHLMAN
EXECUTIVE DIRECTOR

1241 S.W. 10th Street
OCALA, FLORIDA 34471-0323

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WITHLACOOCHEE REGIONAL PLANNING COUNCIL
SERVING LEVY, CITRUS, MARION, SUMTER AND HERNANDO COUNTIES



June 1, 2010

Ms. Traci Mathews
Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

RE: Regional review of *Gainesville Regional Utilities 2010 Ten-Year Site Plan, 2010 Ten-Year Site Plan Orlando Utilities Commission*, and *Seminole Electrical Cooperative, Inc. Ten-Year Site Plan (2010-2019)*

Dear Ms. Mathews:

Pursuant to Section 186.801 of the Florida Statutes and Rule 25-22.071 of the Florida Administrative Code, Withlacoochee Regional Planning Council (WRPC) staff hereby submits regional review comments for the above referenced site plans as applicable to Citrus, Hernando, Levy, Marion and Sumter counties. Documents forwarded annually by PSC staff are reviewed for consistency with the *Strategic Regional Policy Plan for the Withlacoochee Region* (SRPP). WRPC staff writes this statement for the benefit of the public and all interested parties to convey clearly any scope of impact on SRPP goals and policies.

While none of the 10-Year Site plans listed above schedule or propose to develop projects within the region during the planning period, all three electric generating utilities have ownership interests in the 838 MW pressured water reactor of Crystal River Nuclear Unit 3. *The Strategic Regional Policy Plan for the Withlacoochee Region* assigns regionally significant status to all power plants due to the necessity to maintain ample regional energy supply. Therefore, activity described by subject plan documents, in connection to this region, is consistent and well supported by SRPP content. Beyond the existing relationship to Crystal River Unit 3 for energy supply planning requirements, WRPC staff review of 10-Year Site Plans for Gainesville Regional Utilities, the Orlando Utilities Commission and the Seminole Electrical Cooperative identified no other direct impacts to SRPP content.

WRPC staff would recommend that all Ten-Year Site Plans referenced above be considered "suitable" from the perspective of this regional review. I look forward to future opportunities to participate in this annual plan review process.

Thank you.

Sincerely,

David Connolly
Senior Planner, AICP

cc: Mr. Kevin Smith, Citrus County Department of Planning

# Water Management Districts

## South Florida

# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

June 8, 2010

2010 JUN 10 AM 9:30
DIVISION OF
REGULATORY COMPLIANCE

Traci Matthews
Division of Regulatory Analysis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Dear Ms. Matthews:

**Subject: Electric Utility 2010 Ten Year Site Plans**

In response to your request, the South Florida Water Management District (SFWMD) has completed its review of the 2010 Ten Year Site Plans for the Florida Power and Light Company (FPL), the Florida Municipal Power Agency (FMPA), the Orlando Utilities Commission (OUC), and the Tampa Electric Company (TECO). Based on the information provided in the FPL, FMPA, and OUC Site Plans, the SFWMD does not have any comments regarding the "suitability" of the proposed sites. In addition, please note that no portion of the TECO service area is located within SFWMD jurisdictional boundaries.

Thank you for the opportunity to comment on the Ten Year Site Plans. If I can be of further assistance, please do not hesitate to contact me at (561) 682-6862.

Sincerely,

James J. Golden, AICP
Lead Planner
Intergovernmental Policy and Planning Division

/jjg

c: Thomas Mayton, SJRWMD
Rand Frahm, SWFWMD

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

# Water Management Districts

## Southwest Florida

**Phillip Ellis**

**From:** Dianne Davies [Dianne.Davies@swfwmd.state.fl.us]
**Sent:** Thursday, July 01, 2010 3:00 PM
**To:** Phillip Ellis; Traci Matthews (TMatthews@PSC.state.fl.us)
**Cc:** Rand Frahm; Roy A. Mazur; Terri Behling
**Subject:** Electric Utility Ten-Year Site Plans
**Follow Up Flag:** Follow up
**Flag Status:** Blue

Traci Matthews
Mr. Phillip Ellis
Florida Public Service Commission

Re: Review of Electric Utility Ten-Year Site Plans:
Seminole Electric Cooperative, Inc. (SEC)
Progress Energy Florida (PEF)
Tampa Electric Company (TECO)

In accordance with Chapter 186.801, Florida Statutes, the staff of the Southwest Florida Water Management District (District) has reviewed the above referenced Electric Utility Ten-Year Site Plans (TYSP). The District reviews TYSPs for water resource impacts, including water quality impacts, current water supply and use and potential future demands. We take into consideration service area population projections and the type of technologies for power generation, cooling and air pollution control technologies. We look at existing facilities chapters, schedules 8 and 9 and the land use and environmental chapters. The following comments are provided for your consideration in the review process.

All new facilities and expansions to potentially be located in the Southern Water Use Caution Area (SWUCA) and require additional quantities of water for process and cooling water, will have to conform, not only to Water Use Permitting (WUP) and/or Site Certification requirements, but also to SWUCA rules. The SWUCA is an area designated by the District in response to salt water intrusion, lowered lake levels and reduced stream flows, which have been caused by excessive groundwater withdrawals. The District has heightened concerns regarding potential impacts due to future groundwater demands within the SWUCA and the future availability of groundwater within these areas. Because water supply is limited in the SWUCA, the District advises that land uses that can be developed in various locations and terrains be located elsewhere (outside the SWUCA) or be designed to use alternative water sources (e.g., reclaimed water, surface water, desalination). This would help the District achieve the goals outlined in the SWUCA Recovery Strategy.

Federal regulations requiring the enhancement of air quality controls to desulfurize emissions from coal-fired generating facilities may add to the water demands of power generating facilities. Additional water supply for process, cooling and/or air pollution control would potentially require regulatory review and approval via either the Water Use Permitting process and/or through a modification of the Site Certification. Utilities should continue to recognize the importance of the use of sources other than groundwater, as well as water conservation, and reflect this in future TYSPs.

The District's Regional Water Supply Plan (RWSP) Draft 2010 Update projects the need for an additional 15.7 mgd for all Industrial/Commercial/Mining & Dewatering/Power Generation for the 2010 to 2030 planning horizon. Additional information can be found in the District's RWSP and SWUCA Recovery Strategy. These documents can be found at the web address, http://www.swfwmd.state.fl.us/documents/.

Seminole Electric Cooperative Inc. (SEC):

- SEC's Schedule 8 shows this utility has planned, additional capability in Citrus County (SEC has interest in one nuclear powered unit at Progress Energy's Crystal River Nuclear Power Plant), which utilizes seawater for cooling purposes.
- An increase in capability in 2 units in Hardee County, which are fueled by natural gas are also planned. These two units are located within the SWUCA. In the Environmental and Land Use chapter, Section 6.2 states the presence of a cooling reservoir at the Midulla facility in Hardee County. SEC holds a WUP (#11122.001) allowing withdrawals of an annual average of 3.8 million gallons per day (MGD) and 8.64 MGD peak. While these units will be powered by natural gas, any additional water needs would require regulatory review and approval via either the Water Use Permitting process and/or through a modification of the Site Certification and would be subject to SWUCA rules.

Progress Energy Florida (PEF):

- PEF's Schedule 8 shows 7 planned, sited capability changes. Of these, Crystal River Unit 4 steam turbine (fueled with Bituminous Coal) capabilities will be increased and then decreased as a result of air pollution control equipment upgrades. Crystal River nuclear powered Unit 3 capabilities will also be increased. However, cooling water for the Crystal River units is supplied by seawater intake.
- Two Avon Park peaker units in Highlands County and four Higgins peaker units in Pinellas County, all natural gas burning combustion turbines, are shown in Schedule 8 as planned, prospective or committed to be put on cold stand-by or retired by June 2016.
- Construction on the Levy County nuclear power plant is planned to begin in 2013 and completed in 2019. It is understood that cooling water for this unit will be withdrawn from the Cross Florida Barge Canal.
- An additional combustion turbine unit expansion is planned, but currently unsited. Fuel for this unit is not listed. This unsited expansion could potentially be located within the SWUCA and potentially be dependent on groundwater for cooling (depending on the fuel type, which is not listed) and air pollution control. No information regarding potential future demands or sources to meet those demands is included for this site. Additional water needs for this expansion would require regulatory review and approval via either the Water Use Permitting process and/or through a modification of the Site Certification and would be subject to SWUCA rules.

Tampa Electric Company (TECO):

- There are also 4 combustion turbine units to be converted to natural gas powered combined cycle units planned at the Polk Power Station in Polk County. These are to be located within the SWUCA. TECO holds a WUP (#11747.002) allowing withdrawals of an annual average of 6.4 million gallons per day (MGD) and 9.2 MGD peak. New quantities of water will require regulatory review and approval via the Water Use Permitting process and would be subject to SWUCA rules. A modification of the Site Certification may also be required. While these units will be powered by natural gas, any additional water needs would require regulatory review and approval via either the Water Use Permitting process and/or through a modification of the Site Certification and would be subject to SWUCA rules.
- TECO's Schedule 8 shows this utility has unsited additional capacity planned, consisting of 6 units, all gas turbines. While these units will be powered by natural gas, if located within the SWUCA, any additional water needs would require regulatory review and approval via either the Water Use Permitting process and/or through a modification of the Site Certification and would be subject to SWUCA rules.

10/7/2010

The District appreciates the opportunity to participate in the review of Electric Utility TYSPs. However, while some utilities provide water source information and strive to develop alternative sources (i.e., other than fresh groundwater), current Florida Statutes which govern the electric utility TYSP process do not require utilities to provide information regarding current and future water demands and sources. Utilities are not required to provide the information, in TYSPs, that the District requires to effectively evaluate the needs and availability of water for power plants. We have, in the past, recommended the Public Service Commission consider seeking the necessary statutory and rule changes such that future water demands of potential new power plants are adequately considered in this planning process.

In lieu of that scenario, in 2009 District Planning Department staff coordinated with the Public Service Commission (Mr. Robert Graves) regarding additional information to be requested from electric utilities, in order to assess their water use and future demands. A questionnaire was suggested with the following information to be requested.

- *A separate question sheet should be submitted for each existing facility, as well as each additional unit that is undergoing the regulatory approval process, is under construction, construction completed (but not yet operational) or has been "planned" and "sited" (not necessary for prospective and unsited units). Each questionnaire should inquire about:*
  - *Current water sources and demands/use for existing units for process, cooling, air pollution control and potable supply*
  - *WUP/CUP information for these sources*
  - *Projected demands for additional units that are undergoing regulatory approval, under construction, construction completed (but not yet operational) or have been "planned" and "sited" (not necessary for prospective and unsited units)*
  - *Information regarding type of use (i.e, process, cooling method, air pollution control, potable needs if they have their own supply, etc.) and associated water demands for each existing and additional unit*
  - *Conservation practices currently in use at existing facilities and projected for use in additional units*
- *It would also be very helpful if there was a "standard" calculated amount of water it takes to produce a KW of electricity for each production technology and associated uses (cooling method(s) demands, air pollution control demands, etc.).*

Again, the District appreciates the opportunity to review these utility TYSPs in coordination with the PSC. We would be glad to offer our assistance to the Public Service Commission (and/or electric utilities) in obtaining the necessary information for effective TYSP review or in the event the PSC seeks rule changes. If we can be of further assistance, please do not hesitate to contact us.

Sincerely,

O. Dianne Davies, AICP
Water Resources Planner, Planning Dept.
Southwest Florida Water Management District
(352) 796-7211, ext. 4419
dianne.davies@watermatters.org
www.watermatters.org

To accomplish great things, we must not only act, but also dream; not only plan, but also believe.
Anatole France



10/7/2010

# Water Management Districts

## St. John's River

St. Johns River
Water Management District
Kirby B. Green III, Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
On the Internet at floridaswater.com.

June 16, 2010

Ms. Traci Matthews
Division of Regulatory Analysis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

RE: 2010 Ten-Year Site Plans Comments

Dear Ms. Matthews:

St. Johns River Water Management District (District) staff have reviewed the 10-year site plans for Florida Power and Light Company (FPL), Florida Municipal Power Agency (FMPA), Gainesville Regional Utilities (GRU), JEA, and Orlando Utilities Commission (OUC) relative to their suitability as planning documents. District staff reviews were conducted in accordance with Section 186.801, *Florida Statutes*, and Chapter 25-22.071, *Florida Administrative Code*.

Pursuant to subsection II, A.1.f., of the 2007 operating agreement concerning regulation between the District and the Florida Department of Environmental Protection (FDEP), FDEP shall review and take final action on all applications for permits and petitions for variances or waivers for power plants and electrical distribution and transmission lines and other facilities related to the production, transmission, and distribution of electricity. District staff have no comments on the FMPA, GRU, JEA, and OUC 10-year site plans. District staff comments on the FPL 10-year site plan are provided below.

**FPL**
In general, the District requires that all new uses and requested increases in consumptive use permit (CUP) allocations demonstrate the use of the lowest quality source; justify the need for the requested allocation; demonstrate efficient use; and not impact springs, wetlands, water bodies, water quality, or existing legal uses. In addition, all other CUP criteria must also be met. When locating a site for a power facility, FPL should consider the availability of water to meet the proposed demands of the facility and potential impacts due to facility water use, as well as the cumulative impacts of locating a facility at a given location.

This letter does not substitute for or constitute permit review. We appreciate the opportunity to provide general comments. If you have any questions, please contact District Policy Analyst Steve Fitzgibbons at (386) 329-4436 or *sfitzgib@sjrwmd.com*.

Sincerely,

Jeff Cole MD

Jeff Cole, Director
Office of Communications and Governmental Affairs

JC/sf

cc: Jim Quinn, Florida Department of Environmental Protection
Kraig McLane, St. Johns River Water Management District
Richard Burklew, St. Johns River Water Management District
Patricia Renish, St. Johns River Water Management District

# Local Governments

## County of Alachua


# Alachua County
# Board of County Commissioners





June 22, 2010

Ms. Traci Matthews
Florida Public Service Commission
Division of Regulatory Analysis
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

**RE: 2010 Ten-Year Site Plan for Gainesville Regional Utilities**

Dear Ms. Matthews:

Alachua County has received your request for comment on the 2010 Ten-Year Site Plan for Gainesville Regional Utilities (GRU). According to your April 21st letter, comments should focus on suitability or unsuitability of the Ten-Year Site Plan as a planning document.

The GRU 2010 Ten-Year Site Plan is generally suitable as a planning document. The enclosed comments identify issues and information pertaining to future planning and implementation activities relating to aspects of the Ten-Year Site Plan, including protection of natural resources for the area adjacent to the existing Deerhaven power plant site, use of reclaimed water for the proposed biomass-fueled power generation facility known as the Gainesville Renewable Energy Center, consideration of energy demand management alternatives, and fuel price forecast assumptions. The Plan also notes that an additional mini power delivery station (PDS) is planned for the service area. If this facility will be located in the unincorporated area, then it must be established consistent with policies and procedures contained in the Alachua County Comprehensive Plan and Land Development Code.

Comments related to minimum sustainability standards for biomass fuel procurement, as they relate to the Gainesville Renewable Energy Center, are also included. Alachua County has engaged in productive dialogue with the City and GRU on this issue over

*P.O. Box 2877 ■ Gainesville, Florida 32602 ■ Tel. (352) 264-6900 ■ Fax (352) 338-7363*
*TDD (352) 491-4430*
Commissioners' E-Mail: bocc@alachuacounty.us ■ Home Page: www.alachuacounty.us

the past few months, and looks forward to working cooperatively to address this issue in the future.

If you would like to discuss these issues further, please contact Ken Zeichner, Principal Planner with the Alachua County Department of Growth Management, at (352)374-5249.

Sincerely,

Cynthia Moore Chestnut, Chair
Alachua County Commission
chr10.108

CMC/BC/bc

Enclosures:
Alachua County Comments on Gainesville Regional Utilities 2010 Ten-Year Site Plan
Deerhaven Site Map

cc: Alachua Board of County Commissioners
Randall H. Reid, Alachua County Manager
Richard Drummond, Assistant County Manager
Dave Wagner, Alachua County Attorney
Steve Lachnicht, Alachua County Department of Growth Management
Ken Zeichner, Alachua County Department of Growth Management
Chris Bird, Alachua County Department of Environmental Protection
Sean McLendon, Alachua County Sustainability Program Manager
Mayor Craig Lowe, City of Gainesville
Russ Blackburn, City Manager, City of Gainesville
Mark Garland, City of Gainesville Public Works
Ed Regan, GRU Assistant General Manager for Strategic Planning
Todd Kamhoot, Gainesville Regional Utilities
Department File

**Alachua County Comments on**
**Gainesville Regional Utilities 2010 Ten-Year Site Plan**

On Page 28 and 57 of the Ten-Year Site Plan document, there is discussion of the site for a proposed biomass-fueled power generation facility, which is known as the Gainesville Renewable Energy Center (GREC). Per discussion with Gainesville Regional Utilities (GRU) staff, we understand that the planned GREC facility will be located within the same site as the existing GRU Deerhaven power plant. This site ("Original Deerhaven Site" on attached map) is approximately 1,146 acres located within the City of Gainesville, and is governed by the City's Comprehensive Plan. According to Section 4.2.1 of the GRU 2010 Ten-Year Site Plan (Land Use and Environmental Features, pg. 57), the existing land uses for the 1,146-acre portion of the site are "industrial (i.e., electric power generation and transmission and ancillary uses such as fuel storage and conveyance; water combustion product, and forest management)", and apparently most of the site has been previously impacted by these uses.

Pages 57 and 58 of the Ten-Year Site Plan also make reference to the Deerhaven area which "encompasses approximately 3,474 acres." The 3,474-acre site includes the 1,146-acre "Original Deerhaven Site" referenced above, in which the proposed GREC facility is planned. The 3,474 acres also includes 2,300+ acres which are owned by the City of Gainesville/GRU (identified as "Parcel A", "Parcel B", "Parcel C", and "Parcel D" on the attached map) and are located adjacent to the Original Deerhaven Site. GRU staff has indicated that there are no immediate plans for facilities in these adjacent areas.

The adjacent 2,300+ acres were annexed into the City of Gainesville several years ago, and because the City has not yet amended its Comprehensive Plan to include these areas, they are still governed by the Alachua County Comprehensive Plan which designates the areas as Rural/Agriculture and also identifies them as Strategic Ecosystems. The series of Issues and Recommendations below on "Natural Resource Protection for Areas Adjacent to Original Deerhaven Site" are intended for consideration as part of future planning efforts for the 2,300+ acres adjacent to the Original Deerhaven Site.

**Natural Resource Protection for Areas Adjacent to Original Deerhaven Site**

Various natural resource protection concerns about the areas adjacent to the Original Deerhaven Site were previously identified in a June 18, 2008 letter to the PSC as part of the County's review of the 2008 GRU Ten Year Site Plan. These concerns are summarized below and are still applicable.

There are many environmentally sensitive features in and around the Deerhaven area. Some of the best ways to protect these critical natural resources are to use designs that minimize the development footprint on the property, protect sensitive areas under conservation easements, and continue sustainable silviculture activities under Best Management Practices. At such time when future development is proposed for this area, GRU should address these environmental concerns and identify clear environmental perimeters and have strict protection guidelines to balance the long-term goals of the Deerhaven property with effective environmental stewardship.

Issue: The area is within the Hague Flatwoods Strategic Ecosystem. This system is part of the headwaters of both Rocky Creek and Turkey Creek. The undeveloped areas are former pine flatwoods forest converted to planted pine with scattered wetland swamps. Areas designated as Strategic Ecosystems are considered conservation areas under the Alachua County Comprehensive Plan and are afforded stringent protection under the Land Development Code. As discussed above, the property is now located within the City limits of Gainesville, however,

this ecosystem crosses jurisdictional boundaries and any development of this area will have impacts to other parts of the ecosystem that are located in the unincorporated county or other jurisdictions.

Recommendations: Any expansion or new development on the property should be designed to maintain the ecological integrity of strategic ecosystems. The Alachua County Comprehensive Plan includes standards for strategic ecosystem protection which address resource-based planning, minimizing impacts and protecting upland habitat, and wetlands, and wetland buffers. The City of Gainesville is in the process of developing similar protection standards for strategic ecosystems as those provided in the Alachua County Comprehensive Plan. The County hopes that the City will expedite adoption of these standards, and recommends that these types of standards be in place to address natural resource protection issues for any development of future facilities in this area.

Issue: Soil conditions for the area are characteristic of flatwoods and depressional wetlands. These soils are typically somewhat poorly to very poorly-drained.

Recommendations: Site disturbance and vegetation clearing during and after site development should be minimized. Strategies should include low percentage of impervious areas through building design, narrow road widths, and Low-Impact Development (LID) practices like site fingerprinting (only clear areas for structures, access, and defensible place, and leave the remaining area undisturbed), rain gardens, swales, cisterns to collect rain water and other practices and designs that will reduce flooding issues. Impacts to wetlands and wetland buffers should be avoided.

Issue: There are extensive wetlands scattered throughout the property. Based on desktop information, it is estimated that approximately 60- 80% of the surface area consists of wetlands and/or is within the 100-year floodplain.

Recommendations: Wetland acreage and function should be protected, and wetland impacts should be avoided. This area floods under current conditions, so it is recommended that future development in this area should be designed with floodplain and wetland concerns in the forefront. Future development should avoid locating stormwater ponds, infrastructure, and impervious areas within wetlands and wetland buffers, and it is recommended that a 75 ft. average buffer or larger be maintained around wetlands (as required by County Code). The protection of the Floridan, intermediate and surficial aquifers or systems is critical in this area.

Issue: A large portion of the wetlands in the Hague Flatwoods forms the headwaters of Rocky Creek, a tributary of the Santa Fe River.

Recommendations: Maintaining large intact natural buffers is crucial to maintaining the water quality of Rocky Creek. It is recommended that the headwater wetlands be identified and maintained, and that wetland buffers wider than default or minimum requirements should be implemented. It is also recommended that alteration of buffers be prohibited, including the placement of stormwater ponds within the wetland buffers. Limit potential point sources (i.e. large stormwater ponds and hazardous material storage sites), require strong restrictions on fertilizer, pesticide, and herbicide use, and limit well construction and septic tanks, if applicable.

Issue: The property has the potential to contain many rare and endangered species, including the Sherman's Fox Squirrel (*Sciurus niger shermani*), black bear (*Ursus americanus floridanus*), little blue heron (*Egretta caerulea*), snowy egret (*Egretta thula*), tricolored heron (*Egretta tricolor*), limpkin (*Aramus guarauna*), white ibis (*Eudocimus albus*), wood stork (*Mycteria Americana*),

Bachman's sparrow (*Aimophila aestivalis*), Cooper's hawk (*Accipiter cooperii*), gopher tortoise (*Gopherus polyphemus*), eastern diamondback rattlesnake (*Crotalus adomanteus*), flatwoods salamander (*Ambystoma cingulatum*), Florida pine snake (*Pituophis melanoleucus mugitus*), eastern indigo snake (*Drymarchon corais couperi*), and short-tailed snake (*Stilosoma extenuatum*). The isolated wetlands are important amphibian breeding sites and provide feeding habitat for wading birds. The area also has potential habitat for a number of listed terrestrial orchids, butterworts, and rare wildflowers, including Catesby's lily (*Lilium catesbaei*).

Recommendations: Within and adjacent to areas to be impacted, it is recommended that an evaluation of the property and survey for listed species be conducted. Identify habitat needs for maintaining species diversity and sustainability. Require conservation easements and management plans (include exotic control and prescribed burns) for areas to be preserved. Prescribed burns are an important component to maintaining and enhancing wildlife habitat and reducing the risk of wildfire. Require connectivity between habitats, minimize fragmentation, protect habitat and needs of listed species. Maintain connectivity with the Buck Bay Strategic Ecosystem.

**Energy Demand Management Alternatives**

The GRU 2010 Ten-Year Site Plan addresses existing and planned demand-side management programs. As provided on pages 29 through 32, currently available demand side management programs include energy audits and low income household whole-house energy efficiency improvements. GRU also offers various rebates and other financial incentives as detailed in the Ten-Year Site Plan.

GRU's demand-side management programs are key factors in the community's efforts to enhance energy conservation and efficiency measures. The utility was also of service to Alachua County in the development of its Energy Conservation Strategies Commission Report, a 100-year visionary document with recommendations to create a more energy efficient and resource resilient community.

Alachua County is developing a comprehensive Energy Element to be adopted in its Comprehensive Plan. Among the community-wide goals of the Energy Element are to reduce or mitigate the effects of rising energy costs; create energy independence from fossil fuels; reduce greenhouse gas emissions; and promote the long-term economic security of the residents of Alachua County through energy conservation, efficiency and alternative energy deployment.

Recommendation: To achieve these goals, Alachua County and GRU should continue their partnership with an emphasis on aligning and expanding conservation and efficiency objectives, meeting a common greenhouse gas reduction goal, and developing a common greenhouse gas accounting methodology.

**Fuel Price Forecast Assumptions**

Fuel price forecasts are provided on Pages 34 to 36 and 48 of the GRU Ten-Year Site Plan for distillate fuel oil, residual fuel oil, natural gas, performance coal, compliance coal, and nuclear. The forecasts rely on US Department of Energy projections, PIRA Energy Group, and contractual agreements as sources.

In projecting future fuel prices, the cost of fuel as a commodity and the transportation cost are included as part of the total cost. Pages 34 and 35 of the Ten Year Site Plan state that the fuel price forecasts account for the specific transportation costs associated with delivery of various

fuel types to GRU's sites. Future fuel oil prices, therefore, will affect the projected price of all sources of fuel used by GRU for power generation.

Page 35 of the Ten Year Site Plan provides that distillate fuel oil was used to produce 0.06% of GRU's total net power generation during the 2009 calendar year. Residual fuel oil was used to produce 0.21% of GRU's total net power generation during the 2009 calendar year. Although these figures indicate that the quantity of fuel oils used by GRU for power generation is low, fuel oils are used for various extraction, processing, and shipping activities which indirectly affect the delivered price of other fuel sources such as coal, which comprised 71.5% of GRU's total net power generation in 2009.

Recommendation: GRU has been a leader in the State for alternative energy programs and demand-side management. Though perhaps beyond the scope of this planning document, to hedge against the volatility of fuel oil prices, GRU in conjunction with Alachua County and the community at large should continue to explore strategies for decreasing fossil fuel use, enhancing demand-side management programs, and increasing alternative energy production over the next 10 years.

**Proposed Mini Power Delivery Station**

Page 50 of the Ten-Year Site Plan notes that an additional mini power delivery station (PDS) is planned for the northern part of the service area near US 441 no earlier than 2015. The specific location of the planned PDS is not identified, and it is unclear whether the location is within the jurisdiction of unincorporated Alachua County. If the proposed PDS will be located in the unincorporated area, please note that it must be established consistent with the policies and procedures contained in the Alachua County Comprehensive Plan and Unified Land Development Code.

**Use of Reclaimed Water for Proposed Biomass Facility**

Page 58 of the Ten Year Site Plan discusses the potential water usage for the proposed biomass fueled power generating facility known as the Gainesville Renewable Energy Center (GREC). According to the Plan, "industrial water usage associated with the new unit could be as much as two million gallons per day (MGD)", and that reclaimed water from GRU's Main St. and/or Kanapaha wastewater treatment plants may be made available to the site to supply industrial process and cooling water needs. The Plan also indicates that "other water conservation measures may be identified during the design of the project".

The County believes water conservation is a concern in our area, and recommends that the City of Gainesville and GRU implement water conservation strategies, such as the use of reclaimed water for industrial process and cooling water needs at the proposed GREC facility, based on an evaluation of all options.

**Minimum Sustainability Standards and Stewardship Incentive Plan for Biomass Fuel Procurement**

On February 12, 2010, the Board of County Commissioners sent a letter to the City of Gainesville regarding an evaluation of Gainesville Renewable Energy Center's pending application for Site Certification as required by the Florida Power Plant Siting Act, and the proposed Minimum Sustainability Standards and Stewardship Incentive Plan for Biomass Fuel Procurement. The Alachua County Board of County Commissioners continues to commend the Gainesville City Commission and GRU for bold and innovative leadership in building local

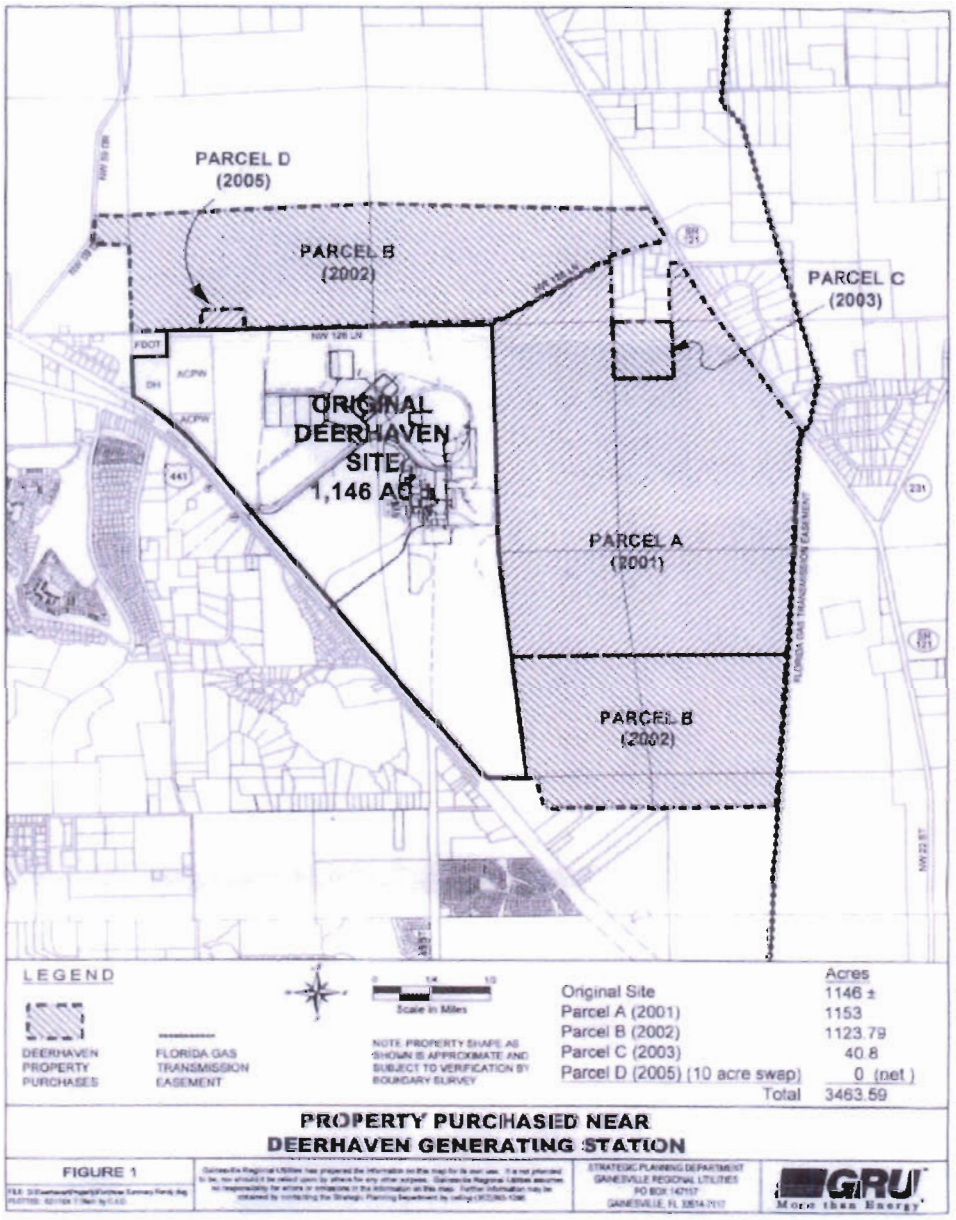
capacity for renewable sources of energy production. The February 12 letter identified opportunities for strengthening the proposed minimum standards and incentives related to biomass fuel procurement in order to further reduce adverse environmental impacts.

Alachua County staff has participated in a series of productive discussions with GRU and GREC representatives regarding the technical details of the proposed Minimum Sustainability Standards and Stewardship Incentive Plan for Biomass Procurement. The February 12 letter identified the following areas of concern: 1) harvesting of diverse hardwood hammocks, 2) harvesting of wetlands and floodplain forests, 3) impacts related to increased competition for wood resources, and 4) opportunities to strengthen the specific compliance/enforcement language associated with the proposed standards and incentives.

The collaborative dialogue between the County, GRU and GREC on these issues is expected to continue in order to ensure a sustainable framework for biomass fuel procurement activities by strengthening the proposed Stewardship Incentive Plan and Minimum Sustainability Standards.

Page 8

**Deerhaven Site Map**



**Attachment 4**

State of Florida

# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

**DATE:** January 5, 2011

**TO:** Timothy Devlin, Executive Director

**FROM:** Katherine Pennington, Government Liaison
Curt Kiser, General Counsel

**RE:** Discussion of PSC related Legislation for 2011 Session

**CRITICAL INFORMATION:** Please place on the January 12, 2011 Internal Affairs meeting agenda. Request guidance and input from the Commissioners regarding legislation filed for the 2011 session.

At the January 12, 2011, Internal Affairs meeting, I will provide an overview of PSC-related bills filed to date. We will discuss SB 212 by Senator Fasano in further detail. The Commission was actively involved with identical/similar legislation during the 2010 legislative session, and we are seeking guidance from the Commission regarding the bill. This bill relates to prohibited communication (currently termed "ex parte" communication) between Commissioners, members of the Commissioners' direct reporting staff, and legally interested persons to proceedings.

Please refer to the attached table as a discussion point and summary of the legislation, as filed.

KAP

Attachment

| Overview<br>SB 212 (Fasano) relating to the Public Service Commission<br>**DRAFT for Discussion** | |
|---|---|
| **SB 212, as filed** | **Comments** |
| 1. Commissioners must observe and abide by the Code of Judicial Conduct as adopted by the Florida Supreme Court. Where there is a statutory conflict between the Code of Judicial Conduct and the statutes relating to commissioner or Commission conduct, the statutory provision shall control. | |
| 2. (intent language) ... to ensure the fairness of the commission's proceedings by assuring the public that commission decisions are not influenced by prohibited communications between commissioners and legally interested persons. | (Ensure that commissioners have unrestricted independence to make fact-based decisions free from perception of undue influence, threat, or offer of reward; and to ensure the preservation of the due process rights of all parties to proceedings.) |
| 3. Define "legally interested person" as "any party to a proceeding before the commission, a representative of a party to a proceeding pending before the commission, corporations, partnerships, limited liability companies, elected or appointed officials of state government, or other public and elected officials." | |
| 4. Define "prohibited communication" as "any communication regarding a docketed matter which, if written, is not served on all the parties to a proceeding, and, if oral, is made without adequate notice to the parties and an opportunity for them to be present and heard." | |
| 5. Define "direct reporting staff" as commissioner's chief advisor and executive assistant. All "prohibited communication" outlined in the bill applies to Commissioners as well as members of the commissioners' direct reporting staff. | Should the "and" be changed to "or"? |
| 6. Cannot initiate, engage in, or consider prohibited communications in any proceeding other than undocketed workshop or internal affairs meeting. This section does not apply to the rest of Commission staff. | Not all proceedings are "docketed", including but not limited to the 10-year site plan reviews, storm hardening proceedings, hurricane preparedness proceedings, and some telecommunication workshops. |
| 7. Prohibited communication extended to administrative rulemaking. | |
| 8. Removes 90-day restriction on ex parte communication; prohibits communication (from Commissioner or direct reporting staff) on any issue that parties "reasonably foresee" will be filed with Commission. | |
| 9. An individual (external to Commission) may not discuss any matter with a Commissioner or member of the Commissioner's direct reporting staff which the individual reasonably foresees will be filed with the commission. | |
| 10. The bill requires the Commission to post to its website any oral or written communication not otherwise prohibited. The communication must be available to the public within 72 hours after the communication made or received.<br><br>Commission must post a copy of any written communication to its website by close of the next business day following the receipt of written communication. | |

| Overview<br>SB 212 (Fasano) relating to the Public Service Commission<br>**DRAFT for Discussion** | |
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| **SB 212, as filed** | **Comments** |
| The Commission must document and summarize communication related to a documented emergency or a brief, unscheduled follow up to a previous meeting or conference call. This written summary must be posted to the website within 72 hours after the communication is made or received.<br><br>The Commission must post notice to its website at least 72 hours prior to the occurrence of any meeting, telephone conference call, or written communication between commissioner or the commissioner's direct reporting staff, and a representative of a regulated entity. The Public Counsel may participate for questioning or directly responding. | This last part will work if the meeting, conference call, or written communication is scheduled. It is not always feasible that the communication could notice a telephone call prior to the call being received or to notice a written communication prior to receipt if the communication is received. |
| 11. The prohibited communication restrictions in the bill also apply to to communication directed to commissioners and direct reporting staff from the Governor, member of the Cabinet, or member of the Legislature. Written or oral communication that is only a status inquiry and does not address the merits of a proceeding is not an ex parte communication. A written communication that attaches or forwards constituent correspondence concerning the merits of a docketed proceeding must be placed in the docketed file. | Very similar to rules of FERC governing communication between FERC and members of Congress. |
| 12. Clarifies existing exemptions for conferences, training seminars, etc. Clarifies that this exemption does **not** allow Commissioners or their direct staff to discuss matters individually with parties to any proceeding. | For example, if a Commissioner and a member of a regulated entity are invited to participate on a panel or at a plenary session of a national conference, it is prohibited. However, the bill does not allow discussion regarding any proceeding with any party or any legally interested person. |
| 13. Provides for a civil penalty up to $5000 for a commissioner, member of a commissioner's direct reporting staff, or representative of a regulated entity who knowingly violates the ex parte restrictions or who fail to place on the record a summary of ex parte communication within 15 days of receiving the receipt. (Language is existing law; change adds members of the commissioner's direct reporting staff and representatives of a regulated entity to the civil fines) | Civil penalty applies to Commissioners or Commissioner's direct reporting staff. No prohibition or penalty for "representatives of a regulated entity". |
| 14. Additional penalty for the regulated entity represented by the person having the prohibited communication; the regulated entity may be assessed a penalty of up to one percent of the annual operating revenue for the entity's most recent calendar year. | The Commission previously recommended that the termed be changed from "regulated entity" to "entity". Intervenors are often parties not regulated by the Commission, yet the Commission on Ethics could find a violation of the ex parte/prohibited communication restrictions. The Commission on Ethics would then be able to to assess penalties on any party that violates this statute. |
| 15. Last section of the bill changes reconfirmation of the Public Counsel from biennial to every 4 years. | NA |

## Post Employment Prohibitions

| Who* | Prohibition | SB 212 | Existing |
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| 1. Former commissioner or member of commissioner's direct reporting staff. | Cannot appear before the Commission to represent any client or industry regulated by the Commission. | 4 years | 2 years, former Commissioners only |
| 2. Former commissioner or member of commissioner's direct reporting staff. | Lobbying the Executive or Legislative branch to represent any client or industry entity regulated by the Commission. | 4 years | No prohibition in Chapter 350, F.S. |
| 3. Former commissioner or member of commissioner's direct reporting staff. | Cannot accept employment by or compensation from any business entity that, directly or indirectly, owns or controls a regulated public utility, from a regulated public utility, from business entity that, directly or indirectly, is an affiliate or subsidiary of a regulated public utility, or is an actual business competitor of a local exchange company or regulated public utility and that is otherwise exempt from regulation by the commission, or from a business entity or trade association that has been a party to a commission proceeding within the 4 years preceding termination of service. | 4 years | 2 years, former Commissioners only |
| 4. Former employee | Cannot appear before Commission representing any client regulated by the Commission on matters pending at the time of termination or matters in which the former employee participated. | No time limit | No change |

* All revisions to post-employment prohibitions in SB 212 apply to commissioners appointed or reappointed after July 1, 2011, or to members of a commissioner's direct reporting staff hired on or after July 1, 2011.

# II. Outside Persons Who Wish to Address the Commission at Internal Affairs

**The records reflect that no outside persons addressed the Commission at this Internal Affairs meeting.**

# III. Supplemental Materials Provided During Internal Affairs

**The records reflect that there were no supplemental materials provided to the Commission during this Internal Affairs meeting.**