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: April 6, 2011

TO: Ann Cole, Commission Clerk, Office of Commission Clerk

FROM: Phillip O. Ellis, Engineering Specialist II, Division of Regulatory Analysis
Traci L. Matthews, Government Analyst I, Division of Regulatory Analysis

RE: Seminole Electric Cooperative's 2011 Ten-Year Site Plan

Attached is the Seminole Electric Cooperative's 2011 Ten-Year Site Plan, submitted on April 1, 2011, consistent with Rule 25-22.071, Florida Administrative Code (F.A.C.). Please place this item in Docket No. 110000 – Undocketed Filings for 2011, as it relates to the annual undocketed staff Ten-Year Site Plan Review project.

If you have any additional questions, please contact me.

POE

Attachment

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APA ____
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RAD ____
SSC ____
ADM ____
OPC ____
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Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

Ten Year Site Plan

2011 - 2020
(Detail as of December 31, 2010)
April 1, 2011

Submitted To:
State of Florida
Public Service Commission

Seminole Electric
COOPERATIVE, INC.

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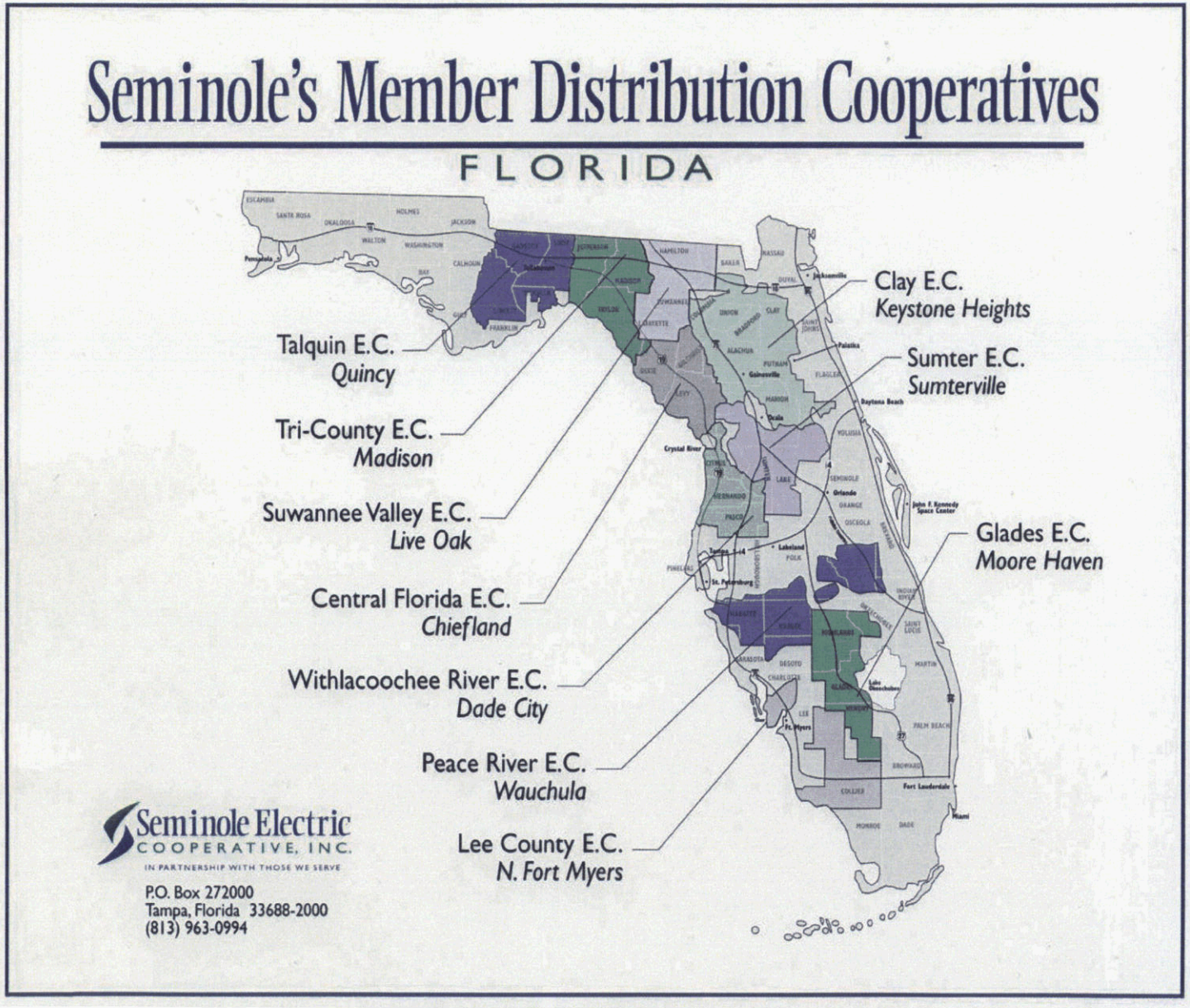
Seminole's Member Distribution Cooperatives



1. DESCRIPTION OF EXISTING FACILITIES

1.1 Overview

Seminole Electric Cooperative, Inc. (Seminole) is a corporation organized and existing under the laws of the State of Florida for the purpose of providing reliable electric power at the lowest feasible cost to its ten distribution Members' systems. Seminole generates, transmits, purchases, and sells electric power and energy to its Member Cooperatives (Members), which are listed below:

- Central Florida Electric Cooperative, Inc.
  Chiefland, Florida
- Clay Electric Cooperative, Inc.
  Keystone Heights, Florida
- Glades Electric Cooperative, Inc.
  Moore Haven, Florida
- Lee County Electric Cooperative, Inc.
  North Fort Myers, Florida
- Peace River Electric Cooperative, Inc.
  Wauchula, Florida
- Sumter Electric Cooperative, Inc.
  Sumterville, Florida
- Suwannee Valley Electric Cooperative, Inc.
  Live Oak, Florida
- Talquin Electric Cooperative, Inc.
  Quincy, Florida
- Tri-County Electric Cooperative, Inc.
  Madison, Florida
- Withlacoochee River Electric Cooperative, Inc.
  Dade City, Florida

Each of Seminole's Members is engaged primarily in the distribution of retail electric power. Seminole supplies requirements power to each of its Members under the terms of long-term wholesale power contracts.[1] The map at the beginning of this section indicates the counties in which each Member of Seminole provides service.

1.2 Owned Resources

1.2.1 Owned Generation

Seminole serves its aggregate Member loads with a combination of owned and purchased power resources. Seminole Generating Station (SGS) Units 1 & 2, 650 MW class coal-fired units located in Putnam County, began commercial operation in February 1984 and December 1984, respectively. Midulla Generating Station (MGS) Units 1 – 3 comprise a 500 MW class gas-fired combined cycle plant located in Hardee County, which began commercial operation in January 2002. Also at the MGS site are Units 4 – 8 which comprise a 300 MW class peaking plant which began commercial operation in December 2006. Seminole also owns a 13 MW share of the Progress Energy Florida (PEF) Crystal River 3 nuclear generating unit. Seminole's owned generating facilities are shown in Schedule 1.1.

1.2.2 Transmission

In 2010, Seminole served its Members' load primarily in three transmission areas: 6% directly through its own system (Seminole Direct Serve, or SDS), 65% through the PEF system, and 29% through the Florida Power & Light (FPL) system. Seminole's owned transmission facilities consist of 278 circuit miles of 230 kV and 140 circuit miles of 69 kV lines. Seminole's

1 Seminole provided full requirements service to all of its Members through the end of 2009 with the only exception relating to contracts between four Members with the Southeastern Power Administration (SEPA), which provides 26 MW or less than 1% of the total energy required by all Members. In 2010, Seminole began serving only a portion (approximately 70%) of the load requirements of Lee County Electric Cooperative, Inc. (LCEC) and beginning January 1, 2014 will no longer serve any of LCEC's load.

owned generating facilities are interconnected to the grid at seventeen 230 kV transmission interconnections with the following utilities: FPL, JEA, City of Ocala, PEF, Hardee Power Partners, and Tampa Electric Company. Seminole's interconnections, all of which are at 230 kV, are shown in Schedule 1.2. Seminole contracts with FPL and PEF for firm network transmission service for its Member loads which connect to their respective transmission areas.

1.3 Purchased Power Resources

1.3.1 Renewable Energy Purchases

Seminole is among the leaders in Florida in regards to the amount of energy purchased from renewable energy facilities. In 2011, Seminole will receive energy output from 142 MW of renewable capacity under contract from the following sources:

- Lee County Resource Recovery - 55 MW of firm waste-to-energy capacity through December 2016. Seminole has an obligation to purchase energy from the facility through 2028.
- Hillsborough County Waste to Energy Facility - 38 MW of firm waste-to-energy capacity through February 2025.
- Telogia Power, LLC – 12.5 MW of firm capacity, through November 2023, from a biomass (wood and paper waste) facility located in Liberty County.
- Landfill Energy Systems – 15 MW (total) of firm capacity from landfill gas-to-energy facilities in Seminole and Brevard Counties. These contracts extend through March 2018.
- Timberline Energy LLC – 1.6 MW of firm capacity from a landfill gas-to-energy facility in Hernando County, Florida. The contract extends through March 2020.

- City of Tampa McKay Bay Waste to Energy Facility - 20 MW of firm waste-to-energy capacity effective August 1, 2011 through July 2026.

In addition, Seminole has a contract with Southeast Renewable Fuels, LLC for 25 MW of firm capacity from a yet to be constructed facility fueled by biomass (sweet sorghum energy crop) located in Hendry County. The facility is expected to be commercial in 2013. The contract extends through November 2031.

1.3.2 Purchases from Unit or System Generating Resources

In addition to the renewable resources described above, Seminole's capacity portfolio currently includes power acquired under firm purchased power agreements with the following electric utilities and independent power producers (all ratings are for winter unless otherwise noted):

- Progress Energy Florida (PEF)
  - PEF System Intermediate – 450 MW of firm system intermediate and/or combined cycle capacity through 2013, and 150 MW from January 2014 through December 2020.
  - PEF System Base – 150 MW from January 2012 to December 2013, and 250 MW from January 2014 through May 2016.
  - PEF Winter Seasonal Peaking – 600 MW of firm winter seasonal system peaking capacity from January 2014 through December 2020.
  - PEF System Average – 150 MW of firm system average capacity from January 2014 through May 2016.
  - PEF System Combined Cycle – Up to 500 MW of firm system intermediate

capacity from June 2016 through December 2024.

- PEF Partial Requirements (PR) – Load following requirements service for Seminole's Member load in the PEF area in excess of Seminole's designated committed capacity. This arrangement provides Seminole some flexibility to modify the amount purchased in future years by modifying its committed capacity. PR service is primarily a peaking-type resource, with quantities varying by month based upon Seminole's committed capacity designations and actual monthly coincident demands. Seminole's actual purchased PR capacity for 2010 was 977 MW winter and 62 MW summer. This agreement has certain notice provisions for termination to be effective beyond 2013.
- PEF 2004 Load Following Power Sales Agreement – Additional system average requirements-type load following service increasing and/or decreasing to track Seminole Member load in the FPL area through July 2020. Seminole purchased 160 MW of this service from PEF during the peak month of January in 2010.

- City of Gainesville - Full requirements service for a specified delivery point (approximately 25 MW peak demand in 2010) with certain notice provisions for termination to be effective beyond 2012.
- GenOn Florida, L.P. (GenOn), (formerly RRI Energy Florida, LLC) - 546 MW of firm peaking capacity through May 2014, from GenOn's Osceola combustion turbine units in Osceola County.
- Oleander Power Project, L.P. (a subsidiary of Southern Power Company) - 546

MW of firm peaking capacity, through May 2021, from three combustion turbine units in Brevard County.

- Calpine Construction Finance Company, L.P. (Calpine) - up to 360 MW of firm intermediate capacity, through May 2014, from Calpine's gas-fired Osprey combined cycle plant in Polk County. A second agreement has been executed with Calpine for Seminole's purchase of approximately 250 MW from the Osprey plant for the period from June 2016 through May 2019.
- Hardee Power Partners, Limited (a subsidiary of Invenergy LLC) - 356 MW first call reserve capacity from the Hardee Power Station (HPS) in Hardee County to cover forced and scheduled outages of Seminole's base load generation. After the current contract ends in December 2012, a new agreement without dispatch restrictions for the full 445 MW capacity output of HPS extends through December 2027.
- Florida Power and Light Company (FPL) System Combined Cycle – 200 MW of firm system intermediate capacity from June 2014 to May 2021.

Schedule 1.1
Existing Generating Facilities as of December 31, 2010

Plant	Unit No.	Location	Unit Type	Fuel		Fuel Transportation		Alt Fuel Days Use	Com In-Svc Date (Mo/Yr)	Expected Retirement (Mo/Yr)	Gen. Max Nameplate (MW)	Net Capability (MW)	
				Pri	Alt	Pri	Alt					Summer	Winter
SGS	1	Putnam County	ST	BIT/ PC	N/A	RR	N/A	N/A	02/84	Unk	715	647	660
SGS	2	Putnam County	ST	BIT/ PC	N/A	RR	N/A	N/A	12/84	Unk	715	663	666
MGS	1-3	Hardee County	CC	NG	DFO	PL	TK	N/A	01/02	Unk	587	484	516
MGS	4-8	Hardee County	CT	NG	DFO	PL	TK	N/A	12/06	Unk	312	270	310
Crystal River	3	Citrus County	ST	NUC	N/A	TK	N/A	N/A	03/77	Unk	890	13	13

Abbreviations:	Unit Type	Fuel Type	Fuel Transportation
	Unk – Unknown N/A – Not applicable ST - Steam Turbine, including nuclear CC - Combined Cycle CT – Combustion Turbine	BIT - Bituminous Coal NG - Natural Gas NUC – Nuclear PC – Petroleum Coke DFO - No. 2 Diesel Fuel Oil	PL – Pipeline RR – Railroad TK – Truck
Note:	The nameplate capacity for Crystal River Unit 3 is the total unit capability. The net capability is Seminole's share.		

Schedule 1.2 Transmission Grid Interconnections with Other Utilities		
Interconnection	**Voltage (kV)**	**Location**
FPL	230	SGS
FPL	230	SGS
FPL	230	Rice
FPL	230	Rice
PEF	230	Silver Springs North
PEF	230	Silver Springs
PEF	230	Silver Springs Tie Point
PEF	230	Martin West Tie Point
JEA	230	Jax Heights Tie Point
City of Ocala	230	Silver Springs North
City of Ocala	230	Silver Springs North
FPL	230	Charlotte
PEF	230	Vandolah
PEF	230	Vandolah
TECO	230	Hardee Sub
Hardee Power Partners	230	Hardee Sub
Hardee Power Partners	230	Hardee Sub
Note: This table describes physical facility interconnections, which do not necessarily constitute contractual interconnections for purposes of transmission service or interconnections between control areas.		

1.4 Demand Side Management (DSM) and Energy Conservation

As a generation and transmission rural electric cooperative that serves only wholesale customers, Seminole cannot offer conservation or DSM programs directly to retail consumers. However, Seminole promotes Member involvement in DSM through its wholesale rate signals and via two specific demand management programs: (1) a Coordinated Load Management Program; and (2) a Load Management Distributed Generation Program. In 2009 Seminole and its Members took steps to further promote the use and expansion of demand-side resources, energy efficiency and demand side management through the formation of the Energy Efficiency Working Group. The groups primary focus is to work together to increase consumer education and expand DSM/Conservation programs to achieve increased energy conservation.

1.4.1 Seminole's Member Programs

The demand management programs offered by Seminole's Members include residential load control, load management distributed generation, distribution system voltage reduction, and alternative rate options for interruptible, time of use, and curtailable service. These programs provide an aggregate demand management capability of approximately 256 MW.

All Members promote energy conservation and energy efficiency. Most Members offer in-home energy audits at no cost, and all Members have promoted lighting efficiency by distributing compact fluorescent light bulbs at no cost. Member web sites are focused on educating consumers on the benefits of energy conservation and energy efficiency. Most web sites offer energy saving tips, offer on-site energy audits, provide tools for consumers to perform on-line energy audits, and provide links to Touchstone Energy's Home Energy Library. One Member offers consumer rebates for energy efficiency improvements including ceiling insulation, HVAC efficiency upgrades, and solar hot water systems. As a part of Seminole's

consumer-owned renewable generation program, Seminole's Members have over 300 photovoltaic systems and an agricultural waste digester connected to their distribution systems. Under Seminole's net metering program, most of the Members' consumers take net metering service from Seminole's Members associated with the output from these renewable generators. Over the past 15 years, Seminole's Members have significantly reduced their energy purchases from Seminole by lowering their distribution system line losses. These system efficiency improvements have been the results of a continuing program of upgrading system voltages and distribution systems to reduce energy losses. In aggregate, annual distribution line losses have been reduced approximately 3% over the past decade. This translates to a reduction in Seminole's total system energy requirements of over 500,000 MWh in the past decade.

1.4.2 Seminole's DSM Programs

Seminole's Load Management Generator Program allows its Members to install distributed peaking generation resources on their system and/or to partner with their retail customers to install "behind the meter" customer-based distributed generation (DG) to operate as dispatchable load management resources for Seminole's system, while providing load center based generation to improve system and customer reliability.

Under Seminole's Load Management Program, Seminole coordinates the Members' residential load control and load management generator programs which reduce Seminole's peak demand. Seminole's load and energy forecast takes into account reductions due to the residential load control program and the load management generator programs.

1.4.3 Conservation

Seminole's Members have implemented a range of energy efficiency and energy conservation programs which have reduced Seminole's total requirements for electric energy.

Except as described specifically below, these reductions have not been specifically quantified or estimated but are reflected in Seminole's load history. As such, Seminole's load forecast effectively extrapolates the growth of past programs into the future.

Additionally, the current load forecast has been adjusted to estimate the impact of three expected influences on consumer energy use: (1) an estimate of the effects of the 2005 Energy Policy Act, (2) the Energy Independence and Security Act of 2007, and (3) Seminole's strategic initiative to offset continued growth in annual residential energy usage per consumer.

An evaluation of the 2005 Energy Policy Act and the Energy Independence and Security Act of 2007 revealed that two areas of improved efficiency standards; improved efficiency standards for new HVAC systems and improved lighting efficiency, would have the most significant impact on future energy sales of Seminole's Members.

In an effort to coordinate and further promote energy conservation, Seminole and its Members formed an energy efficiency working group in 2008. The function of this group is to promote expansion of demand-side programs through consumer education initiatives, sharing of information, and joint assessment of specific energy efficiency programs.

Seminole's Members routinely evaluate the economic feasibility of maintaining their current programs into the future. During each load forecast study Seminole evaluates the Member's load management programs for anticipated future changes. None of Seminole's Members have finalized plans to expand their load management programs at this time although several are evaluating the feasibility of expansion. As a result, Seminole has not projected any further growth in the load management program over the forecast period. However, Seminole will reassess projected growth in demand management programs each year when updating the load forecast.

2. FORECAST OF ELECTRIC DEMAND AND ENERGY CONSUMPTION

2.1 Consumer Base and Related Trends

2.1.1 Service Area Economy

Seminole's Member systems provide electricity to Member consumers in 45 of Florida's 67 counties. The area served is bounded on the west and north by the Apalachicola River and the Georgia border respectively, extending down to the southwestern and south-central regions of Florida. The service territory encompasses a variety of geographic and weather conditions as well as a diverse mix of economic activity and demographic characteristics.

2.1.2 Population and Consumers

Population growth in Florida (including Seminole Members' service areas) is significantly influenced by migration from northern states. Therefore, national economic factors influencing migration have a large impact on population growth in areas served by Seminole's Members. Historically, Seminole's residential consumer growth rate has exceeded the rate of growth for Florida as a whole. For the 2000-2009 period, Seminole's residential customer growth rate was 2.9 percent, higher than the statewide growth rate of 1.7 percent.

2.1.3 Income

Statistics indicate that almost 40 percent of the income in Florida comes from non-wage sources such as dividends, interest, rent, and transfer payments. This is approximately 10 percentage points higher than national averages. This statistic is reflective of a higher population concentration of retirees.

2.2 Forecast Results

2.2.1 Overview

The forecast projection reflects a weak economic outlook for Florida and the nation as a

whole over the next few years. The national economy started its long decline in the fourth quarter of 2007; the first decline since 2001. The housing market correction was the initial factor. Florida's housing boom and economic growth began to decline in 2006, prior to the start of the national economic decline. By the end of 2007, Florida's economic decline became more severe than the U.S. as a whole and Florida's housing correction became much greater than the national average. Florida's economic recovery continues to lag the national economy's recovery. However, because of the state's strong demographic and economic fundamentals it is expected Florida will resume long term growth rates in excess of the national growth rate. Beginning in 2014, the residential consumer growth rate is consistent with the growth experienced by the Seminole system during most of the 1990's. However, the residential usage per consumer growth rate is projected to be relatively flat reflecting higher real prices, higher appliance efficiency standards, and more energy conservation by consumers.

In 2010, Seminole began serving only a portion of the load requirements of Lee County Electric Cooperative (LCEC) and beginning January 1, 2014 will no longer serve any of LCEC's load. This has the effect of lowering Seminole's long-term energy and demand growth rates.

2.2.2 Population and Consumers

Historical and forecasted population for Seminole Members' service area is shown on Schedules 2.1 through 2.3. Seminole's Members serve significant portions of the less urbanized areas of the state which are located adjacent to metropolitan areas. These cooperative-served areas are less saturated and are impacted by suburban growth around these urban centers. It is therefore reasonable to expect continued higher consumer growth rates for Seminole's Members than for Florida as a whole.

2.2.3 Usage per Consumer

After nearly two decades of steady increases, beginning in 2003 residential energy usage per consumer for the Seminole system and Florida began to flatten and moderately decline. This change in energy usage is supported by the Seminole's Residential Appliance Survey results shown in Schedule 1.3. The survey results show the Members reaching maximum saturations of larger homes, electric heating, electric water heating, and air conditioning. Reaching maximum saturations combined with higher energy efficiency of newer electric heating and air conditioning systems have the effect of lowering residential energy usage.

Schedule 1.3
Homes and Electric Appliance Saturations (%)

	2005	2008
Single Family Homes	66	70
Homes > 2000 sq ft	26	27
Homes < 1200 sq ft	22	20
Primary Space Heating	87	89
Air Conditioning	97	98
Water Heater	91	91
Refrigerator	100	100
Home Computers	69	76
Electric Range	86	85
Microwave Oven	97	97
Dishwasher	73	76
Clothes Dryer	87	90
Pool Pump	16	15

SOURCE: "Residential Survey," Seminole Electric Cooperative, Inc., 2005 and 2008

In an effort to further this trend, Seminole and its Members are promoting expansion of demand-side programs and are targeting to mitigate the continued growth in consumer usage. However, further expansion of electro-technology in the home and the introduction of mass produced electric vehicles will be an important influence on future usage per consumer. In 2009,

Seminole's annual average residential usage was 13,912 kWh while Florida as a whole averaged 13,572 kWh.

Commercial annual average usage per consumer is much lower on the Seminole system (56,644 kWh in 2009) than in Florida as a whole (78,585 kWh). This difference is even starker considering that Seminole Members' commercial usage also includes industrial consumers, whereas the Florida average does not. Seminole's Member commercial sector is dominated by small commercial loads. Commercial/industrial usage per consumer is projected to increase at an average annual growth rate of 0.6 percent through 2020. This is consistent with an average annual growth rate of 0.7% over the past ten years.

2.2.4 Energy Sales and Purchases

Residential energy sales are projected to grow at 1.1 percent annually between 2011 and 2020. The energy sales forecast reflects energy savings from historical conservation efforts, incremental conservation growth at the same rate of adoption, a conservation estimate based primarily on the 2005 Energy Policy Act, the Energy Independence and Security Act of 2007, and Seminole's strategic initiative to mitigate growth in annual residential energy usage. Commercial energy sales are projected to grow at an annual average of 1.7 percent over the same period. These statistics for growth include the effect of the departure of LCEC from Seminole's load responsibility in 2014.

2.2.5 Peak Demand

Seminole's winter peak demand is projected to increase at an average annual rate of 1.0 percent over the ten-year planning horizon, while summer peak demand is projected to increase at an average annual rate of 0.9 percent over the same period. These growth statistics are significantly influenced by the departure of LCEC in 2014.

Seminole as a whole, as well as the majority of its Member systems, is expected to continue to be winter peaking. For the Seminole system, winter peaks are expected to increase from approximately 17 percent higher to 23 percent higher than summer peaks. The continued winter-peaking nature of the Seminole system is due primarily to continued prominence of electric space-heating saturation in the foreseeable future.

The peak demand in Seminole's current load forecast reflects no additional load management. However, during 2009, as part of a recently adopted strategic initiative, Seminole and its Members began assessing the viability of a range of demand side alternatives.

Seminole only counts its consumer demand once, on an aggregated and Member system basis, in developing its actual and forecast consumer demand values.

2.2.6 Forecast Scenarios

Seminole creates a high and low population growth scenario in addition to the base forecast. Because Seminole's system is primarily residential load, population is the primary driving force behind Seminole's load growth. Therefore, high and low population growth scenarios are developed for each Member system based on the University of Florida's Bureau of Economic Business Research's (BEBR) alternative scenarios.

Schedules 2.1, 2.2, and 2.3 summarize energy usage and Members' consumers by customer class. Schedules 3.1.1, 3.1.2, and 3.1.3 provide summer peak demand forecasts for base, high and low population scenarios. Schedules 3.2.1, 3.2.2, and 3.2.3 provide similar data for winter peak demand.

Schedule 2.1 History and Forecast of Energy Consumption and Number of Customers by Customer Class					
Year	Estimated Population Served by Members	RESIDENTIAL			
		Customers Per Household	GWh	Avg. Number of Customers	Average kWh Consumption Per Customer
2001	1,397,270	2.18	8,752	640,290	13,669
2002	1,434,882	2.17	9,543	661,332	14,429
2003	1,477,368	2.15	10,019	686,121	14,603
2004	1,530,842	2.15	10,264	713,496	14,386
2005	1,590,615	2.14	10,807	744,617	14,513
2006	1,656,755	2.12	11,153	780,687	14,286
2007	1,706,417	2.12	11,444	803,957	14,235
2008	1,730,492	2.14	11,104	808,926	13,727
2009	1,745,554	2.15	11,293	811,767	13,912
2010	1,636,809	2.15	11,369	761,994	14,920
2011	1,670,992	2.13	10,947	783,035	13,980
2012	1,705,177	2.12	11,308	804,121	14,063
2013	1,739,360	2.11	11,651	825,138	14,120
2014	1,491,524	2.10	10,152	710,469	14,289
2015	1,519,935	2.09	10,381	725,967	14,300
2016	1,556,698	2.09	10,675	746,005	14,310
2017	1,593,461	2.08	10,969	766,069	14,319
2018	1,630,225	2.07	11,265	786,090	14,331
2019	1,666,987	2.07	11,576	806,062	14,361
2020	1,703,750	2.06	11,886	826,049	14,389
NOTE: Estimated Population Served by Members represents only the area supplied by Seminole.					

Schedule 2.2
History and Forecast of Energy Consumption and Number of Customers by Customer Class

Year	COMMERCIAL			Other Sales (GWh)	Total Sales (GWh)
	GWh	Avg. Number of Customers	Average kWh Consumption Per Customer		
2001	3,456	66,577	51,910	130	12,338
2002	3,629	68,785	52,755	161	13,333
2003	3,871	70,264	55,095	152	14,042
2004	4,103	74,247	55,268	165	14,533
2005	4,370	77,548	56,348	140	15,317
2006	4,634	84,358	54,937	158	15,945
2007	4,842	88,312	54,808	163	16,449
2008	4,894	86,119	56,823	163	16,160
2009	4,776	84,351	56,644	167	16,236
2010	4,524	78,793	57,411	159	16,052
2011	4,659	81,606	57,092	156	15,762
2012	4,861	83,556	58,178	160	16,329
2013	5,079	85,487	59,419	163	16,893
2014	4,437	75,051	59,115	151	14,739
2015	4,562	76,750	59,434	155	15,097
2016	4,712	79,067	59,594	159	15,546
2017	4,864	81,382	59,773	164	15,997
2018	5,021	83,693	59,993	169	16,455
2019	5,181	86,001	60,244	174	16,931
2020	5,342	88,308	60,493	179	17,407

NOTE: Commercial class includes industrial customers; Other sales class includes lighting customers.

Schedule 2.3 History and Forecast of Energy Consumption and Number of Customers by Customer Class					
Year	Sales for Resale (GWh)	Utility Use & Losses (GWh)	Net Energy for Load (GWh)	Other Customers (Avg. Number)	Total Number of Customers
2001	0	956	13,294	4,089	710,956
2002	0	1,357	14,690	5,123	735,240
2003	0	1,736	15,778	5,239	761,624
2004	0	1,880	16,413	5,307	793,050
2005	0	1,449	16,766	5,544	827,709
2006	0	1,410	17,355	5,101	870,146
2007	0	1,221	17,670	5,118	897,387
2008	0	1,171	17,331	5,075	900,120
2009	0	1,217	17,453	5,002	901,121
2010	0	1,294	17,346	4,951	845,738
2011	316	1,183	17,261	5,062	869,703
2012	330	1,225	17,884	5,153	892,830
2013	330	1,267	18,490	5,244	915,869
2014	0	1,089	15,828	5,177	790,697
2015	0	1,115	16,212	5,262	807,979
2016	0	1,147	16,693	5,363	830,435
2017	0	1,181	17,178	5,464	852,915
2018	0	1,214	17,669	5,565	875,348
2019	0	1,249	18,180	5,667	897,730
2020	0	1,284	18,691	5,767	920,124

Schedule 3.1.1
History and Forecast of Summer Peak Demand (MW) - *Base Case*

Year	Total	Wholesale	Retail	Distributed Generation	Residential		Commercial		Net Firm Demand
					Load Mgmt.	Cons.	Load Mgmt.	Cons.	
2001	2,837	2,837	0	N/A	104	N/A	N/A	N/A	2,733
2002	3,140	3,140	0	66	99	N/A	N/A	N/A	2,975
2003	3,250	3,250	0	77	158	N/A	N/A	N/A	3,015
2004	3,359	3,359	0	58	74	N/A	N/A	N/A	3,227
2005	3,690	3, 690	0	73	78	N/A	N/A	N/A	3,539
2006	3,862	3,862	0	74	130	N/A	N/A	N/A	3,658
2007	4,021	4,021	0	77	105	N/A	N/A	N/A	3,839
2008	3,793	3,793	0	63	100	N/A	N/A	N/A	3,630
2009	4,015	4,015	0	90	101	N/A	N/A	N/A	3,824
2010	3,736	3,736	0	89	99	N/A	N/A	N/A	3,548
2011	3,990	3,990	0	123	90	N/A	N/A	N/A	3,777
2012	4,123	4,123	0	123	90	N/A	N/A	N/A	3,910
2013	4,242	4,242	0	123	90	N/A	N/A	N/A	4,029
2014	3,663	3,663	0	108	55	N/A	N/A	N/A	3,500
2015	3,741	3,741	0	108	55	N/A	N/A	N/A	3,578
2016	3,845	3,845	0	108	55	N/A	N/A	N/A	3,682
2017	3,946	3,946	0	108	55	N/A	N/A	N/A	3,783
2018	4,048	4,048	0	108	55	N/A	N/A	N/A	3,885
2019	4,154	4,154	0	108	55	N/A	N/A	N/A	3,991
2020	4,260	4,260	0	108	55	N/A	N/A	N/A	4,097

Historical load management data is actual amount exercised at the time of the seasonal peak demand.
Forecast data is the maximum amount available and includes SEPA allocations.

Schedule 3.1.2
Forecast of Summer Peak Demand (MW) - *High Case*

Year	Total	Wholesale	Retail	Distributed Generation	Residential		Commercial		Net Firm Demand
					Load Mgmt.	Cons.	Load Mgmt.	Cons.	
2011	4,227	4,227	0	123	90	N/A	N/A	N/A	4,014
2012	4,409	4,409	0	123	90	N/A	N/A	N/A	4,196
2013	4,585	4,585	0	123	90	N/A	N/A	N/A	4,372
2014	3,977	3,977	0	108	55	N/A	N/A	N/A	3,813
2015	4,096	4,096	0	108	55	N/A	N/A	N/A	3,932
2016	4,246	4,246	0	108	55	N/A	N/A	N/A	4,082
2017	4,393	4,393	0	108	55	N/A	N/A	N/A	4,229
2018	4,542	4,542	0	108	55	N/A	N/A	N/A	4,378
2019	4,696	4,696	0	108	55	N/A	N/A	N/A	4,532
2020	4,849	4,849	0	108	55	N/A	N/A	N/A	4,685

Schedule 3.1.3
Forecast of Summer Peak Demand (MW) - *Low Case*

Year	Total	Wholesale	Retail	Distributed Generation	Residential		Commercial		Net Firm Demand
					Load Mgmt.	Cons.	Load Mgmt.	Cons.	
2011	3,798	3,798	0	123	90	N/A	N/A	N/A	3,585
2012	3,893	3,893	0	123	90	N/A	N/A	N/A	3,680
2013	3,978	3,978	0	123	90	N/A	N/A	N/A	3,765
2014	3,386	3,386	0	108	55	N/A	N/A	N/A	3,222
2015	3,429	3,429	0	108	55	N/A	N/A	N/A	3,265
2016	3,482	3,482	0	108	55	N/A	N/A	N/A	3,318
2017	3,534	3,534	0	108	55	N/A	N/A	N/A	3,370
2018	3,586	3,586	0	108	55	N/A	N/A	N/A	3,422
2019	3,641	3,641	0	108	55	N/A	N/A	N/A	3,477
2020	3,696	3,696	0	108	55	N/A	N/A	N/A	3,532

Schedule 3.2.1
History and Forecast of Winter Peak Demand (MW) - *Base Case*

Year	Total	Wholesale	Retail	Distributed Generation	Residential		Commercial		Net Firm Demand
					Load Mgmt.	Cons.	Load Mgmt.	Cons.	
2000-01	3,769	3,769	0	N/A	143	N/A	N/A	N/A	3,626
2001-02	3,691	3,691	0	N/A	125	N/A	N/A	N/A	3,566
2002-03	4,308	4,308	0	58	95	N/A	N/A	N/A	4,155
2003-04	3,672	3,672	0	56	85	N/A	N/A	N/A	3,531
2004-05	4,107	4,107	0	65	91	N/A	N/A	N/A	3,951
2005-06	4,365	4,365	0	63	77	N/A	N/A	N/A	4,225
2006-07	4,240	4,240	0	105	109	N/A	N/A	N/A	4,026
2007-08	4,426	4,426	0	72	133	N/A	N/A	N/A	4,221
2008-09	4,957	4,957	0	69	150	N/A	N/A	N/A	4,738
2009-10	5,268	5,268	0	69	152	N/A	N/A	N/A	5,047
2010-11	4,491	4,491	0	70	106	N/A	N/A	N/A	4,315
2011-12	4,845	4,845	0	123	133	N/A	N/A	N/A	4,589
2012-13	5,010	5,010	0	123	133	N/A	N/A	N/A	4,754
2013-14	4,381	4,381	0	109	81	N/A	N/A	N/A	4,191
2014-15	4,481	4,481	0	109	81	N/A	N/A	N/A	4,291
2015-16	4,596	4,596	0	109	81	N/A	N/A	N/A	4,406
2016-17	4,719	4,719	0	109	81	N/A	N/A	N/A	4,529
2017-18	4,843	4,843	0	109	81	N/A	N/A	N/A	4,653
2018-19	4,972	4,972	0	109	81	N/A	N/A	N/A	4,782
2019-20	5,103	5,103	0	109	81	N/A	N/A	N/A	4,913
2020-21	5,228	5,228	0	109	81	N/A	N/A	N/A	5,038

Historical load management data is actual amount exercised at the time of the seasonal peak demand.
Forecast data is the maximum amount available and includes SEPA allocations.

Schedule 3.2.2
Forecast of Winter Peak Demand (MW) - *High Case*

Year	Total	Wholesale	Retail	Distributed Generation	Residential		Commercial		Net Firm Demand
					Load Mgmt.	Cons.	Load Mgmt.	Cons.	
2011-12	5,153	5,153	0	123	133	N/A	N/A	N/A	4,897
2012-13	5,406	5,406	0	123	133	N/A	N/A	N/A	5,150
2013-14	4,731	4,731	0	109	81	N/A	N/A	N/A	4,540
2014-15	4,882	4,882	0	109	81	N/A	N/A	N/A	4,691
2015-16	5,050	5,050	0	109	81	N/A	N/A	N/A	4,859
2016-17	5,230	5,230	0	109	81	N/A	N/A	N/A	5,039
2017-18	5,411	5,411	0	109	81	N/A	N/A	N/A	5,220
2018-19	5,599	5,599	0	109	81	N/A	N/A	N/A	5,408
2019-20	5,788	5,788	0	109	81	N/A	N/A	N/A	5,597
2020-21	5,980	5,980	0	109	81	N/A	N/A	N/A	5,789

Schedule 3.2.3
Forecast of Winter Peak Demand (MW) - *Low Case*

Year	Total	Wholesale	Retail	Distributed Generation	Residential		Commercial		Net Firm Demand
					Load Mgmt.	Cons.	Load Mgmt.	Cons.	
2011-12	4,595	4,595	0	123	133	N/A	N/A	N/A	4,339
2012-13	4,736	4,736	0	123	133	N/A	N/A	N/A	4,480
2013-14	4,070	4,070	0	109	81	N/A	N/A	N/A	3,879
2014-15	4,129	4,129	0	109	81	N/A	N/A	N/A	3,938
2015-16	4,190	4,190	0	109	81	N/A	N/A	N/A	3,999
2016-17	4,253	4,253	0	109	81	N/A	N/A	N/A	4,062
2017-18	4,316	4,316	0	109	81	N/A	N/A	N/A	4,125
2018-19	4,383	4,383	0	109	81	N/A	N/A	N/A	4,192
2019-20	4,452	4,452	0	109	81	N/A	N/A	N/A	4,261
2020-21	4,507	4,507	0	109	81	N/A	N/A	N/A	4,316

Schedule 3.3.1
History and Forecast of Annual Net Energy for Load (GWh) - *Base Case*

Year	Total	Conservation		Retail	Total Sales	Utility Use & Losses	Net Energy for Load	Load Factor %
		Residential	Commercial					
2001	13,294	N/A	N/A	0	12,338	956	13,294	42.6
2002	14,690	N/A	N/A	0	13,333	1,357	14,690	40.4
2003	15,778	N/A	N/A	0	14,042	1,736	15,778	51.0
2004	16,413	N/A	N/A	0	14,533	1,880	16,413	47.4
2005	16,766	N/A	N/A	0	15,317	1,449	16,766	45.3
2006	17,355	N/A	N/A	0	15,945	1,410	17,355	49.2
2007	17,671	1	N/A	0	16,449	1,221	17,670	47.8
2008	17,332	1	N/A	0	16,160	1,171	17,331	41.8
2009	17,454	1	N/A	0	16,236	1,217	17,453	39.5
2010	17,347	1	N/A	0	16,052	1,294	17,346	45.9
2011	17,285	24	N/A	0	15,762	1,183	17,261	44.3
2012	17,953	69	N/A	0	16,329	1,225	17,884	44.5
2013	18,610	120	N/A	0	16,893	1,267	18,490	44.4
2014	15,943	115	N/A	0	14,739	1,089	15,828	43.1
2015	16,374	162	N/A	0	15,097	1,115	16,212	43.1
2016	16,904	211	N/A	0	15,546	1,147	16,693	43.2
2017	17,440	262	N/A	0	15,997	1,181	17,178	43.3
2018	17,986	317	N/A	0	16,455	1,214	17,669	43.3
2019	18,526	346	N/A	0	16,931	1,249	18,180	43.4
2020	19,067	376	N/A	0	17,407	1,284	18,691	43.4

Schedule 3.3.2
Forecast of Annual Net Energy for Load (GWh) - *High Case*

Year	Total	Conservation		Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %
		Residential	Commercial					
2011	18,338	24	N/A	0	16,732	1,582	18,314	44.7
2012	19,230	69	N/A	0	17,507	1,654	19,161	44.7
2013	20,122	120	N/A	0	18,286	1,716	20,002	44.3
2014	17,336	115	N/A	0	16,026	1,195	17,221	43.3
2015	17,954	162	N/A	0	16,557	1,235	17,792	43.3
2016	18,693	211	N/A	0	17,199	1,283	18,482	43.4
2017	19,440	262	N/A	0	17,846	1,332	19,178	43.4
2018	20,201	317	N/A	0	18,503	1,381	19,884	43.5
2019	20,961	346	N/A	0	19,183	1,432	20,615	43.5
2020	21,724	376	N/A	0	19,865	1,483	21,348	43.5

Schedule 3.3.3
Forecast of Annual Net Energy for Load (GWh) - *Low Case*

Year	Total	Conservation		Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %
		Residential	Commercial					
2011	16,450	24	N/A	0	14,975	1,451	16,426	44.4
2012	16,947	69	N/A	0	15,385	1,494	16,878	44.4
2013	17,431	120	N/A	0	15,785	1,526	17,311	44.1
2014	14,720	115	N/A	0	13,592	1,013	14,605	43.0
2015	14,992	162	N/A	0	13,802	1,028	14,830	43.0
2016	15,301	211	N/A	0	14,043	1,047	15,090	43.1
2017	15,611	262	N/A	0	14,285	1,064	15,349	43.1
2018	15,929	317	N/A	0	14,529	1,083	15,612	43.2
2019	16,236	346	N/A	0	14,788	1,102	15,890	43.3
2020	16,541	376	N/A	0	15,043	1,122	16,165	43.3

Schedule 4
Previous Year and 2-Year Forecast of Peak Demand and Net Energy for Load by Month

Month	2010 Actual		2011 Forecast		2012 Forecast	
	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh
January	5,047	1,669	4,445	1,466	4,589	1,517
February	3,746	1,350	3,477	1,191	3,584	1,235
March	3,478	1,202	2,819	1,212	2,917	1,253
April	2,444	1,096	2,680	1,184	2,772	1,222
May	3,257	1,518	3,271	1,506	3,382	1,557
June	3,416	1,672	3,519	1,651	3,640	1,708
July	3,548	1,704	3,555	1,748	3,685	1,812
August	3,448	1,689	3,777	1,835	3,910	1,901
September	3,428	1,523	3,403	1,588	3,530	1,647
October	2,921	1,192	3,016	1,362	3,132	1,417
November	2,334	1,075	2,694	1,189	2,804	1,234
December	4,315	1,656	3,152	1,329	3,280	1,381
ANNUAL		17,346		17,261		17,884

2.3 Forecast Assumptions

2.3.1 Economic and Demographic Data

Seminole's economic and demographic data base has four principal sources: (1) population from the "Florida Population Studies" furnished by the BEBR, (2) housing permits, income, and employment data furnished by Moody's Economy.com (3) electricity price data from Seminole's Member cooperatives "Financial and Statistical Reports" (RUS Form 7), and (4) appliance and housing data from the "Residential Appliance Surveys" conducted by Seminole and its Member systems since 1980.

Population is the main explanatory variable in the residential and commercial/industrial consumer models. Historical population data by county is obtained for the 45 counties served by Seminole Member systems. Combining the county forecasts yields a population forecast for each Member. Three sets of population forecasts for each county are provided by the BEBR: low, medium, and high scenarios. Historical population growth trends are analyzed to determine the most appropriate combination of scenarios for each Member system. Low and high population scenarios are also developed for each Member.

Real Per Capita Income (RPCI) is an explanatory variable in the residential and commercial/industrial usage per consumer models. The Consumer Price Index for All Urban Consumers (CPI-U) published by the U.S. Bureau of Labor Statistics is used to convert historical nominal income to real values. Total non-farm employment (EMPL) is also used in the commercial/industrial energy usage model. County forecasts of RPCI and EMPL are taken from Moody's Economy.Com long-term economic forecast.

The real price of electricity is used in the residential and commercial/industrial energy models. The real price is calculated by dividing kWh sales for each consumer class into the

corresponding revenue, and then by deflating the result by the CPI-U. For the forecast, the real price of electricity is assumed to increase in the future based on system-wide historical retail rates.

Appliance saturations and housing data are obtained from Seminole's Residential Appliance Survey. The information from the surveys is combined with the residential consumer forecast to produce weighted appliance stock variables for space-conditioning appliances which are used in the residential energy usage model and the peak demand load factor model.

2.3.2 Weather Data

Seminole obtains hourly weather data from the National Oceanic and Atmospheric Administration (NOAA) for six weather stations located in or around Seminole's Member service area. To better reflect weather conditions in each Member's service territory, different weather stations are assigned to individual Member systems based on geographic proximity.

Monthly heating degree hours (HDH) and cooling degree hours (CDH) are used in the energy usage models, while the peak demand models use HDH and CDH on Seminole's peak days. Seminole uses different temperature cut-off points for air conditioning and space heating demand. In addition, there are different winter cut-off values for Members in the northern versus the southern regions.

2.3.3 Sales and Hourly Load Data

Monthly operating statistics dating back to 1970 have been furnished by the Member systems. Included in this data are statistics by class on number of consumers, kWh sales, and revenue. This data is the basis for consumer and energy usage models. Hourly loads for each Member and the Seminole system, as well as the Members' monthly total energy purchases from Seminole, are collected from 189 delivery points. Such data, taken from January 1979 to the

present, is a basis for hourly load profile forecasts and modeling peak demand.

2.4 Forecast Methodology

Seminole's Integrated Forecasting System consists of the following sub-models:

(1) Residential Consumer Model

(2) Appliance Model

(3) Commercial/Industrial Consumer Model

(4) Other Class Consumers Model

(5) Residential Energy Usage Model

(6) Commercial/Industrial Energy Usage Model

(7) Other Class Energy Usage Model

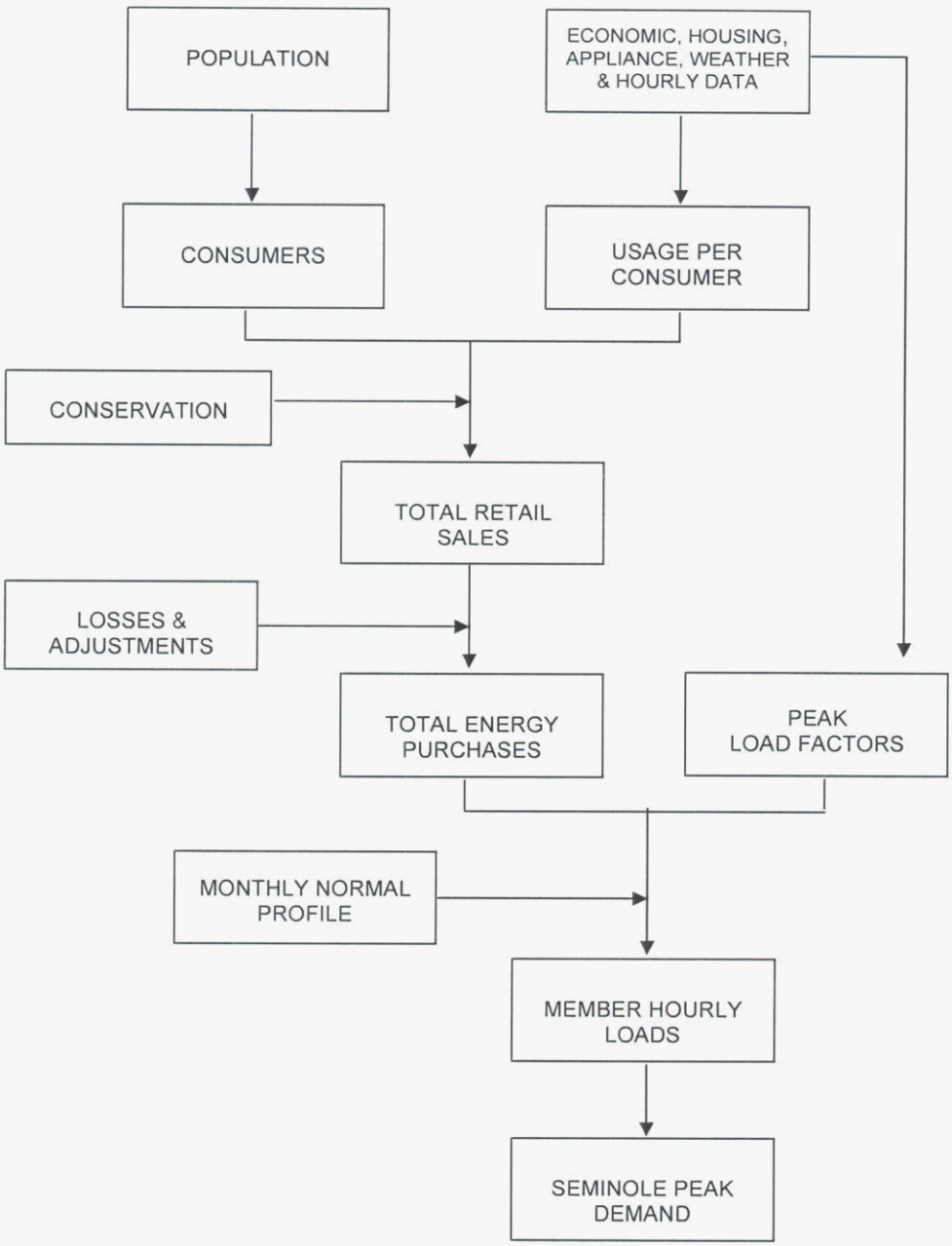
(8) Peak Demand Load Factor Model

(9) Hourly Load Profiles and Load Management

Each model consists of ten sub-models because each Member system is modeled and forecast separately. Individual Member model results are aggregated to derive the Seminole forecast. Figure 1 on the following page shows the Integrated Forecasting System.

Figure 1

Integrated Forecasting System



2.4.1 Consumer Models

For each Member, annual consumers are a function of the Member's service area population, with a first-order auto-regressive correction used when necessary. The amount of new residential housing permits was found to be a significant variable in six of the Members' residential consumer models. Forecasts are benchmarked using 2009 actual data. Seasonally adjusted monthly forecasts are developed from annual data. Expected new large commercial consumers are included.

Other consumer classes generally include irrigation, street and highway lighting, public buildings, and sales for resale, which represent less than 2 percent of Seminole's Members' total energy sales. A few Member systems include some of these classes in the commercial/industrial sector. For the others, annual consumer forecasts are projected using regression analysis against population, or a trending technique.

2.4.2 Appliance Model

The Appliance Model combines the results of the Residential Consumer Model with data from the Residential Appliance Survey to yield forecasts of space-heating and air-conditioning stock variables which are used in the Residential Energy Usage Model and the Peak Demand Load Factor Model. Annual forecasts of the shares for the following home types are produced: single-family, mobiles, and multi-family homes. Each home type is segregated into three age groups. Next, annual forecasts of space-conditioning saturations are created. Finally, the air-conditioning saturations and the space-heating saturations are combined with housing type share information, resulting in weather-sensitive stock variables for heating and cooling.

2.4.3 Energy Usage Model

The Residential Energy Usage Model is a combination of econometric and end-use methods. For each Member system, monthly residential usage per consumer is a function of heating and cooling degree variables weighted with space-conditioning appliances, real price of electricity, and real per capita income. Forecasts are benchmarked against weather-normalized estimated energy in 2009, the last year of the analysis period. The usage per consumer forecast is multiplied by the consumer forecast to produce monthly residential energy sales forecasts.

For each Member system, monthly commercial/industrial usage per consumer is a function of heating and cooling degree variables, real price of electricity, real per capita income, total non-farm employment, and dummy variables to explain abrupt or external changes. A first order auto-regressive correction is used when necessary. Forecasts of energy usage per consumer are benchmarked to 2009 estimates, the last year of the historical period. Energy usage per consumer forecasts are combined with the consumer forecasts to produce monthly commercial/industrial energy sales forecasts. Expected new large commercial loads are included in the forecast.

Historical patterns of energy usage for other classes have been quite stable for most Members and usage is held constant for the forecast period. Trending methodology is used for the Members with growth in this sector.

2.4.4 Total Energy Sales and Energy Purchases

Residential, Commercial/Industrial, and Other class energy sales forecasts are summed to create total retail energy sales forecasts for each Member system. Retail energy sales forecasts are converted to Member energy purchases from Seminole at the delivery point using historical averages of the ratio of calendar month purchases to retail billing cycle sales for each Member.

Therefore, these adjustment factors represent both energy losses and billing cycle sales and calendar month purchases differences. The latter, as a function of weather and billing days, often changes erratically.

2.4.5 Peak Demand Load Factor Model

The Seminole peak demand forecast is derived after the Member monthly peak demands and hourly load forecasts have been created. Member peak demands are derived by combining the forecasts of monthly load factors with energy purchases from Seminole. Monthly peak demand load factors are a function of heating and cooling degree variables, precipitation, air-conditioning and space-heating saturations, and heating and cooling degree hours at the time of the Member's peak demand. Two seasonal equations for each Member system are developed: one for the winter months (November through March) and the other for the summer months (April through October). The forecasted monthly load factors are combined with the energy purchases from Seminole forecasts to produce forecasts of monthly peaks by Member.

2.4.6 Hourly Load Profiles

Hourly demand forecasts are created using an algorithm that contains the following inputs: normal monthly hourly profiles, maximum and minimum monthly demands, and energy. This algorithm produces monthly hourly load forecasts by Member. Seminole peak demands are derived by summing the Members' hourly loads and identifying the monthly coincident maximum demands.

2.4.7 Scenarios

In lieu of economic scenarios, Seminole creates a high and low population growth scenario in addition to the base population forecast. Because Seminole's system is primarily residential load, population is the primary driving force behind Seminole's load growth.

Therefore, high and low population growth scenarios are developed for each Member system based on the BEBR's alternative scenarios.

3. FUEL REQUIREMENTS AND ENERGY SOURCES

Seminole's nuclear, coal, oil, and natural gas requirements for owned and future generating units are shown on Schedule 5 on the next page. Seminole's total system energy sources in GWh and percent for each fuel type are shown on Schedules 6.1 and 6.2, respectively, on the following pages.

Seminole has additional requirements for capacity in the 2018 and beyond time frame. Seminole has reflected capacity additions which are assumed to be from a portfolio of resources such as gas/oil, nuclear, and renewable resources.

Schedule 5
Fuel Requirements For Seminole Generating Resources

Fuel Requirements		Units	Actual 2009	Actual 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Nuclear		Trillion BTU	1	1	1	1	1	1	1	1	1	1	1	1
Coal		1000 Tons	2916	3498	3875	3776	3796	3771	3837	3872	4025	4022	4077	4163
Residual	Total	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
	Steam	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
	CC	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
	CT	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
Distillate	Total	1000 BBL	69	84	60	59	58	74	90	90	89	92	103	102
	Steam	1000 BBL	69	53	43	42	42	42	43	43	44	44	45	46
	CC	1000 BBL	0	15	14	17	16	32	47	47	45	48	50	45
	CT	1000 BBL	0	16	3	0	0	0	0	0	0	0	8	11
Natural Gas	Total	1000 MCF	23377	23094	23835	25753	24858	17663	17116	17961	20653	20775	23383	24132
	Steam	1000 MCF	0	0	0	0	0	0	0	0	0	0	0	0
	CC	1000 MCF	19103	19481	20692	21331	22865	16402	15079	16212	18575	18727	19723	19262
	CT	1000 MCF	4274	3613	3143	4422	1993	1261	2037	1749	2078	2048	3660	4870

NOTE: Above fuel is for existing and future-owned generating resources (excluding purchased power contracts).
Totals may not add due to rounding.

Schedule 6.1 Energy Sources (GWh)														
Energy Sources		Units	Actual 2009	Actual 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Inter-Regional Interchange		GWh	0	0	0	0	0	0	0		0	0	0	0
Nuclear		GWh	188	158	170	275	297	410	417	281	144	131	144	131
Coal		GWh	7552	9142	9608	9553	9575	9658	9952	9746	9777	9782	9939	10161
Residual	Total	GWh	28	43	20	16	12	2	2	1	0	0	0	0
	Steam	GWh	28	43	20	16	12	2	2	1	0	0	0	0
	CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	CT	GWh	0	0	0	0	0	0	0	0	0	0	0	0
Distillate	Total	GWh	301	267	101	89	89	62	70	66	75	75	88	98
	Steam	GWh	32	64	25	24	25	24	25	25	26	26	26	27
	CC	GWh	0	11	5	2	4	0	0	0	1	0	3	1
	CT	GWh	269	192	71	63	60	38	45	41	48	49	59	70
Natural Gas	Total	GWh	8916	6980	6298	6150	6609	3933	3980	4792	5817	6399	6743	7178
	Steam	GWh	866	1173	124	180	220	435	474	200	0	0	0	0
	CC	GWh	7041	4958	5716	5374	6117	3344	3256	4412	5574	6157	6357	6617
	CT	GWh	1009	849	458	596	272	154	250	180	243	242	386	561
NUG		GWh	0	0	0	0	0	0	0	0	0	0	0	0
Renewables		GWh	468	756	1008	1108	1297	1364	1366	1368	916	822	791	783
Other		GWh	0	0	56	693	611	399	425	439	449	460	475	340
Net Energy for Load		GWh	17453	17346	17261	17884	18490	15828	16212	16693	17178	17669	18180	18691

NOTE: Net interchange, unit power purchases and PEF and FPL system purchases are included under source fuel categories.
Totals may not add due to rounding.

Schedule 6.2
Energy Sources (Percent)

Energy Sources		Units	Actual 2009	Actual 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Inter-Regional Interchange		%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Nuclear		%	1.08%	0.91%	0.98%	1.54%	1.61%	2.59%	2.57%	1.68%	0.84%	0.74%	0.79%	0.70%
Coal		%	43.27%	52.70%	55.66%	53.42%	51.78%	61.02%	61.39%	58.38%	56.92%	55.36%	54.67%	54.36%
Residual	Total	%	0.16%	0.25%	0.12%	0.09%	0.06%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
	Steam	%	0.16%	0.25%	0.12%	0.09%	0.06%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
	CC	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CT	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Distillate	Total	%	1.72%	1.54%	0.59%	0.50%	0.48%	0.39%	0.43%	0.40%	0.44%	0.42%	0.48%	0.52%
	Steam	%	0.18%	0.37%	0.14%	0.13%	0.14%	0.15%	0.15%	0.15%	0.15%	0.15%	0.14%	0.14%
	CC	%	0.01%	0.06%	0.03%	0.01%	0.02%	0.00%	0.00%	0.00%	0.01%	0.00%	0.02%	0.01%
	CT	%	1.54%	1.11%	0.41%	0.35%	0.32%	0.24%	0.28%	0.25%	0.28%	0.28%	0.32%	0.37%
Natural Gas	Total	%	51.09%	40.24%	36.49%	34.39%	35.74%	24.85%	24.55%	28.71%	33.86%	36.22%	37.09%	38.40%
	Steam	%	4.97%	6.76%	0.72%	1.01%	1.19%	2.75%	2.92%	1.20%	0.00%	0.00%	0.00%	0.00%
	CC	%	40.34%	28.58%	33.12%	30.05%	33.08%	21.13%	20.08%	26.43%	32.45%	34.85%	34.97%	35.40%
	CT	%	5.78%	4.89%	2.65%	3.33%	1.47%	0.97%	1.54%	1.08%	1.41%	1.37%	2.12%	3.00%
NUG		%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Renewables		%	2.68%	4.36%	5.84%	6.20%	7.02%	8.61%	8.42%	8.19%	5.33%	4.65%	4.35%	4.20%
Other		%	0.00%	0.00%	0.32%	3.87%	3.30%	2.52%	2.62%	2.63%	2.61%	2.60%	2.61%	1.82%
Net Energy for Load		%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

NOTE: Net interchange, unit power purchases and PEF and FPL system purchases are included under source fuel categories.
Totals may not add due to rounding.

4. FORECAST OF FACILITIES REQUIREMENTS

Seminole's load is located primarily within three control areas: PEF, FPL, and SDS. Seminole is obligated to serve all loads in the FPL and SDS areas, and load up to a specified capacity commitment level in the PEF area during the term of the PEF PR contract. Seminole must also supply appropriate reserves for the load it is responsible for serving. Seminole meets its total committed load obligation using a combination of owned generation and purchased capacity resources. Member loads in the PEF control area in excess of the specified PEF capacity commitment level are served through PR purchases from PEF. PEF has the contractual obligation to plan to meet these requirements.

Schedules 7.1, 7.2, and 8 include the addition of approximately 1,500 MW of capacity by 2021. Such capacity is needed to replace expiring purchased power contracts and/or to maintain Seminole's reliability criteria. These needs are specified for planning purposes and represent the most economical mix of resource types for Seminole's needs.

Seminole's capacity expansion plan includes the need for six 180 MW class combustion turbine units which are currently assumed to be installed at Seminole's site in Gilchrist County. The first of these units is scheduled to enter service in 2018 followed by two units in 2019 and three additional units in 2020. In 2020 Seminole also has a need for 454 MW of combined cycle. A final decision as to whether Seminole will construct and own these additional facilities will be based upon future economic studies. These studies will analyze purchased power alternatives acquired through Seminole's competitive bidding process and/or bilateral discussions with power suppliers and will allow Seminole to further optimize the amount, type, and timing of such capacity. The inclusion of these units in Seminole's capacity expansion plan does not represent at this time a commitment for construction by Seminole.

Seminole also has a FERC-filed qualifying facility (QF) program which complies with the requirements of the Public Utility Regulatory Policies Act (PURPA). When competitively bidding for power supplies, Seminole continues to solicit proposals from QF and renewable energy facilities. Seminole also evaluates all unsolicited QF and renewable energy proposals for applicability to the cooperative's needs. As a result of its market interactions, Seminole has signed several purchased power contracts for renewable energy (see Section 1.3.1). These renewable resources are projected to serve approximately 6% of Seminole's total energy requirements in 2011.

Schedule 7.1
Forecast of Capacity, Demand and Scheduled Maintenance at Time of Summer Peak

Year	Total Installed Capacity (MW)	Firm Capacity Import (MW)			Firm Capacity Export (MW)	QFs (MW)	Capacity Available (MW)		System Firm Summer Peak Demand (MW)		Reserve Margin Before Maintenance		Scheduled Maintenance (MW)	Reserve Margin After Maintenance	
		PR and FR	Other Purchases	Total			Total	Less PR and FR	Total	Obligation	MW	% of Pk		MW	% of Pk
2011	2,079	52	2,316	2,368	0	0	4,447	4,395	3,754	3,702	693	18.7%	0	693	18.7%
2012	2,079	153	2,291	2,444	0	0	4,523	4,370	3,888	3,735	635	17.0%	0	635	17.0%
2013	2,085	134	2,386	2,520	0	0	4,605	4,471	4,005	3,871	600	15.5%	0	600	15.5%
2014	2,085	65	1,838	1,903	0	0	3,988	3,923	3,476	3,411	512	15.0%	0	512	15.0%
2015	2,085	67	1,926	1,993	0	0	4,078	4,011	3,555	3,488	523	15.0%	0	523	15.0%
2016	2,085	69	2,042	2,111	0	0	4,196	4,127	3,658	3,589	538	15.0%	0	538	15.0%
2017	2,085	71	2,156	2,227	0	0	4,312	4,241	3,759	3,688	553	15.0%	0	553	15.0%
2018	2,085	73	2,271	2,344	0	0	4,429	4,356	3,861	3,788	568	15.0%	0	568	15.0%
2019	2,559	75	1,917	1,992	0	0	4,551	4,476	3,967	3,892	584	15.0%	0	584	15.0%
2020	2,559	0	2,124	2,124	0	0	4,683	4,683	4,072	4,072	611	15.0%	0	611	15.0%

NOTES:
1. Total installed capacity and the associated reserve margins are based on Seminole's current base case plan and are based on a 15% reserve margin criterion.
2. Firm Capacity Import/Other Purchases include a firm purchase power contract from Hardee Power Partners, through December 31, 2012, for 287 MW of first-call capacity from the Hardee Power Station to back up 1325 MW of Seminole Generating Station and Crystal River Unit 3.
3. Firm Capacity Import/PR and FR includes partial requirements and full requirements purchases.
4. Total Installed Capacity does not include SEPA.
5. Seminole's firm obligation demand does not include PR and FR purchases.
6. Seminole is not responsible for supplying reserves for FR and PR purchases. Percent reserves are calculated at 15% of Seminole's obligation and include any surplus capacity.

See Figure 2 for graphical representation.

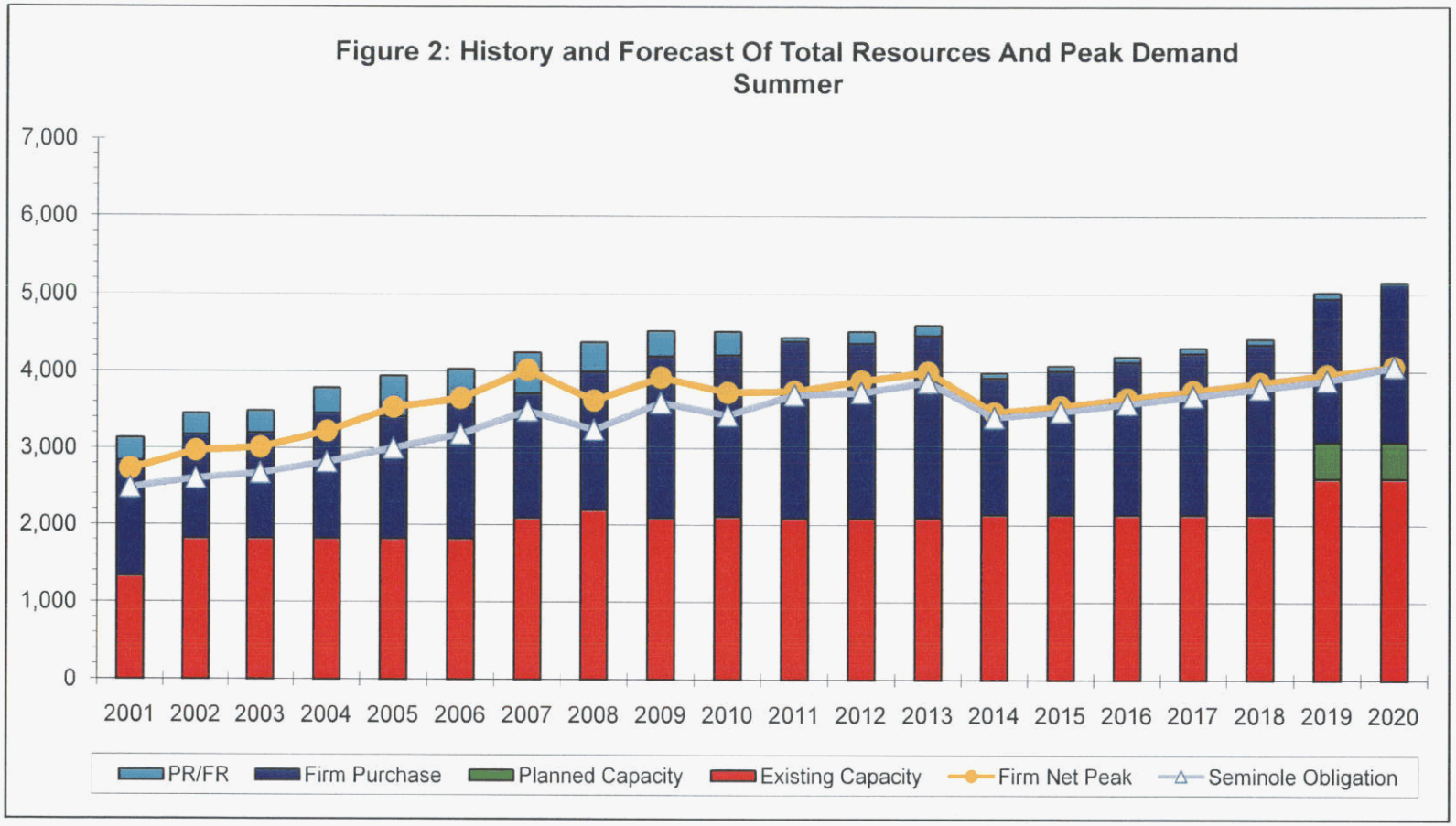


Figure 2: History and Forecast Of Total Resources And Peak Demand
Summer
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020
PR/FR
Firm Purchase
Planned Capacity
Existing Capacity
Firm Net Peak
Seminole Obligation

Schedule 7.2
Forecast of Capacity, Demand and Scheduled Maintenance at Time of Winter Peak

Year	Total Installed Capacity (MW)	Firm Capacity Import (MW)			Firm Capacity Export (MW)	QFs (MW)	Capacity Available (MW)		System Firm Winter Peak Demand (MW)		Reserve Margin Before Maintenance		Scheduled Maintenance (MW)	Reserve Margin After Maintenance	
		PR and FR	Other Purchases	Total			Total	Less PR and FR	Total	Obligation	MW	% of Pk		MW	% of Pk
2011/12	2,167	584	2,556	3,140	0	0	5,307	4,723	4,563	3,979	744	18.7%	0	744	18.7%
2012/13	2,191	596	2,670	3,266	0	0	5,457	4,861	4,729	4,133	728	17.6%	0	728	17.6%
2013/14	2,191	77	3,265	3,342	0	0	5,533	5,456	4,164	4,087	1,369	33.5%	0	1,369	33.5%
2014/15	2,191	78	2,626	2,704	0	0	4,895	4,817	4,267	4,189	628	15.0%	0	628	15.0%
2015/16	2,191	81	2,755	2,836	0	0	5,027	4,946	4,382	4,301	645	15.0%	0	645	15.0%
2016/17	2,191	83	2,893	2,976	0	0	5,167	5,084	4,504	4,421	663	15.0%	0	663	15.0%
2017/18	2,191	85	3,033	3,118	0	0	5,309	5,224	4,628	4,543	681	15.0%	0	681	15.0%
2018/19	2,371	87	3,000	3,087	0	0	5,458	5,371	4,757	4,670	701	15.0%	0	701	15.0%
2019/20	2,731	90	2,786	2,876	0	0	5,607	5,517	4,887	4,797	720	15.0%	0	720	15.0%
2020/21	3,725	0	2,040	2,040	0	0	5,765	5,765	5,013	5,013	752	15.0%	0	752	15.0%

NOTES:

1. Total installed capacity and the associated reserve margins are based on Seminole's current base case plan and are based on a 15% reserve margin criterion.
2. Firm Capacity Import/Other Purchases include a firm purchase power contract from Hardee Power Partners, through December 31, 2012, for 356 MW of first-call capacity from the Hardee Power Station to back up 1339 MW of Seminole Generating Station and Crystal River Unit 3.
3. Firm Capacity Import/PR and FR includes partial requirements and full requirements purchases.
4. Total Installed Capacity does not include SEPA.
5. Seminole's firm obligation demand does not include PR and FR purchases.
6. Seminole is not responsible for supplying reserves for FR and PR purchases. Percent reserves are calculated at 15% of Seminole's obligation and include any surplus capacity.

See Figure 3 for graphical representation.

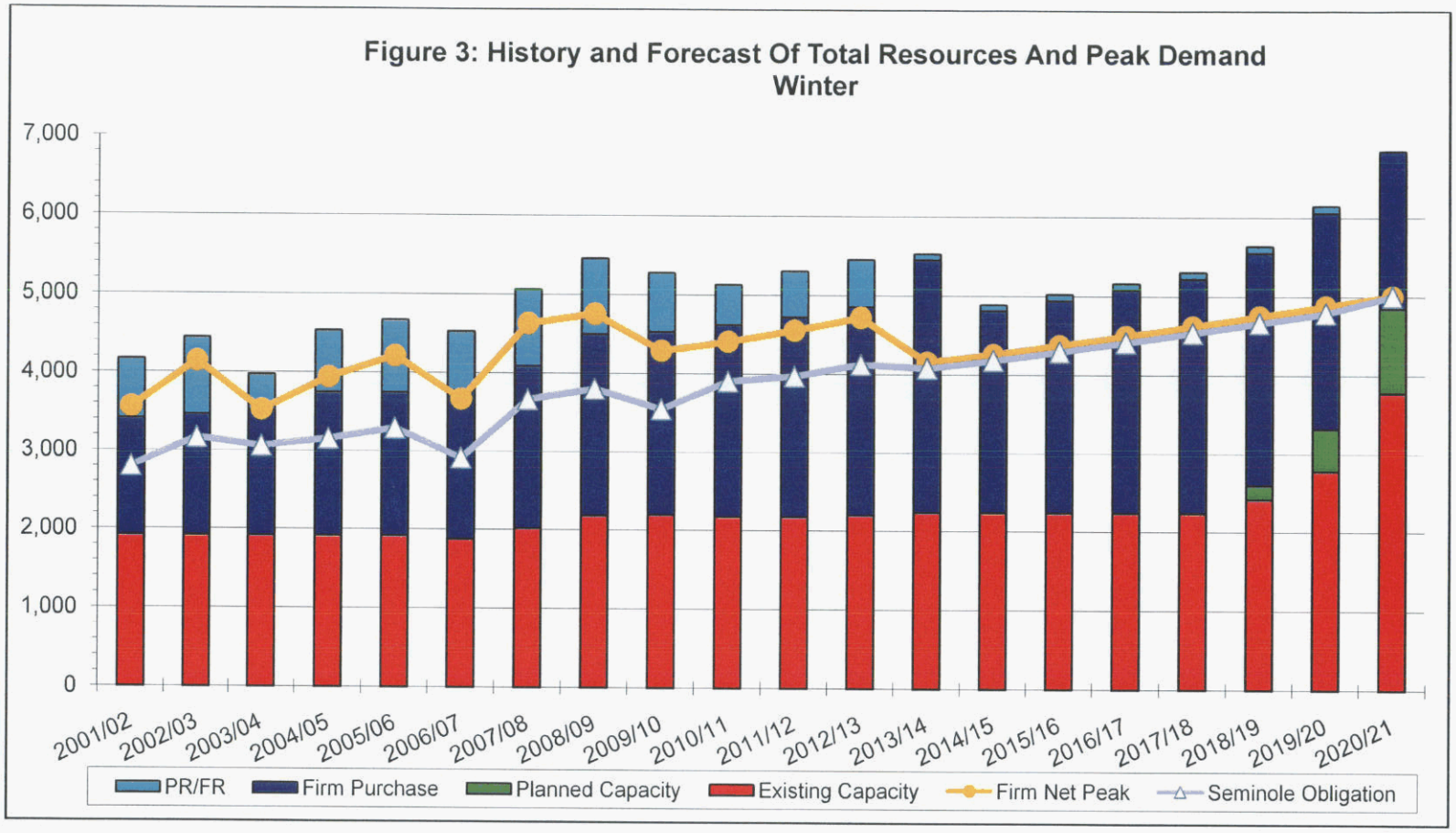


Figure 3: History and Forecast Of Total Resources And Peak Demand
Winter
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2001/02
2002/03
2003/04
2004/05
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18
2018/19
2019/20
2020/21
PR/FR
Firm Purchase
Planned Capacity
Existing Capacity
Firm Net Peak
Seminole Obligation

Schedule 8
Planned and Prospective Generating Facility Additions and Changes

Plant Name	Unit No	Location	Unit Type	Fuel		Transportation		Const. Start Date	Comm. In-Service Date	Expected Retirement Date	Max Nameplate	Summer MW	Winter MW	Status
				Pri	Alt	Pri	Alt							
Crystal River *	3	Citrus	ST	NUC	---	TK	---	(1)	4/2011	Unk		2	2	A
Crystal River *	3	Citrus	ST	NUC	---	TK	---	(1)	1/2013	Unk		2	2	A
Midulla	CT1	Hardee	CT	NG	DFO	PL	TK	(1)	1/2013	Unk		2	11	A
Midulla	CT2	Hardee	CT	NG	DFO	PL	TK	(1)	1/2013	Unk		2	11	A
Unnamed CT	1	Gilchrist	CT	NG	DFO	PL	TK	(2)	12/2018	Unk	180	158	180	P
Unnamed CT	2	Gilchrist	CT	NG	DFO	PL	TK	(2)	5/2019	Unk	180	158	180	P
Unnamed CT	3	Gilchrist	CT	NG	DFO	PL	TK	(2)	5/2019	Unk	180	158	180	P
Unnamed CT	4	Gilchrist	CT	NG	DFO	PL	TK	(2)	12/2020	Unk	180	158	180	P
Unnamed CT	5	Gilchrist	CT	NG	DFO	PL	TK	(2)	12/2020	Unk	180	158	180	P
Unnamed CT	6	Gilchrist	CT	NG	DFO	PL	TK	(2)	12/2020	Unk	180	158	180	P
Unnamed CC	1	Gilchrist	CC	NG		PL		(2)	12/2020	Unk	227	196	227	P
Unnamed CC	2	Gilchrist	CC	NG		PL		(2)	12/2020	Unk	227	196	227	P

Abbreviations: Unk Unknown; A Generating unit capability increased (re-rated or re-licensed); P Planned, but not under construction

NOTES:
(1) Existing resources whose capacity rating is expected to increase.
(2) Future resource which may be existing or new as determined by future Request for Proposal results.
(*) Crystal River 3 does not reflect current extended outage.

5. OTHER PLANNING ASSUMPTIONS AND INFORMATION

5.1 Plan Economics

Power supply alternatives are compared against a base case scenario which is developed using the most recent load forecast, fuel forecast, operational cost assumptions, and financial assumptions. Various power supply options are evaluated to determine the overall effect on the present worth of revenue requirements (PWRR). All other things being equal, the option with the lowest long-term PWRR is normally selected. Sensitivity analyses are done to test how robust the selected generation option is when various parameters change from the base study assumptions (e.g., load forecast, fuel price, and capital costs of new generation).

5.2 Fuel Price Forecast

5.2.1 Coal

Spot and long term market commodity prices for coal (at the mine) and transportation rates have shown increased volatility in recent years. This condition is expected to continue into the future, as supply, transportation and world energy markets affect US coal prices. The underlying value of coal at the mine will continue to rise with increased export of U.S. coal into the world market and federal mine safety legislation affecting the direct mining costs. Additional coal delivered price increases and volatility will come from the cost of railcars, handling service contracts and transportation impacts. As long-term rail transportation contracts come up for renewals, the railroads have placed upward pressure on delivered coal costs to increase revenues. CSX Transportation, Inc. is Seminole's sole coal transport provider and the parties are operating under a confidential multi-year rail transportation contract.

5.2.2 Oil

Due to price volatility in the world energy market for crude oil and refined products, the

price for fuel oils will continue to reflect such volatility. Additional upward pressure to market pricing will result from governmental rules and laws for improved fuel qualities and the use of only ultra-low sulfur oil required by 2013.

5.2.3 Natural Gas

While natural gas prices have declined since reaching new highs in 2008, Seminole's independent price forecaster shows continual modest price pressure over the long term due to expectations for increased non-traditional shale gas production. Increased price volatility will occur during weather related events, such as hurricanes and cold winter weather. New production of domestic natural gas reserves from new domestic shale gas formations is currently expected to meet the rising demand for natural gas for the foreseeable future. Previous expectations for increased imports of liquefied natural gas (LNG) to meet the future requirement for natural gas no longer exist, as LNG terminals are being converted to export facilities to move excess gas into the world market. However, the completion of a LNG terminal which supplies the Florida Market would provide supply reliability and moderate the weather related price volatility. Supply and demand are expected to remain in balance over the long term, but short-term imbalances will continue to have a significant impact on price volatility.

5.2.4 Coal/Gas Price Differential

Seminole's underlying independent price forecaster assumes that a significant spread will continue to exist within the forecast period and beyond between coal and gas. Seminole's base fuel price forecast for this Ten-Year Site Plan does not currently take into account future carbon emission initiatives, such as taxation or emission credits, that will impact the market prices for all fuels. However, Seminole does take into account assumed carbon emission tax impact in its various sensitivity analyses (see section 5.7).

If legislation that penalizes carbon emissions is enacted in future years, Seminole's costs to use all fossil fuels will rise since all fossil fuels emit carbon dioxide when burned. In the event that carbon emissions legislation is passed, the market value and associated price of natural gas in the existing unregulated commodity market may rise to compensate to some degree for the penalty imposed on coal, the competing fuel.

5.3 Modeling of Generation Unit Performance

Existing units are modeled with forced outage rates and heat rates for the near term based on recent historical data. The long term rates are based on a weighting of industry average data and expected or manufacturers' design performance data.

5.4 Financial Assumptions

Expansion plans are evaluated based on Seminole's forecast of market-based loan fund rates.

5.5 Generation Resource Planning Process

Seminole's primary long-range planning goal is to develop the most cost-effective way to meet its Members' load requirements while maintaining high system reliability. Seminole's optimization process for resource selection is based primarily on total revenue requirements. For a not-for-profit cooperative, revenue requirements translate directly into rates to our Member distribution cooperatives. The plan with the lowest revenue requirements is generally selected, assuming that other factors such as reliability impact, initial rate impact, and strategic considerations are neutral. Seminole also recognizes that planning assumptions change over time so planning decisions must be robust and are, therefore, tested over a variety of sensitivities. A flow chart of Seminole's planning process is shown in Figure 4.

The impact of DSM and conservation in Seminole's planning process is included in the load forecast. Given Seminole's PR agreement with PEF which has an initial term through 2013, reduction in Seminole's peak demand in the PEF area does not usually affect the operation of Seminole's generating resources to serve the Member load in the PEF area, but instead reduces the amount of PR purchases required from PEF. However, in Seminole's direct serve area and the FPL area, DSM reduces peak demand and Seminole resource needs to meet the demands in those areas. After the term of the PEF PR agreement, Seminole's member demands in the PEF area will also be directly impacted by Member DSM.

Seminole considers cost effective energy efficiency and conservation resources as a priority resource option in meeting future expansion needs. Seminole has committed to work jointly with its Members to assess the feasibility and effectiveness of demand-side resources.

5.6 Reliability Criteria

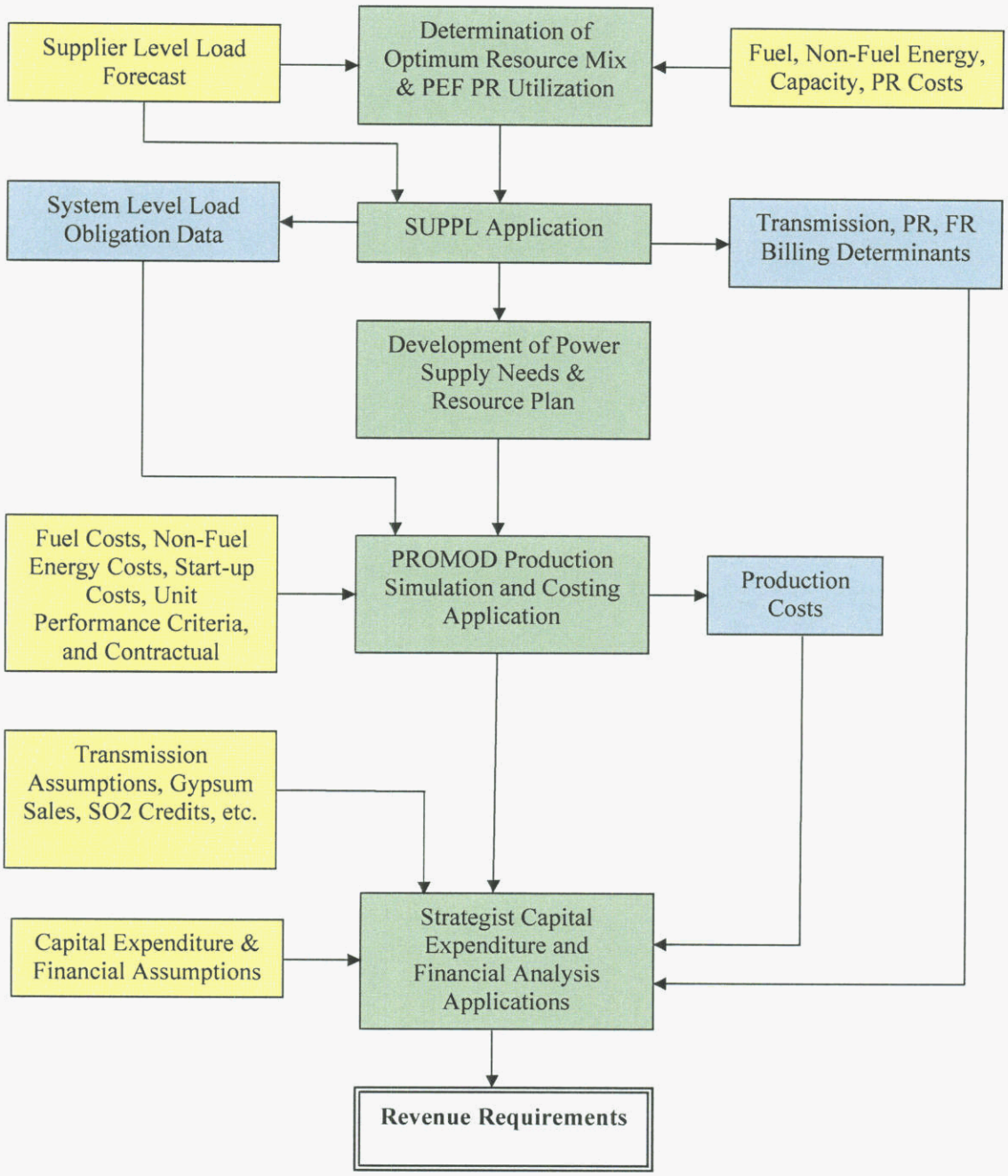
The total amount of generating capacity and reserves required by Seminole is affected by Seminole's load forecast and its reliability criteria. Reserves serve two primary purposes: to provide replacement power during generator outages and to account for load forecast uncertainty. Seminole has two principal reliability criteria: (1) a minimum reserve margin of 15% during the peak season, and (2) a 1% expected unserved energy (EUE) limitation. Both the minimum reserve margin and EUE criteria serve to ensure that Seminole has adequate generating capacity to provide reliable service to its Members and to limit Seminole's reliance on interconnected neighboring systems for emergency purchases.

In addition to these two primary reserve criteria, Seminole also adheres to an additional criterion to ensure that it maintains winter reserve capacity to cover weather sensitivity during the winter season. This additional criterion was implemented due to the amount of Seminole's

weather-sensitive load in conjunction with the restrictions on the use of Hardee Power Station capacity through December 2012.

Figure 4

Resource Planning Process



5.7 Strategic Concerns

In the current rapidly changing utility industry, strategic and risk related issues are becoming increasingly important and will continue to play a companion role to economics in Seminole's power supply planning decision process.

Seminole values resource flexibility as a hedge against a variety of risks, as evidenced by a generation portfolio which includes as much purchased capacity as owned capacity. Owned and long-term purchased resources contribute stability to a power supply plan while shorter term purchase arrangements add flexibility. For purchased power agreements, system-type capacity versus unit-specific power is also a consideration. System capacity, which is sourced from many generating units, is more reliable, and agreements can be structured to reduce Seminole's reserve requirements. Flexibility in fuel supply is another significant strategic concern. A portfolio that contains diverse fuel requirements is better protected against extreme price fluctuations, supply interruptions, and transportation instability. Seminole believes that the existing and future diversity in its power supply plan has significant strategic value, leaving Seminole in a good position to respond to market and industry changes.

The ongoing debate over the need to regulate carbon emissions and/or whether to establish renewable resource mandates has introduced new risks for electric utilities – among them is the risk that the most cost-effective fuels and associated technologies under current environmental regulations could change via new federal or state emissions rules. Using the best available information, Seminole is addressing these risks through its evaluation of a range of scenarios to assess what constitutes the best generation plan to ensure adequate and competitively priced electric service to its Members.

5.8 Procurement of Supply-Side Resources

In making decisions on future procurement of power supply, Seminole compares its self-build alternatives with purchased power alternatives. Seminole solicits purchased power proposals from utilities, independent power producers, QFs, renewable energy providers, and power marketers. Seminole's evaluation among its options includes an assessment of life cycle cost, reliability, strategic and risk elements.

5.9 Transmission Plans

The following table lists all 69 kV and above projects for new, upgraded, or reconfigured transmission facilities planned by Seminole over the ten-year planning horizon that are required for new generation facilities.

Status	Line Terminals		Circuits	Line Miles	Commercial In-Service Date	Nominal Voltage (kV)	Capacity (MVA)
	From	To					
New	Gilchrist Plant	Gilchrist East Switching Station	2	10	2017	230	1139

5.9.1 Transmission Facilities for Gilchrist Generating Station

The following transmission system additions would tentatively be required for the addition of the Gilchrist units:[2]

- Construction of a new Gilchrist East switching station along the existing PEF Ft. White – Newberry 230 kV transmission line.
- Construction of two new 230 kV circuits (rated at 3000 Amps), ten miles in length a piece, to connect the Gilchrist generating station to the new Gilchrist East switching station.

2 Note, at the time of this filing Seminole had not submitted a network service request to designate these new units as designated network resources to serve Member load in the PEF area.

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Unit 1
2	Capacity a. Summer (MW): b. Winter (MW):	 158 180
3	Technology Type:	GE 7FA Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2016 December 2018
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 0.5 5.0 95 85% 11,000 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2017) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 868 753 115 Included in values above 4.27 1.71 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Unit 2-3
2	Capacity a. Summer (MW): b. Winter (MW):	 158 (each) 180 (each)
3	Technology Type:	GE 7FA Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 May 2017 May 2019
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 0.5 5.0 95 85% 11,000 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2018) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 882 765 117 Included in values above 4.34 1.73 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Unit 4
2	Capacity a. Summer (MW): b. Winter (MW):	 158 180
3	Technology Type:	GE 7FA Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2018 December 2020
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 0.5 5.0 95 85% 11,000 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2019) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 897 778 119 Included in values above 4.41 1.76 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Unit 5
2	Capacity a. Summer (MW): b. Winter (MW):	 158 180
3	Technology Type:	GE 7FA Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2018 December 2020
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 0.5 5.0 95 85% 11,000 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2019) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 897 778 119 Included in values above 4.41 1.76 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Unit 6
2	Capacity a. Summer (MW): b. Winter (MW):	 158 180
3	Technology Type:	GE 7FA Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2018 December 2020
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 0.5 5.0 95 85% 11,000 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2019) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 897 778 119 Included in values above 4.41 1.76 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station CC Unit 1
2	Capacity a. Summer (MW): b. Winter (MW):	 196 227
3	Technology Type:	GE 7FA Combined Cycle
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2017 December 2020
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	SCR, DLN Burner, CO Catalyst
7	Cooling Method:	Wet Cooling Tower with Forced Air Draft Fans
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 8.26 1.61 90.13 55% 6,980 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2019) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 1,189 982 207 Included in values above 8.83 1.62 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station CC Unit 2
2	Capacity a. Summer (MW): b. Winter (MW):	 196 227
3	Technology Type:	GE 7FA Combined Cycle
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2017 December 2020
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas #2 Oil
6	Air Pollution Control Strategy	SCR, DLN Burners, CO Catalyst
7	Cooling Method:	Wet Cooling Tower with Forced Air Draft Fans
8	Total Site Area:	Approximately 530 acres
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 8.26 1.61 90.13 55% 6,980 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2019) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 1,189 982 207 Included in values above 8.83 1.62 N/A

Schedule 10 Status Report and Specifications of Proposed Associated Transmission Lines		
1	Point of Origin and Termination:	Originating at SECI's Gilchrist plant site; terminating at SECI's Gilchrist East Switching Station
2	Number of Lines:	Two
3	Right-of-Way	To be determined
4	Line Length:	10 miles each
5	Voltage:	230 kV
6	Anticipated Construction Timing:	May 2017
7	Anticipated Capital Investment:	$24 million (total)
8	Substation:	The Gilchrist Interconnection will require a new Seminole Gilchrist East switching station on the PEF Ft. White - Newberry 230 kV transmission line
9	Participation with Other Utilities:	N/A

6. ENVIRONMENTAL AND LAND USE INFORMATION

6.1 Seminole Generating Station (SGS) - Putnam County, Florida

SGS is located in a rural unincorporated area of Putnam County approximately 5 miles north of the City of Palatka. The site is 1,978 acres bordered by U.S. 17 on the west, and is primarily undeveloped land on the other sides. The site was certified in 1979 (PA78-10) for two 650 MW class coal fired electric generating units, SGS Units 1 & 2.

Units 1 and 2 went into commercial operation in February and December of 1984, respectively. The area around the SGS site includes mowed and maintained grass fields and upland pine flatwoods. Areas further away from the existing units include live oak hammocks, wetland conifer forest, wetland hardwood/conifer forest, and freshwater marsh. A small land parcel located on the St. Johns River is the site for the water intake structure, wastewater discharge structure, and pumping station to supply the facility with cooling and service water.

The primary water uses for SGS Units 1 and 2 will are for cooling water, wet flue gas desulfurization makeup, steam cycle makeup, and process service water. Cooling and service water is pumped from the St. Johns River and groundwater supplied from on-site wells is for steam cycle makeup and potable use. The site is not located in an area designated as a Priority Water Resource Caution Area by the St. Johns River Water Management District.

State-listed species that are likely to occur on the site include the bald eagle, the indigo snake, and the gopher tortoise. No known listed plants occur on the site. The site has not been listed as a natural resource of regional significance by the regional planning council.

The local government future land use for the area where the existing units are located is designated as industrial use.

Water conservation measures that are incorporated into the operation of SGS include the collection, treatment and recycling of plant process wastewater streams. This wastewater reuse minimizes groundwater and service water uses. A portion of recirculated condenser cooling water (cooling tower blowdown) is withdrawn from the closed cycle cooling tower and discharged to the St. Johns River. Site stormwater is reused to the maximum extent possible and any not reused is treated in wet detention ponds and released to onsite wetlands.

The primary fuel for SGS is bituminous coal. No. 2 (distillate) fuel oil is used for startups and flame stabilization. Coal is delivered to the site by unit trains and fuel oil is delivered by truck. Coal for SGS is stored at the site. Coal pile stormwater is collected and treated. The plant maintains sufficient secondary containment for all storage tanks.

SGS is designed so that solid waste from the Flue Gas Desulfurization (FGD) system will be treated to produce wallboard grade synthetic gypsum and sold for use in producing wallboard. Most bottom ash is currently sold to recyclers with flyash currently being disposed of in the onsite lined landfill.

SGS Units 1 and 2 recently completed a major air pollution control upgrade project costing approximately $282 million. These upgrades included low NOx burners, overfired air ports and selective catalytic reduction (SCR) systems for NOx control, FGD improvements to increase SO2 removal efficiency from 90% to 95%, and an alkali(lime) injection system for sulfuric acid control. The existing Electrostatic Precipitator (ESP) is fully operational and removes 99.7% of the flue gas particulate matter. The combination of these technologies removes approximately 90% of the mercury contained in the flue gas.

Noise generated during operation of SGS does not result in sound levels in excess of the Putnam County Noise Control Ordinance.

6.2 Midulla Generating Station (MGS) – Hardee County, Florida

MGS is located in Hardee and Polk Counties about nine miles northwest of Wauchula, 16 miles south-southwest of Bartow, and 40 miles east of Tampa Bay. The site is bordered by County Road 663 on the east, CF Industries on the south, and Mosaic, Inc. on the north and west. Payne Creek flows along the sites south and southwestern borders. The site was originally strip-mined for phosphate and was reclaimed as pine flatwoods, improved pasture, and a cooling reservoir with a marsh littoral zone. A more detailed description of environmental and land use is available in the site certification application PA-89-25SA.

6.3 Gilchrist Generating Station Site – Gilchrist County, Florida

The Gilchrist Generating Station site is approximately 530 acres in size. The site is located in the central portion of Gilchrist County, approximately 8 miles north of the City of Trenton and is a suitable site for advanced natural gas facilities, peaking units, and renewable energy resources. Much of the site has been used for silviculture (pine plantation) and consists of large tracts of planted longleaf and slash pine communities. Few natural upland communities remain. Most of these large tracts that have been recently harvested, leaving xeric oak and pine remnants. A few wetland communities remain on the east side of the site with relatively minor disturbances due to adjacent silvicultural activities.

The initial site evaluation included wetland occurrence information documented on National Wetland Inventory (NWI) map(s) from the U.S. Fish and Wildlife Service (USFWS), soils maps and information from the National Resource Conservation Service (NRCS), records of any listed plants or animals known from Gilchrist County that are available from online data and records maintained by the Florida Natural Areas Inventory (FNAI) and the Atlas of Florida

Vascular Plants maintained by the University of South Florida Herbarium, lists of federally listed plants and animals maintained by USFWS, and records of eagle nest locations and wading bird rookeries that might occur within the Site available on the Florida Fish and Wildlife Conservation Commission (FWC) Web site. The following discussion summarizes the results of the ecological survey.

6.3.1 Vegetation/Land Use

There are eight vegetation or land use types on the Site. These were classified using the Florida Land Use Cover and Forms Classification system (FLUCFCS) published by the Florida Department of Transportation in 1999. The following are brief descriptions of each of the vegetation/land use types identified. For convenience, the descriptions are broadly classified as uplands and wetlands.

6.3.2 Upland Vegetation

Coniferous Plantations (FLUCFCS 441) - Approximately 337.5-acres or 63.7 percent of the Site are classified as upland pine plantation. These areas are periodically harvested on a 20- to 30-year cycle. Planted pine stands ranged in age from mature stands on the eastern portion of the Site, 3- to 4-year-old stands in the southern portion to recently cleared and replanted lands on the far east side, and 8- to 10-year-old pine near the focus area in the western portion of the Site. Typical species are longleaf pine and some slash pine in the canopy, scattered saw palmetto, blackberry, gallberry, Chapman's oak, myrtle oak, and shiny blueberry in the shrub layer and wiregrass, earleaf greenbrier, fennel, broomsedges, and yankeeweed in the understory.

Longleaf Pine – Xeric Oak (FLUCFCS 412) - Within the Site boundary, there are approximately 131.5 acres, or 24.8 percent, that are classified as Longleaf Pine – Xeric Oak. This community predominantly exists in the north-central portion of the Site on well-drained sandhill.

These areas have been used for pine cultivation in the past; remnant scrub oaks and a few remnant pines have resulted in a community that is similar to a relatively undisturbed sandhill community. The remaining vegetative community after logging is mostly intact and diverse in some areas of the Site. The canopy consists of longleaf and slash pines with xeric oaks including sand live oak and turkey oak, Myrtle oak, saw palmetto staggerbush, winged sumac, pawpaw, sand blackberry, fetterbush, and less commonly Chapman's oak and Florida rosemary occur in the shrub layer. Common species in the herb stratum include yankeeweed, wiregrass, little bluestem, reindeer moss, prickly-pear cactus, gopher apple, goldenasters, witchgrasses, bracken fern, blackroot, chaffhead, blazing stars, and whitetassels.

Xeric Oak (FLUCFCS 421) - Approximately 40 acres or 7.6 percent of the Site is classified as xeric oak. This community consists predominantly of clusters of turkey oak and/or sand live oak. This community is similar to the Longleaf Pine – Xeric oak community except pine trees are absent from the community and the oak canopy is dense. Shrub and herb species are similar to those occurring in the Longleaf Pine – Xeric oak community.

Roads – Unpaved Logging Roads (FLUCFCS 814) - This designation is used for logging roads found throughout the site that are clearly visible in aerial photography. All these roads are unpaved, and one of the roads used for access is an abandoned railway line. They are unvegetated and periodically maintained and passable. Roads cover approximately 10.7 acres or 2 percent of the Site area.

6.3.3 Wetland Vegetation

All wetlands and/or surface waters in Florida are regulated by the Florida Department of Environmental Protection (FDEP), and Waters of the United States (streams, rivers, etc., and wetlands connected or exhibiting a significant nexus thereto) are regulated by the U.S. Army

Corps of Engineers (USACE). Any disturbance to any wetland on the Site will require a permit from FDEP; disturbance to wetlands connected to Waters of the United States will also require a permit or approval from USACE for any proposed impacts. Impacts usually require mitigation of some sort.

Approximately 10.1 acres of the Site (1.9 percent) consist of various categories of vegetation types classified as wetlands. When the property was surveyed, many of the wetland communities were dry, likely as a result of the recent significant drought in Florida. The Site predominantly consists of well-drained soils supporting no wetlands, except in the far eastern portion of the Site where soil and geological differences support a higher frequency of wetlands. No wetlands are found near the focus area in the northwestern portion of the Site. The following is a classification and brief description of each wetland type on the Site.

Cypress (FLUCFCS 621) - Within the Site boundary there was one 2.6-acre cypress wetland. Besides pond cypress, the canopy consists of red maple, sweet bay, and tupelo with a dense shrub layer of titi, dahoon holly, highbush blueberry, and fetterbush and a minimal understory due to shading. Scattered individuals of maidencane, Virginia chain fern, laurel greenbrier, and yellow-eyed grasses comprise the herb stratum. Although, the wetland had been logged in the past and the area surrounding the wetland had recently been clear-cut, the quality of this particular wetland was high. Minimal disturbance was evident, cypress recruitment as evidenced by the presence of several age classes was observed, and there were lots of titi seedlings. The wetland was dry when observed, and no indicators of ponding were evident.

Wet Prairie (FLUCFCS 643) - There were four wetlands comprising 6.7 acres that are classified as wet prairies. These marshes tended to be low diversity and were usually dominated by maidencane and redroot and fringed by a few red maple, buttonbush, and titi. Due to the dry

conditions, many of these wetlands were becoming dominated by yankeeweed (*Eupatorium compositifolium)* in all but the center of the wetland. Few hydrologic indicators were observed in these dessicated wetlands, and many of the soils consisted of a thin veneer of dried peat over sandy soils. These wetlands were all impacted by minor hydrologic alterations due to a variety of factors including spoil mounds on the perimeter and furrowing associated with pine plantation bedding, which disrupts inflow from surrounding uplands. The two wet prairies that are adjacent to or within clear-cut stands were of the lowest quality with regard to hydrology, vegetation, and water resources. Only one wet prairie was of relatively good quality.

Freshwater Marshes with Shrubs, Brush, and Vines (FLUCFCS 6417) - One wetland comprising 0.8 acre is classified as a freshwater shrub marsh. This small, isolated wetland is dominated by a thick shrub layer of predominantly titi, with red maples, dahoon holly, swamp bay, and gallberry also present. The quality is low.

6.3.4 Soils

There are seven soil types on the Site according to the 2006 Soil Survey of Gilchrist County published by the U.S. Department of Agriculture (USDA)-NRCS. These include the excessively drained Entisols, Penney, and Kershaw Fine Sand; the moderately well-drained Entisol, Ortega Fine Sand; the somewhat poorly drained Spodosol, Hurricane Fine Sand; and the poorly drained Lynnhaven and Allenton mucky fine sands, depressional (a hydric soil type). Most of the soils, even within pine plantations, have not been thoroughly disturbed by bedding or other large-scale land moving activities.

6.3.5 Wildlife

Species assemblages were determined from the site visit in November and using information on typical species found in these habitats from literature. Pedestrian and vehicular

surveys were conducted over the entire Site. A more thorough wildlife analysis was conducted in the focus area in the western portion of the Site, mostly to ascertain the density of gopher tortoises. All species or signs observed (such as tracks, scats, nests, burrows, etc.) were recorded and are discussed in the following sections.

Due in large part to the dry conditions of the Site, there were few wildlife sitings or signs. Wildlife that were observed or signs thereof include the white-tailed deer, red-shouldered hawk, American kestrel, fence lizard, gopher tortoise, turkey vulture, black vulture, ground dove, and wild turkey.

6.3.6 Listed Species

A list of all rare, threatened, endangered or commercially exploited plants known to occur in Gilchrist County was compiled from records available online on the Web sites of FNAI (www.fnai.org) and the *Atlas of Florida Vascular Plants* developed by the Institute of Systematic Botany at the University of South Florida (www.plantatlas.usf.edu). The plants included as threatened or endangered for *Gilchrist County in the Atlas of Florida Vascular Plants* are derived from the Regulated Plant Index contained within Chapter 5B-40, Florida Administrative Code (F.A.C.), amended February 17, 2003, and administered by the Florida Department of Agriculture and Consumer Affairs Division of Plant Industry. Information on listed wildlife species that could occur in Gilchrist County in habitats that occur on the Site is available online from FNAI and the FWC. Remnant sandhill and xeric oak communities are found on the Site. This natural community has a state listing of S3, indicating that it is rare or uncommon in the state. Due to the presence of remnant xeric habitats, the Site provides habitat that has a moderate to high potential for the occurrence of listed species, particularly animals adapted to sandhill communities.

6.3.7 Plants

Based on available records from FNAI, no federally listed plants are known in Gilchrist County. Several state-listed endangered and threatened plants are known in Gilchrist County. The only state-listed plants that have the potential to occur onsite are the state-endangered incised agrimony and sandhill spiny pod. These plants are distinctive in their morphology and were not seen during the field survey. Therefore, the potential for their occurrence on the Site is considered low.

6.3.8 Wildlife

Listed wildlife species are those formally classified as endangered, threatened, or of special concern by FWC or as endangered or threatened by USFWS. One listed species, the gopher tortoise, was observed onsite and found within the focus area. Gopher tortoise burrows provide suitable habitat for many commensal animals, many of which are listed species including the Florida mouse, eastern indigo snake, gopher frog, short-tailed snake, and the Florida pine snake. In addition, a kestrel was observed near the focus area. Due to the time of year, it is unknown if the bird was the resident kestrel that is a state-listed species.

This initial survey indicates that gopher tortoise burrows are present throughout the Site and in moderate to high densities in portions of the Site. The focus area had a sufficiently high population of gopher tortoise burrows to indicate that a full survey would be necessary before construction activities. Due to current management guidelines for gopher tortoises, the impacts would likely require relocation onsite as a preference of FWC. There is abundant habitat on the Site for relocation.

Other animal species recorded for Gilchrist County that have the potential to occur in the

Site vicinity, according to FNAI, include gopher frog (*Rana capito*), eastern indigo snake (*Drymarchon couperi*), Florida pine snake (*Pituophis melanoleucus mugitus*), Florida mouse (*Podomys floridamus*), short-tailed snake (*Stilosoma extenuatum*), Florida burrowing owl (*Athene cunicularia floridana*), Florida mouse (*Podomys floridamus*), and Sherman's fox squirrel (*Sciurus niger shermani*).

While only the kestrel and gopher tortoise were observed on the Site, Figure 5 discusses the likelihood of occurrence for other listed animal species on the Site. It should be noted that while a kestrel was observed at this time of the year, it is possible it is the migratory subspecies and not listed. However, the habitat preference of the listed resident subspecies is identical, so it could be present onsite.

In summary, there appear to be no fatal flaws to the development of the Site from an ecological perspective. Gopher tortoises were observed in moderate to high densities in every upland habitat found on the Site, including the focus area. Any activities planned that could impact their habitat will require thorough gopher tortoise surveys and tortoise relocation. Since wetlands onsite can easily be avoided by careful planning and layout of facilities, onsite wetland impacts are not expected to be an issue.

Figure 5. Potential for Occurrence for Listed Wildlife Species on the SECI Gilchrist Site

Common Name	Scientific Name	Status		Preferred Habitat	Likelihood of Occurrence
		FWC	USFWS		
Amphibians					
Gopher frog	*Rana capito*	SSC	None	Longleaf pine-turkey oak communities, usually in gopher tortoise burrows, near wetlands for breeding	Moderate—Habitats are available onsite; minimal presence of wetlands near suitable habitat
Reptiles					
Eastern indigo snake	*Drymarchon corais couperi*	T	T	Wide range of habitats in Florida, usually found near gopher tortoise burrows	High—Presence of gopher tortoise burrows
Gopher tortoise	*Gopherus polyphemus*	T	None	Xeric habitats with sandy soils	Present—Observed
Florida pine snake	*Pituophis melanoleucus mugitus*	SSC	None	Xeric habitats, usually sandhill communities, also found in association with gopher tortoises	High—Sandhill and xeric habitats found and gopher tortoise burrows; found in Gilchrist County
Short-tailed snake	*Stilosoma extenuatum*	T	None	Dry upland habitats, principally sandhill, xeric hammock, and sand pine scrub	High—Suitable habitats present

Figure 5. Potential for Occurrence for Listed Wildlife Species on the SECI Gilchrist Site (Continued, Page 2 of 3)

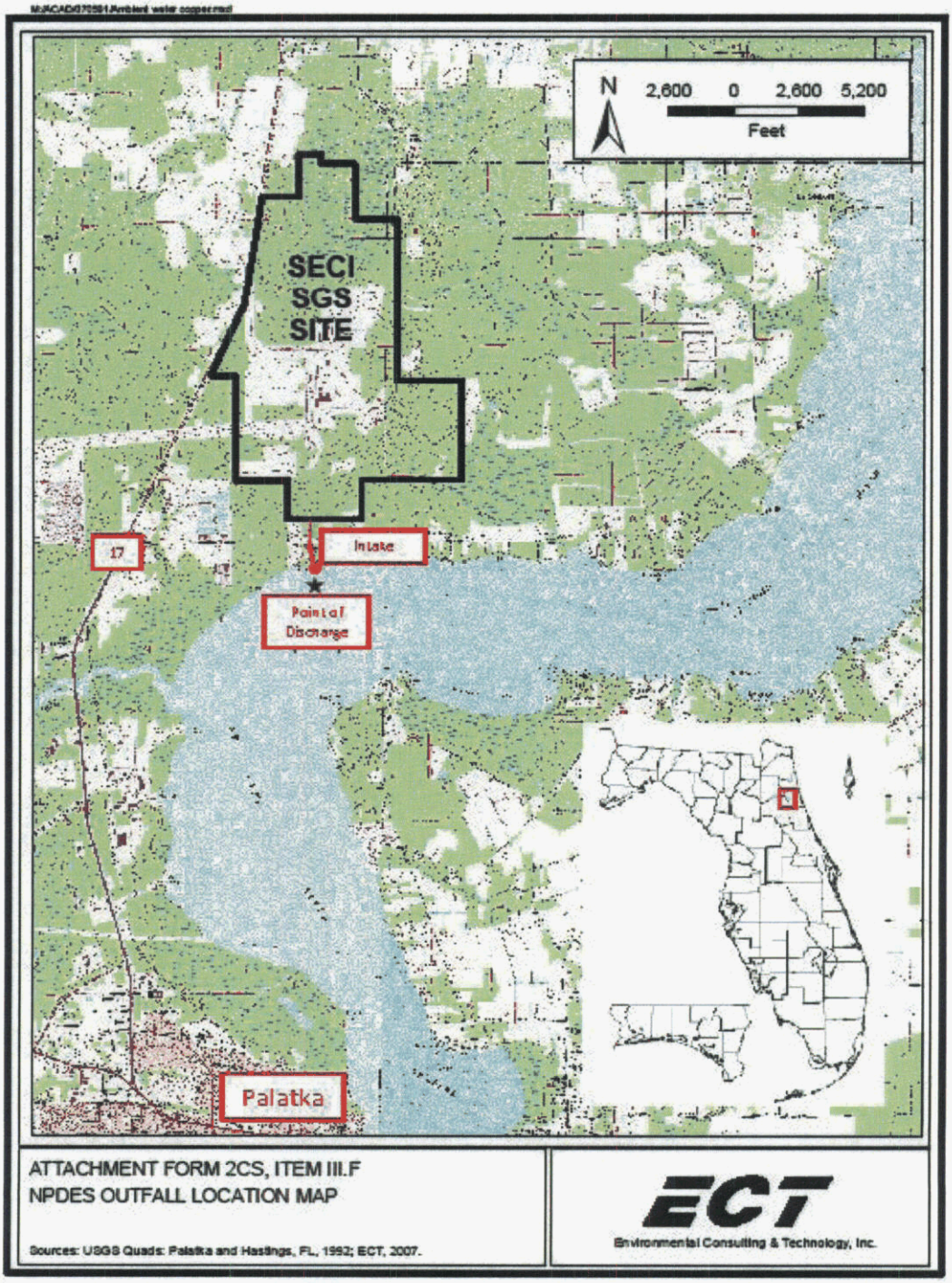
Common Name	Scientific Name	Status		Preferred Habitat	Likelihood of Occurrence
		FWC	USFWS		
Birds					
Limpkin	*Aramus guarauna*	SSC	None	Freshwater marshes, swamps, springs and spring runs. Also lake margins in peninsular Florida	Low—Minimal presence of wetland habitat
Florida burrowing owl	*Athene cunicularia floridana*	SSC	None	High, sparsely vegetated, sandy ground; dry prairies and sandhill	High—Suitable habitat and presence in county
Little blue heron	*Egretta caerulea*	SSC	None	Forested wetlands for nesting; shallow wetlands for foraging	Low—Minimal presence of wetland habitat
Snowy egret	*Egretta thula*	SSC	None	Many kinds of seasonal and permanently inundated wetlands	Low—Minimal presence of wetland habitat
Tricolored heron	*Egretta tricolor*	SSC	None	Many kinds of seasonal and permanently inundated wetlands	Low—Minimal presence of wetland habitat
White ibis	*Eudocimus albus*	SSC	None	Forested wetlands, wet prairies and swales	Low—Minimal presence of wetland habitat
Southeastern American kestrel	*Falco sparverius paulus*	T	None	Dry open pine habitats, utilize cavities excavated by woodpeckers	High—Possibly observed on property; sable habitat present
Florida sandhill crane	*Grus Canadensis pratensis*	T	None	Wet prairies, emergent wetlands	Low—Minimal presence of wetland habitat

Figure 5. Potential for Occurrence for Listed Wildlife Species on the SECI Gilchrist Site (Continued, Page 3 of 3)

Common Name	Scientific Name	Status FWC	Status USFWS	Preferred Habitat	Likelihood of Occurrence
Bald eagle	*Haliaeetus leucocephalus*	***	***	Tall trees (usually pines) near open water for foraging	Low—No significant open water areas for foraging
Wood stork	*Mycteria americana*	E	E	Nesting habitat is forested wetlands with standing water, foraging habitat is shallow wetlands, ditches	Low—Minimal presence of wetland habitat
Mammals					
Florida mouse	*Podomys floridamus*	SSC	None	Prefers fire-maintained xeric habitats and is a commensal with gopher tortoises	High—Gopher tortoise burrows found. Suitable habitat
Sherman's fox squirrel	*Sciurus niger shermani*	SSC	None	Mature flatwoods, sandhill communities	High—Sandhill community habitat present
Florida black bear	*Ursus americanus floridanus*	T	None	Flatwoods with hardwood swamps, usually prefers thick habitats	Low—Minimal amount of thick habitat or swamps. Not found in county

***While the bald eagle has been both state and federally delisted, it is still governed by the state bald eagle rule and the federal Bald and Golden Eagle Protection Act (see http://myfwc.com/docs/WildlifeHabitats/Eagle_Plan_April_2008.pdf#page=35)

Sources: FWC, 2008,2010
ECT, 2007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ATTACHMENT FORM 2CS, ITEM III.F
NPDES OUTFALL LOCATION MAP
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ECT
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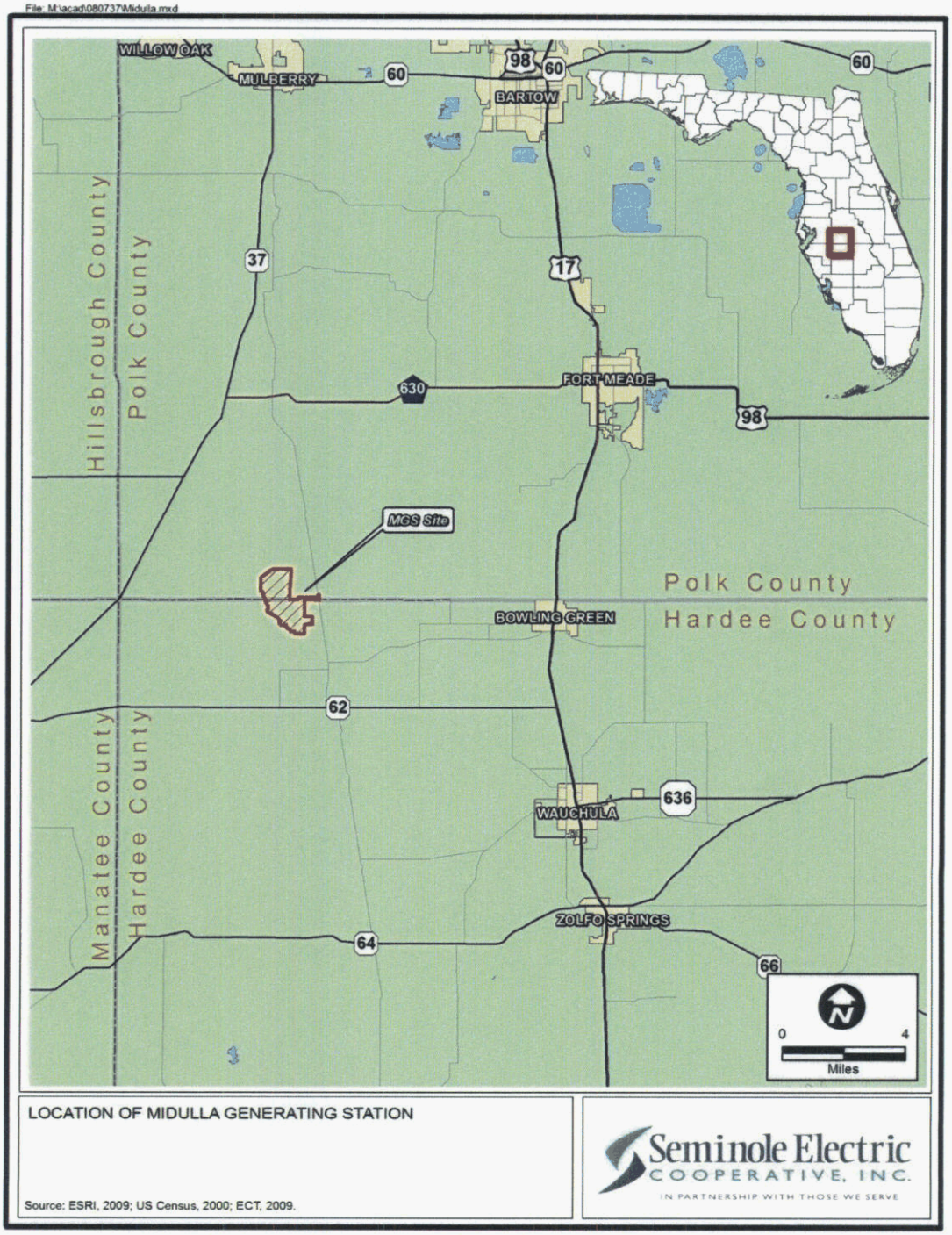
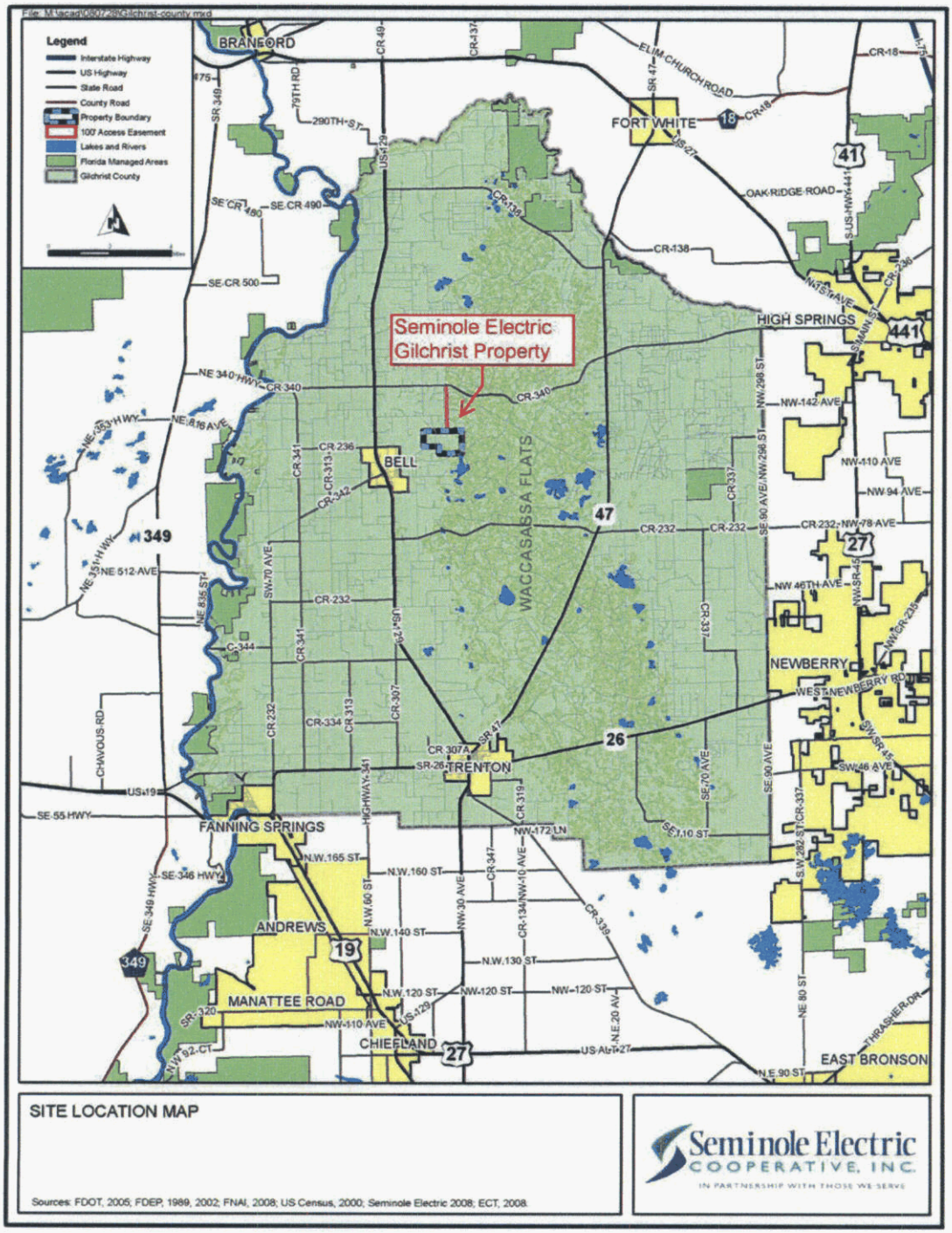


LOCATION OF MIDULLA GENERATING STATION

Source: ESRI, 2009; US Census, 2000; ECT, 2009.

Seminole Electric COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE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US Highway
State Road
County Road
Property Boundary
100' Access Easement
Lakes and Rivers
Florida Managed Areas
Gilchrist County
Seminole Electric
Gilchrist Property
BRANFORD
FORT WHITE
HIGH SPRINGS
BELL
NEWBERRY
TRENTON
FANNING SPRINGS
ANDREWS
MANATTEE ROAD
CHIEFLAND
EAST BRONSON
WACCASASSA FLATS
SITE LOCATION MAP
Sources: FDOT, 2005; FDEP, 1989, 2002; FNAI, 2008; US Census, 2000; Seminole Electric 2008; ECT, 2008.
Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE