Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

April 1, 2010

Traci Matthews, Government Analyst
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Ms. Matthews:

In accordance with Section 186.801, Florida Statutes, Seminole Electric Cooperative, Inc. hereby submits our 2010 Ten Year Site Plan.

Please do not hesitate to call me if you have any questions or comments.

Sincerely,

Trudy S. Novak
Vice-President, Bulk Power and Generation Planning

Enclosure

cc: T. Woodbury

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Ten Year Site Plan

2010 - 2019
(Detail as of December 31, 2009)
April 1, 2010

Submitted To:
State of Florida
Public Service Commission

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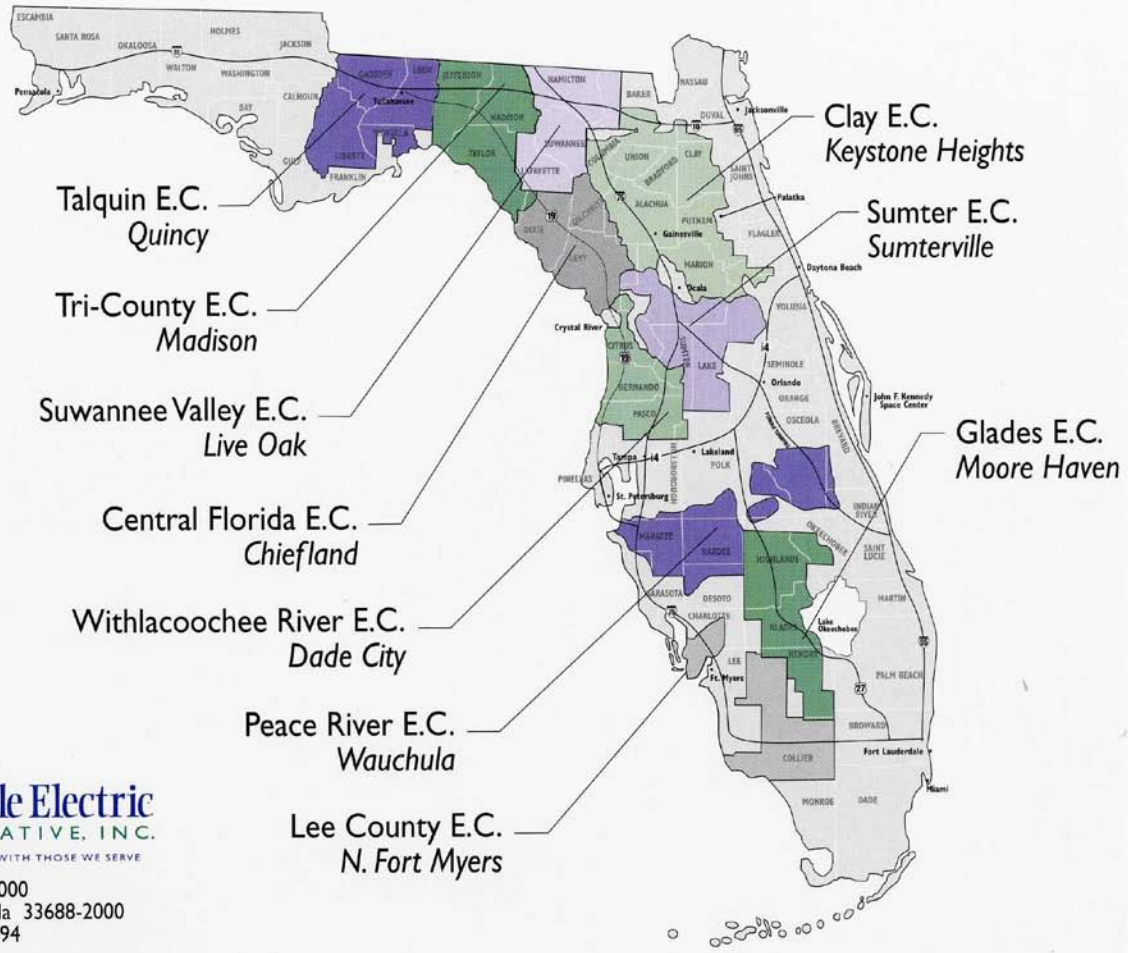
Seminole's Member Distribution Cooperatives

FLORIDA



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COOPERATIVE, INC.
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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 15 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 2009, Seminole served its Members' load primarily in three transmission areas: 5% directly through its own system (Seminole Direct Serve, or SDS), 60% through the PEF system, and 35% 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. Beginning in 2010, Seminole only serves 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 with the amount of energy purchased from renewable energy facilities. In 2010, Seminole will receive energy output from 124 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.

Seminole has a second contract with Timberline Energy to purchase 1.6 MW of firm capacity from a landfill gas-to-energy facility currently under construction in Sarasota County. Capacity purchases begin in July 2010 and extend through March 2021.

- Southeast Renewable Fuels, LLC – 25 MW of firm capacity from a new facility fueled by biomass (plant waste) located in Hendry County. The facility is expected to be commercial December 2011.

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 Intermediate Blocks – 450 MW of firm system intermediate capacity through 2013, and 150 MW from January 2014 through December 2020.
  - PEF 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 2009 was 821 MW winter and 240 MW summer. This agreement has certain notice provisions for termination beyond 2013.
- PEF 2004 Load Following Power Sales Agreement – Additional 150 MW of system average requirements-type load following service increasing and/or decreasing to track Seminole Member load in the FPL area through July 2020.

- City of Gainesville - Full requirements service for a specified delivery point (approximately 24 MW peak demand in 2009) with certain notice provisions for termination beyond 2012.
- RRI Energy Florida, LLC (Reliant) - 546 MW of firm peaking capacity through May 2014, from Reliant'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) - 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.
- 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, 2009

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	661	668
SGS	2	Putnam County	ST	BIT/ PC	N/A	RR	N/A	N/A	12/84	Unk	715	651	658
MGS	1-3	Hardee County	CC	NG	DFO	PL	TK	N/A	01/02	Unk	587	488	540
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	15	15

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	Rice
FPL	230	Rice
FPL	230	SGS
FPL	230	SGS
PEF	230	Martin West Tie Point
PEF	230	Silver Springs Tie Point
PEF	230	Silver Springs
PEF	230	Silver Springs North
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 does not serve retail end-use 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 Generation Program. In 2008, Seminole and its ten Members engaged in a joint initiative to expand demand-side resources. The primary elements of this initiative include an expansion of consumer education relating to energy efficiency and a joint assessment of the feasibility and effectiveness of specific demand-side management, energy efficiency, and energy conservation programs.

1.4.1 Seminole's Member Programs

The demand management programs offered by Seminole's Members include residential load control, load management generation, distribution system voltage reduction, and alternative rate options for interruptible, time of use, and curtailable service.

All Members promote energy conservation and energy efficiency. Most Members offer in-home energy audits at no cost, and all Members distribute 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. At least 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 200 photovoltaic systems and an agricultural waste

digestor 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 by over 400,000 MWh over 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 Coordinated 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 46 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 1999-2008 period, Seminole's residential customer growth rate was 3.2 percent, higher than the statewide growth rate of 1.9 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. Historically, these types of income are relatively stable and consequently help smooth the impacts of economic change on the Florida economy and Member service areas.

2.2 Forecast Results

2.2.1 Overview

The forecast projection reflects a weaker 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 is considered to be one of the few states that is in a severe recession. However, it is expected after recovering from the current recession the state's strong demographic and economic fundamentals will allow Florida to 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.

Beginning in 2010, Seminole only serves 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

Over the past two decades, residential usage per consumer increased steadily until 2003, reaching a high of 14,598 kWh in that year. Residential usage per consumer has essentially leveled out since 2003. For the period 2001-2008, residential usage per consumer for the Seminole system was comparable to the two largest investor-owned utilities which serve similar regional loads. Schedule 1.3 summarizes survey results for 2005 and 2008 (Seminole's most recent survey). During this period, larger homes were built and appliance saturations increased but at a slower rate.

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		

It is expected that usage per consumer will remain flat after 2011. Air conditioning in homes is reaching maximum saturation, while higher efficiency of new air conditioning, new appliance energy efficiency standards, and an increase in the real price of electricity are collectively having a negative impact on residential energy usage. Additionally, as stated previously, Seminole and its Members are promoting expansion of demand-side programs and are targeting to mitigate the continued growth in consumer usage. However, survey results suggest that past growth has been not only in traditional appliance loads, but also in new loads such as home computers and other electronic equipment. Further expansion in electro-technology in the home will be an important influence on future usage per consumer. In 2009, Seminole's annual average residential usage was 13,909 kWh.

Commercial annual average usage per consumer is much lower on the Seminole system (56,821 kWh in 2008) than in Florida as a whole (79,614 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 0.7 percent through 2019 which is half the growth rate that was projected last year. The reason is several large consumers that were projected to come on line in last years' forecast have either delayed, canceled, or reduced their projected growth during this time period.

2.2.4 Energy Sales and Purchases

Residential energy sales are projected to grow at 0.9 percent annually between 2010 and 2019. 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 1.9 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 1.4 percent over the ten-year planning horizon, while summer peak demand is projected to increase at an average annual rate of 1.3 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 be

approximately 17 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 2008, as part of a recently adopted strategic initiative, Seminole and its Members began assessing the viability of a range of demand side alternatives.

Seminole stipulates that it counts its consumer demand once and only once, on an aggregated and dispersed 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
2000	1,367,127	2.19	8,550	623,127	13,721
2001	1,403,002	2.19	8,752	640,290	13,669
2002	1,440,715	2.18	9,543	661,332	14,429
2003	1,483,284	2.16	10,019	686,121	14,603
2004	1,536,871	2.15	10,264	713,496	14,386
2005	1,596,600	2.14	10,807	744,617	14,513
2006	1,659,691	2.13	11,153	780,687	14,286
2007	1,711,008	2.13	11,444	803,957	14,235
2008	1,732,018	2.14	11,104	808,927	13,727
2009	1,750,098	2.16	11,291	811,792	13,909
2010	1,651,483	2.14	10,915	770,797	14,161
2011	1,687,182	2.14	11,280	788,468	14,306
2012	1,722,879	2.13	11,615	809,072	14,356
2013	1,758,580	2.12	11,939	829,771	14,388
2014	1,502,890	2.09	10,380	718,040	14,456
2015	1,532,219	2.08	10,639	736,158	14,452
2016	1,566,409	2.07	10,944	757,349	14,450
2017	1,600,599	2.05	11,255	779,048	14,448
2018	1,634,789	2.04	11,570	800,915	14,446
2019	1,668,979	2.03	11,884	822,682	14,445
NOTE: 1. 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		
2000	3,340	62,874	53,114	135	12,024
2001	3,456	66,577	51,910	126	12,338
2002	3,629	68,785	52,755	162	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	141	15,317
2006	4,634	84,358	54,937	158	15,945
2007	4,842	88,312	54,808	163	16,449
2008	4,895	86,093	56,821	161	16,160
2009	4,777	84,359	56,629	165	16,233
2010	4,576	81,308	56,274	155	15,646
2011	4,806	83,377	57,647	158	16,244
2012	5,044	85,517	58,984	162	16,821
2013	5,247	87,716	59,823	165	17,351
2014	4,558	77,491	58,822	152	15,090
2015	4,709	79,556	59,185	155	15,503
2016	4,880	81,968	59,540	159	15,983
2017	5,061	84,483	59,900	162	16,478
2018	5,246	86,999	60,299	165	16,981
2019	5,434	89,468	60,735	168	17,486
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**
2000	0	1,070	13,094	3,764	689,765
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	5,042	900,062
2009	0	1,220	17,453	5,003	901,154
2010	0	1,191	16,837	5,103	857,208
2011	0	1,236	17,480	5,206	877,051
2012	0	1,279	18,100	5,311	899,900
2013	0	1,320	18,671	5,413	922,900
2014	0	1,122	16,212	5,353	800,884
2015	0	1,153	16,656	5,450	821,164
2016	0	1,189	17,172	5,557	844,874
2017	0	1,226	17,704	5,668	869,199
2018	0	1,264	18,245	5,778	893,692
2019	0	1,303	18,789	5,886	918,036

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.	
2000	2,774	2,774	0	N/A	121	N/A	N/A	N/A	2,653
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	4,001	4,001	0	82	101	N/A	N/A	N/A	3,818
2010	3,960	3,960	0	116	89	N/A	N/A	N/A	3,755
2011	4,088	4,088	0	116	89	N/A	N/A	N/A	3,883
2012	4,223	4,223	0	116	89	N/A	N/A	N/A	4,018
2013	4,353	4,353	0	116	89	N/A	N/A	N/A	4,148
2014	3,794	3,794	0	102	55	N/A	N/A	N/A	3,637
2015	3,891	3,891	0	102	55	N/A	N/A	N/A	3,734
2016	4,007	4,007	0	102	55	N/A	N/A	N/A	3,850
2017	4,125	4,125	0	102	55	N/A	N/A	N/A	3,968
2018	4,244	4,244	0	102	55	N/A	N/A	N/A	4,087
2019	4,363	4,363	0	102	55	N/A	N/A	N/A	4,206

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.	
2010	4,155	4,155	0	116	89	N/A	N/A	N/A	3,950
2011	4,341	4,341	0	116	89	N/A	N/A	N/A	4,136
2012	4,529	4,529	0	116	89	N/A	N/A	N/A	4,324
2013	4,716	4,716	0	116	89	N/A	N/A	N/A	4,511
2014	4,150	4,150	0	102	55	N/A	N/A	N/A	3,993
2015	4,294	4,294	0	102	55	N/A	N/A	N/A	4,137
2016	4,463	4,463	0	102	55	N/A	N/A	N/A	4,306
2017	4,634	4,634	0	102	55	N/A	N/A	N/A	4,477
2018	4,807	4,807	0	102	55	N/A	N/A	N/A	4,650
2019	4,981	4,981	0	102	55	N/A	N/A	N/A	4,824

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.	
2010	3,752	3,752	0	116	89	N/A	N/A	N/A	3,547
2011	3,852	3,852	0	116	89	N/A	N/A	N/A	3,647
2012	3,941	3,941	0	116	89	N/A	N/A	N/A	3,736
2013	4,023	4,023	0	116	89	N/A	N/A	N/A	3,818
2014	3,450	3,450	0	102	55	N/A	N/A	N/A	3,293
2015	3,505	3,505	0	102	55	N/A	N/A	N/A	3,348
2016	3,562	3,562	0	102	55	N/A	N/A	N/A	3,405
2017	3,623	3,623	0	102	55	N/A	N/A	N/A	3,466
2018	3,683	3,683	0	102	55	N/A	N/A	N/A	3,526
2019	3,744	3,744	0	102	55	N/A	N/A	N/A	3,587

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.	
1999-00	3,389	3,389	0	N/A	180	N/A	N/A	N/A	3,209
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	5,251	5,251	0	63	152	N/A	N/A	N/A	5,036
2010-11	4,708	4,708	0	116	133	N/A	N/A	N/A	4,459
2011-12	4,855	4,855	0	116	133	N/A	N/A	N/A	4,606
2012-13	5,005	5,005	0	116	133	N/A	N/A	N/A	4,756
2013-14	4,415	4,415	0	102	81	N/A	N/A	N/A	4,232
2014-15	4,534	4,534	0	102	81	N/A	N/A	N/A	4,351
2015-16	4,664	4,664	0	102	81	N/A	N/A	N/A	4,481
2016-17	4,803	4,803	0	102	81	N/A	N/A	N/A	4,620
2017-18	4,944	4,944	0	102	81	N/A	N/A	N/A	4,761
2018-19	5,088	5,088	0	102	81	N/A	N/A	N/A	4,905
2019-20	5,230	5,230	0	102	81	N/A	N/A	N/A	5,047

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.	
2010-11	4,970	4,970	0	116	133	N/A	N/A	N/A	4,721
2011-12	5,176	5,176	0	116	133	N/A	N/A	N/A	4,927
2012-13	5,426	5,426	0	116	133	N/A	N/A	N/A	5,177
2013-14	4,805	4,805	0	102	81	N/A	N/A	N/A	4,622
2014-15	4,980	4,980	0	102	81	N/A	N/A	N/A	4,797
2015-16	5,170	5,170	0	102	81	N/A	N/A	N/A	4,987
2016-17	5,372	5,372	0	102	81	N/A	N/A	N/A	5,189
2017-18	5,578	5,578	0	102	81	N/A	N/A	N/A	5,395
2018-19	5,787	5,787	0	102	81	N/A	N/A	N/A	5,604
2019-20	5,995	5,995	0	102	81	N/A	N/A	N/A	5,812

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.	
2010-11	4,465	4,465	0	116	133	N/A	N/A	N/A	4,216
2011-12	4,556	4,556	0	116	133	N/A	N/A	N/A	4,307
2012-13	4,678	4,678	0	116	133	N/A	N/A	N/A	4,429
2013-14	4,039	4,039	0	102	81	N/A	N/A	N/A	3,856
2014-15	4,108	4,108	0	102	81	N/A	N/A	N/A	3,925
2015-16	4,176	4,176	0	102	81	N/A	N/A	N/A	3,993
2016-17	4,247	4,247	0	102	81	N/A	N/A	N/A	4,064
2017-18	4,319	4,319	0	102	81	N/A	N/A	N/A	4,136
2018-19	4,391	4,391	0	102	81	N/A	N/A	N/A	4,208
2019-20	4,462	4,462	0	102	81	N/A	N/A	N/A	4,279

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					
2000	13,094	N/A	N/A	0	12,100	994	13,094	46.6
2001	13,294	N/A	N/A	0	12,430	864	13,294	41.9
2002	14,690	N/A	N/A	0	13,433	1,257	14,690	47.0
2003	15,778	N/A	N/A	0	14,138	1,640	15,778	43.3
2004	16,413	N/A	N/A	0	14,583	1,830	16,413	53.1
2005	16,766	N/A	N/A	0	15,421	1,345	16,766	48.4
2006	17,355	N/A	N/A	0	16,049	1,306	17,355	46.9
2007	17,671	1	N/A	0	16,449	1,221	17,670	50.1
2008	17,332	1	N/A	0	16,160	1,171	17,331	41.6
2009	17,454	1	N/A	0	16,233	1,220	17,453	39.6
2010	16,881	44	N/A	0	15,646	1,191	16,837	44.4
2011	17,535	55	N/A	0	16,244	1,236	17,480	44.8
2012	18,215	115	N/A	0	16,821	1,279	18,100	44.9
2013	18,908	237	N/A	0	17,351	1,320	18,671	44.8
2014	16,526	314	N/A	0	15,090	1,122	16,212	43.7
2015	17,056	400	N/A	0	15,503	1,153	16,656	43.7
2016	17,655	483	N/A	0	15,983	1,189	17,172	43.7
2017	18,276	572	N/A	0	16,478	1,226	17,704	43.7
2018	18,913	668	N/A	0	16,981	1,264	18,245	43.7
2019	19,557	768	N/A	0	17,486	1,303	18,789	43.7

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					
2010	17,742	44	N/A	0	16,445	1,253	17,698	44.6
2011	18,635	55	N/A	0	17,267	1,313	18,580	44.9
2012	19,558	115	N/A	0	18,068	1,375	19,443	45.0
2013	20,508	237	N/A	0	18,835	1,436	20,271	44.7
2014	18,079	314	N/A	0	16,535	1,230	17,765	43.9
2015	18,820	400	N/A	0	17,145	1,275	18,420	43.8
2016	19,654	483	N/A	0	17,844	1,327	19,171	43.9
2017	20,515	572	N/A	0	18,562	1,381	19,943	43.9
2018	21,395	668	N/A	0	19,292	1,435	20,727	43.9
2019	22,286	768	N/A	0	20,028	1,490	21,518	43.8

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					
2010	16,044	44	N/A	0	14,867	1,133	16,000	43.7
2011	16,502	55	N/A	0	15,284	1,163	16,447	44.5
2012	16,975	115	N/A	0	15,668	1,192	16,860	44.7
2013	17,458	237	N/A	0	16,000	1,221	17,221	44.4
2014	15,016	314	N/A	0	13,684	1,018	14,702	43.5
2015	15,353	400	N/A	0	13,918	1,035	14,953	43.5
2016	15,696	483	N/A	0	14,159	1,054	15,213	43.5
2017	16,059	572	N/A	0	14,413	1,074	15,487	43.5
2018	16,432	668	N/A	0	14,671	1,093	15,764	43.5
2019	16,808	768	N/A	0	14,927	1,113	16,040	43.5

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

Month	2009 Actual		2010 Forecast		2011 Forecast	
	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh
January	4,670	1,461	4,326	1,413	4,459	1,456
February	4,738	1,296	3,427	1,184	3,526	1,218
March	3,417	1,250	2,746	1,174	2,856	1,218
April	2,751	1,230	2,731	1,197	2,819	1,236
May	3,443	1,478	3,104	1,421	3,237	1,480
June	3,818	1,710	3,379	1,571	3,511	1,633
July	3,577	1,729	3,476	1,701	3,608	1,766
August	3,583	1,724	3,755	1,838	3,883	1,900
September	3,361	1,601	3,354	1,556	3,504	1,626
October	3,486	1,489	2,989	1,337	3,113	1,392
November	2,466	1,151	2,637	1,154	2,756	1,205
December	3,118	1,334	3,153	1,291	3,297	1,350
ANNUAL		17,453		16,837		17,480

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 46 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, March 2009 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 by 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 over 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

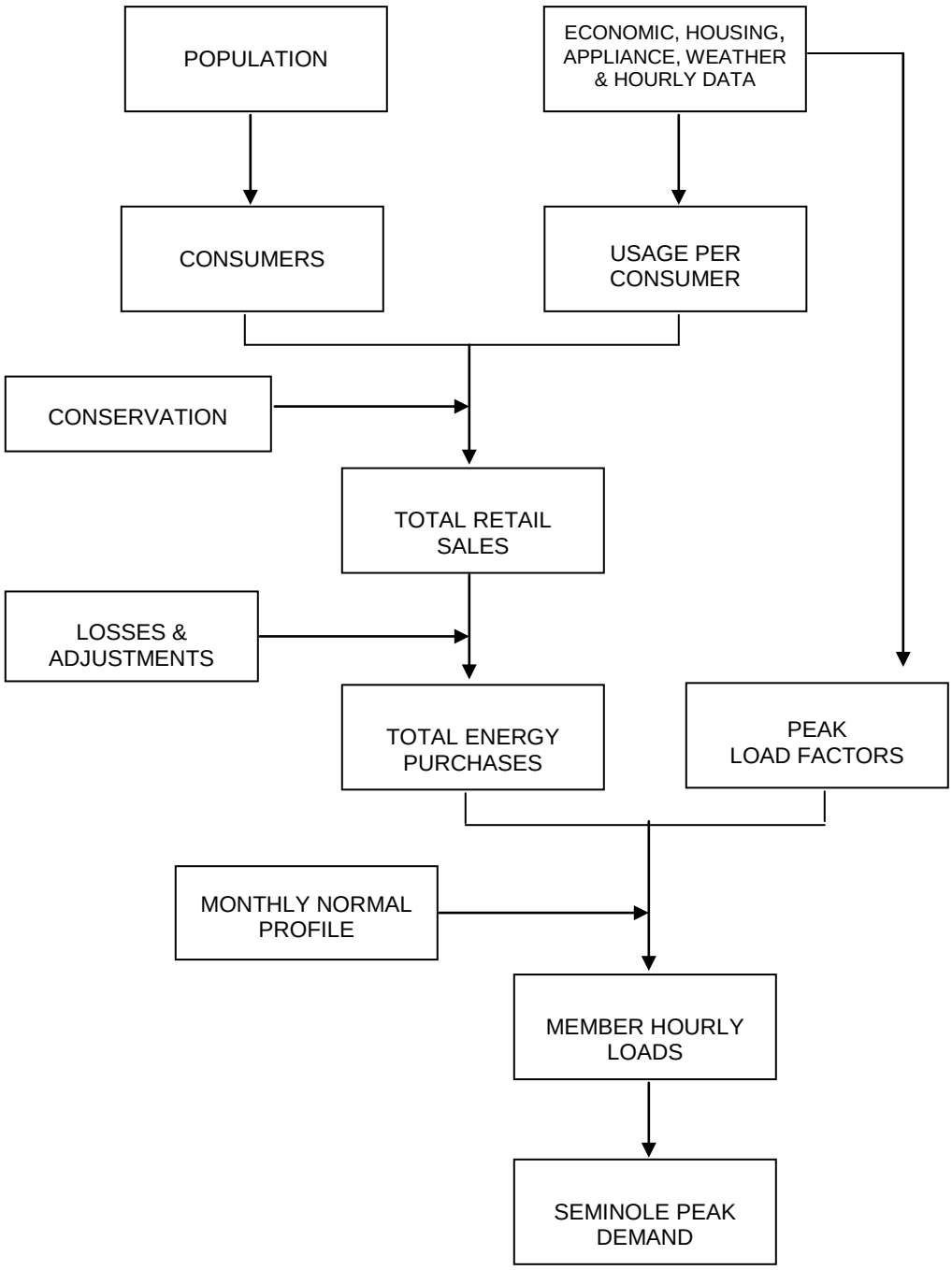
(8) Peak Demand Load Factor Model

(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 2008 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 2008, 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 2008 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 2017 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 2008	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Nuclear		Trillion BTU	1	1	1	1	1	1	1	1	1	1	1	1
Coal		1000 Tons	3658	2916	3866	3995	4066	4019	3777	3772	3839	3930	3985	4069
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	46	69	43	44	45	45	42	42	43	43	45	54
	Steam	1000 BBL	41	69	43	44	45	45	42	42	43	44	44	45
	CC	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
	CT	1000 BBL	5	0	0	0	0	0	0	0	0	0	1	9
Natural Gas	Total	1000 MCF	12242	23377	17378	17709	15982	17501	13941	15540	14592	12806	14289	16094
	Steam	1000 MCF	0	0	0	0	0	0	0	0	0	0	0	0
	CC	1000 MCF	11609	19103	16568	16486	14836	16582	13328	14818	14096	12145	13448	14108
	CT	1000 MCF	633	4274	810	1223	1146	919	613	722	496	661	841	1986

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 2008	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Inter-Regional Interchange		GWh	0	0	0	0	0	0	0		0	0	0	0
Nuclear		GWh	273	188	127	117	329	307	523	479	323	131	144	133
Coal		GWh	10555	7552	9569	9785	10426	10314	10081	10098	9805	9552	9689	9898
Residual	Total	GWh	629	28	31	21	22	27	0	0	0	0	0	0
	Steam	GWh	629	28	31	21	22	27	0	0	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	95	301	720	685	586	539	105	121	111	122	127	146
	Steam	GWh	24	32	25	26	26	26	25	25	25	26	26	27
	CC	GWh	2	0	0	0	0	0	0	0	0	0	0	0
	CT	GWh	69	269	695	659	560	513	80	96	86	96	101	119
Natural Gas	Total	GWh	5369	8916	4711	5099	4761	5388	3751	4201	5158	6534	7005	7346
	Steam	GWh	1341	866	156	439	402	415	164	199	1324	2673	2774	2966
	CC	GWh	3796	7041	4327	4339	4075	4762	3499	3870	3758	3757	4081	4024
	CT	GWh	232	1009	228	321	284	211	88	132	76	104	150	356
NUG		GWh	0	0	0	0	0	0	0	0	0	0	0	0
Renewables		GWh	408	468	831	906	1089	1186	1188	1185	1190	767	668	640
Other		GWh	0	0	848	867	887	910	564	572	585	598	612	626
Net Energy for Load		GWh	17329	17453	16837	17480	18100	18671	16212	16656	17172	17704	18245	18789

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 2008	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
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		%	1.58%	1.08%	0.75%	0.67%	1.82%	1.64%	3.23%	2.88%	1.88%	0.74%	0.79%	0.71%
Coal		%	60.91%	43.27%	56.83%	55.98%	57.60%	55.24%	62.18%	60.63%	57.10%	53.95%	53.10%	52.68%
Residual	Total	%	3.63%	0.16%	0.18%	0.12%	0.12%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Steam	%	3.63%	0.16%	0.18%	0.12%	0.12%	0.14%	0.00%	0.00%	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	%	0.55%	1.72%	4.28%	3.92%	3.24%	2.89%	0.65%	0.73%	0.65%	0.69%	0.70%	0.77%
	Steam	%	0.14%	0.18%	0.15%	0.15%	0.15%	0.14%	0.16%	0.15%	0.15%	0.15%	0.14%	0.14%
	CC	%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CT	%	0.40%	1.54%	4.13%	3.77%	3.09%	2.75%	0.49%	0.58%	0.50%	0.54%	0.56%	0.63%
Natural Gas	Total	%	30.99%	51.09%	27.98%	29.17%	26.30%	28.86%	23.14%	25.22%	30.04%	36.91%	38.39%	39.10%
	Steam	%	7.74%	4.97%	0.93%	2.51%	2.22%	2.22%	1.01%	1.19%	7.71%	15.10%	15.20%	15.79%
	CC	%	21.91%	40.34%	25.70%	24.82%	22.51%	25.50%	21.58%	23.24%	21.89%	21.22%	22.37%	21.42%
	CT	%	1.34%	5.78%	1.35%	1.84%	1.57%	1.14%	0.55%	0.79%	0.44%	0.59%	0.82%	1.89%
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		%	2.35%	2.68%	4.94%	5.18%	6.02%	6.35%	7.33%	7.11%	6.93%	4.33%	3.66%	3.41%
Other		%	0.00%	0.00%	5.04%	4.96%	4.90%	4.87%	3.48%	3.43%	3.41%	3.38%	3.35%	3.33%
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.

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 736 MW of capacity by 2020. 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 four 180 MW class combustion turbine units which are currently assumed to be installed at Seminole’s site in Gilchrist County. The first one of these units is scheduled to enter service in 2017, followed by an additional unit in 2018, and two units being installed in 2019. A final decision as to whether Seminole will construct and own these additional peaking 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's previous Ten Year Site Plan included the construction of a pulverized coal unit at Seminole Generating Station in Putnam County. This plan was canceled in December of 2009. Seminole has entered into several economic purchased power agreements resulting in the fulfillment of Seminole's base and intermediate capacity requirements through 2020.

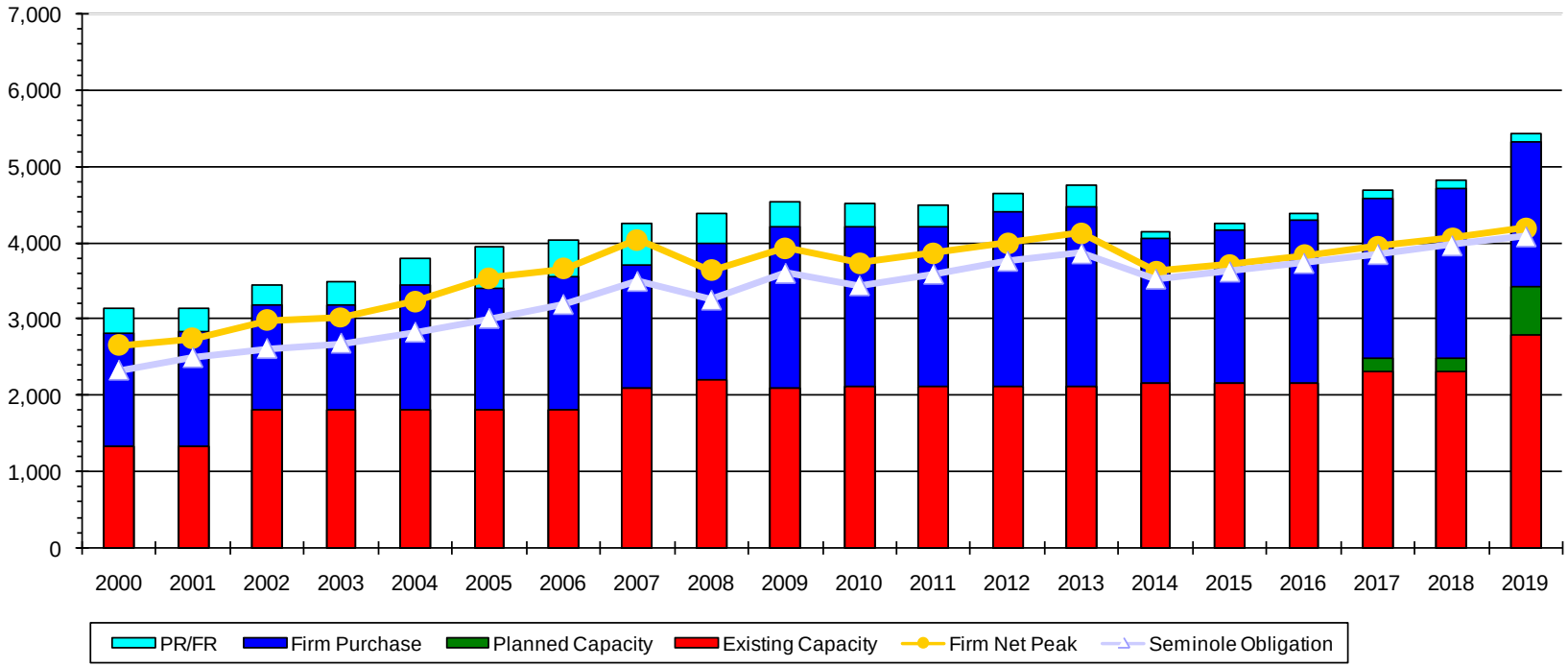
Seminole also has a FERC-filed qualifying facility (QF) program which complies with the requirements of the Public Utility Regulatory Policies Act (PURPA). When competitively bidding for power supplies, Seminole continues to solicit proposals from QF and renewable energy facilities. Seminole also evaluates 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. In 1999, Seminole entered into a power purchase agreement with a renewable energy facility, Lee County Resource Recovery, for 35 MW of capacity (increased to 55 MW in November 2007). More recently, Seminole has signed contracts with Telogia Power, LLC, a 12.5 MW biomass (wood waste) burning facility in Liberty County; Landfill Energy Systems, with 15 MW total capacity coming from two waste-to-energy projects in Seminole and Brevard Counties, Timberline Energy, with 3.2 MW total capacity coming from two landfill gas-to-energy facilities in Hernando and Sarasota Counties, Hillsborough County Waste to Energy Facility, a 38 MW waste to energy facility, and Southeast Renewable Fuels, LLC, a 25 MW biomass (plant waste) in Hendry County. These renewable resources are projected to serve approximately 5% of Seminole's total energy requirements in 2010.

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
2010	2,095	301	2,123	2,424	0	0	4,519	4,218	3,737	3,436	782	22.8%	0	782	22.8%
2011	2,095	275	2,124	2,399	0	0	4,494	4,219	3,863	3,588	631	17.6%	0	631	17.6%
2012	2,097	240	2,299	2,539	0	0	4,636	4,396	3,998	3,758	638	17.0%	0	638	17.0%
2013	2,097	273	2,377	2,650	0	0	4,747	4,474	4,130	3,857	617	16.0%	0	617	16.0%
2014	2,097	93	1,954	2,047	0	0	4,144	4,051	3,616	3,523	528	15.0%	0	528	15.0%
2015	2,097	96	2,063	2,159	0	0	4,256	4,160	3,713	3,617	543	15.0%	0	543	15.0%
2016	2,097	99	2,191	2,290	0	0	4,387	4,288	3,828	3,729	559	15.0%	0	559	15.0%
2017	2,255	102	2,169	2,271	0	0	4,526	4,424	3,949	3,847	577	15.0%	0	577	15.0%
2018	2,255	106	2,300	2,406	0	0	4,661	4,555	4,067	3,961	594	15.0%	0	594	15.0%
2019	2,729	109	1,962	2,071	0	0	4,800	4,691	4,188	4,079	612	15.0%	0	612	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 1240 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. Seminole's firm obligation demand does not include PR and FR purchases.
5. 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.

Figure 2: History and Forecast Of Total Resources And Peak Demand
Summer



Seminole Electric COOPERATIVE, INC.

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
2010/11	2,195	732	2,389	3,121	0	0	5,316	4,584	4,429	3,697	887	24.0%	0	887	24.0%
2011/12	2,197	708	2,564	3,272	0	0	5,469	4,761	4,579	3,871	890	23.0%	0	890	23.0%
2012/13	2,201	761	2,661	3,422	0	0	5,623	4,862	4,730	3,969	893	22.5%	0	893	22.5%
2013/14	2,201	99	3,263	3,362	0	0	5,563	5,464	4,204	4,105	1,359	33.1%	0	1,359	33.1%
2014/15	2,201	102	2,655	2,757	0	0	4,958	4,856	4,325	4,223	633	15.0%	0	633	15.0%
2015/16	2,201	104	2,800	2,904	0	0	5,105	5,001	4,453	4,349	652	15.0%	0	652	15.0%
2016/17	2,201	108	2,956	3,064	0	0	5,265	5,157	4,592	4,484	673	15.0%	0	673	15.0%
2017/18	2,381	111	2,935	3,046	0	0	5,427	5,316	4,734	4,623	693	15.0%	0	693	15.0%
2018/19	2,561	115	2,915	3,030	0	0	5,591	5,476	4,877	4,762	714	15.0%	0	714	15.0%
2019/20	2,921	117	2,716	2,833	0	0	5,754	5,637	5,019	4,902	735	15.0%	1	735	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.

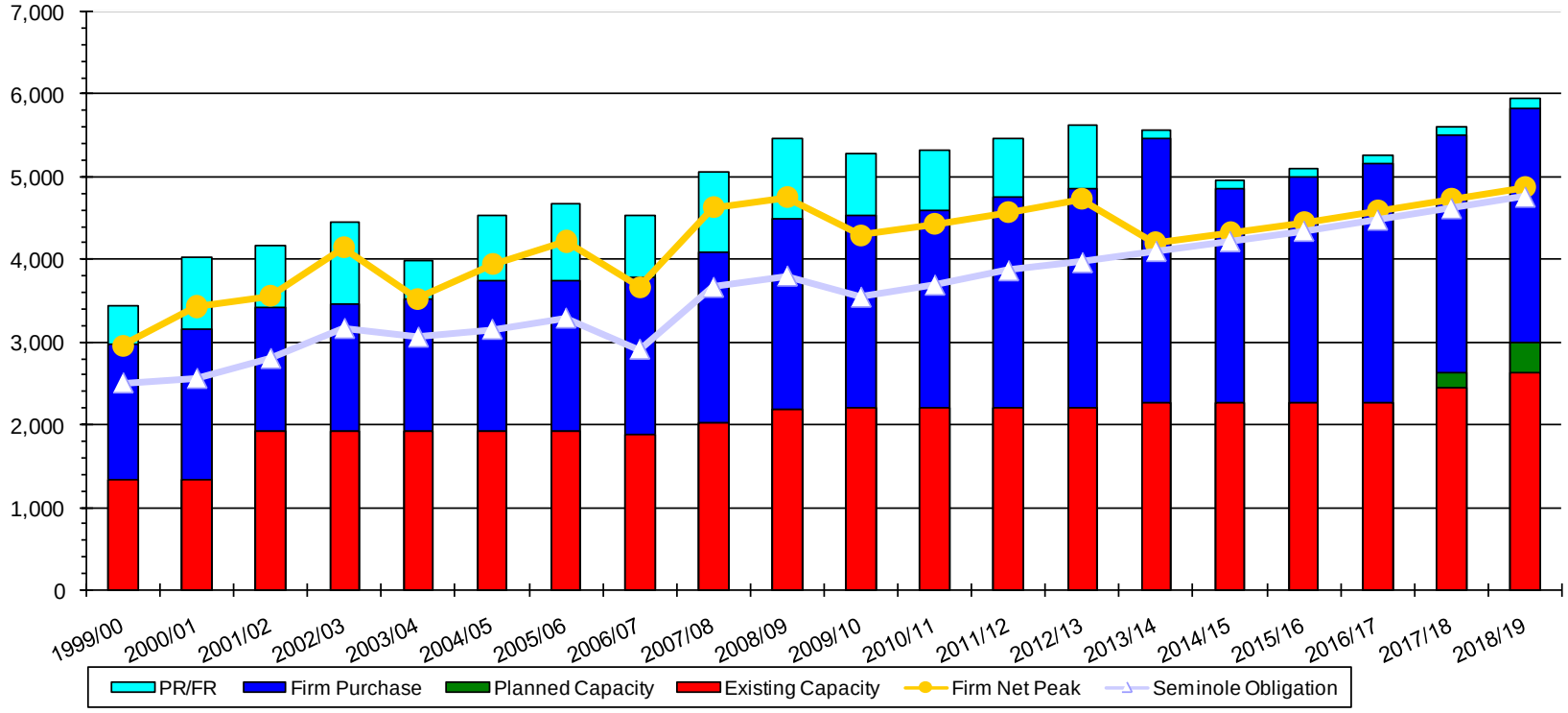
2. Firm Capacity Import/Other Purchases include a firm purchase power contract from Hardee Power Partners, through December 31, 2012, for 356 MW of first-call capacity from the Hardee Power Station to back up 1240 MW of Seminole Generating Station and Crystal River Unit 3.

3. Firm Capacity Import/PR and FR includes partial requirements and full requirements purchases.

4. Seminole's firm obligation demand does not include PR and FR purchases.

5. 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.

Figure 3: History and Forecast Of Total Resources And Peak Demand
Winter



Seminole Electric COOPERATIVE, INC.

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							
Seminole	2	Putnam	ST	BIT	---	RR	---	(1)	4/2010	Unk		10	10	A
Crystal River	3	Citrus	ST	NUC	---	TK	---	(1)	12/2011	Unk		2	2	A
Midulla	CT1	Hardee	CT	NG	DFO	PL	TK	(1)	11/2014	Unk		0	2	A
Midulla	CT2	Hardee	CT	NG	DFO	PL	TK	(1)	11/2014	Unk		0	2	A
Unnamed CT	1	Gilchrist	CT	NG	DFO	PL	TK	(2)	5/2017	Unk	180	158	180	P
Unnamed CT	2	Gilchrist	CT	NG	DFO	PL	TK	(2)	12/2018	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)	5/2019	Unk	180	158	180	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.

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 direct coal mining costs related to federal legislation on mine safety. 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. On January 1, 2009, CSX Transportation, Inc. effectively doubled the cost of transporting coal to the Seminole Generating Station. Seminole believes these rates are unreasonable and has challenged the tariff rates before the federal Surface Transportation Board.

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 increased price pressure over the long term. Increased price volatility will occur during weather related events, such as hurricanes and cold winter weather. Even with new production of domestic natural gas reserves from new domestic shale gas formations and other deep water production in the Gulf of Mexico, rising demand for natural gas in all sectors of industry cannot be met solely by increasing domestic natural gas production. Thus, there will be additional pressure on imports of liquefied natural gas to meet the future requirement for natural gas, which price can be dependent on world market conditions. 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 analysis (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

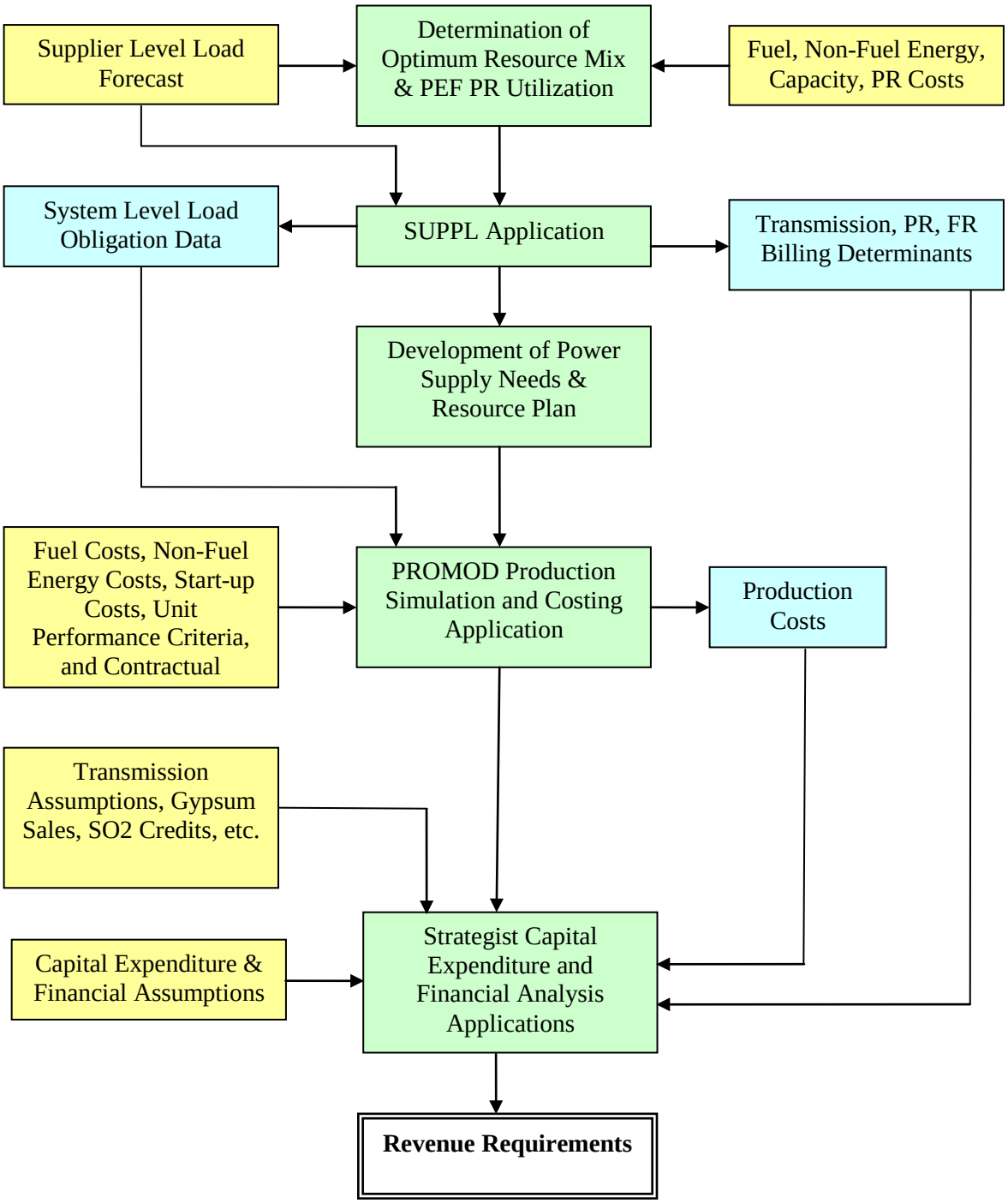
The total amount of generating capacity and reserves required by Seminole is affected by Seminole's load forecast and its reliability criteria. Reserves serve two primary purposes: to provide replacement power during generator outages and to account for load forecast uncertainty. Seminole has two principal 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

By May 2019, Seminole plans to construct four 180 MW class gas-fired combustion turbine units at the Gilchrist Generating Station site. 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 apiece, to connect the Gilchrist generating station to the new Gilchrist East

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.

switching station.

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:	 January 2012 May 2017
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% 11,800 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2008) 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 1240 1150 90 Included in values above 4.08 1.63 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Unit 2
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:	 January 2012 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% 11,800 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2008) 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 1240 1150 90 Included in values above 4.08 1.63 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Gilchrist Generating Station Units 3-4
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:	 January 2012 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% 11,800 Btu/kWh (HHV)
13	Projected Unit Financial Data ($2008) 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 1240 1150 90 Included in values above 4.08 1.63 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 remove approximately 90% of the mercury contained in the flue gas.

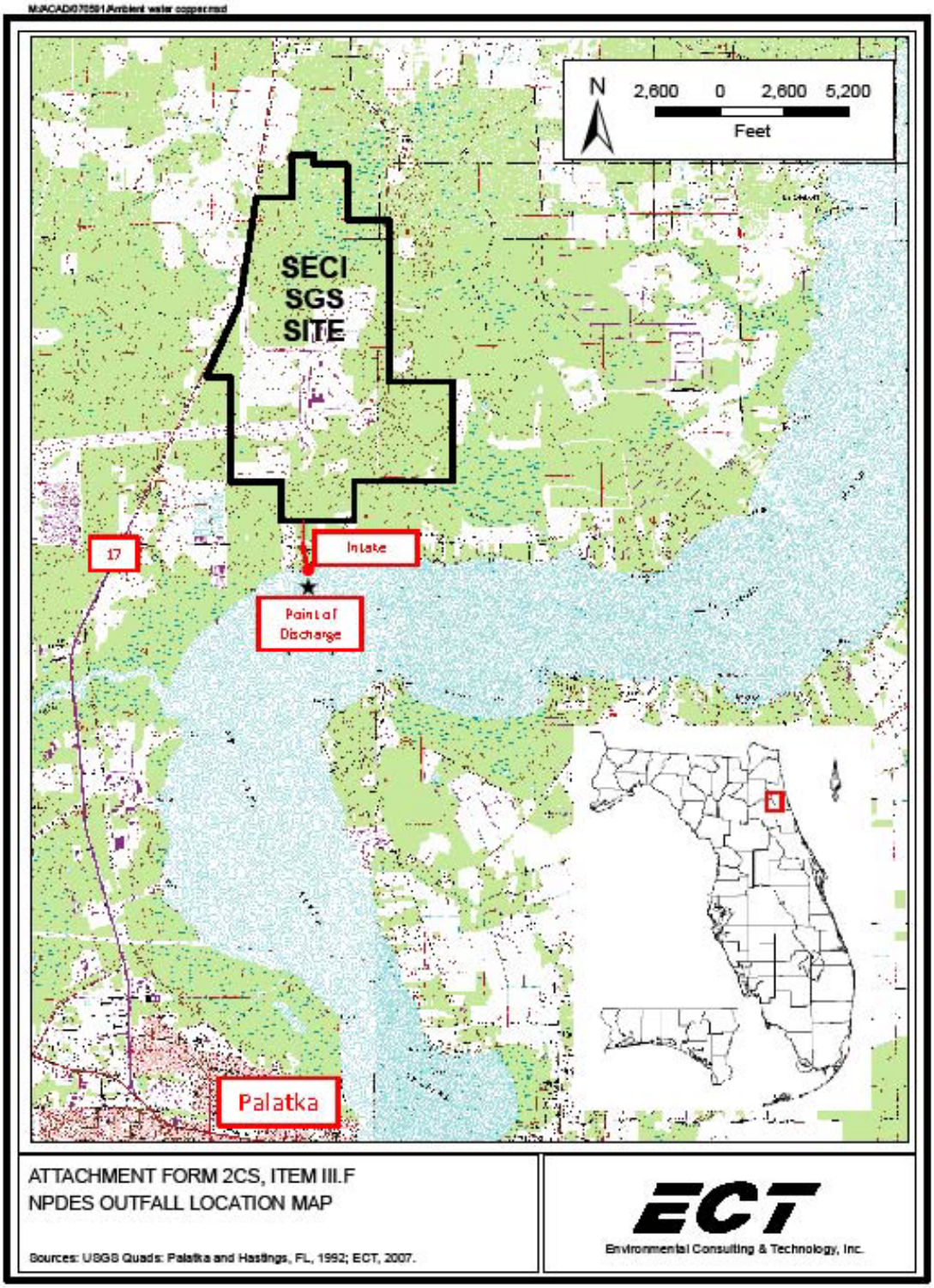
Noise generated during operation of SGS does not result in sound levels in excess of the Putnam County Noise Control Ordinance.

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.


N
2,600 0 2,600 5,200
Feet
SECI
SGS
SITE
17
Intake
Point of
Discharge
Palatka
ATTACHMENT FORM 2CS, ITEM III.F
NPDES OUTFALL LOCATION MAP
Sources: USGS Quads: Palatka and Hastings, FL, 1992; ECT, 2007.
ECT
Environmental Consulting & Technology, Inc.

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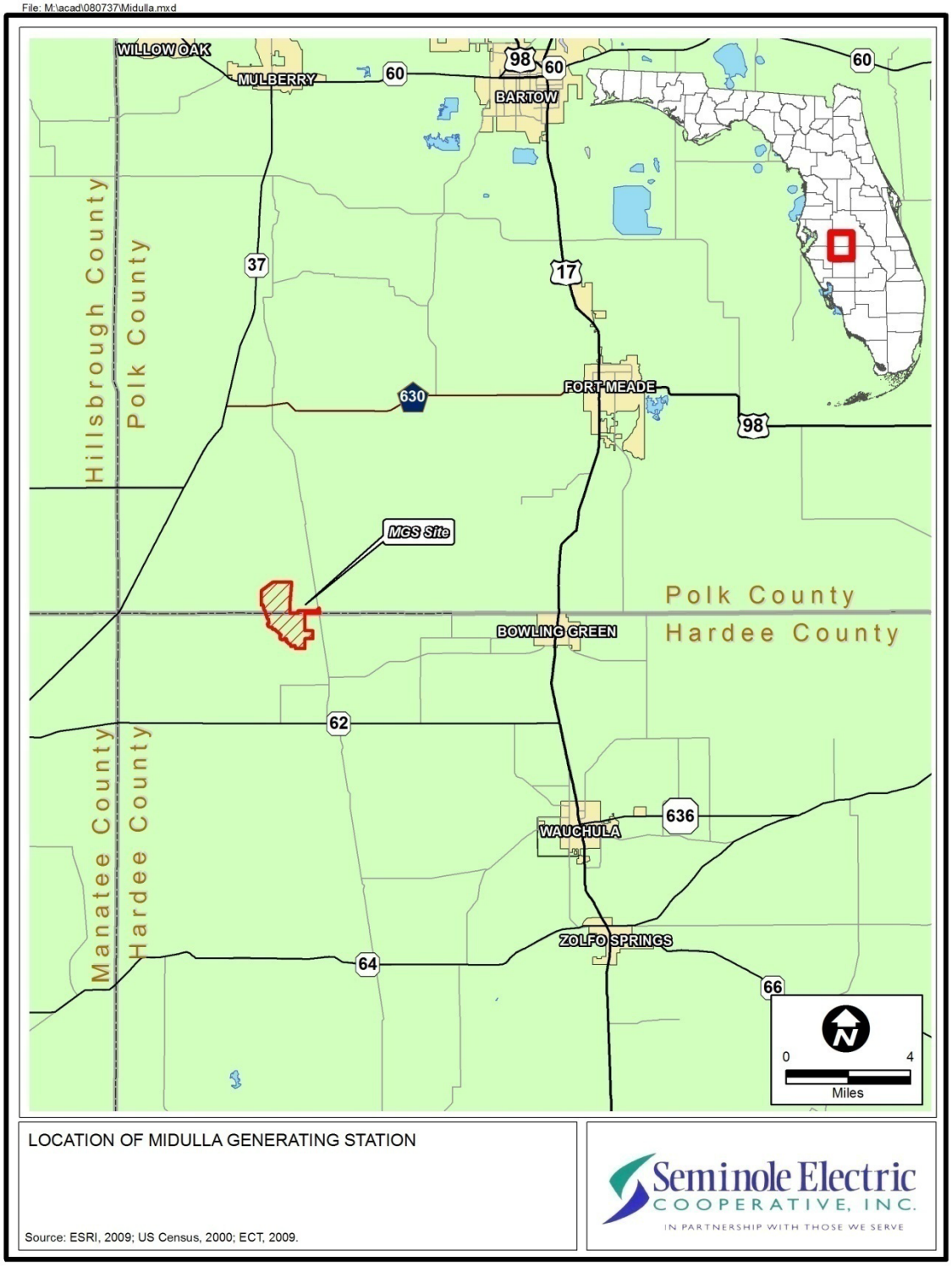

LOCATION OF MIDULLA GENERATING STATION

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

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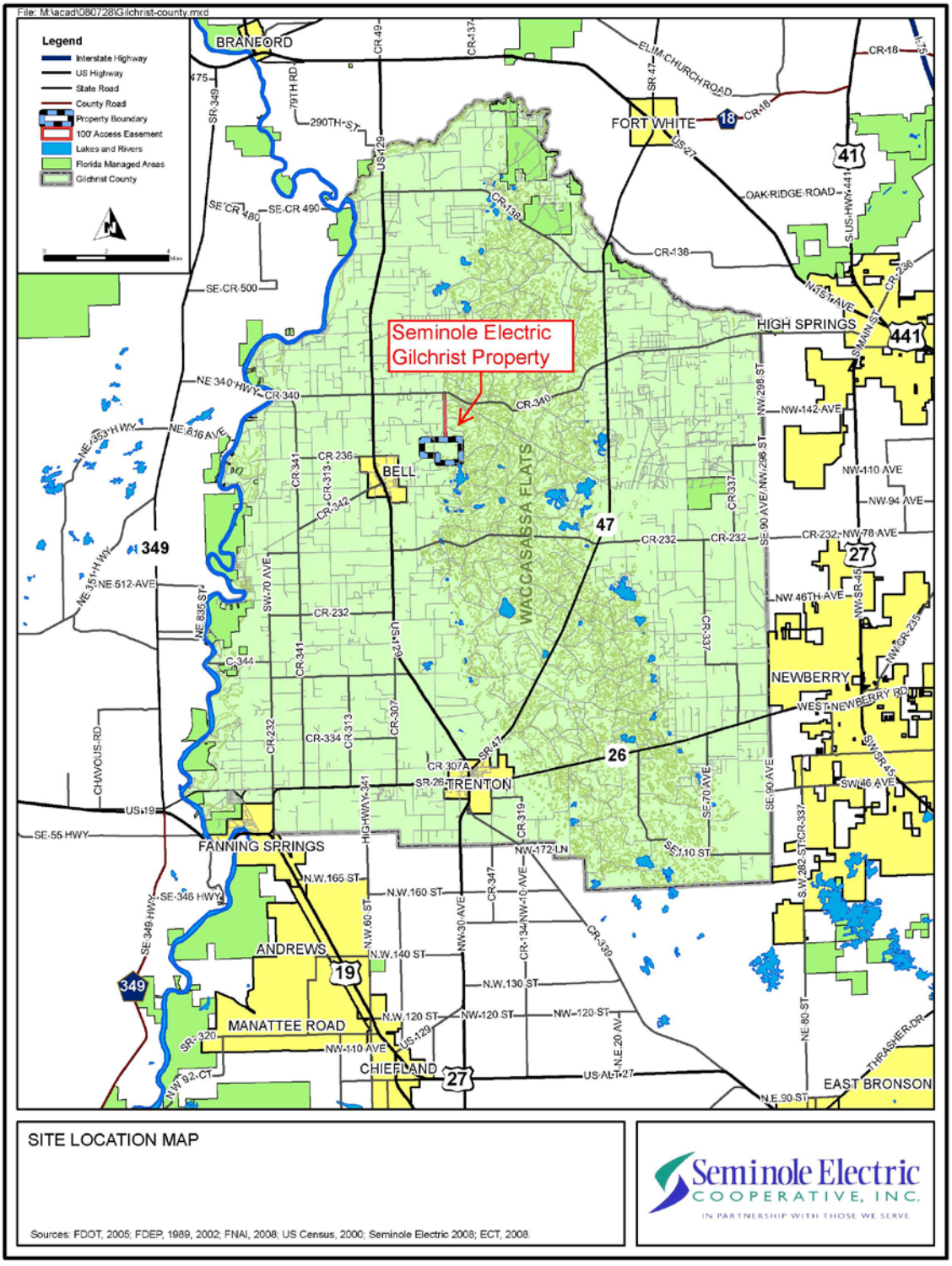
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Legend
Interstate Highway
US Highway
State Road
County Road
Property Boundary
100' Access Easement
Lakes and Rivers
Florida Managed Areas
Gilchrist County
Seminole Electric
Gilchrist Property
BRANFORD
FORT WHITE
HIGH SPRINGS
BELL
TRENTON
NEWBERRY
FANNING 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
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