



March 30, 2007

Blanca S. Bayó, Director Florida Public Service Commission Division of the Commission Clerk and Administrative Services 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-085

Dear Ms. Bayó:

In accordance with Section 186.801, Florida Statutes, Seminole Electric Cooperative, Inc. hereby submits thirty (30) copies of our 2006 Ten Year Site Plan (TYSP), dated April 1, 2007.

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

Sincerely,

Lane T. Mahaffey ' Director of Corporate Planning

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Ten Year Site Plan 2007 - 2016

(Detail as of December 31, 2006) April 1, 2007

> Submitted To: State of Florida Public Service Commission



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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. This is accomplished by generating, transmitting, purchasing, and selling electric power and energy as appropriate for this purpose.

The Seminole Member Cooperatives (Members) are as follows:

- < 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 full requirements power to each of the ten Members under the terms of a long term wholesale power contract. 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. Seminole is proceeding with design activities associated with a planned 750MW pulverized coal unit addition at SGS. Payne Creek Generating Station (PCGS) Units 1 - 3 comprise a 500 MW class gas combined cycle plant, located in Hardee County that began commercial operation in January 2002. Also at the Hardee site, is a 300 MW class peaking plant that began commercial operation in December 2006. Seminole also owns an approximate 15 MW share of the Crystal River 3 nuclear generating unit which is operated by Progress Energy Florida (PEF).

1.2.2 Transmission. Seminole serves its Members' load primarily in three transmission areas (i.e., 7% is directly through its own system, 59% through the PEF system, and 34% through the 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 owned generating facilities are interconnected to the grid at fourteen 230 kV transmission interconnections with the following utilities: FPL, JEA, City of Ocala, PEF, Hardee Power Partners, L.P., and Tampa Electric Company. Seminole's interconnections (all 230 kV) are shown in Schedule 1.2. Seminole



contracts with Florida Power and Light Company (FPL) and PEF for network type firm transmission service for its Member loads which connect to those transmission areas.

1.3 Purchased Power

Seminole's generation portfolio includes the following firm purchased power agreements¹:

- Progress Energy Florida
 - PEF Intermediate Block 1 150 MW firm system intermediate capacity through
 2013 with early termination options.
 - PEF Intermediate Block 2 150 MW firm system intermediate capacity from June 2006 through 2013 with early termination options.
 - PEF Intermediate Block 3 150 MW firm system intermediate capacity from December 2006 through 2013.
 - PEF Base 50MW firm system base capacity from December 2007 through December 2008.
 - PEF Winter Seasonal Peaking 600 MW firm winter seasonal peaking capacity from January 2014 through December 2020.
 - PEF Intermediate 150 MW firm system intermediate capacity from January 2014 through December 2020
 - PEF Partial Requirements Load following requirements service for a specified portion of Seminole's Member load in the PEF area. This arrangement provides

¹ All ratings are winter unless otherwise noted.

Seminole some flexibility to specify (modify) the amount purchased in future years. This is primarily a peaking type resource. Quantities vary by month based upon Seminole's committed capacity designations and actual monthly coincident demands. Seminole's forecast of purchased PR capacity during 2008 is 1,191 MW in the winter season and 550 MW in the summer season.

- PEF Virtual Delivery Point Additional 150 MW of requirements load following service beginning January 2010 and increasing with load growth through July 30, 2020.
- Lee County Resource Recovery 35 MW firm base load (waste-to-energy) capacity through October 2007 and then increasing to 55 MW through July 30, 2020.
- Reliant Energy Florida, LLC 364 MW firm peaking capacity from December 2008 through May 2014, plus an additional 182MW from December 2009 through May 2014.
- Oleander Power Project, Limited Partnership (a subsidiary of Southern Power Company previously a subsidiary of Constellation Energy Group) - 546 MW firm peaking capacity thru 2015.
- Calpine Construction Finance Company, L.P. (a subsidiary of Calpine Corporation) approximately 360 MW firm intermediate capacity from Calpine's Osprey gas combined cycle plant in Polk County, for the period June 2004 through May 2012.
- Hardee Power Partners Limited (HPP) (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, extending



through 2012. Seminole has a unilateral option to purchase the HPS upon termination of the purchase agreement.

- The City of Gainesville Full requirements service for a specified delivery point (approximate 19 MW peak demand in 2006) with certain notice provisions for termination beyond 2012.
- Telogia Power, LLC 12 MW biomass (wood and paper waste) capacity through 2019.
- Bio-Energy Partners 7 MW firm landfill gas to energy capacity through 2009.



	Schedule 1.1												
Existing Generating Facilities As of December 31, 2006													
	Alt Fuel Fuel Comm'l Expected Max								pability				
				Fue	1	Transpor	-	Fuel Days	Comm'l In-Svc	Expected Retirement	Max Nameplate	Summer	Winter
Plant	Unit No.	Location	Unit Type	Primary	Alt	Primary	Alt	Use	Mo/Yr	Mo/Yr	MW	MW	MW
SGS	1	Palatka	ST	BIT/PC	N/A	RR	N/A	N/A	02/84	Unk	715	658	665
SGS	2	Palatka	ST	BIT/PC	N/A	RR	N/A	N/A	12/84	Unk	715	658	665
PCGS	1-3	Hardee County	сс	NG	DFO	PL	TK	N/A	01/02	Unk	587	488	533 (1)
PCGS	4-8	Hardee County	СТ	NG	DFO	PL	TK	N/A	12/06	Unk	411	270	280 (2)
Crystal River	3	Citrus County	ST	NUC	N/A	ТК	N/A	N/A	03/77	Unk	890	15	15
Abbrevi	ations:	U	nit Tyr	<u>e</u>	Fuel Type						Fuel Transp	ortation	
		Unk	- Unkn	own	BIT - Bituminous Coal				al	PL - Pipeline			
		N/A – N	Not app	licable	NG - Natural Gas					RR - Rai	lroad		
		ST - St incluc	eam Tu ling nu		NUC - Nuclear					TK - Tr	uck		
			mbine	d Cycle	PC – Petroleum Coke			e					
			Combu Yurbine		I	DFO - №	. 2 Die	sel Fue	l Oil				

⁽¹⁾ PCGS 1-3 winter net capability expected to increase to 567 MW as of 12/2007

⁽²⁾ PCGS 4-8 winter net capability based on liquid fuel

Utility Interconnection	Voltage (kV)	Location
FPL	230	Rice
FPL	230	Rice
FPL	230	SGS
FPL	230	SGS
FPL	230	Charlotte
TECO	230	Hardee Sub
Hardee Power Partners, ' Limited	230	Hardee Sub
PEF	230	Vandolah
JEA	230	Firestone Tie Point
City of Ocala	230	Ocala #2 Tie Point
PEF	230	Martin West Tie Point
PEF	230	Silver Springs Tie Point
PEF	230	Silver Springs
PEF	230	Dearmin Tie Point

Schedule 1.2 Seminole Interconnections with Other Utilities

Note: This table describes the interconnection of physical facilities. The interconnections as described 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 end use customers, Seminole cannot and does not offer conservation or DSM programs directly to retail consumers. Seminole does, however, promote Member involvement in DSM through its wholesale rate signals and its residential load management and load management generator programs. The conservation and DSM offerings by Seminole's Members include direct load control, distribution system voltage reduction, contractually interruptible load, customer-based load management generator programs, consumer awareness programs, energy audits, energy surveys, time-of-use rates, lighting conversion programs, and low interest energy conservation loans.

Seminole's load management generator programs allow its Members to partner with their retail customers to install "behind the meter" customer-based DG (distributed generation) to operate as dispatchable load management resources for Seminole's system, while providing on-site back up generation to improve customer reliability.

Seminole's coordinated DSM program reduces Seminole's peak demand, and the load forecast takes into account reductions due to DSM. While the effect of conservation is reflected in the load forecast, its value is not directly identified because of the difficulty in measuring the impact of the diverse programs of Seminole's Members.



2. FORECAST OF ELECTRIC POWER 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 period of 1996-2005, Seminole's residential customer growth rate was 3.2 percent compared to 2.5 percent for Florida.

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. Also, 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. Seminole's growth rates for consumers, energy, and peak demand have been higher than those for Florida as a whole during the past decade. This pattern is expected to continue in the future.

2.2.2 Population and Consumers. Historical and forecasted population for Seminole Members' service area is shown on Schedule 2.1. 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. The forecast of residential consumers is shown in Schedule 2.1 and the forecast of commercial consumers is shown in Schedule 2.2.

2.2.3 Usage per Consumer. Between 1996 and 2005, residential usage per consumer in Seminole Members' service area increased at an average annual rate of 1.3 percent. Growth in average usage is consistent with Seminole's Residential Appliance Survey results which show steady increases in appliance saturations and larger homes, during the last decade. Survey results reveal growth in not only traditional appliance loads but also in new loads such as home computers and other electronic equipment.



Table 1									
Homes and Electric Appliance Saturations (%)									
	1992	2002							
Single Family Homes	61	65							
Homes > 2000 sq ft	15	23							
Homes < 1200 sq ft	33	21							
Primary Space Heating	73	86							
Air Conditioning	92	97							
Heat Pump	28	57							
Water Heater	89	93							
Refrigerator	99	100							
Television	99	99							
Home Computers	13	64							
VCR	69	86							
Electric Range	77	84							
Microwave Oven	88	97							
Dishwasher	53	68							
Clothes Dryer	76	87							
Pool Pump	16	16							
SOURCE: "Residential Survey," Sem	inole Electric Co	poperative, Inc.,							
1992 and 2	.002	_i v							

Table 1 below summarizes survey results for 1992 and 2002 (Seminole's latest survey).

During this period, larger homes were built and appliance saturations steadily increased.

Historically, electricity prices in nominal terms have shown steady declines until 2001. At that point nominal prices began to rise. More importantly, real prices (prices adjusted for inflation) also began to rise and then level off. Seminole's current forecast of energy usage per consumer reflects a slightly declining real price of electricity. It is anticipated that future forecasts of energy usage per consumer may reflect a more levelized real price of electricity.



Residential energy usage per consumer on the Seminole system is expected to grow at an annual rate of 1.4 percent through 2016. The trend of larger homes and increases in electric appliance saturations are expected to continue; contributing to higher energy consumption levels in the future. Moderating factors are projections of better appliance efficiencies, home insulation, and the near full saturation of air conditioning in the Members' service area.

Commercial usage per consumer is much lower on the Seminole system than in Florida as a whole, 57,677 KWh versus 80,263 KWh in 2005. 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 grow at an average annual growth rate of 0.8 percent through 2016.

2.2.4 Energy Sales and Purchases. Residential energy sales are projected to grow at 3.9 percent annually between 2007 and 2016. This forecast reflects energy savings from historical conservation efforts, and incremental conservation growth at the same rate of adoption. Commercial energy sales are projected to grow at an annual average of 3.8 percent, over the same period. The forecasts of residential, commercial, and other class sales are shown on Schedules 2.1 and 2.2.

2.2.5 Peak Demand. Seminole's winter peak demand is projected to increase at an average annual rate of 3.8 percent and its summer peak demand is projected to increase at an average annual rate of 3.6 percent.

Seminole as a whole and most of the Member systems are expected to continue to be winter peaking. For the Seminole system, winter peaks are expected to be approximately 25



percent higher than summer peaks. This 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 2007, as part of a recently adopted strategic initiative, Seminole and its Members will be assessing the viability of a range of demand side alternatives.

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

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 Bureau of Economic Business Research's (BEBR) alternative scenarios.



	History and Forecast of Energy Consumption and Number of Customers by Customer Class									
			RESIDE	RESIDENTIAL						
Year	Estimated Population Served by Members	Members Per Household	GWh	Average Number of Customers	Average KWh Consumption Per Customer					
1997	1, 267,531	2.19	7,238	578,345	12,515					
1998	1,300,817	2.18	7,975	592,441	13,461					
1999	1,336,626	2.20	7,993	607,059	13,167					
2000	1,375,372	2.21	8,550	623,151	13,721					
2001	1,414,979	2.21	8,755	640,290	13,673					
2002	1,452,155	2.20	9,543	661,332	14,430					
2003	1,499,453	2.19	10,016	686,140	14,598					
2004	1,554,439	2.18	10,221	713,547	14,324					
2005	1,612,226	2.17	10,807	744,630	14,513					
2006	1,656,828	2.15	11,153	780,688	14,286					
2007	1,701,431	2.14	11,599	795,654	14,578					
2008	1,746,032	2.13	12,140	819,639	14,811					
2009	1,790,635	2.12	12,624	843,528	14,966					
2010	1,835,235	2.12	13,158	867,436	15,169					
2011	1,862,072	2.10	13,658	888,317	15, 375					
2012	1,896,665	2.09	14,219	909,241	15,638					
2013	1,931,614	2.08	14,719	930,170	15,824					
2014	1,965,594	2.07	15,276	951,100	16,061					
2015	2,004,519	2.06	15,837	972,030	16,293					
2016	2,040,951	2.06	16,436	991,882	16,571					

Schedule 2.1



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Schedule 2.2 History and Forecast of Energy Consumption and Number of Customers by Customer Class								
Year	GWh	Average No. of Commercial Customers	Average KWh Consumption Per Customer	Other Sales GWh	Total Sales GWh			
1997	2,809	55,263	50,827	123	10,169			
1998	2,959	57,012	51,908	117	11,051			
1999	3,108	59,043	52,632	127	11,228			
2000	3,415	62,842	54,339	135	12,100			
2001	3,549	66,729	53,185	126	12,430			
2002	3,727	68,742	54,219	163	13,433			
2003	3,961	70,263	56,370	161	14,138			
2004	4,195	74,239	56,510	166	14,583			
2005	4,456	77,548	57,462	158	15,421			
2006	4,720	84,613	55,766	176	16,049			
2007	4,920	85,589	57,479	180	16,698			
2008	5,133	88,529	57,983	186	17,460			
2009	5,324	91,489	58,197	191	18,140			
2010	5,532	94,462	58,568	197	18,887			
2011	5,742	97,380	58,962	202	19,602			
2012	5,974	100,310	59,551	208	20,401			
2013	6,180	103,151	59,911	213	21,112			
2014	6,403	105,900	60,466	218	21,897			
2015	6, 627	108,652	60,990	223	22,687			
2016	6,870	111,354	61,688	229	23,534			
NOTES:		class includes industrial cu lass includes lighting custo						



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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 (Average Number)	Total Number of Customers				
1997	0	828	10,997	3,514	637,121				
1998	0	929	11,980	3,586	656,565				
1999	0	939	12,167	3,593	669,695				
2000	0	994	13,094	3,765	689,758				
2001	0	864	13,294	3,901	710,920				
2002	0	1,257	14,690	5,106	734,264				
2003	0	1,640	15,778	5,240	761,639				
2004	0	1,830	16,413	5,326	793,112				
2005	0	1,345	16,766	5,473	827,651				
2006	0	1,306	17,355	4,834	870,135				
2007	0	1,397	18,095	5,714	886,957				
2008	0	1,456	18,916	5,838	914,006				
2009	0	1,518	19,658	5,963	940,980				
2010	0	1,582	20,469	6,088	967,986				
2011	0	1,643	21,245	6,207	991,904				
2012	0	1,706	22,107	6,325	1,015,876				
2013	0	1,771	22,883	6,442	1,039,763				
2014	0	1,838	23,735	6,560	1,063,561				
2015	0	1,905	24,592	6,680	1,087,362				
2016	0	1,971	25,506	6,799	1,110,035				



		н	istory and	l Forecast of S	ule 3.1.1 ummer Peal e Case	x Demand (1	MW)		
					Resid	ential	Comm	nercial	
Year	Total	Whole- sale	Retail	Distributed Generation	Load Manage- ment 1	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand
1997	2,443	2,443	0	N/A	123	N/A	N/A	N/A	2,320
1998	2,756	2,756	0	N/A	150	N/A	N/A	N/A	2,606
1999	2,719	2,719	0	N/A	92	N/A	N/A	N/A	2,627
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	3,092	3,092	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	3,883	3,883	0	97	95	N/A	N/A	N/A	3,691
2008	4,033	4,033	0	97	95	N/A	N/A	N/A	3,841
2009	4,187	4,187	0	97	95	N/A	N/A	N/A	3,995
2010	4,344	4,344	0	97	95	N/A	N/A	N/A	4,152
2011	4,491	4,491	0	97	95	N/A	N/A	N/A	4,299
2012	4,646	4,646	0	97	95	N/A	N/A	N/A	4,454
2013	4,804	4,804	0	97	95	N/A	N/A	N/A	4,612
2014	4,965	4,965	0	97	95	N/A	N/A	N/A	4,773
2015	5,127	5,127	0	97	95	N/A	N/A	N/A	4,935
2016	5,286	5,286	0	97	95	N/A	N/A	N/A	5,094
NOTES:				a is actual amou nount available		l at the time	of the seasor	nal peak der	nand.



	Schedule 3.1.2 Forecast of Summer Peak Demand (MW) High Case												
					Resid	ential	Comm	ercial					
Year	Total	Whole- sale	Retail	Distributed Generation	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand				
2007	4,031	4,031	0	97	95	N/A	N/A	N/A	3,839				
2008	4,210	4,210	0	97	95	N/A	N/A	N/A	4,018				
2009	4,393	4,393	0	97	95	N/A	N/A	N/A	4,201				
2010	4, 580	4,580	0	97	95	N/A	N/A	N/A	4,388				
2011	4,764	4,764	0	97	95	N/A	N/A	N/A	4,571				
2012	4,959	4,959	0	97	95	N/A	N/A	N/A	4,767				
2013	5,155	5,155	0	97	95	N/A	N/A	N/A	4,963				
2014	5,357	5,357	0	97	95	N/A	N/A	N/A	5,165				
2015	5,562	5,562	0	97	95	N/A	N/A	N/A	5,370				
2016	5,787	5,787	0	97	95	N/A	N/A	N/A	5,595				

	Schedule 3.1.3 Forecast of Summer Peak Demand (MW) Low Case												
					Resid	ential	Comm	ercial					
Year	Total	Whole- sale	Retail	Distributed Generation	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand				
2007	3,657	3,657	0	97	95	N/A	N/A	N/A	3,465				
2008	3,771	3,771	0	97	95	N/A	N/A	N/A	3,579				
2009	3,888	3,888	0	97	95	N/A	N/A	N/A	3,696				
2010	4,008	4,008	0	97	95	N/A	N/A	N/A	3,816				
2011	4,105	4,105	0	97	95	N/A	N/A	N/A	3,913				
2012	4,215	4,215	0	97	95	N/A	N/A	N/A	4,023				
2013	4,328	4,328	0	97	95	N/A	N/A	N/A	4,136				
2014	4,446	4,446	0	97	95	N/A	N/A	N/A	4,254				
2015	4,563	4,563	0	97	95	N/A	N/A	N/A	4,371				
2016	4,677	4,677	0	97	95	N/A	N/A	N/A	4,485				



Schedule 3.2.1 History and Forecast of Winter Peak Demand (MW) Base Case												
					Resid	ential	Comm	nercial	[
Year	Total	Whole- sale	Retail	Distributed Generation	Load Manage- ment 1	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand			
1996-97	3,040	3,040	0	N/A	128	N/A	N/A	N/A	2,912			
1997-98	2,529	2,529	0	N/A	115	N/A	N/A	N/A	2,414			
1 998-99	3,416	3,416	0	N/A	220	N/A	N/A	N/A	3,196			
1999-00	3,148	3,148	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	3,698	3,698	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	4457	4,457	0	63	143	N/A	N/A	N/A	4,251			
2006-07	3,883	3,883	0	76	133	N/A	N/A	N/A	3,674			
2007-08	5,033	5,033	0	97	140	N/A	N/A	N/A	4,796			
2008-09	5,234	5,234	0	97	140	N/A	N/A	N/A	4,997			
2009-10	5,443	5,443	0	97	140	N/A	N/A	N/A	5,206			
2010-11	5,644	5,644	0	97	140	N/A	N/A	N/A	5,407			
2011-12	5,847	5,847	0	97	140	N/A	N/A	N/A	5,610			
2012-13	6,057	6,057	0	97	140	N/A	N/A	N/A	5,820			
2013-14	6,274	6,274	0	97	140	N/A	N/A	N/A	6,037			
2014-15	6,492	6,492	0	97	140	N/A	N/A	N/A	6,255			
2015-16	6,710	6,710	0	97	140	N/A	N/A	N/A	6,473			
2016-17	6,928	6,928	0	97	140	N/A	N/A	N/A	6,691			



	Schedule 3.2.2 Forecast of Winter Peak Demand (MW) High Case													
					Resid	lential	Comm	nercial						
Year	Total	Whole- sale	Retail	Distributed Generation	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand					
2007-08	5,260	5,260	0	97	140	N/A	N/A	N/A	5,023					
2008-09	5,498	5,498	0	97	140	N/A	N/A	N/A	5,261					
2009-10	5,745	5,745	0	97	140	N/A	N/A	N/A	5,508					
2010-11	5,975	5,975	0	97	140	N/A	N/A	N/A	5,738					
2011-12	6,218	6,218	0	97	140	N/A	N/A	N/A	5,981					
2012-13	6,476	6,476	0	97	140	N/A	N/A	N/A	6,239					
2013-14	6,738	6,738	0	97	140	N/A	N/A	N/A	6,501					
2014-15	7,004	7,004	0	97	140	N/A	N/A	N/A	6,767					
2015-16	7,293	7,293	0	97	140	N/A	N/A	N/A	7,056					
2016-17	7,586	7,586	0	97	140	N/A	N/A	N/A	7,349					



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	Schedule 3.2.3 Forecast of Winter Peak Demand (MW) Low Case												
					Resid	ential	Comm	ercial					
Year	Total	Whole- sale	Retail	Distributed Generation	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand				
2007-08	4,755	4,755	0	97	140	N/A	N/A	N/A	4,518				
2008-09	4,909	4,909	0	97	140	N/A	N/A	N/A	4,672				
2009-10	5,070	5,070	0	97	140	N/A	N/A	N/A	4,833				
2010-11	5,207	5,207	0	97	140	N/A	N/A	N/A	4,970				
2011-12	5,343	5,343	0	97	140	N/A	N/A	N/A	5,106				
2012-13	5,490	5,490	0	97	140	N/A	N/A	N/A	5,253				
2013-14	5,643	5,643	0	97	140	N/A	N/A	N/A	5,406				
2014-15	5,800	5,800	0	97	140	N/A	N/A	N/A	5,563				
2015-16	5,955	5,955	0	97	140	N/A	N/A	N/A	5,718				
2016-17	6,106	6,106	0	97	140	N/A	N/A	N/A	5,869				



	Schedule 3.3.1 History and Forecast of Annual Net Energy for Load (GWh) Base Case											
		Conse	rvation		Total	Utility Use	Net Energy for	Load				
Year	Total	Residential	Commercial	Retail	Sales	& Losses	Load	Factor %				
1997	10,997	N/A	N/A	0	10,169	828	10,997	43.0				
1998	11,980	N/A	N/A	0	11,051	929	11,980	56.5				
1999	12,167	N/A	N/A	0	11,228	939	12,167	43.3				
2000	13,094	N/A	N/A	0	12,100	994	13,094	46.5				
2001	13,294	N/A	N/A	0	12,430	864	13,294	41.7				
2002	14,690	N/A	N/A	0	13,433	1,257	14,690	46.9				
2003	15,778	N/A	N/A	0	14,138	1,640	15,778	43.2				
2004	16,413	N/A	N/A	0	14,583	1,830	16,413	52.9				
2005	16,766	N/A	N/A	0	15,421	1,345	16,766	49.5				
2006	17,355	N/A	N/A	0	16,049	1,306	17,355	46.4				
2007	18,095	N/A	N/A	0	16,698	1,397	18,095	44.9				
2008	18,916	N/A	N/A	0	17,460	1,456	18,916	44.9				
2009	19,658	N/A	N/A	0	18,140	1,518	19,658	44.8				
2010	20,469	N/A	N/A	0	18,887	1,582	20,469	44.8				
2011	21,245	N/A	N/A	0	19,602	1,643	21,245	44.8				
2012	22,107	N/A	N/A	0	20,401	1,706	22,107	44.9				
2013	22,883	N/A	N/A	0	21,112	1,771	22,883	44.8				
2014	23,735	N/A	N/A	0	21,897	1,838	23,735	44.8				
2015	24,592	N/A	N/A	0	22,687	1,905	24,592	44.8				
2016	25,506	N/A	N/A	0	23,534	1,971	25,506	44.8				



	Schedule 3.3.2 Forecast of Annual Net Energy for Load (GWh) High Case												
		Conse	rvation			Utility Use	Net Energy for	Load					
Year	Total	Residential	Commercial	Retail	Wholesale	& Losses	Load	Factor %					
2007	18,886	N/A	N/A	0	17,413	1,473	18,886	45.0					
2008	19,795	N/A	N/A	0	18,250	1, 545	19,795	44.9					
2009	20,720	N/A	N/A	0	19,102	1,618	20,720	44.9					
2010	21,671	N/A	N/A	0	19,978	1,693	21,671	44.9					
2011	22,639	N/A	N/A	0	20,870	1,769	22,639	45.0					
2012	23,669	N/A	N/A	0	21,818	1,851	23,669	45.1					
2013	24,710	N/A	N/A	0	22,778	1,932	24,710	45.2					
2014	25,787	N/A	N/A	0	23,770	2,017	25,787	45.2					
2015	26,849	N/A	N/A	0	24,748	2,101	26,849	45.2					
2016	28,001	N/A	N/A	0	25,809	2,192	28,001	45.2					



	Schedule 3.3.3 Forecast of Annual Net Energy for Load (GWh) Low Case												
		Conse	rvation			Utility Use	Net Energy for	Load					
Year	Total	Residential	Commercial	Retail	Wholesale	& Losses	Load	Factor %					
2007	17,120	N/A	N/A	0	15,786	1,334	17,120	44.7					
2008	17,722	N/A	N/A	0	16,340	1,382	17,722	44.7					
2009	18,333	N/A	N/A	0	16,903	1,430	18,333	44.7					
2010	18,962	N/A	N/A	0	17,482	1,480	18,962	44.7					
2011	19,573	N/A	N/A	0	18,045	1,528	19,573	44.9					
2012	2 0,190	N/A	N/A	0	18,613	1,577	20,190	44.9					
2013	20,830	N/A	N/A	0	19,202	1,628	20,830	45.1					
2014	21,499	N/A	N/A	0	19,820	1,679	21,499	45.3					
2015	22,137	N/A	N/A	0	20,407	1,730	22,137	45.4					
2016	22,769	N/A	N/A	0	20,989	1,780	22,769	45.4					



		Previous Year and and Net E	nergy for Load b				
	2006	Actual	2007 F	orecast	2008 Forecast		
Month	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh	
January	3,396	1,317	4,597	1,550	4,796	1,618	
February	4,251	1,262	3,575	1,249	3,732	1,350	
March	2,648	1,227	3,138	1,311	3,277	1,369	
April	3,033	1,312	2,881	1,309	3,008	1,368	
May	3,366	1,507	3,361	1,577	3,508	1,647	
June	3,490	1,644	3,483	1,624	3,629	1,692	
July	3,567	1,771	3,615	1,790	3,763	1,864	
August	3,658	1,825	3,691	1,842	3,841	1,918	
September	3,397	1,593	3,374	1,595	3,511	1,660	
October	3,163	1,384	3,208	1,451	3,343	1,512	
November	2,646	1,215	2,931	1,287	3,059	1,343	
December	2,892	1,298	3,793	1,510	3,955	1,575	
ANNUAL		17,355		18,095		18,916	



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) 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: medium, low, and high scenarios. Historical population growth trends are analyzed to determine the most appropriate combination of scenarios for each Member system. High and low 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's, March 2005 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 slightly decline in the future. This is based on system wide historical declines in 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. In order 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 and cooling degree hours (HDH, 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 have been furnished by the Member systems to Seminole back to 1970. 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 180 delivery points, for the period January 1979 to the present. This data 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.

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. Forecasts are benchmarked using 2004 actual data. Seasonally adjusted monthly forecasts are developed from the annual data. Expected new large commercial consumers are included in the forecast.

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.





Integrated Forecasting System



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 spaceheating 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 energy in the last year of the analysis period (2004). 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. Energy usage per consumer forecasts are benchmarked to the last year of the historical period 2004. Energy usage per consumer forecasts 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 classes 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 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 (two-year actual and ten-year forecast) for owned and future generating units are shown on Schedule 5. Seminole's total system energy sources in GWh and percent for each fuel type (two-year actual and ten-year forecast) are shown on Schedules 6.1 and 6.2, respectively.

Seminole has additional requirements for base load capacity in the 2016 and beyond time frame. Seminole has reflected base load capacity additions which are assumed to be from a portfolio of non-gas/oil resources such as coal, nuclear, and/or biomass.



						Sci	hedule 5							-
				Fuel R	equireme	nts For S	eminole (Generatin	g Resour	ces				
			Actu	ıal	ĺ									
Fuel Requi	rements	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nuclear		Trillion BTU	1	1	1	1	1	1	1	2	1	2	1	2
Coal		1000 Tons	3,813	3,700	3,897	3,779	3,794	3,824	3,799	5,172	5,813	5,741	5,823	6,676
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
	сс	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
	СТ	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
	Diesel	1000 BBL	0	0	0	0	0	0	0	0	0	0 .	0	0
Distillate	Total	1000 BBL	62	434	120	118	110	97	91	111	295	407	395	330
	Steam	1000 BBL	44	422	44	43	45	45	45	61	69	68	67	77
	сс	1000 BBL	18	0	0	0	0	0	0	0	0	0	0	0
	СТ	1000 BBL	0	12	76	75	65	52	46	50	226	339 .	328	253
Natural Gas	Total	1000 MCF	13,867	16,465	22,130	23,576	23,491	25,709	34,749	28,956	31,475	52,907	58,938	50,222
	Steam	1000 MCF	0	0	0	0	0	0	0	0	0	0	0	0
	СС	1000 MCF	13,867	16,323	20,767	22,224	22,011	24,523	33,695	27,825	26,211	45,088	51,295	44356
	СТ	1000 MCF	0	142	1,363	1,350	1,480	1,186	1,054	1,131	5,264	7,819	7,643	5,866
Other			0	0	0	0	0	0	0	0	0	0	0	0
	Above	Above fuel is for owned and future generating resources (excluding purchased power contracts).												



							chedule 6. Sources (·····	· <u> </u>		,		
_		-	Act	ual										
Energy So	urces	Units	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Inter-Regi Interchar	onal nge	GWh	0	0	0	0	0	0	0	0	0	0	0	0
Nuclear		GWh	109	119	115	178	113	124	115	140	129	140	129	140
Coal		GWh	9,784	9,631	10,166	10,162	10,635	10,161	9,908	13,553	15,247	14,836	14,880	17,12
Residual	Total	GWh	0	478	743	888	814	507	404	383	344	68	62	51
	Steam	GWh	0	478	743	888	814	507	404	383	344	68	62	51
	сс	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	СТ	GWh	0	0	0	0	0	0	0	0	0	0	0	0
Distillate	Total	GWh	127	389	173	211	301	314	285	248	318	257	232	192
	Steam	GWh	26	256	26	25	27	30	29	40	44	43	42	48
	сс	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	СТ	GWh	101	133	147	186	274	284	256	208	274	214	190	144
Natural Gas	Total	GWh	3,644	6,415	6,325	6,899	7,207	8,834	10,004	7,689	6,752	8,341	9,196	7,90
	Steam	GWh	0	275	792	832	966	1,564	1,187	1,059	1,064	204	188	15
	сс	GWh	3,241	5,054	4, 571	4,863	4,773	5,128	6,752	4,728	3,542	6,303	7,236	6,13
	СТ	GWh	403	1,086	962	1,204	1,468	2,142	2,065	1,902	2,146	1,834	1,772	1,6
NUG		GWh	0	0	0	0	0	0	0	0	0	0	0	0
Renewables		GWh	336	323	573	578	588	529	529	94	93	93	93	94
Other (1)		GWh	3,177	0	0	0	0	0	0	0	0	0	0	0
Net Energy i	for Load	GWh	17,177	17,355	18,095	18,916	19,658	20,469	21,245	22,107	22,883	23,735	24,592	25,5

NOTES: (1) 2005 "Other" values are net interchange + PEF system purchases, 2006 and later net interchange and PEF system purchases are included under source fuel categories.



							chedule 6. Sources (1							
			Ac	tual										
Energy So	urces	Units	2005	2006	2007	2008	2009	2 010	2011	2012	2013	2014	2015	201
Inter-Reg Intercha		%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Nuclear		%	0.63	0.69	0.63	0.94	0.58	0.60	0.54	0. 64	0.56	0.59	0.52	0.5
Coal		%	56.96	55.49	56.18	53.72	54.10	49.64	46.64	61.30	66.63	62.50	60.51	67.1
Residual	Total	%	0.00	2.75	4.11	4.69	4.14	2.48	1.90	1.73	1.50	0.29	0.25	0.2
	Steam	%	0.00	2.75	4.11	4.69	4.14	2.48	1.90	1.73	1.50	0.29	0.25	0.2
	сс	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	СТ	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Distillate	Total	%	0.74	2.25	0.95	1.12	1.54	1.54	1.34	1.12	1.39	1.08	0.94	0.7
	Steam	%	0.15	1.48	0.14	0.13	0.14	0.15	0.14	0.18	0.19	0.18	0.17	0.1
	сс	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	СТ	%	0.59	0.77	0.81	0.99	1.40	1.39	1.20	0.94	1.20	0.90	0.77	0.5
Natural Gas	Total	%	21.22	36.96	34.96	36.48	36.66	43.16	47.09	34.79	29.51	35.14	37.39	30.
	Steam	%	0.00	1.58	4.38	4.40	4.91	7.64	5.59	4.79	4.65	0.86	0.76	0.6
	СС	%	18.87	29.2	25.26	25.71	24.28	25.05	31.78	21.39	15.48	26.55	29.42	24.
	СТ	%	2.35	6.26	5.32	6.37	7.47	10.47	9.72	8.61	9.38	7.73	7.21	6.:
NUG		%		0	0	0	0	0	0	0	0	0	0	C
Renewables		%	1.96	1.86	3.17	3.06	2.99	2.59	2.49	0.42	0.41	0.39	0.38	0.:
Other (1)		%	18.5	0	0	0	0	0	0	0	0	0	0	(
Net Energy	for Load	%	100	100	100	100	100	100	100	100	100	100	100	10

NOTES: (1) 2005 "Other" values are net interchange + PEF system purchases. 2006 and later net interchange and PEF 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 Seminole Direct Serve (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 Partial Requirements 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 partial requirement (PR) purchases from PEF. PEF has the contractual obligation to plan to meet these requirements and provide associated reserves.

In March 2002, Seminole issued an all-source RFP for peaking capacity which resulted in: (1) a contract for 150 MW of system peaking capacity for the period from December 2006 through 2013 with PEF, with the option to convert to system intermediate (Seminole has opted to convert the capacity to system intermediate), and (2) 310 MW of self-build aero-derivative peaking capacity to be built at the Payne Creek site (became operational in 2006).

In late 2003, Seminole issued an RFP for full requirements power purchases wherein a seller would serve a portion of Seminole's load requirement on a load following basis. As a result, a purchased power contract was executed with PEF for requirements service for a 150 MW portion of Seminole's load beginning January 2010, and expanding with load growth.

In April 2004, Seminole issued another all-source RFP for base load capacity for the 2009-2012 time frame. Concurrently, Seminole hired an engineering consultant to prepare a feasibility study and cost estimate for a third coal unit at Seminole Generating Station (SGS).

The self-build SGS unit has since been evaluated as the most economical and best alternative. Seminole began the permitting and need petition process for a 750 MW pulverized coal unit in March 2006 with a planned commercial operation date of May 1, 2012. Seminole received its approval for need from the FPSC in August 2006. Site certification is expected in April 2007.

Seminole has a FERC-filed qualifying facility 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 Seminole's market interactions, purchased power contracts have been made for renewable energy facility, Lee County Resource Recovery, for approximately 35 MW of capacity which increases to 55 MW in November 2007. More recently, Seminole has signed contracts with Telogia Power, LLC, a 12 MW biomass (wood waste) burning facility, and with Bio-Energy Partners, a 7 MW landfill methane gas burning facility.

Schedules 7.1, 7.2 and 8 include the addition of approximately 4,000MW of capacity by 2016 at SGS and yet unspecified sites. 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 needs. The addition of this capacity (other than SGS 3) is at sites to be determined.

Future economic studies, in conjunction with Seminole's competitive bidding process, will further optimize the amount, type, and timing of such capacity. The units at unknown sites

are shown for purposes of identifying capacity need, and in consideration of Seminole's competitive bidding process for purchased alternatives, do not represent at this time a commitment for construction by Seminole. Therefore, no Schedule 9 is included for these units.



Schedule 7.1

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

	Total	Firm	Firm Capacity Import		Firm		Capacity	Available	-	Firm Winter Demand					
	Installed Capacity	PR and FR	Other Purchases	Total	Capacity Export	QFs	Total	Less PR and FR	Total	Obligation	Reserve Ma Mainter	•	Scheduled Maintenance		largin After enance
Year	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	% of Pk	MW	MW	% of Pk
2007	2,095	484	1,606	2,090	0	0	4,185	3,701	3,691	3,207	494	15.4%	0	494	15.4%
2008	2,095	529	1,714	2,243	0	0	4,338	3,809	3,841	3,312	497	15.0%	0	497	15.0%
2009	2,094	397	2,044	2,441	0	0	4,535	4,138	3,995	3,598	540	15.0%	0	540	15.0%
2010	2,094	435	2,181	2,616	0	0	4,710	4,275	4,152	3,717	558	15.0%	0	558	15.0%
2011	2,252	458	2,165	2,623	0	0	4,875	4,417	4,299	3,841	576	15.0%	0	576	15.0%
2012	3,004	470	1,670	2,140	0	0	5,144	4,674	4,454	3,984	690	17.3%	0	690	17.3%
2013	3,320	494	1,416	1,910	0	0	5,230	4,736	4,612	4,118	618	15.0%	0	618	15.0%
2014	4,614	190	656	846	0	0	5,460	5,270	4,773	4,583	687	15.0%	0	687	15.0%
2015	5,088	196	662	858	0	0	5,946	5,750	4,935	4,739	1,011	21.3%	0	1,011	21.3%
2016	5,744	203	181	384	0	0	6,128	5,925	5,094	4,891	1,034	21.1%	0	1,034	21.1%

NOTES: 1 Total installed capacity and the associated reserve margins are based on Seminole's current base case plan.

2 Capacity Import/Other Purchases includes a firm purchase power contract from Hardee Power Partners for 287 MW of first-call capacity from the Hardee Power Station to back up 1240 MW of Seminole Generating Station and Crystal River #3.

3 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 on Seminole's Obligation.



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Schedule 7.2

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

	Total	Firm Capacity Import		Firm		Capacity	Available		Firm Winter Demand						
	Installed Capacity	PR and FR	Other Purchases	Total	Capacity Export	QFs	Total	Less PR and FR	Total	Obligation	Reserve Ma Mainte	°	Scheduled Maintenance		Margin After enance
Year	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	% of Pk	MW	MW	% of Pk
2007/08	2,198	1,262	1,955	3,217	0	0	5,415	4,153	4,796	3,534	619	17.5%	0	619	17.5%
2008/09	2,227	1,165	2,234	3,399	0	0	5,626	4,461	4,997	3,832	629	16.4%	0	629	16.4%
2009/10	2,227	1,264	2,355	3,619	0	0	5,846	4,582	5,206	3,942	640	16.2%	0	640	16.2%
2010/11	2,407	1,328	2,325	3,653	0	0	6,060	4,732	5,407	4,079	653	16.0%	0	653	16.0%
2011/12	2,409	1,379	2,483	3,862	0	0	6,271	4,892	5,610	4,231	661	15.6%	0	661	15.6%
2012/13	3,339	1,447	1,690	3,137	0	0	6,476	5,029	5,820	4,373	656	15.0%	0	656	15.0%
2013/14	4,629	222	2,058	2,280	0	0	6,909	6,687	6,037	5,815	872	15.0%	0	872	15.0%
2014/15	5,349	230	1,580	1,810	0	0	7,159	6,929	6,255	6,025	904	15.0%	0	904	15.0%
2015/16	6,229	237	942	1,179	0	0	7,408	7,171	6,473	6,236	935	15.0%	0	935	15.0%
2016/17	6,409	244	1,005	1,249	0	0	7,658	7,414	6,691	6,447	967	15.0%	0	967	15.0%

NOTES: 1 Total installed capacity and the associated reserve margins are based on Seminole's current base case plan.

2 Capacity Import/Other Purchases includes a firm purchase power contract from Hardee Power Partners for 353 MW of first-call capacity from the Hardee Power Station to back up 1240 MW of Seminole Generating Station and Crystal River #3.

3 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 on Seminole's Obligation.







			Pla	anned a	and Pros	spectiv		chedule 8 erating Facility	Additions a	and Changes				
	Unit No.	Location (County)		Fuel		Fuel Transport			Comm'l In-	Expected	Maximum			
Plant Name			Unit Type	Pri	Alt	Pri	Alt	Construction Start Mo/Yr	Service Mo/Yr	Retirement Mo/Yr	Nameplate (MW)	Summer (MW)	Winter (MW)	Status
SGS	3	Putnam	ST	BIT		RR		9/2008	5/2012	Unk	750	750	750	Р
SEC Peaking	1	Unk	CT	NG	DFO	PL	TK	(1)	12/2012	Unk	180	158	180	Р
SEC Peaking	2	Unk	CT	NG	DFO	PL	TK	(1)	5/2013	Unk	180	158	180	Р
SEC Peaking	3	Unk	CT	NG	DFO	PL	ТК	(1)	12/2013	Unk	360	316	360	P
SEC Peaking	4	Unk	CT	NG	DFO	PL	TK	(1)	5/2014	Unk	360	316	360	P
SEC Peaking	5	Unk	CT	NG	DFO	PL	TK	(1)	12/2014	Unk	180	158	180	P
SEC Peaking	6	Unk	CT	NG	DFO	PL	TK	(1)	5/2015	Unk	180	158	180	P
SEC Peaking	7	Unk	CT	NG	DFO	PL	TK	(1)	12/2015	Unk	360	316	360	P
SEC Peaking	8	Unk	CT	NG	DFO	PL	TK	(1)	12/2016	Unk	180	158	180	Р
SEC Intermediate	1	Unk	СС	NG		PL	-	(1)	12/2010	Unk	180	158	180	Р
SEC Intermediate	2	Unk	CC	NG		PL	-	(1)	12/2013	Unk	720	632	720	Р
SEC Intermediate	3	Unk	СС	NG		PL	-	(1)	12/2014	Unk	180	158	180	P
SEC Base	1	Unk	ST	(3)		(4)		(1)	12/2015	Unk	340	340	340	Р
PCGS Rerate	1-3	Hardee/Polk	CC	NG	DFO	PL	ТК	N/A	12/2007	Unk	587	0	34	P
Abbreviations	Unk:	Unknown Begulatory a								<u> </u>	•		*	

U: Regulatory approval received. Under construction.

P: Planned, but not under construction.

(1) Future resource which may be existing or new as determined by future Request for Proposal results.

(2) Future base capacity blocks to be derived from a portfolio of various non-gas/oil resources such as biofuel, coal, nuclear sources.

(3) Base capacity fuel transport options include rail, water, truck and/or pipeline.



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, PR rate projections and financial assumptions. Various power supply options are evaluated to determine the overall effect on the Present Worth of Revenue Requirements (PWRR). The option with the lowest long-term PWRR is normally selected, all other things being equal. 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, capital costs of new generation, etc).

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 impact the US coal prices. The underlying value of coal at the mine will continue to rise with increased coal demand and direct mining costs. Additional coal delivered price increases and volatility will come from the cost of railcars, handling service contracts and transportation capacity impacts. As long-term rail transportation contracts come up for renewals, the railroads will place upward pressure on delivered coal costs to increase revenues and support the expansion of new track capacity and related facilities.

5.2.2 Oil. Global economic growth is expected to average approximately 3% annually which will result in steady growth in oil demand. Oil prices are expected to reflect a



continuation of tight supplies in the future. Due to the world energy market volatility for crude oil and refined products, the local markets for fuel oils will continue to be transmit that volatility to the energy market. Additional pressure to market pricing will be applied by 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. Continued extreme price volatility is expected. While natural gas prices have been forecasted to decline over the next few years and then increase over the long term, price volatility will be significantly impacted by weather related events and world market conditions. Increasing demand for natural gas in all sectors of industry can not be met by just increasing domestic natural gas production. This will place additional pressure on imports of liquefied natural gas (LNG) to meet the future requirement for natural gas. Supply and demand are expected to remain in balance over the long term, but short term imbalances will have a significant impact on prices. The natural gas market prices have started to be linked to world energy markets, which could be supported by an international gas cartel in the future.

5.2.4 Coal/Gas Price Differential. Seminole's underlying fuel price forecast assumes that a significant spread will continue to exist within the forecast period and beyond between coal and gas. This coal/gas price differential is the primary economic driver for Seminole's strategy to add coal capacity to the generation mix in 2012 to meet base load needs. Seminole's base fuel price forecast for this Ten Year Site Plan does not make any assumptions for future carbon emission initiatives, such as taxation or emission credits, that will impact the market prices for all fuels.



If legislation that penalizes carbon emissions is enacted in future years, Seminole costs to use all fossil fuels will rise since all fossil fuels emit carbon dioxide when burned. Seminole has performed sensitivities which suggest that the forecast coal/gas price differential is significant enough to retain coal as the economically favored base load fuel option even in conjunction with a moderate carbon emissions cost. 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 Rural Utilities Service (RUS) guaranteed 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 the nature of Seminole's power supply arrangements, reduction in peak demand does not usually affect the operation of Seminole's generating resources 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 demand.

Conservation and DSM programs will continue to be implemented at the discretion of Seminole's Member systems, based on their determination of the value and/or cost effectiveness of specific programs.

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% Equivalent 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 the winter season of 2012.



Figure 4

Resource Planning Process



* The Load Forecasting process is detailed in Section 2.4, "Forecast Methodology"



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 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/or other long-term purchased resources contribute stability to a power supply plan while short-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, are 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 depends on 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.

Seminole's recent decision to add a third coal unit at the Seminole Generating Station was for reliability and economic reasons, but also to avoid an over-reliance on natural gas for Seminole's future energy needs. Only a few years ago, gas combined cycle was considered to be an economic choice for base load capacity. But rising prices, increased volatility, and gas supply concerns have made coal-fired generation more attractive. The addition of the third coal unit is consistent with Seminole's fuel and portfolio diversity goals.



5.8 Procurement of Supply-side Resources

Seminole plans to continue to use its all-source RFP process in conjunction with the evaluation of self-build alternatives, as the primary means of making decision on future power supply needs. In its purchased power bids, Seminole solicits proposals from utilities, independent power producers, qualifying facilities, renewable energy providers, and power marketers. Options which are proposed through the RFP process are compared to Seminole's self-build alternatives. 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 Terminal From	Line Terminal To	Circuit	Line Miles	Comm'l In- Svc Date	Nominal Voltage (kV)	Capacity MVA
Upgrade	Seminole Plant	Silver Springs N	1	49.8	2012	230	1139
Upgrade	Seminole Plant	Silver Springs N	2	49.8	2012	230	1139



5.9.1 Transmission Facilities for Seminole Generating Station Expansion.

In 2012, Seminole will add a third coal-fired generating unit at SGS, with a nominal output of 750 MW. The following substation changes are required for SGS 3:

- 1. Upgrade the fault duty of all breakers at SGS to 63 kA.
- Upgrade SGS/Silver Springs North circuit #1 and SGS/Silver Springs North circuit #2 line terminals at SGS to 3000 Amps.
- 3. Upgrade the SGS/Silver Springs North circuit #1 and SGS/Silver Springs North circuit #2 line terminals at the Silver Springs North switchyard to 3000 Amps.



		hedule 9 ns of Proposed Generating Facilities
1	Plant Name & Unit Number	Seminole Generating Station Unit No. 3
2	Capacity	
	a. Summer (MW):	750
	b. Winter (MW):	750
3	Technology Type:	Pulverized Coal
4	Anticipated Construction Timing	
	a. Field construction start-date:	September 2008
	b. Commercial in-service date:	May 2012
5	Fuel	
	a. Primary fuel:	Coal
	b. Alternate fuel:	
6	Air Pollution Control Strategy	Precipitator, SCR, Wet Scrubber, Wet ESP, Combustion Controls
7	Cooling Method:	Cooling towers
8	Total Site Area:	Approximately 172.8 acres
9	Construction Status:	Planned
10	Certification Status:	Determination of Need received August 2006
11	Status With Federal Agencies	Permits applied for March 2006
12	Projected Unit Performance Data	
	Planned Outage Factor (POF):	7.5
	Forced Outage Factor (FOF):	3.5
	Equivalent Availability Factor (EAF):	90
	Resulting Capacity Factor (%):	85%
	Average Net Operating Heat Rate (ANOHR):	9,300 BTu/KWh (HHV)
13	Projected Unit Financial Data (\$2007)	
	Book Life (Years):	30
	Total Installed Cost (In-Service Year \$/kW):	1892
	Direct Construction Cost (\$/kW):	1619
	AFUDC Amount (\$/kW):	273
	Escalation (\$/kW):	Included in values above
	Fixed O&M (\$/kW-Yr):	26.16
	Variable O&M (\$/MWH):	.66
	K Factor:	N/A



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Schedule 10

Status Report and Specifications of Proposed Associated Transmission Lines

- (1) Point of Origin and Termination: SEE NOTE
- (2) Number of Lines:
- (3) Right-of-Way:
- (4) Line Length:
- (5) Voltage:
- (6) Anticipated Construction Timing
- (7) Anticipated Capital Investment:
- (8) Substations:
- (9) Participation with other Utilities:
- **Note:** Seminole is not planning to build any additional transmission lines in conjunction with the future capacity.



6. ENVIRONMENTAL AND LAND USE INFORMATION

Seminole Generating Station - Putnam County, Florida

The Seminole Generating Station (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). On March 9, 2006, Seminole submitted a supplemental site certification application pursuant to the Florida Electrical Power Plant Siting Act for an additional 750 MW coal fired electrical generating unit (SGS Unit 3) to be located adjacent to the existing units. SGS Unit 3 is scheduled to go into commercial operation in May 2012. The Florida Public Service Commission issued a Determination of Need for the project on August 7, 2006. SECI staff conducted meetings with Governor's cabinet aids in late November and received final State Land Use approval for Unit 3 on December 5, 2006.

A significant portion of the site has previously been cleared of vegetation and graded to accommodate Units 1 and 2. Units 1 and 2 went into commercial operation in February and December of 1984, respectively. The area around SGS Unit 3 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 a water intake structure, wastewater discharge structure, and pumping station to supply the facility with cooling and service water. The primary water uses for SGS Unit 3 will be for cooling water, wet flue gas desulfurization makeup, steam cycle makeup, and process service water. Cooling and service water will be pumped from the St. Johns River and groundwater supplied from on-site wells will be 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.

SGS Unit 3 will impact one small shrub wetland area and a portion of forested wetlands and wetland prairie associated with a new pipeline supplying water from the river. Mitigation for these impacts will be in accordance with the requirements of the Florida Department of Environmental Regulation.

The local government future land use for the area where the existing units and proposed SGS Unit 3 is located is designated as industrial use.

Water conservation measures that will be incorporated into the design of SGS Unit 3 will include the collection, treatment and recycling of plant process wastewater streams from SGS Unit 3 as well as SGS Units 1 and 2. This wastewater reuse will minimize groundwater and service water uses. Small amounts of recirculated condenser cooling water (cooling tower blowdown) will be withdrawn from the closed cycle cooling tower and discharged to the St. Johns River. Site stormwater will be reused to the maximum extent possible and any not reused will be treated in wet detention ponds and released to onsite wetlands.



The primary fuels for SGS Unit 3 will be bituminous coal and petcoke. No. 2 (distillate) fuel oil will be used for startups and flame stabilization. Coal and petcoke are currently and in the future will be delivered to the site by unit trains and fuel oil is delivered by truck. Coal and petcoke for SGS Unit 3 will be stored at the site, which requires additional area and equipment to meet the requirements of the third unit. Coal pile stormwater will be collected, treated and reused. An additional No. 2 fuel oil storage tank will be installed with the third unit. The plant maintains sufficient secondary containment for all storage tanks.

Unit 3 is designed so that solid waste from the FGD system will be treated to produce wallboard grade synthetic gypsum and sold for use in producing wallboard. Flyash will be reused as an additive for cement and concrete. Any solid wastes that are not recycled will be stored in a double lined landfill equipped with leachate collection or transported to a permitted landfill facility.

Unit 3 will utilize advanced supercritical coal boiler technology with state of the art emission controls meeting the EPA requirement for Best Available Control Technology. Air emission control systems will include Selective Catalytic Reduction (SCR) for NOx control, wet Flue Gas Desulfurization (FGD) systems for SO2 control, dry electrostatic precipitators (ESPthe collection and removal fine particulate matter) and a wet ESP for acid gas removal. These technologies will also remove more than 90% of the mercury contained in the flue gas.

Noise emissions during operation of SGS Unit 3 will not result in sound levels in excess of the Putnam County Noise Control Ordinance. Intermittent noise sources during startup, testing, maintenance, and emergency conditions may result in elevated noise levels for short durations but are not expected to cause a nuisance.



Additional information concerning SGS Unit 3 can be found in the "Site Certification Application and Environmental Analysis, Seminole Generating Station Unit 3" submitted to the FDEP.



Payne Creek Generating Station - Hardee County, Florida

The Payne Creek Generating Station (PCGS) 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.

Seminole has modified the site certification and has constructed 310 MW of combustion turbine peaking units at the PCGS that began commercial operation in December 2006.

