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

> Ten Year Site Plan 2004 - 2013 (Detail as of December 31, 2003) April 1, 2004

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TAMPA, FLORIDA

A GENERATION AND TRANSMISSION COOPERATIVE

DOCUMENT NUMBER-DATE

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Ten Year Site Plan 2004 - 2013 (Detail as of December 31, 2003) April 1, 2004

Submitted To: State of Florida Public Service Commission DOCUMENT NUMBER-DATE 04147 APR-13 FPSC-COMMISSION CLERK

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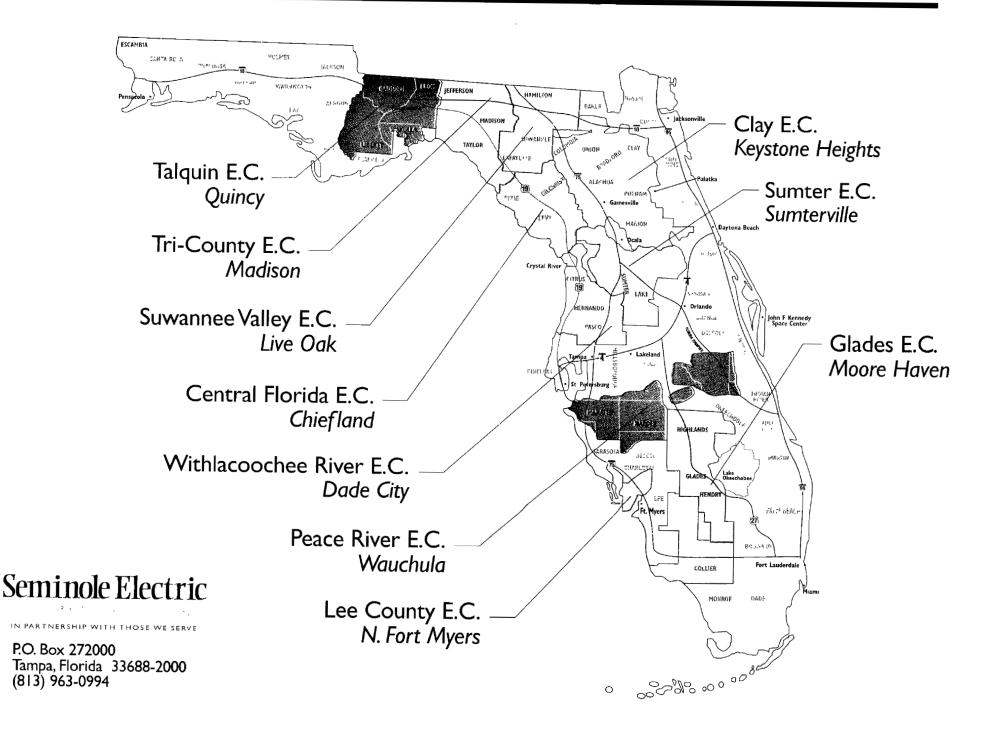


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Seminole's Member Distribution Cooperatives



1. DESCRIPTION OF EXISTING FACILITIES

1.1 Overview

Seminole Electric Cooperative, Inc. (Seminole) is a corporation organized and existing under the laws of the State of Florida for the purpose of providing reliable electric power at the lowest feasible cost to its ten distribution members systems. This is accomplished by generating, transmitting, purchasing, selling, exchanging, etc. electric power and energy, and constructing, owning, leasing, etc. such facilities if appropriate for this purpose.

The Seminole member cooperatives 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 these members is at present engaged primarily in the distribution of retail electric power; Seminole supplies full requirements power to the members. 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 system load with a combination of owned and purchased power resources. Seminole Generating Station ("SGS") Units 1 & 2,600 MW class coal-fired units, began commercial operation on February 1, 1984 and January 1, 1985, respectively. Payne Creek Generating Station ("PCGS") Unit #1, a 500 MW class gas-fired combined cycle unit began commercial operation on January 1, 2002. Seminole owns a 14.5 MW share of Progress Energy Florida's Crystal River 3 nuclear generating unit which is operated by Progress Energy Florida ("PEF"). A more detailed description of Seminole's owned facilities is provided in Schedule 1.

1.2.2 Transmission. Seminole owns a 52 mile 230 kV double circuit transmission line from the Seminole Plant to the Silver Springs North switching station, an 8 mile 230 kV double circuit line from the Seminole Plant to FPL's Rice Substation and a 9 mile 230 kV single circuit transmission line from the Hardee Power Station ("HPS") to PEF's Vandolah Substation. Seminole also owns a 78 mile 230 kV single circuit transmission line from HPS to Lee County Electric Cooperative's Lee Substation (a tie with FPL), and a 63 mile 230 kV single circuit transmission line from the SGS to an interconnection with Jacksonville Electric Authority at the Clay-Duval county line. Seminole jointly owns with PEF two 230 kV tie lines which connect its Silver Springs North Switching Station with PEF's Silver Springs substation.



Seminole owns fourteen (14) 69 kV transmission lines totalling140.6 miles in length: Clewiston to Cowbone Hammock, Otter Creek to Bronson, Otter Creek to Cedar Key, Cross City to Steinhatchee, Ortona Tap to Ortona, Spring Lake to Lorida, Andersen to Lake Panasoffkee, Belleview to Marion Oaks, Central Florida to Continental, Howey to Astatula, Altoona to Linadale, Scanlon Tap to Scanlon, Ft. Basinger to Basinger and Moore Haven to Lakeport. A map showing the location of Seminole's facilities is on page 6.

1.3 Purchased Power

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

- Jacksonville Electric Authority ("JEA") 63 MW of firm peaking capacity through August, 2004;
- Orlando Utilities Commission ("OUC") 75 MW of firm intermediate and peaking capacity through May 2004;
- Progress Energy Florida -
 - 150 MW of firm system intermediate capacity through 2013 with certain termination options;
 - 150 MW of firm system intermediate capacity June 2006 through 2013 with certain termination options;
 - 150 MW of firm system peaking capacity December 2006 through 2013 with certain conversion options;
 - Partial Requirements Load following requirements service through

¹ All ratings are winter unless otherwise noted.



December 2013, with certain notice options relative to the amount purchased (winter peak demand served in 2004 was 594 MW).

- Full Requirements Service 150 MW of Full requirements load following service beginning January 2010 and increasing with load growth through July 31, 2020.
- Lee County Resource Recovery 35 MW of firm base load capacity through November 2004 and increasing to 55 MW through December 31, 2011.
- Reliant 364 MW of firm peaking capacity through December 2006;
- Constellation 546 MW of firm peaking capacity thru December 2009;
- Calpine 360 MW of firm intermediate capacity for the period June 2004 thru
 May 2009, with openers for possible extension thereafter.
- TECO Power Services ("TPS") 362 MW of first call reserve capacity from the Hardee Power Station (HPS) to cover a forced or scheduled outage or reduced capability of SGS and CR3, extending through 2012. Seminole retains the option to purchase the HPS upon termination of the purchase agreement.
- Gainesville Regional Utilities ("GRU") Full requirements service for a firm service delivery point (approximate 13 MW), extending through 2023.

1.4 Demand Side Management (DSM)

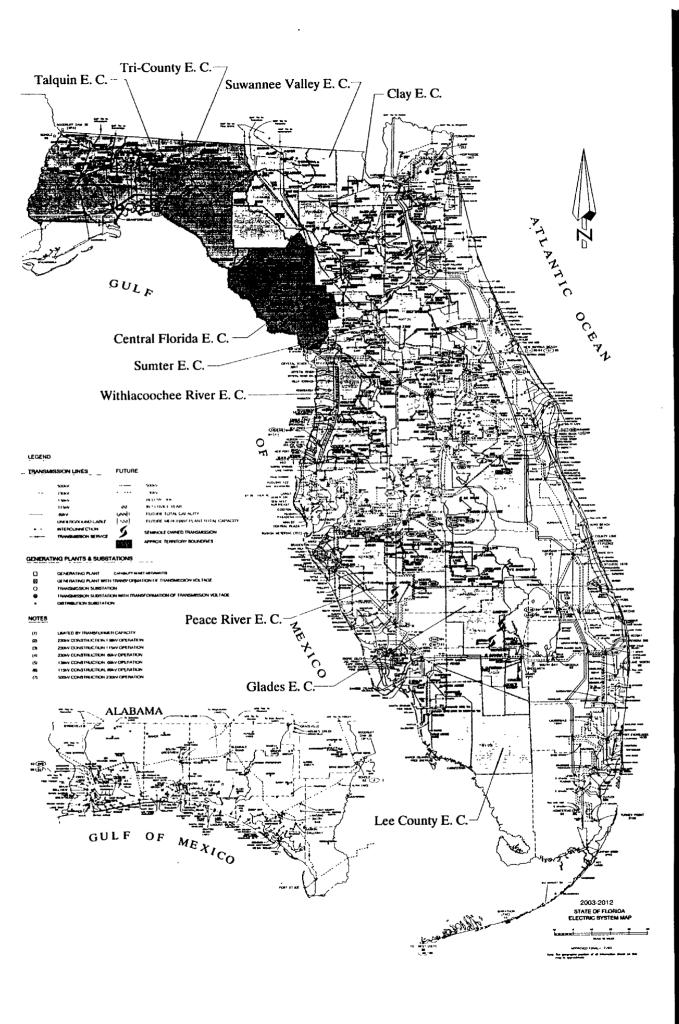
Seminole and its member systems utilize a variety of DSM and energy conservation programs. These programs include direct load control, distribution system voltage reduction, contractually interruptible load, customer-based generation, energy audits, insulation up-grades,

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

1.5 Distributed Generation (DG)

Seminole has implemented DG programs which allow Seminole's Members to partner with their retail customers to install "behind the meter" customer-based DG to operate as dispatchable load management resource for Seminole's system, while providing on-site back up generation to improve customer reliability. The Member Systems may also install DG at any location on their systems to defer capital investment in distribution or transmission facilities, or otherwise for the purpose of improving the performance of the Member's distribution system.





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					E			ting Faci er 31, 200					
				Fu	Fuel				Comm'l	Expected	Gen Max	Net Capabilit	
	<u> </u>	τ	[Trans	port	Days	In-Svc	Retirement	Nameplate	Summer	Winte
Plant	Unit No.	Location	Unit Type	Primary	Alt	Primary	Alt	Use	Mo/Yr	Mo/Yr	MW	MW	MW
SGS	1	Palatka	ST	віт	N/A	RR	N/A	N/A	02/84	Unk	715	658	665
SGS	2	Palatka	ST	BIT	N/A	RR	N/A	N/A	01/85	Unk	715	658	665
PCGS	1	Hardee County	сс	NG	DFO	PL	ТК	N/A	01/02	Unk	587	488	572
Crystal River	3	Cıtrus County	ST	NUC	N/A	тк	N/A	N/A	03/77	Unk	890	15	15
TOTAL												1,819	1,917
Abbrevia	ations:	.			L	Init Type	it Type Fuel Type I					uel Transport	
Unk - Unknown					ST - Steam Turbine, including nuclear		BIT - Bituminous Coal		ous Coal	PL - Pipeline			
N/A - Not applic				olicable CC - Combined Cycle		N	G - Natura	ıl Gas	RR	- Railroa	d		
								Ν	NUC - Nu	clear	T	K - Truck	
								DFO - 1	No. 2 Dies	el Fuel Oil			



FORECAST OF ELECTRIC POWER DEMAND AND ENERGY CONSUMPTION Latest Trends

2.1.1 Service Area Economy. Seminole's member systems provide electricity to an area approximately 400 miles long, 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 variety of geographic and weather conditions yields 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.

Since 1995 residential consumer growth has averaged 2.9 percent annually and commercial consumer growth has averaged 4.0 percent annually.

Historically, Seminole's residential consumer growth rate has exceeded the rate of growth for Florida as a whole. For the period of 1993-2002, Seminole's residential customer growth rate was 2.7 percent compared to 2.4 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 reflects higher concentration of retirees. 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 growth rate 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 even though both Florida and the Seminole system are expected to grow at slower percentage rates.

2.2.2 Population. Historical and forecasted population for Seminole's members' service area are shown on Schedule 2.1. Total population in the service area is projected to increase 2.0 percent annually through 2013.

2.2.3 Consumers. Seminole's members serve a significant portion of the less urbanized areas of the state which are located adjacent to metropolitan areas. 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.

2.2.4 Usage per Consumer. Between 1993 and 2002, residential usage per consumer in Seminole members' service area increased at a compound annual rate of 2.5 percent as compared to the State average of 1.7 percent. This has resulted in the average residential usage per consumer for Seminole's members to slightly exceed the Florida average in 2002; e.g. 14,431 KWh for Seminole versus 14,366 KWh for Florida. Growth in average usage is consistent with the Residential Appliance Survey results which show steady increases in appliance saturations, larger homes, and lower real price of electricity during the last decade. The increased appliance saturations shown in the survey reveal growth in not only traditional loads but also show significant growth in new loads such as electronic equipment (e.g. home computers).



Table 1 below summarizes survey results for 1992 and 2002. Between 1992 and 2002, larger homes were built and appliance saturations steadily increased.

Electricity prices in "nominal" terms have declined over the last decade, which means real prices have declined at an even greater pace. The decline in real electricity prices is an additional contributing factor for the increased energy usage per consumer.

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," Semir	nole Electric Cooperative,	Inc., 1992 and 2002.							

Per consumer usage on the Seminole system is expected to grow at a strong but lower



annual rate through 2013 (1.9 percent). However, the trend of larger homes, increases in electric appliance saturations, and lower real electricity prices are all expected to continue; contributing to higher energy consumption levels in the future. Moderating factors are projections of better appliance efficiencies and the near 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, 54,184 KWh versus 81,233 KWh in 2002. This difference is even more stark considering that Seminole members' commercial usage also includes industrial consumers, whereas the Florida average does not. Seminole's member service area loads are dominated by residential and small commercial loads, with very little industrial load. Commercial/industrial usage per consumer is projected to grow at an average annual growth rate of 1.6 percent through 2012.

2.2.5 Energy Sales and Purchases. Residential energy sales are projected to grow at 4.3 percent annually between 2004 and 2013. This forecast incorporates anticipated increases in energy savings due to additional future conservation. Commercial energy sales are projected to also grow at an annual average of 4.3 percent, over the same period. The forecasts of residential, commercial, and other class sales are shown on Schedules 2.1 and 2.2.

2.2.6 Peak Demand. Seminole's winter peak demand is projected to increase at an average annual rate of 4.2 percent and its summer peak demand is projected to increase at an average annual rate of 4.1 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 forecasts reflect no additional load management. However, it should be noted that many of Seminole's members routinely evaluate the economic feasibility of their current load management programs.

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.

2.2.7 Forecast Scenario. Forecast sensitivities are represented by high and low population scenarios representing population growth differences.



	Schedule 2.1 History and Forecast of Energy Consumption and Number of Customers by Customer Class												
		RESIDENTIAL											
Year	Population *	Members Per Household	GWh	Average Number of Customers	Average KWh Consumption Per Customer								
1994	1,250,898	2.36	6,250	531,032	11,770								
1995	1,285,335	2.35	6,907	546,832	12,631								
1996	1,319,121	2.35	7,266	561,981	12,929								
1997	1,352,763	2.34	7,238	578,345	12,515								
1998	1,388,058	2.34	7,975	592,441	13,461								
1999	1,425,988	2.35	7,993	607,059	13,167								
2000	1,465,787	2.35	8,550	623,151	13,721								
2001	1,502,844	2.35	8,755	640,290	13,673								
2002	1,535,564	2.32	9,543	661,332	14,430								
2003	1,596,529	2.33	10,026	686,140	14,612								
2004	1,633,512	2.34	10,004	698,013	14,332								
2005	1,670,494	2.33	10,412	716,180	14,538								
2006	1,707,831	2.32	10,866	734,574	14,792								
2007	1,745,169	2.32	11,327	752,913	15,044								
2008	1,782,507	2.31	11,845	771,262	15,358								
2009	1,814,717	2.29	12,348	790,948	15,612								
2010	1,851,407	2.29	12,889	809,041	15,931								
2011	1,887,272	2.28	13,461	826,788	16,281								
2012	1,923,141	2.28	14,073	844,544	16,663								
2013	1,959,005	2.27	14,623	862,301	16,958								

* Population history re-estimated by BEBR.



		History and Forecas	chedule 2.2 t of Energy Consumption and omers by Customer Class		
		COMMER	Other		
Year	GWh	Average No. of Industrial Customer	Average KWh Consumption Per Customer	Sales GWh	Total Sales GWh
1994	2,399	50,738	47,291	86	8,735
1995	2,564	51,416	49,821	101	9,572
1996	2,681	53,220	50,382	105	10,052
1997	2,808	55,281	50,810	123	10,169
1998	2,959	56,620	52,267	117	11,051
1999	3,108	59,027	52,607	127	11,228
2000	3,415	62,876	54,310	135	12,100
2001	3,549	66,766	53,155	126	12,430
2002	3,727	68,787	54,184	163	13,433
2003	3,961	70,264	56,372	161	14,148
2004	4,093	74,060	55,260	164	14,261
2005	4,262	76,243	55,895	166	14,840
2006	4,436	78,325	56,636	169	15,471
2007	4,616	80,457	57,378	172	16,115
2008	4,821	82,627	58,351	175	16,841
2009	5,015	84,823	59,126	177	17,540
2010	5,234	87,043	60,134	180	18,303
2011	5473	89,319	61,269	183	19,117
2012	5725	91,609	62,492	187	19,985
2013	5,953	93,909	63,393	189	20,765
NOTES:		class includes industrial class includes lighting cu			



	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								
1994	0	914	9,649	3,341	585,764								
1995	0	1,052	10,624	3,366	601,618								
1996	0	770	10,822	3,349	618,553								
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	1,337	15,485	5,240	761,644								
2004	0	1,374	15,635	5,288	777,361								
2005	0	1,255	16,095	5,377	797,799								
2006	0	1,309	16,780	5,473	818,372								
2007	0	1,364	17,479	5,570	838,940								
2008	0	1,422	18,263	5,667	859,556								
2009	0	1,486	19,026	5,765	881,536								
2010	0	1,551	19,854	5,862	901,946								
2011	0	1,620	20,737	5,958	922,065								
2012	0	1,691	21,675	6,056	942,208								
2013	0	1,762	22,527	6,152	962,362								



	Schedule 3.1.1 History and Forecast of Summer Peak Demand (MW) Base Case														
	,				Resid	ential	Comm	iercial							
Year	Total	Whole- sale	Retail	Interrup- tible	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand						
1994	1,993	1,993	0	N/A	60	N/A	N/A	N/A	1,933						
1995	2,329	2,329	0	N/A	112	N/A	N/A	N/A	2,217						
1996	2,347	2,347	0	N/A	95	N/A	N/A	N/A	2,252						
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	2,829	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	3,220	3,220	0	77	158	N/A	N/A	N/A	2,985						
2004	3,373	3,373	0	95	95	N/A	N/A	N/A	3,183						
2005	3,504	3,504	0	95	95	N/A	N/A	N/A	3,314						
2006	3,640	3,640	0	95	95	N/A	N/A	N/A	3,450						
2007	3,777	3,777	0	95	95	N/A	N/A	N/A	3,587						
2008	3,921	3,921	0	95	95	N/A	N/A	N/A	3,731						
2009	4,074	4,074	0	95	95	N/A	N/A	N/A	3,884						
2010	4,234	4,234	0	95	95	N/A	N/A	N/A	4,044						
2011	4,403	4,403	0	95	95	N/A	N/A	N/A	4,213						
2012	4,571	4,571	0	95	95	N/A	N/A	N/A	4,381						
2013	4,744	4,744	0	95	95	N/A	N/A	N/A	4,554						

recast data is the maximum amount available. (2) Since 2000, Seminole's customer-based generation is included in the interruptible load column.



			Foreca	st of Summer	ule 3.1.2 ⁻ Peak Dema 1 Case	nd (MW)						
	Residential Commercial											
Year	Total	Whole- sale	Retail	Interrup- tible	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand			
2004	3,449	3,449	0	95	95	N/A	N/A	N/A	3,259			
2005	3,618	3,618	0	95	95	N/A	N/A	N/A	3,428			
2006	3,781	3,781	0	95	95	N/A	N/A	N/A	3,591			
2007	3,947	3,947	0	95	95	N/A	N/A	N/A	3,757			
2008	4,122	4,122	0	95	95	N/A	N/A	N/A	3,932			
2009	4,309	4,309	0	95	95	N/A	N/A	N/A	4,119			
2010	4,501	4,501	0	95	95	N/A	N/A	N/A	4,311			
2011	4,711	4,711	0	95	95	N/A	N/A	N/A	4,521			
2012	4,919	4,919	0	95	95	N/A	N/A	N/A	4,729			
2013	5,134	5,134	0	95	95	N/A	N/A	N/A	4,944			



	Schedule 3.1.3 Forecast of Summer Peak Demand (MW) Low Case													
					Resid	ential	Comm	ercial						
Year	Total	Whole- sale	Retail	Interrup- tible	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand					
2004	3,276	3,276	0	95	95	N/A	N/A	N/A	3,086					
2005	3,359	3,359	0	95	95	N/A	N/A	N/A	3,169					
2006	3,461	3,461	0	95	95	N/A	N/A	N/A	3,271					
2007	3,561	3,561	0	95	95	N/A	N/A	N/A	3,371					
2008	3,667	3,667	0	95	95	N/A	N/A	N/A	3,477					
2009	3,788	3,788	0	95	95	N/A	N/A	N/A	3,598					
2010	3,906	3,906	0	95	95	N/A	N/A	N/A	3,716					
2011	4,027	4,027	0	95	95	N/A	N/A	N/A	3,837					
2012	4,146	4,146	0	95	95	N/A	N/A	N/A	3,956					
2013	4,269	4,269	0	95	95	N/A	N/A	N/A	4,079					



		J	History and	Forecast of V	lule 3.2.1 Winter Peak se Case	Demand (M	W)		
	[Resid	ential	Comm	iercial	
Year	Total	Whole- sale	Retail	Interrup- tible	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand
1993-94	2,472	2,472	0	N/A	88	N/A	N/A	N/A	2,384
1994-95	2,825	2,825	0	N/A	159	N/A	N/A	N/A	2,666
1995 - 96	2,896	2,896	0	N/A	165	N/A	N/A	N/A	2,731
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
1998-99	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	72	95	N/A	N/A	N/A	3,531
2004-05	4,354	4,354	0	95	140	N/A	N/A	N/A	4,119
2005-06	4,529	4,529	0	95	140	N/A	N/A	N/A	4,294
2006-07	4,708	4,708	0	95	140	N/A	N/A	N/A	4,473
2007-08	4,893	4,893	0	95	140	N/A	N/A	N/A	4,658
2008-09	5,087	5,087	0	95	140	N/A	N/A	N/A	4,852
2009-10	5,291	5,291	0	95	140	N/A	N/A	N/A	5,056
2010-11	5,508	5,508	0	95	140	N/A	N/A	N/A	5,273
2011-12	5,729	5,729	0	95	140	N/A	N/A	N/A	5,494
2012-13	5,950	5,950	0	95	140	N/A	N/A	N/A	5,715
2013-14	6,179	6,179	0	95	140	N/A	N/A	N/A	5,944
NOTES	Forecast	t data is the m	aximum amo	unt available	nount exercise			-	hand.



			Forecas	t of Winter	ule 3.2.2 Peak Demar 1 Case	nd (MW)			
					Resid	ential	Comm	ercial	
Year	Total	Whole- sale	Retail	Interrup- tible	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Fırm Demand
2004-05	4,467	4,467	0	95	140	N/A	N/A	N/A	4,232
2005-06	4,681	4,681	0	95	140	N/A	N/A	N/A	4,446
2006-07	4,896	4,896	0	95	140	N/A	N/A	N/A	4,661
2007-08	5,118	5,118	0	95	140	N/A	N/A	N/A	4,883
2008-09	5,352	5,352	0	95	140	N/A	N/A	N/A	5,117
2009-10	5,597	5,597	0	95	140	N/A	N/A	N/A	5,362
2010-11	5,860	5,860	0	95	140	N/A	N/A	N/A	5,625
2011-12	6,131	6,131	0	95	140	N/A	N/A	N/A	5,896
2012-13	6,404	6,404	0	95	140	N/A	N/A	N/A	6,169
2013-14	6,686	6,686	0	95	140	N/A	N/A	N/A	6,451



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			Foreca	ist of Winter	ule 3.2.3 Peak Demar / Case	1d (MW)			- <u>.</u> .
					Resid	lential	Comm	nercial	
Year	Total	Whole- sale	Retail	Interrup- tible	Load Manage- ment	Conser- vation	Load Manage- ment	Conser- vation	Net Firm Demand
2004-05	4,209	4,209	0	95	140	N/A	N/A	N/A	3,974
2005-06	4,335	4,335	0	95	140	N/A	N/A	N/A	4,100
2006-07	4,469	4,469	0	95	140	N/A	N/A	N/A	4,234
2007-08	4,607	4,607	0	95	140	N/A	N/A	N/A	4,372
2008-09	4,757	4,757	0	95	140	N/A	N/A	N/A	4,522
2009-10	4,916	4,916	0	95	140	N/A	N/A	N/A	4,681
2010-11	5,076	5,076	0	95	140	N/A	N/A	N/A	4,841
2011-12	5,237	5,237	0	95	140	N/A	N/A	N/A	5,002
2012-13	5,396	5,396	0	95	140	N/A	N/A	N/A	5,161
2013-14	5,561	5,561	0	95	140	N/A	N/A	N/A	5,326



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		Histor	y and Forecast (Schedule 3.3 of Annual Net Base Case		oad (GWh)		
Year	Total	Conse	rvation	Retail	Retail		Net Energy for	Load
		Residential	Commercial		Sales	& Losses	Load	Factor %
1994	9,649	N/A	N/A N/A		8,735	914	9,649	45.9
1995	10,624	N/A N/A		0	9,572	1,052	10,624	44.0
1996	10,822	N/A	N/A	0	10,052	770	10,822	391
1997	10,997	N/A	N/A	0	10,169	828	10,997	42.4
1998	11,980	N/A	N/A	0	11,051	929	11,980	49.8
1999	12,167	N/A	N/A	0	11,228	939	12,167	44 5
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	46 6
2003	15,485	N/A	N/A	0	14,148	1,337	15,485	42.5
2004	15,635	N/A	N/A	0	14,261	1,374	15,635	50.6
2005	16,095	N/A	N/A	0	14,840	1,255	16,095	44.6
2006	16,780	N/A	N/A	0	15,471	1,309	16,780	44.6
2007	17,479	N/A	N/A	0	16,115	1,364	17,479	44 6
2008	18,263	N/A	N/A	0	16,841	1,422	18,263	44.8
2009	19,026	N/A	N/A	0	17,540	1,486	19,026	44.8
2010	19,854	N/A	N/A	0	18,303	1,551	19,854	44.8
2011	20,737	N/A N/A		0	19,117	1,620	20,737	44.9
2012	21,676	N/A	N/A	0	19,985	1,691	21,676	45.0
2013	22,527	N/A	N/A	0	20,765	1,762	22,527	45.0



		Histor	y and Forecast (Schedule 3.3 of Annual Net High Case	Energy for L	oad (GWh)		
Year	Total	Conse Residential	rvation Commercial	Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %
2004	15,888	N/A	N/A	0	14,563	1,325	15,888	45.0
2005	16,700	N/A	N/A	0	15,303	1,397	16,700	45.1
2006	17,522	N/A	N/A	0	16,056	1,466	17,522	45.0
2007	18,364	N/A	N/A	0	16,827	1,537	18,364	45 0
2008	19,298	N/A	N/A	0	17,686	1,612	19,298	45.1
2009	20,222	N/A	N/A	0	18,528	1,694	20,222	45.1
2010	21,213	N/A	N/A	0	19,434	1,779	21,213	45.2
2011	22,291	N/A	N/A	0	20,421	1,870	22,291	45.2
2012	23,433	N/A	N/A	0	21,471	1,962	23,433	45.3
2013	24,489	N/A	N/A	0	22,433	2,056	24,489	45.3



	Schedule 3.3.3 History and Forecast of Annual Net Energy for Load (GWh) Low Case												
Year	Total	Conse Residential	rvation Commercial	Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %					
2004	15,131	N/A	N/A	0	13,871	1,260	15,131	45.0					
2005	15,549	N/A	N/A	0	14,250	1,299	15,549	44 7					
2006	16,072	N/A	N/A	0	14,729	1,343	16,072	44.7					
2007	16,603	N/A	N/A	0	15,216	1,387	16,603	44.8					
2008	17,210	N/A	N/A	0	15,774	1,436	17,210	44.9					
2009	17,822	N/A	N/A	0	16,331	1,491	17,822	45 0					
2010	18,463	N/A	N/A	0	16,918	1,545	18,463	45.0					
2011	19,124	N/A	N/A	0	17,523	1,601	19,124	45.1					
2012	19,828	N/A	N/A	0	18,172	1,656	19,828	45 2					
2013	20,448	N/A	N/A	0	18,736	1,712	20,448	45.2					



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	Pr		Schedule 4 -Year Forecast of Energy for Load b		and	
	2003	2003 Actual 2004 Forecast				precast
Month	Peak Demand MW	NEL GWh	Peak Demand MW	NEL GWh	Peak Demand MW	NET GWh
January	4,155	1,516	3,531	1,472	4,119	1,359
February	2,720	1,011	3,373	1,101	3,408	1,112
March	2,348	1,099	2,941	1,154	3,075	1,206
Aprıl	2,522	1,104	2,486	1,107	2,601	1,158
May	2,985 1,430		2,984	1,357	3,117	1,416
June	2,904	1,398	3,038	1,368	3,167	1,425
July	2,974	1,518	3,132	1,526	3,261	1,589
August	2,957	1,477	3,183	1,569	3,314	1,633
September	2,792	1,366	3,033	1,388	3,159	1,446
October	2,566	1,183	2,777	1,219	2,897	1,271
November	2,468	1,095	2,626	1,074	2,744	1,122
December	3,417	1,288	3,301	1,300	3,449	1,358
ANNUAL		15,485		15,635		16,095
Note: January	2004 Peak Deman	id and Net Energy i	for Load are actual		<u> </u>	



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Units	Ac			End	_							
	Ac		T	ruer	Requiren	ients						·
	2002	tual 2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Trillion BTU	1	1	1	1	1	1	1	1	1	1	1	1
1000 Tons	3,582	3,832	3,715	3,712	3,792	3,814	3,836	3,906	3,828	3,670	4,113	4,914
1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0
1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
1000 BBL	42	74	74	74	75	166	165	278	230	230	255	226
1000	42	44	44	44	44	44	44	44	44	44	44	44
1000 BBL	0	30	30	30	30	30	30	30	30	30	30	30
1000 BBL	0	0	0	0	1	92	91	204	156	156	181	152
1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
1000 MCF	17783	16917	17246	16842	19602	23884	29606	39669	55711	58796	56751	55704
1000 MCF	0	0	0	0	0	0	0	0	0	0	0	0
1000 MCF	17783	16917	17246	16842	19586	21759	27494	34941	52102	55169	52549	52170
1000 <u>MCF</u>	0	0	0	0	16	2125	2112	4728	3609	3627	4202	3534
Trillion BTU	1,666	1,342	1,040	1,534	738	850	852	870	572	599	759	0
100 <u>MC</u> Trill <u>BT</u> urcha	00 <u>F</u> 10n U se fu	F	F	F. 00 0 0 100 0 0 0 F 0 0 0 100 1,666 1,342 1,040 U 0 0 0	F. 00 0 0 00 0 0 0 00 0 0 0 F 0 0 0 100 1,666 1,342 1,040 1,534 U 0 0 0	F. O O O O I 100 0 0 0 0 16 100 1,666 1,342 1,040 1,534 738 U se fuel requirements represents a purchase from TECO Pow	F. O	F.	F. Image: Constraint of the second secon	F. Image: Constraint of the second secon	F. Image: Constraint of the second secon	F. Image: constraint of the sector of t



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						S	chedule 6	.1						
		1	,		1	Energy	Sources	(GWh)	1	-		· · · · ·	·	
Energy So	ources	Units	Ac	tual	2004	2005	2006	2007	2008	2009	2010	2011	2012	201
		}	2002	2003	[<u> </u>		 		<u> </u>	<u></u>
Annual Intercha		GWh	2,845	3,431	3,695	4,193	4,363	4,455	4,327	3,613	2,219	2,638	2,610	1,53
Nucle	аг	GWh	124	113	120	102	119	102	120	102	119	102	120	102
Coa]	GWh	8,941	9,568	9,398	9,386	9,601	9,659	9,722	9,815	9,709	9,702	10,909	13,08
Residual	Total	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	Steam	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	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
	Diesel	GWh	0	0	0	0	0	0	0	0	0	0	0	0
Distillate	Total	GWh	0	0	0	0	0	51	51	117	90	90	105	90
	Steam	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	сс	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	СТ	GWh	0	0	0	0	0	51	51	117	90	90	105	90
	Diesel	GWh	0	0	0	0	0	0	0	0	0	0	0	0
latural Gas	Total	GWħ	2,371	2,223	2,301	2,239	2,612	3,113	3,945	5,278	7,651	8,134	7,842	7,720
	Steam	GWh	0	0	0	0	0	0	0	0	0	0	0	0
	сс	GWh	2,371	2,223	2,301	2,239	2,610	2,910	3,742	4,813	7,293	7,774	7,419	7,361
	СТ	GWh	0	0	0	0	2	203	203	465	358	360	423	359
Other	QF	GWh	209	150	121	175	85	99	98	101	66	71	90	0
Net Energy	for Load	GWh	14.690	15,485	15,635	16,095	16,780	17,479	18,263	19,026	19,854	20,737	21,676	22,527

<u>NOTES</u> Annual Firm Interchange consists of all purchases per contracts except the TPS purchase The QF purchase represents a purchase from TPS's Hardee Power Station



-						S	chedule 6	.2						
		1	<u> </u>		1	Energy	Sources ((Percent)		1	T		·	
Energy S	Sources	Units		tual	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
		<u> </u>	2002	2003					I		<u> </u>			<u> </u>
Annual Interch		%	20 00	22 16	23 63	26 05	26 00	25 49	23 69	18 99	11 18	12 72	12 04	6 79
Nucl	ear	%	1 00	0 73	0 77	0 63	0.71	0.58	0.66	0 54	0 60	0 49	0 55	0.45
Coal		⁰⁄₀	62 00	61 79	60 1 1	58 32	57 22	55.26	53 23	51 59	48 90	46 79	50 33	58 09
Residual	Total	%	0.00	0 00	0 00	0.00	0 00	0 00	0 00	0 00	0 00	0.00	0 00	0 00
	Steam	%	0 00	0 00	0 00	0 00	0.00	0 00	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
	СТ	%	0 00	0 00	0 00	0 00	0 00	0.00	0.00	0.00	0 00	0 00	0 00	0 00
	Diesel	%	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	%	0.00	0.00	0.00	0 00	0 00	0 29	0 28	0.61	0.45	0.43	0.48	0 40
	Steam	%	0.00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0.00	0 00	0 00
	сс	%	0 00	0 00	0.00	0 00	0 00	0.00	0.00	0 00	0 00	0 00	0 00	0 00
	СТ	%	0 00	0 00	0 00	0 00	0 00	0 29	0 28	0 61	0 45	0 43	0 48	0 40
	Diesel	%	0.00	0.00	0.00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0.00	0 00
Natural Gas	Total	%	16 00	14 36	14 72	13.91	15 57	17 81	21.60	27 74	38 54	39.22	36.18	34.27
	Steam	%	0 00	0.00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0.00	0.00	0 00
	сс	%	16 00	14 36	14 72	13 91	15 55	16 65	20 49	25.30	36 73	37 49	34 23	32.68
	СТ	%	0.00	0 00	0 00	0 00	0 0 1	1 16	111	2 44	1 80	1 74	1 95	1.59
Other	QF	%	1 00	0 97	0 77	1 09	0 51	0 57	0 54	0 53	0 33	0 34	0.42	0.00
Net Energy	for Load	%	100	100	100	100	100	100	100	100	100	100	100	100

<u>NOTES</u> Annual Firm Interchange consists of all purchases per contracts except the TPS purchase. The QF purchase represents a purchase from TPS's Hardee Power Station



2.3 Forecast Assumptions

2.3.1 Economic and Demographic Data. Seminole's economic and demographic data base has three principal sources: (1) population and income data from the Florida Economic Data Base furnished by the Bureau of Economic and Business Research (BEBR) at the University of Florida, (2) electricity price data from Seminole's member cooperatives "Financial and Statistical Reports" (RUS Form 7), and (3) 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 data on population and personal income 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 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.

The commercial/industrial energy usage model uses Real Per Capita Income (RPCI) as an explanatory variable. 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. Forecasts of RPCI by county are taken from "The Florida Long-Term Economic Forecast 2002."

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 decline in the future at an average annual rate of 0.981%. This rate is based on system wide historical declines in retail rates.

Appliance saturations and housing data are obtained from Seminole's Residential Appliance Survey. The three housing types distinguished in the survey are single-family homes, mobile homes, and multi-family homes. Homes are also segregated into three age groups: less than 5 years old, between 5 and 15 years old, and more than 15 years old. For each category of home type and age combination, the appliance saturations include room air-conditioners, central air-conditioners, electric space-heating appliances, and electric water heaters.

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 members' 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 individual temperature cut-off points for air conditioning and space heating demand. The extent of the members' service territory also requires different winter cut-off values for the northern and southern regions. These weather variables have been proven effective in explaining weather-neutral temperature ranges for space-conditioning appliances and lagging weather



effects within a period of time.

2.3.3 Sales and Hourly Load Data. Monthly operating statistics have been furnished by the member systems to Seminole, beginning with 1970. Included in this data are statistics by class on number of consumers, KWH sales, revenue, and others. 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 are collected from over 180 delivery points, covering the period from January 1979 to the present. This data is a basis for modeling peak demand and hourly load profile forecasts.

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. Figure 1 shows the Integrated Forecasting System.



2.4.1 Consumer Models. For each member, the historical relationship between annual consumers and the member's service area population is statistically determined using an ordinary least squares technique, with a first-order auto-regressive correction when necessary. The estimated equations are applied to the population forecasts to generate annual forecasts of residential and commercial consumers. Forecasts are benchmarked using 2002 actual data. Seasonally adjusted monthly forecasts are developed from the annual data. Whenever members expect new large commercial consumers in the near future the information is included in the forecasts.

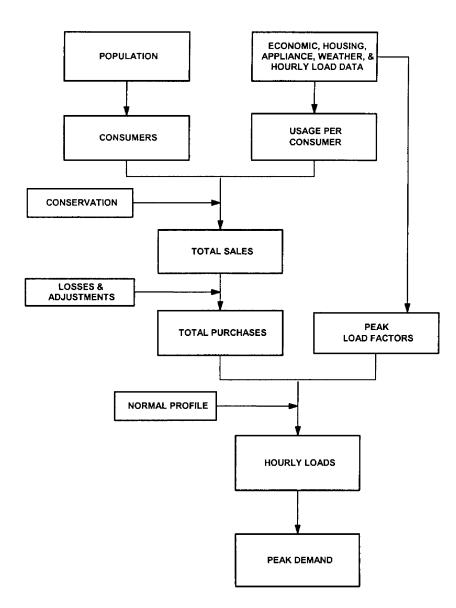
Other consumer classes generally include irrigation, street and highway lighting, public buildings, and sales for resale, which represent less than 2 percent of Seminole's members' total energy sales. A few member systems include some of these classes in the commercial/industrial sector. For the others, 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 of each home type are produced: single-family homes, mobile homes, and multi-family homes. 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.



Figure 1

Integrated Forecasting System





2.4.3 Energy Usage Models. The Residential Energy Usage Model is a combination of econometric and end-use methods. For each member system, monthly residential usage is modeled using ordinary least squares as a function of explanatory variables including heating and cooling degree variables weighted with space-conditioning appliances, real price of electricity and real per capita income. Monthly forecasts are benchmarked against weather-normalized energy in the last year of the analysis period. The monthly usage per consumer forecasts are multiplied by the monthly residential consumer forecasts to produce monthly residential energy sales forecasts.

For each member system, monthly commercial/industrial usage per consumer is modeled as a function of several explanatory variables, which include monthly heating and cooling degree variables, real price of electricity, real per capita income, and dummy variables for some member systems to explain abrupt or external changes. Some members' models use monthly precipitation variables because irrigation consumers are included in this classification. Ordinary least squares methodology with a first order auto-regressive correction is used to produce the monthly energy usage per consumer forecasts which are adjusted for the last year of the historical period. Then the forecasts are combined with the consumer forecasts to produce monthly commercial/industrial KWH sales forecasts. Whenever members expect new large commercial consumers in the near future, the information is included in the forecasts.

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. The energy sales forecasts for



Residential, Commercial/Industrial and Other classes are summed up for a total energy sales forecast by month for each member system. The energy sales forecast is converted to member energy purchases at delivery point levels using historical averages of the ratio of calendar month purchases to billing cycle sales for each member. Therefore, these adjustment factors represent both energy losses and the difference between the billing cycle sales and calendar month purchases; the latter, as a function of weather and billing days, often changes erratically.

2.4.5 Peak Demand Load Factor Model. The Peak Demand Load Factor Model relates monthly peak load factors to a set of explanatory variables including 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 of November through March and the other for the summer months April through October. The forecast monthly load factors are combined with the purchases forecasts to produce forecasts of monthly peaks by member.

2.4.6 Hourly Load Profiles. Hourly demand forecasts are created through a calibration procedure which transforms the normal profiles in such a way that maximum peak, monthly minimum, and monthly energy match the monthly forecasts generated from the above-explained forecasting process. This calibration procedure produces hourly profile forecasts by month and by member, an aggregation of which then constitutes hourly profiles for Seminole system.

2.4.7 Scenarios. An economic scenario is developed in addition to the base case. In lieu of economic scenarios, population which is the main driving force behind Seminole's load growth, is tested, and high and low population growth scenarios are developed for each member system based on BEBR's alternative scenario.



3. FORECAST OF FACILITIES REQUIREMENTS

Seminole's load is located primarily within three control areas, Progress Energy Florida ("PEF") formerly Florida Power Corporation, Florida Power & Light Company ("FPL"), and Seminole's Direct Service Area ("SDS"). Seminole is obligated to serve all load in the FPL and SDS areas, and load up to a specified capacity commitment level in the PEF area. 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. Demand in excess of the specified PEF capacity commitment level is served through partial requirement (PR) purchases from PEF. As load grows, Seminole's PR supplier is responsible for providing capacity to meet load growth and associated reserves above the capacity commitment levels. Seminole recently completed an agreement with PEF following an all source RFP process for Full Requirements Service for a portion of Seminole's load beginning January 2010.

Seminole issued an all source RFP in July 2000 which resulted in a contract for 360 MW of combined cycle capacity from the Calpine Energy Services, L.P., Osprey Energy Center for a twenty (20) year period beginning June 2004 with price re-openers every 5 years. Seminole also has the option to call on the remainder of the unit capacity (approximately 177 MW) subject to prior sales.

Seminole issued another all source RFP in March 2002 for 460 MW of capacity which resulted in a contract for 150MW of system peaking capacity for the period from December 2006 through 2013 with Progress Energy with the option to convert to system intermediate, and 310 MW of self build aero-derivative peaking capacity to be built at the Payne Creek site.



Seminole has a FERC-filed qualifying facility program which complies with the requirements of the Public Utility Regulatory Policies Act (PURPA). In 1999, Seminole entered into a power purchase agreement with a qualifying facility, Lee County Resource Recovery, for approximately 35 MW of capacity which increases to 55 MW in 2006. Seminole does not currently have any other qualifying facilities or small power producers on its system, but continues to solicit proposals from them when competitively bidding for power supplies. Also, Seminole evaluates all unsolicited QF proposals for applicability to the cooperative's needs.

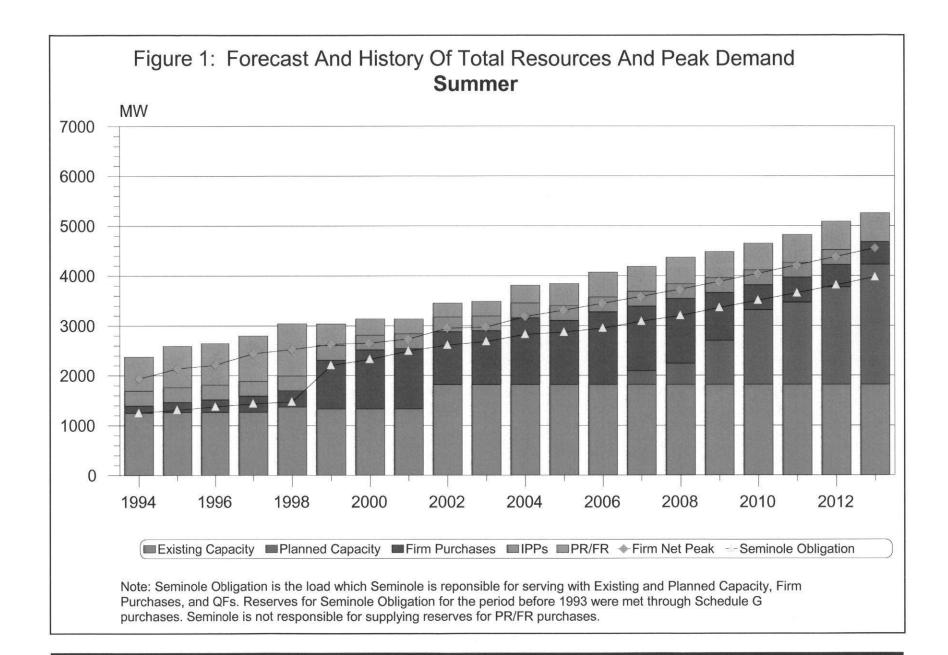
Schedules 7.1, 7.2 and 8 include the addition of a total of 4,946 MW of capacity in 2006 through 2013 at Payne Creek, Seminole Plant and yet unspecified sites. Such capacity is needed to replace expiring purchased power contracts and/or to maintain Seminole's reliability criteria. These needs are specified for planning purposes and are an approximation of the most economic mix of resource types. Of the substantial need for generating capacity early in the next decade, a significant portion would be base load. Due to the uncertainty of the future natural gas prices and a strategy to maintain a diverse generation portfolio, Seminole is evaluating solid fuel alternatives and is planning to issue a Request for Proposals for base load capacity in the second quarter of 2004. Future studies will further optimize the amount, type, and timing of such capacity. Because the units at unknown sites are for planning purposes only, no Schedule 9 is included for these units. The addition of this capacity, at sites to be determined by Seminole, is Seminole's "Backstop" expansion plan as requested by Florida Public Service Commission staff.



							Schedu							
	J	rorecas	t of Caj	pacity, I	Demar	id and s	Schedul	ed Main	tenance	at 11m	e of Sun	imer Pea	ik	
Year	Total Installed Capacity	Firm Capacity Import (Less PR/FR) ₁	Firm Capacity Import (PR/FR)	Firm Capacity Export	QF ₂	Total Capacity Available	Total Capacity Available Less PR/FR	System Firm Summer Peak Demand	System Firm Summer Obligation ₃	В	∕e Margın efore tenance₄	Scheduled Main- tenance		ve Margin After itenance4
;	(MW)	(<u>M</u> W)	(MW)	(MW)	(MW)	(<u>MW</u>)	(MW)	(MW)	(<u>M</u> W)	(MW)	(% of Pk)	(MW)	(MW)	(% of Pk)
2004	1,819	1,307	358	0	328	3,812	3,454	3,183	2,825	629	22%	0	629	22%
2005	1,819	1,255	443	0	328	3,845	3,402	3,314	2,871	531	19%	0	531	19%
2006	1,819	1,405	499	0	348	4,071	3,572	3,450	2,951	621	21%	0	621	21%
2007	2,089	1,249	499	0	348	4,185	3,686	3,587	3,088	598	19%	0	598	19%
2008	2,242	1,249	529	0	348	4,368	3,839	3,731	3,202	637	20%	0	637	20%
2009	2,701	909	524	0	348	4,482	3,958	3,884	3,360	598	18%	0	598	18%
2010	3,313	450	537	0	348	4,648	4,111	4,044	3,507	604	17%	0	604	17%
2011	3,466	450	558	0	348	4,822	4,264	4,213	3,655	609	17%	0	609	17%
2012	3,769	450	569	0	298	5,086	4,517	4,381	3,812	705	19%	0	705	19%
2013	4,222	450	579	0	0	5,251	4,672	4,554	3,975	697	18%	0	697	18%
1	1 Firm capacity includes partial requirements (PR) and full requirements (FR) purchases and purchases from other supplier													
2									st-call capacit County Resou			wer Station to	backup	1240
3	Seminole	's firm oblu	gation demi	and does no	ot include	PR and FR	purchases		_					
4		Seminole's firm obligation demand does not include PR and FR purchases Percent reserves are calculated on Seminole's obligation since Seminole is not responsible for supplying reserves for FR and PR purchases Seminole's reserve capacity does not include FPC peaking and intermediate purchases												



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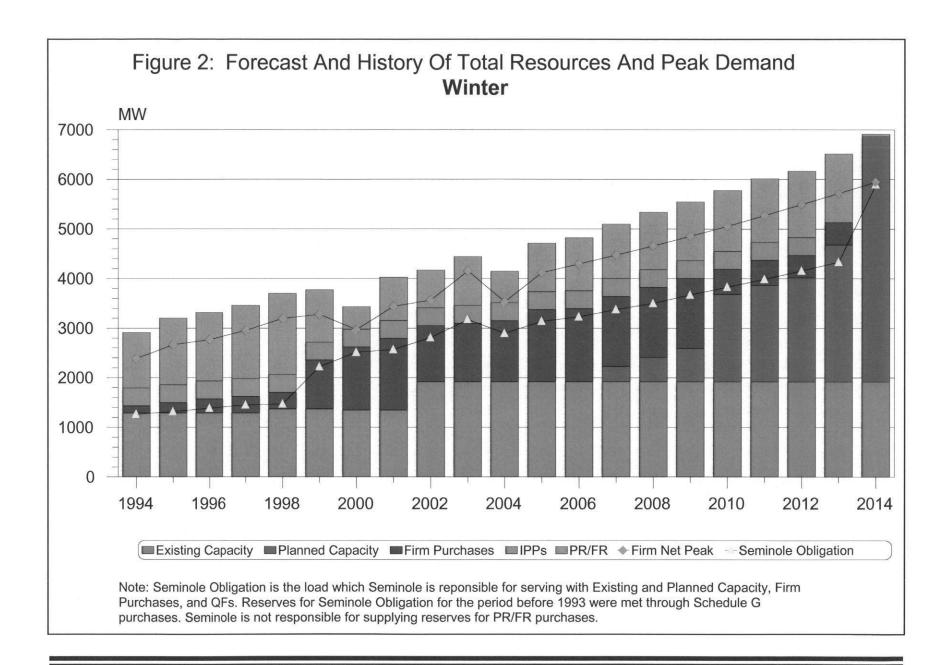




	Schedule 7.2													
	F	orecast	of Capa	acity, D	eman	d and S	chedul	ed Maiı	ntenance	at Tin	ne of W	inter Pea	k	
Year	Total Installed Capacity	Firm Capacity Import (Less PR/FR) ₁	Firm Capacity Import (PR/FR)	Firm Capacity Export	QF2	Total Capacity Available	Total Capacity Available Less PR/FR	System Firm Winter Peak Demand	System Firm Winter Obligation ₃	Be	e Margin efore enance ₄	Scheduled Main- tenance		ve Margin After itenance4
	(MW)	(MW)	(MW)	(MW)	(MW)	(<u>M</u> W)	(MW)	(MW)	(<u>MW</u>)	(MW)	(% of Pk)	(MW)	(MW)	(% of Pk)
2004/05	1,917	1,420	981	0	397	4,715	3,734	4,119	3,138	596	19%	0	596	19%
2005/06	1,917	1,420	1,065	0	417	4,819	3,754	4,294	3,229	525	16%	0	525	16%
2006/07	2,227	1,356	1,096	0	417	5,096	4,000	4,473	3,377	623	18%	0	623	18%
2007/08	2,409	1,356	1,156	0	417	5,338	4,182	4,658	3,502	680	19%	0	680	19%
2008/09	2,591	1,356	1,181	0	417	5,545	4,364	4,852	3,671	693	19%	0	693	19%
2009/10	3,683	450	1,227	0	417	5,777	4,550	5,056	3,829	721	19%	0	721	19%
2010/11	3,865	450	1,285	0	417	6,017	4,732	5,273	3,988	744	19%	0	744	19%
2011/12	4,015	450	1,337	0	362	6,164	4,827	5,494	4,157	670	16%	0	670	16%
2012/13	4,679	450	1,384	0	0	6,513	5,129	5,715	4,331	798	18%	0	798	18%
2013/14	6,863	0	51	0	0	6,914	6,863	5,944	5,893	970	17%	0	970	17%
1	Firm capacity includes partial requirements (PR) and full requirements (FR) purchases and purchases from other supplier.													
2	The capacity shown under OF represents a contract with TECO Power Services for first-call capacity from the Hardee Power Station to back in 1240							up 1240						
3	Seminole	Seminole's firm obligation demand does not include PR and FR purchases												
4		Seminole's firm obligation demand does not include PR and FR purchases Percent reserves are calculated on Seminole's obligation since Seminole is not responsible for supplying reserves for FR and PR purchases Seminole's reserve capacity does not include FPC peaking and intermediate purchases												



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								Schedule	8				e,e	
		P	Plann	ned an	nd Pro	specti	ve Ge	nerating F	acility A	dditions	and Cha	nges		
				Fı	Fuel		ansport							
Plant Name	Unit No	Location (County)	Unit Type	Pn	Alt	Pri	Alt	Construction Start Mo/Yr	Comm'l In-Service Mo/Yr	Expected Retirement Mo/Yr	Maximum Nameplate (MW)	Summer (MW)	Winter (MW)	Status
Payne Creek	GT-A	Hardee	GT	NG	DFO	PL	тк	02/2006	12/2006	Unk	62	54	62	Р
	GT-B	Hardee	GT	NG	DFO	PL	ТК	02/2006	12/2006	Unk	62	54	62	Р
	GT-C	Hardee	GT	NG	DFO	PL.	ТК	02/2006	12/2006	Unk	62	54	62	Р
	GT-D	Hardee	GT	NG	DFO	PL.	тк	02/2006	12/2006	Unk	62	54	62	Р
	GT-E	Hardee	GΤ	NG	DFO	PL	тк	02/2006	12/2006	Unk	62	54	62	Р
Unk	CC 1	Unk	сс	NG	N/A	PL	N/A	12/2006	12/2007	Unk	193	153	182	Р
	CC 2	Unk	сс	NG	N/A	PL	N/A	12/2007	12/2008	Unk	193	153	182	Р
	CC 3-5	Unk	сс	NG	N/A	PL	N/A	12/2008	12/2009	Unk	579	459	546	Р
	CC 6	Unk	сс	NG	N/A	PL	N/A	12/2009	12/2010	Unk	193	153	182	Р
	CC 7-9	Unk	сс	NG	N/A	PL	N/A	12/2012	12/2013	Unk	579	459	546	Р
Unk	GT 1-2	Unk	GT	NG	DFO	PL	тк	06/2008	06/2009	Unk	386	306	364	Р
	GT 3	Unk	GT	NG	DFO	PL	тк	12/2008	12/2009	Unk	193	153	182	Р
	GT 4	Unk	GT	NG	DFO	PL	тк	06/2011	06/2012	Unk	193	153	182	Р
	GT 5	Unk	GΤ	NG	DFO	PL	тк	12/2011	12/2012	Unk	193	153	182	Р
	GT 6- 14	Unk	GT	NG	DFO	PL	тк	12/2012	12/2013	Unk	1,737	1,377	1,638	Р
SGS *	PC 1	Putnam	ST	віт	N/A	RR	TK	01/2008	01/2012	Unk	150	150	150	Р
	PC 2-3	Putnam	ST	віт	N/A	RR	ТК	01/2008	01/2013	Unk	300	300	300	Р
Total												4,239	4,946	
Notes	Unk	Unknowr	1											
	U	Regulator	ry appr	oval rece	erved Ur	nder cons	truction							
	Р	Planned,	եսt no	t authorn	zed by ut	ılıty								

* Plan to build 450 MW or 600 MW PC unit with excess capacity to be sold in years not needed



4. OTHER PLANNING ASSUMPTIONS AND INFORMATION

4.1 Transmission Constraints

Seminole analyzes the transmission system impacts resulting from its expansion plans using the FRCC load flow databank transmission model. In Seminole's current Ten Year Plan there are no firm new sited units (i.e., assuming Seminole purchases future capacity thru PPAs).

4.2 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 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).

4.3 Fuel Price Forecast

4.3.1 Coal. Over the long term, coal prices at the mine are projected to decline in real terms due to efficiency improvements in the mining sector and competition with more efficient natural gas-fired generation. In the past, large reductions in price came from transportation cost reductions and long-term contract expirations. However, cost reductions in these two areas will not have as large an impact on future coal prices as they have had in the past. Future prices will be affected by continued mine efficiency improvements and efforts by the coal industry to maintain market share. As long-term coal contracts are a thing of the past, contract durations will typically range from three to five years and terms will be more sensitive to market conditions.



4.3.2 Oil. Global economic growth is expected to average approximately 3% annually starting in 2004, which will result in growth in oil demand. Prices are projected to come down from 2004 to 2005, reflecting an easing of tight supplies, the result of high winter demand and increased prices. From 2005 and forward, oil prices in real terms will grow throughout the forecast period. Prices will reflect rising demand for oil, as well as OPEC's continued efforts to restrain output.

4.3.3 Natural Gas. Continued price volatility is expected, but the natural gas forecast utilized by Seminole does not predict daily or monthly price volatility. The demand for natural gas for the production of electricity is increasing. This increased demand is created by utility and nonutility commitments to a large number of new gas-fired generating facilities across the country. The supply of natural gas from traditional North American gas fields is under stress to meet current and forecast demands. These traditional gas fields are maturing and new gas finds are smaller and deplete more quickly. Increasing demand for natural gas will have to be met by a combination of expanded access to new supply areas, non-traditional sources such as deep water drilling, and liquified natural gas (LNG). The marginal cost of supply for new gas sources is expected to increase, increasing the average price. Supply and demand are expected to remain in balance over the long term but short term imbalances will have a significant impact on prices.

4.4 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.



4.5 **Financial Assumptions**

Expansion plans are evaluated based on Seminole's forecast of RUS guaranteed loan fund rates. The plans are tested with a sensitivity using financing rates forecast for funds other than RUS guaranteed funds in the event that the RUS funds are not available.

4.6 Integrated 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 on the next page.

The impact of demand-side management (DSM) and conservation is accounted for in Seminole's planning process by incorporating demand and energy reductions from conservation and DSM efforts into the load forecast. Additional impacts from Seminole's Coordinated Load Management Program are incorporated during the preparation of the Power Requirements Study. 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 FPC area, but instead reduces the amount of PR purchases required from FPC.

4.7 Reliability Criteria

Beginning in the mid-80's, Seminole planned to a 1% Expected Unserved Energy (EUE)

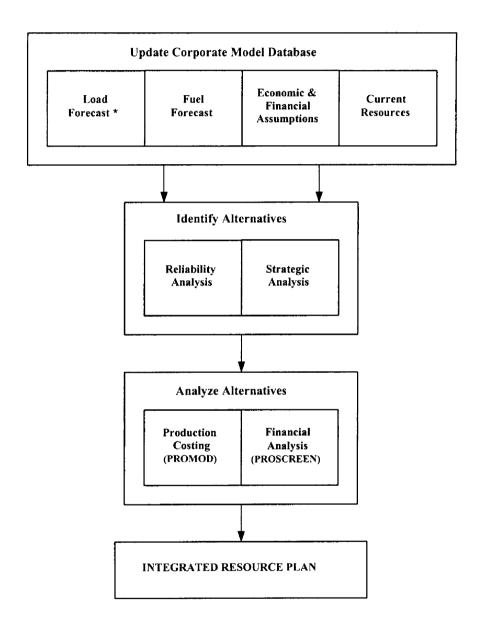


criterion which resulted in a reserves percent higher than the FRCC 15% minimum requirement. Starting in 1999, Seminole also used a minimum 15% system peak reserve margin as an additional reliability criterion. As Seminole's system and resources have grown and diversified, the two criteria have converged and reserve margin became the driving criterion. Beginning in 2002, Seminole added an additional criteria to ensure that it had reserve capacity of at least 15% of the winter weather sensitive load. This additional criterion was determined to be prudent due to the amount of weather sensitive load in Seminole's total obligation and the restrictions on the use of Hardee Power Station capacity through the year 2012.



Figure 3

Resource Planning Process



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



4.8 Strategic Concerns

In the current rapidly changing utility industry, strategic concerns are becoming increasingly important. Seminole presently, as in the past, has not quantified the financial impact of strategic concerns such as length of contracts, own vs purchase, etc. However, Seminole continues to evaluate a wide variety of options to meet future power requirements, as explained below under "Procurement of Supply-Side Resources".

4.9 Procurement of Supply-side Resources

Seminole plans to continue to use the all-sources RFP process in conjunction with the evaluation of self-build alternatives, as the primary means of making decision on future power supply needs. Seminole solicits proposals from turnkey contractors, utilities, independent power producers, qualifying facilities, power marketers and evaluates demand side options. The options are compared to Seminole's own self-build alternatives to evaluate life cycle cost, reliability, and strategic issues.

4.10 Transmission Plans

Seminole currently has no firm plans for transmission construction or upgrades subject to the Transmission Line Siting Act (TLSA). Seminole is building approximately 2.0 miles of double circuit 230 kV line to loop the Hardee to Lee Line into FP&L's Charlotte Substation. This project is for the purpose of improving the reliability of service. The table on the next page lists all 69 kV and above Transmission Line Projects planned by Seminole Member Distribution Cooperatives over the ten year planning horizon.



	Transmiss	ion Line Proje	cts		•
Owner	Line Terminal From	Line Terminal	Line	Commercial	Nominal
		То	Miles	In-service	Voltage
				Date	(kV)
Central Florida	Fanning Springs	Fanning Springs	3.0	2007	69
	Lebanon Tap	Lebanon	0.5	2009	69
	Old Town	Town of Suwannee	160	12/2005	69
	Fanning Springs	Georgia Pacific	6.0	2007	69
Clay	Hickman Tap	Hickman	6.0	2007	115
	Bland	Worthington	5.17	12/2006	115
	Worthington	Brooker	6.71	12/2006	115
	Brooker	TP-8	9.98	12/2006	115
	TP-8	New River	6.87	12/2006	115
	New River	Water Oak	6.8	12/2005	115
	TP-8	Waldo	9.1	12/2005	115
	Keystone Heights	TP-8	12.5	12/2005	230
Glades	None				
Lee County	Kismet	Del Prado	0.5	2004	230
	Burnt Store	Pine Island	5.0	2004	138
	Burnt Store	Trafalgar	5.0	12/2011	138
	Burnt Store	West Cape	3.7	2004	138
	West Cape	West Cape Tap	2.0	2004	138
	Cape Coral	Cape Coral Tap	10	2005	138
	Piney	Tropic Isles	2.0	2006	138
	North Cape	Del Pardo	10.0	2007	138
Peace River	Murphy Road Tap	Murphy Road	20 0	2007	69
	Indian Lks Es Tap	Indian Lks Estates	22.0	2009	69
Sumter	None				
Suwannee	None	1			



	Transmission Line Projects							
Owner	Line Terminal From	Line Terminal	Line	Commercial	Nominal			
		То	Miles	In-service	Voltage			
				Date	(kV)			
Talquin	Lowry Tap	Lowry	0.1	5/2005	115			
	Buck Lake	Chaires	4.2	2006	115			
	Crawfordville Tap	Crawfordville	2.0	12/2007	69			
Tri-County	None							
Withlacoochee	Bexley Tap	Bexley	0.1	2010	115			
	Darby	Elam	70	2011	115			
	Hays Road Tap	Hays Road	2.1	2008	115			
	Hays Road	Pasco Trails	4.9	2008	115			
	Connerton Tap	Connerton	3.0	2009	115			
	New Port Richey	Ridge	4.2	2006	115			
	Darby	Curley	11 5	2007	115			
	Ridge	Connerton	11 0	2009	115			
	Spring Hill 3 Tap	Spring Hill 3	0.2	2005	115			



		chedule 9 ons of Proposed Generating Facilities
1	Plant Name & Unit Number	Payne Creek GT - A thru E
2	Capacity	
	a. Summer (MW):	54
	b. Winter (MW):	62
3	Technology Type:	Gas Turbine
4	Anticipated Construction Timing	
	a. Field construction start-date:	February 2006
	b. Commercial in-service date:	December 2006
5	Fuel	
	a. Primary fuel:	Natural Gas
	b. Alternate fuel:	Distillate Oil
6	Air Pollution Control Strategy	Low Nox Comb. w/ water injection, Natural Gas, LS #2
7	Cooling Method:	N/A
8	Total Site Area:	Not available at this time
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	EPA: Permit Submittal December 2003
		RUS: Permit Submittal December 2003
12	Projected Unit Performance Data	
	Planned Outage Factor (POF):	0.5
	Forced Outage Factor (FOF):	3.0
	Equivalent Availability Factor (EAF):	96.5
	Resulting Capacity Factor (%):	1% - 10%
	Average Net Operating Heat Rate (ANOHR):	10,400
13	Projected Unit Financial Data (\$2007)	
	Book Life (Years):	30
	Total Installed Cost (In-Service Year \$/kW):	N/A
	Direct Construction Cost (\$/kW):	N/A
	AFUDC Amount (\$/kW):	N/A
	Escalation (\$/kW):	N/A
	F1xed O&M (\$/kW-Yr):	N/A
	Variable O&M (\$/MWH):	N/A
	K Factor:	N/A



Schedule 10

Status Report and Specifications of Proposed Associated Transmission Lines

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

