



July 24, 2000

Mr. Michael S. Haff Division of Electric & Gas Florida Public Service Commission 2540 Shumard Oak Blvd. Tallahassee, FL 32399-0850



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Dear Mr. Haff:

Attached is Seminole's response to the 2000 Ten Year Site Plan supplemental information requested in your letter of June 8, 2000.

If you have any questions concerning this information, please feel free to call Garl Zimmerman, Manager of System Planning, or me.

Sincerely,

Richard J. Midulla

Executive Vice President and

General Manager

GSZ:qt attachment

FPSC-RECORDS/REPORTING

### General

1. Provide all data requested on the attached forms. If any of the requested data is already included in Seminole's Ten-Year Site Plan, state so on the appropriate form.

### Please see attached forms:

.►	Schedule 12	Existing Generating Unit Operating Performance
•	Schedule 5.1.1	Nominal, Delivered Residual Oil Prices - Base Case
•	Schedule 5.1.2	Nominal, Delivered Residual Oil Prices - High Case
•	Schedule 5.1.3	Nominal, Delivered Residual Oil Prices - Low Case
•	Schedule 5.2.1	Nominal, Del. Dist. Oíl & Natural Gas Prices - Base Case
•	Schedule 5.2.2	Nominal, Del. Dist. Oil & Natural Gas Prices - High Case
•	Schedule 5.2.3	Nominal, Del. Dist. Oil & Natural Gas Prices - Low Case
•	Schedule 5.3.1	Nominal, Delivered Coal Prices - Base Case
•	Schedule 5.3.2	Nominal, Delivered Coal Prices - High Case
•	Schedule 5.3.3	Nominal, Delivered Coal Prices - Low Case
•	Schedule 5.4	Nominal, Delivered Nuclear Fuel and Firm Purchases
•	Schedule 14.1	Financial Assumptions - Base Case
•	Schedule 14.2	Financial Escalation Assumptions

Loss of Load Probability, Reserve Margin, and Expected Unserved Energy - Base Case Load Forecast

### Schedule 12 - Based on 1999 Data Existing Generating Unit Operating Performance

(1)	(2)	(3	)	(4	)	(5	9)	(6)		
-		Planned Outage Factor (POF)		Forced ( Factor		Equivalent Availability Factor (EAF)		Average Net Operating Heat Rate (ANOHR)		
Plant Name	Unit No.	Historical -	Projected	Historical -	Projected	Historical -	Projected	Historical -	Projected	
Seminole	1	6.02%	4.96%	0.75%	4.20%	92.57%	90.84%	9,798	9,825	
Seminole	2	6.96%	6.08%	1.81%	4.20%	90.83%	89.72%	9,820	9,825	

Note: Historical - average of past three years. Projected - average of next ten years.

			No		ule 5.1.1 I Residual Oil Prio	ces														
				Base	Case															
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)											
<u> </u>				Residual Oil (B	y Sulfur Content)															
Less Than 0.7% Escalation 0.7 - 2.0% Escalation Greater Than 2.0%								Than 2.0%	Escalation											
Year	\$/BBL	c/MBTU	%	\$/BBL	c/MBTU	%	\$/BBL	c/MBTU	%											
History:																				
1997					• •				_											
1998	Note: Whil	le Seminole devel	ops price projections envis	for residual oil, ion burning this	it does not current fuel in any of its c	ly burn this fuel in urrent or planned u	any of its units. nits.	Likewise, the com	pany does not											
1999	T																			
Forecast:																				
2000				18.82	299	-														
2001	]			19.15	305	1.72														
2002				19.48	310	1.73														
2003	:			19.81	315	1.73														
2004		N/A		20.16	321	1.73		N/A												
2005				20.50	326	1.73	N/A													
2006				20.86	332	1.73														
2007				21.22	338	1.73														
2008				21.58	343	1.73														

ASSUMPTIONS: heat content, ash content

			No		ule 5.1.2 d Residual Oil Pric	ces			
				High	n Case				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<del></del> -				Residual Oil (B	y Sulfur Content)				
	Less 7	Than 0.7%	Escalation	0.7	- 2.0%	Escalation	Greater '	Than 2.0%	Escalation
Year	\$/BBL	c/MBTU	%	\$/BBL	c/MBTU	_%	\$/BBL	c/MBTU	%
History:									
1997		<u> </u>		. C	14 . 4	1 1 41 6 . 1	6.4	<b>v</b> 1 ·	•
1998	Note: Whil	e Seminole devel	ops price projections envis	for residual oil,	it does not current fuel in any of its c	ly burn this fuel in current or planned u	any of its units. nits.	Likewise, the com	pany does not
1999	]				u=				
Forecast:									
2000				19.36	308	<u>-</u>			_
2001				20.16	321	4.14			
2002				20.99	334	4.14			
2003				21.86	348	4.14			
2004	7	N/A		22.77	362	4.14		N/A	
2005		2112		23.71	377	4.14		AVAR	
2006				24.69	393	4.15			
2007				25.72	409	4.15			
2008				26.78	426	4.15			
2009				27.89	444	4.15			

ASSUMPTIONS: heat content, ash content

<u>.                                      </u>			No		ule 5.1.3 d Residual Oil Pric	ces								
				Lov	v Case									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)					
				Residual Oil (B	y Sulfur Content)									
	Less 7	Than 0.7%	Escalation	0.7	- 2.0%	Escalation	Greater	Than 2.0%	Escalation					
Year	\$/BBL	c/MBTU	%	\$/BBL	c/MBTU	%	\$/BBL	c/MBTU	%					
History:					·· -									
1997														
1998	Note: Whi	le Seminole devel	ops price projections envis			ly burn this fuel in a urrent or planned u		Likewise, the con	pany does not					
1999	1													
Forecast:	<u> </u>							· · · · · · · · · · · · · · · · · · ·						
2000				18.26	290	•		<u>-</u>						
2001	1		ĺ	17.94	285	-1.76								
2002	7			17.62	280	-1.75								
2003	1		3	17.32	275	-1.75								
2004	1	N/A		17.01	271	-1.75		N/A						
2005		1 17 4 4		16.72	266	-1.74		1.472						
2006				16.43	261	-1.74								
2007		16.14 257 -1.74												
2008				15.86	252	-1.73								

ASSUMPTIONS: heat content, ash content

		Nominal, Deliv	Schedule 5.2.1 vered Distillate Oil and	Natural Gas Prices		
			Base Case			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Distillate Oil			Natural Gas	
Year	\$/BBL	c/MBTU	Escalation %	c/MBTU	c/Therm	Escalation %
History:						
1997	27.72	478	-5.62			
1998	20.58	355	-25.76	Note: While Seminole not curre	e develops price projection ntly burn this fuel in any c	is for natural gas, it does of its units.
1999	21.42	366	4.08			
Forecast:						
2000	27.00	463	26.05	322	3,221	T -
2001	27.34	469	1.28	329	3,285	2.00
2002	27.69	475	1.28	335	3,351	2.00
2003	28.05	482	1.28	342	3,418	2.01
2004	28.40	488	1.28	349	3,487	2.01
2005	28.77	494	1.28	356	3,557	2.01
2006	29.14	500	1.28	363	3,629	2.02
2007	29.51	507	1.28	370	3,703	2.02
2008	29.89	513	1.28	378	3,778	2.03
2009	30.27	520	1.28	385	3,855	2.03

ASSUMPTIONS FOR DISTILLATE OIL:

heat content, ash content, sulfur content

		Nominal, Deliv	Schedule 5.2.2 vered Distillate Oil and Na	tural Gas Prices		
·			High Case			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Distillate Oil			Natural Gas	
Year	\$/BBL	c/MBTU	Escalation %	c/MBTU	c/Therm	Escalation %
istory:						
1997	27.72	478	-5.62			
1998	20.58	355	-25.76		N/A	
1999	21.42	366	4.08			
orecast:						
2000	27.77	477	29.65	366	3,658	-
2001	28.92	497	4.17	384	3,837	4.90
2002	30.13	517	4.17	403	4,026	4.93
2003	31.39	539	4.17	423	4,226	4.95
2004	32.70	561	4.17	444	4,436	4.98
2005	34.06	585	4.17	466	4,658	5.01
2006	35.49	609	4.18	489	4,893	5.03
2007	36.97	635	4.18	514	5,140	5.06
2008	38.51	661	4.18	540	5,401	5.08
2009	40.12	689	4.18	568	5,677	5.10

ASSUMPTIONS FOR DISTILLATE OIL:

heat content, ash content, sulfur content

		Nominal, Deliv	Schedule 5.2.3 ered Distillate Oil and Na	tural Gas Prices		
			Low Case			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Distillate Oil			Natural Gas	
Year	\$/BBL	c/MBTU	Escalation %	c/MBTU	c/Therm	Escalation %
story:						
1997	27.72	478	-5.62			
1998	20.58	355	-25.76		N/A	
1999	21.42	366	4.08			
recast:						
2000	26.17	449	22.18	278	2,783	-
2001	25.70	441	-1.81	274	2,742	-1.45
2002	25.23	433	-1.81	270	2,703	-1.45
2003	24.77	425	-1.81	266	2,663	-1.45
2004	24.33	418	-1.81	262	2,625	-1.45
2005	23.89	410	-1.80	259	2,587	-1.45
2006	23.46	403	-1.80	255	2,549	-1.45
2007	23.04	396	-1.80	251	2,512	-1.45
2008	22.62	388	-1.80	248	2,476	-1.45
2009	22.22	381	-1.79	244	2,440	-1.45

ASSUMPTIONS FOR DISTILLATE OIL:

heat content, ash content, sulfur content

						Schedule 5,3. , Delivered C			···			
						Base Case						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	]	Low Sulfur C	Coal (< 1.0%	)	Me	dium Sulfur	Coal (1.0-2.	0%)	I	ligh Sulfur (	Coal (> 2.0%	6)
Үеаг	\$/Ton	c/MBtu	Esc %	% Spot Purchase	\$/Ton	c/MBtu	Esc %	% Spot Purchase	\$/Ton	c/MBtu	Esc %	% Spot Purchase
History:									-			
1997		Vhile Semino							42.44	175	-5.31	43.64
1998	not burn t	ot burn these fuels in any of its units. Likewise, the company does not envision burning these fuels in any of its current or planned units.  45.11 184 6.29 36.51										
1999	]	39.49 159 -12.46 34.72										
Forecast:												
2000	41.39	166	-		39.72	159	-		38.05	152	-3.65	35.00
2001	41.73	167	0.83		40.05	160	0.83		38.36	154	0.84	35.00
2002	42.13	169	0.94		40.43	162	0.94		38.73	155	0.95	35.00
2003	42.55	170	1.00		40.83	163	1.00		39.11	157	1.00	35.00
2004	42.97	172	1.00		41.24	165	1.00	) N/(A	39.51	158	1.00	35.00
2005	43.43	174	1.06	N/A	41.67	167	1.06	N/A	39.92	160	1.05	35.00
2006	43.91	176	1.12		42.13	169	1.09		40.34	161	1.05	35.00
2007	44.43	178	1.17		42.60	170	1.12		40.77	163	1.05	35.00
2008	44.95	180	1.17		43.07	172	1.12		41.20	165	1.05	35.00
2009	45.50	182	1.23		43.57	174	1.15		41.63	167	1.05	35.00

ASSUMPTIONS: type of coal, heat content, ash content

	· · · · · · · · · · · · · · · · · · ·					Schedule 5.3.2 , Delivered Co	_					
						High Case		-				_
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Low Sulfur Coal (< 1.0%) Medium Sulfur Coal (1.0-2.0%)									High Sulfur (	Coal (> 2.0%	6)
Year	\$/Ton	c/MBtu	Esc %	% Spot Purchase	\$/Ton	c/MBtu	Esc %	% Spot Purchase	\$/Ton	c/MBtu	Esc %	% Spot Purchase
History:	<del>-</del>											
1997		Vhile Semino							42.44	175	-5.31	43.64
1998	not burn t	hese fuels in		iits. Likewis any of its cur			envision bui	ming these	45.11	184	6.29	36.51
1999	]	39.49 159 -12.46 34.72										
Forecast:												
2000	42.33	169	-		40.61	162	-		38.88	156	-1.54	35.00
2001	43.62	175	3.05		41.84	167	3.03		40.05	160	3.00	35.00
2002	44.95	180	3.05		43.10	172	3.03		41.25	165	3.00	35.00
2003	46.32	185	3.05		44,41	178	3.03		42.49	170	3.00	35.00
2004	47.74	191	3.05	NT/A	45.75	183	3.03	NI/A	43.77	175	3.00	35.00
2005	49.19	197	3.05	N/A	47.14	189	3.03	N/A	45.08	180	3.00	35.00
2006	50.69	203	3.05		48.56	194	3.03		46.43	186	3.00	35.00
2007	52.24	209	3.05		50.04	200	3.03		47.83	191	3.00	35.00
2008	53.84	215	3.05		51.55	206	3.03		49.26	197	3.00	35.00
2009	55.48	222	3.05	]	53.11	212	3.03		50.74	203	3.00	35.00

ASSUMPTIONS: type of coal, heat content, ash content

						Schedule 5.3.2 Delivered Co							
						Low Case							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
	Low Sulfur Coal (< 1.0%) Medium Sulfur Coal (1.0-2.0%)										Coal (> 2.0%	6)	
Year	\$/Ton	c/MBtu	Esc %	% Spot Purchase	\$/Ton	c/MBtu	Esc %	% Spot Purchase	\$/Ton	c/MBtu	Esc %	% Spot Purchase	
History:													
1997		Vhile Semino							42.44	175	-5.31	43.64	
1998	not burn t	to burn these fuels in any of its units. Likewise, the company does not envision burning these fuels in any of its current or planned units.  45.11 184 6.29 36.51											
1999		39.49 15912.46 34.72											
Forecast:													
2000	40.62	163	-		38.99	156	•		37.36	149	-5.39	35.00	
2001	40.17	161	-1.11		38.57	154	-1.07		36.97	148	-1.03	35.00	
2002	39.73	159	-1.10		38.16	153	-1.06		36.59	146	-1.02	35.00	
2003	39.29	157	-1.09	]	37.76	151	-1.05		36.22	145	-1.01	35.00	
2004	38.87	156	-1.08		37.36	150	-1.04	27/4	35.86	143	-1.00	35.00	
2005	38.45	154	-1.07	N/A	36.98	148	-1.03	N/A	35.50	142	-0.99	35.00	
2006	38.05	38.05 152 -1.06 36.60 146 -1.02									-0.99	35.00	
2007	37.65	151	-1.05		36.23	145	-1.01		34.81	139	-0.98	35.00	
2008	37.26	37.26 149 -1.04 35.86 144 -1.00 34.47 138 -0.97 35.00											
2009	36.87	148	-1.03		35.51	142	-0.99		34.14	137	-0.96	35.00	

ASSUMPTIONS: type of coal, heat content, ash content

Schedule 5.4 Nominal, Delivered Nuclear Fuel and Firm Purchase

(1)	(2)	(3)	(4)	(5)
	Nuc	<u>lear</u>	Firm Pur	chases
<u>Year</u>	c/MBTU	Escalation(%)	<u>\$/Mwh</u>	Escalation(%)
History:				
1997	0.00	-100.00%	0.00	-100.00%
1998	44.94	100.00%	39.80	100.00%
1999	46.17	2.74%	45.49	12.51%
Forecast:				
2000	49.62	7.47%	46.17	1.50%
2001	50.42	1.63%	47.00	1.80%
2002	51.25	1.64%	48.13	2.40%
2003	52.13	1.72%	49.43	2.70%
2004	53.07	1.81%	50.72	2.60%
2005	54.08	1.89%	52.03	2.60%
2006	55.18	2.04%	53.34	2.50%
2007	56.36	2.13%	54.62	2.40%
2008	57.57	2.15%	55.93	2.40%
2009	58.86	2.24%	57.32	2.50%

Note: Firm purchases are the total cost of power produced divided by Net Generation.

### Schedule 14.1

### Financial Assumptions Base Case

AFUDC RATE:	5.98	%(1)
CAPITALIZATION RATIOS	<b>:</b>	
DEBT		%
PREFERRED	N/A	%
EQUITY .	N/A	%
RATE OF RETURN:		
DEBT	N/A	%
PREFERRED	N/A	%
EQUITY	N/A	%
INCOME TAX RATE:		
STATE	00	%
FEDERAL	0	%
EFFECTIVE	<u> </u>	%
OTHER TAX RATE:	N/A	%
DISCOUNT RATE:	5,98	% (2)
TAX DEPRECIATION RATE:	3.57	% (3)

Equals discount rate.
 Average of long term interest rate for RUS financing over the study period (2000-2009).
 Equals straight-line over 28-year life of combined cycle unit.

Schedule 14.2
Financial Escalation Assumptions

(1)	(2)	(3)	(4)	(5)
Year	General Inflation %	Plant Construction Cost %	Fixed O&M Cost %	Variable O&M Cost %
		· · · · · · · · · · · · · · · · · · ·		
2000	1.5	1.5	1.5	1.5
2001	1.8	1.8	1.8	1.8
2002	2.4	2.4	2.4	2.4
2003	2.7	2.7	2.7	2.7
2004	2.6	2.6	2.6	2.6
2005	2.6	2.6	2.6	2.6
2006	2.5	2.5	2.5	2.5
2007	2.4	2.4	2.4	2.4
2008	2.4	2.4	2.4	2.4
2009	2.5	2.5	2.5	2.5

### Loss of Load Probability, Reserve Margin and Expected Unserved Energy Base Case Load Forecast

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	4	Annual Isolated			Annual Assisted	1
	Loss of	Reserve	Expected	Loss of		Expected
	Load	Margin %	Unserved	Load	Reserve	Unserved
	Probability	(Including	Energy	Probability	y Margin	Energy
Year	(Days/Yr)	Firm Purch.)	(MWh)	(Days/Yr)	(%)	(MWh)
2000	N/A	22.8%	23,900			
2001	N/A	23.8%	23,600			H
2002	N/A	28.2%	15,700			
2003	N/A	21.4%	17,500			
2004	N/A	16.9%	40,700	<b>J</b>		jj.
2005	N/A	16.7%	17,300		N/A	
2006	N/A	19.9%	19,900			
2007	N/A	16.4%	23,000			
2008	N/A	19.7%	24,100	#		1
2009	N/A	18.0%	32,800			

#### **Planning**

2. Discuss the power purchase agreements between Seminole and two merchant plant developers, Reliant Energy and Oleander Power Project. Discribe how Seminole's agreement with Oleander Power Project will occur (e.g., joint petition for determination of need, etc.) if the Florida Supreme Court reaffirms its decision denying the Duke Energy New Smyrna Beach project. Include a description of how these projects will affect Seminole's "backstop" expansion plan.

In 1999, Seminole entered into a power purchase agreement with Reliant Energy Osceola, LLC, for 306 MW of firm capacity for the period December 2001 through 2006. Seminole has also entered into a power purchase agreement with Oleander Power Project, Limited Partnership for 355 MW of firm capacity for the period December 2002 through 2009 and an additional 177 MW of capacity for the period May 2003 through 2009.

Both the Reliant Osceola and Oleander Power Projects are combustion turbine peaking facilities with no steam cycle and therefore are not subject to the Power Plant Siting Act.

The Reliant purchase and the first 355 MW of the Oleander purchase are reflected in Seminole's 2000 Ten-Year Site Plan (TYSP). The additional 177 MW Oleander purchase replaces the first unknown Combustion Turbine shown in Schedule 8 of the "back-stop" plan in the TYSP.

3. For each of the generating units contained in Seminole's Ten-Year Site Plan, discuss the "drop dead" date for a decision on whether or not to construct each unit. Provide a time line for the construction of each unit, including regulatory approval, final decision point, and vendor order.

#### **Payne Creek Generating Station**

Request for proposal:

**COMPLETED** 

Regulatory approval:

**COMPLETED** 

Final decision point: Begin construction:

MADE 03/2000

Planned in-service date:

01/2002

### **Combustion Turbine Unit No. 1-3**

	<u>Unit 1*</u>	<u>Unit 2</u>	<u>Unit 3</u>
Request for proposal:	N/A	05/2002	05/2004
Final decision point:	N/A	11/2002	11/2004
Regulatory approval:	N/A	05/2003	05/2005
Vendor order:	N/A	06/2003	06/2005
Begin construction:	11/2000	06/2004	06/2006
Planned in-service date:	11/2002	06/2005	06/2007

### Combined Cycle Unit No. 1-2

	Unit 1	<u>Unit 2</u>
Request for proposal:	07/2000	11/2002
Final decision point:	11/2000	05/2003
Regulatory approval**:	11/2001	10/2003
Vendor order:	11/2001	11/2003
Begin construction:	06/2002	11/2004
Planned in-service date:	06/2004	11/2006

<sup>\*</sup> Purchased Power Agreement with Oleander Power Project signed April 2000.

<sup>\*\*</sup> CC Unit No. 1 might be replaced with the results of July 2000 RFP.

4. Provide a description and example calculation of how Seminole accounts for Partial Requirements and Full Requirements contracts when determining annual reserve margins. Schedule 7.1 and 7.2 from the Ten-Year Site Plan filing should be used as the basis for the calculation.

Please see attached Schedules 7.1 and 7.2 for reserve margins calculations.

	Schedule 7.1													
		F	orecast o	f Capaci	ty, Den	and and	Schedule	ed Mainte	nance at T	Time of	Summer 1	Peak		
Year	Total Installed Capacity	Firm Capacity Import (Less PR/FR) <sub>1</sub>	Firm Capacity Import (PR/FR)	Firm Capacity Export	QF <sub>2</sub>	Total Capacity Available	Total Capacity Available Less PR/FR	System Firm Summer Peak Demand	System Firm Summer Obligation <sub>3</sub>	В	ve Margin efore tenance,	Scheduled Main- tenance	ain- After	
- A 11 T	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(M/W)	(% of Pk)	(MW)	MW	(% of Pk)
2000	1,331	1,182	324	0	298	3,135	2,811	2,649	2,325	486	26.0%	0	486	26.0%
2001	1,331	1,292	271	0	298	3,192	2,921	2,740	2,469	452	24.2%	0	452	24.2%
2002	1,819	1,058	277	0	298	3,452	3,175	2,835	2,558	617	29.3%	0	617	29.3%
2003	1,972	909	231	0	298	3,410	3,179	2,930	2,699	480	18.8%	0	480	18.8%
2004	2,216	803	161	0	298	3,478	3,317	3,026	2,865	452	16.6%	0	452	16.6%
2005	2,369	782	174	0	298	3,623	3,449	3,126	2,952	497	17.7%	0	497	17.7%
2006	2,369	782	236	0	298	3,685	3,449	3,224	2,988	461	16.2%	0	461	16.2%
2007	2,766	476	299	0	298	3,839	3,540	3,325	3,026	514	17.9%	0	514	17.9%
2008	2,766	476	362	0	298	3,902	3,540	3,426	3,064	476	16.3%	0	476	16.3%
2009	2,766	491	428	0	298	3,983	3,555	3,531	3,103	452	15.3%	0	452	15.3%
1	Firm cap	acity includ	les partial :	requirement	ts (PR) ar	d full requ	irements (F	R) purchase	s and purchas	es from	other supplies	г.		
2	The capa MW of	city shown	under QF from Semin	represents a	a contract	with TEC	O Power Se	rvices for fi	rst-call capac	ity from	the Hardee P	ower Station	to back	up 1240
3	Seminole	's firm obl	igation den	nand does n	ot include	PR and F	R purchases	i.						
4	Percent r	eserves are	calculated	on Semino	le's oblig	ation since	Seminole is	not respon	sible for supp	lying res	erves for FR	and PR pure	hases.	

	Schedule 7.2													
	Forecast of Capacity, Demand and Scheduled Maintenance at Time of Winter Peak													
Year	Total Installed Capacity	Firm Capacity Import (Less PR/FR) <sub>1</sub>	Firm Capacity Import (PR/FR)	Firm Capacity Export	QF <sub>2</sub>	Total Capacity Available	Total Capacity Available Less PR/FR	System Firm Winter Peak Demand	System Firm Winter Obligation <sub>3</sub>	В	ve Margin efore tenance <sub>4</sub>	Scheduled Main- tenance	Reserve Margi After Maintenance	
	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(% of Pk)	(MW)	(MW)	(% of Pk)
2000	1,345	1,273	456	0	362	3,436	2,980	2,968	2,512	468	22.8%	0	468	22.8%
2001	1,345	1,448	718	0	362	3,873	3,155	3,383	2,665	490	23.8%	0	490	23.8%
2002	1,917	1,133	740	0	362	4,152	3,412	3,500	2,760	652	28.2%	0	652	28.2%
2003	2,099	1,053	697	0	362	4,211	3,514	3,617	2,920	594	21.4%	0	594	21.4%
2004	2,099	1,129	642	0	362	4,232	3,590	3,734	3,092	498	16.9%	0	498	16.9%
2005	2,385	946	676	0	362	4,369	3,693	3,863	3,187	506	16.7%	0	506	16.7%
2006	2,567	915	757	0	362	4,601	3,844	3,988	3,231	613	19.9%	0	613	19.9%
2007	2,853	574	838	0	362	4,627	3,789	4,114	3,276	513	16.4%	0	513	16.4%
2008	3,035	550	915	0	362	4,862	3,947	4,237	3,322	625	19.7%	0	625	19.7%
2009	3,035	550	1,005	0	362	4,952	3,947	4,373	3,368	579	18.0%	0	579	18.0%
1	Firm cap	acity includ	les partial r	requirement	s (PR) ar	nd full requi	irements (F	R) purchase	s and purchas	ses from o	other supplie	г.		
2		city shown generation					O Power Se	rvices for fi	rst-call capac	ity from	the Hardee P	ower Station	to back	ıp 1240
3	Seminole	's firm obl	igation dem	nand does n	ot include	PR and F	R purchases	j.	_					
4	Percent r	reserves are	calculated	on Semino	le's oblig	ation since	Seminole is	not respon	sible for supp	lying res	rves for FR	and PR pure	hases.	

5. Provide a description and the status of any Request for Proposals currently being reviewed by Seminole. Each description should address the potential impact to Seminole's Ten-Year Site Plan.

In 1999, Seminole entered into power purchase agreements with Reliant Energy Osceola and Oleander Power Project, Limited Partnership for firm capacity which is shown in Schedule 7.1 & 7.2 of Seminole's 2000 Ten Year Site Plan.

Seminole issued a request for proposals July 7, 2000 for its capacity need beginning 2004.

#### **Environmental**

6. Identify and discuss all proposed or reasonably expected State and Federal environmental regulations or legislation that impacted Seminole's generation expansion plan.

### **Payne Creek Generating Station**

The Payne Creek Generating Station (PCGS), a 488 MW combined cycle generating facility, is the only generation project in Seminole's current expansion plan. The PCGS project received certification pursuant to the Florida Electrical Power Plant Siting Act on August 15, 1995. It received the federally delegated National Pollutant Discharge Elimination System (NPDES) permit, issued on November 29, 1995, and the Prevention of Significant Deterioration (PSD) permit, on September 28, 1995.

Based upon the Siemens-Westinghouse Combustion Turbine (CT) finally selected for this facility, Seminole has identified several necessary modifications to the existing PSD permit and certification, in order to conform to the selected CT. These permit modifications were issued by FDEP on July 23, 1999 and December 21, 1999, respectively.

In addition to the permit modifications, Seminole has filed for a dredge and fill permit from the U.S. Army Corps of Engineers (USACE), for the wetland impacts associated with onsite construction. The application was filed with the USACE in April of 1999 and was issued on August 17, 1999.

No modifications are required for the existing NPDES permit.

### Future Combustion Turbine or Combined Cycle Facilities

Future generation from combustion turbine or combined cycle facilities will be permitted in accordance with all applicable State and Federal environmental regulations. These regulations may include:

- ► Florida Power Plant Siting Act Regulations (PPSA)
- Prevention of Significant Deterioration Regulations (PSD)
- ▶ U.S. Army Corps of Engineers Wetlands Regulations
- National Pollutant Discharge Elimination System Regulations (NPDES)
- Applicable local government requirements (i.e.: zoning, land use, etc.)

### Load Forecasting

7. Provide, on a system-wide basis, historical annual heating degree day (HDD)<sup>1</sup> data for the period from 1990-1999 and forecasted annual HDD data for the period from 2000-2009.

ACT	UAL
YEAR	HDH
1990	5,803
1991	9,599
1992	11,850
1993	12,301
1994	8,957
1995	15,015
1996	16,205
1997	10,064
1998	9,923
1999	10,732

PREDICTED								
YEAR	HDH							
2000	13,135							
2001	13,135							
2002	13,135							
2003	13,135							
2004	13,135							
2005	13,135							
2006	13,135							
2007	13,135							
2008	13,135							
2009	13,135							

<sup>&</sup>lt;sup>1</sup>For modeling purposes Seminole uses <u>heating degree hour (HDH)</u> not <u>heating degree</u> <u>day (HDD)</u>.

8. Provide, on a system-wide basis, historical annual cooling degree day (CDD)<sup>2</sup> data for the period from 1990-1999 and forecasted annual CDD data for the period from 2000-2009.

ACTUAL								
YEAR	CDH							
1990	37,626							
1991	35,877							
1992	30,677							
1993	32,489							
1994	32,383							
1995	36,393							
1996	33,115							
1997	33,858							
1998	38,668							
1999	30,961							

PREDICTED									
YEAR	CDH								
2000	33,299								
2001	33,299								
2002	33,299								
2003	33,299								
2004	33,299								
2005	33,299								
2006	33,299								
2007	33,299								
2008	33,299								
2009	33,299								

<sup>&</sup>lt;sup>2</sup>For modeling purposes Seminole uses <u>cooling degree hour (CDH)</u> not <u>cooling degree</u> <u>day (CDD)</u>.

9. Provide, on a system-wide basis, the historical annual average real retail price of electricity in Seminole's service territory for the period from 1990-1999. Also, provide the forecasted annual average real retail price of electricity in Seminole's service territory for the period from 2000-2009. Indicate the type of price deflator used to calculate the historical prices and forecasted real retail prices.

Seminole does not serve retail load.

10. Provide the following data to support Schedule 4 of Seminole's Ten-Year Site Plan: the 12 monthly peak demands for the years 1997, 1998, and 1999; and the date on which these monthly peaks occurred.

	Demand (MW)												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1997	2,953	2,030	1,546	1,600	1,905	2,171	2,320	2,320	2,221	1,869	1,786	2,160	
1998	2,198	2,125	2,414	1,749	2,277	2,606	2,458	2,523	2,211	2,154	1,632	2,135	
1999	3,196	2,477	2,171	2,380	2,185	2,285	2,577	2,627	2,451	2,158	1,922	2,580	

Peak Day												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1997	19	12	4	27	26	30	3	20	21	13	17	15
1998	1	10	13	18	25	17	3	27	4	7	26	31
1999	6.	23	5	26	25	4	31	1	5	2	4	26