ORIGINAL

One Energy Place
Pensacola, Florida 32520

850.444.6111

GULF POWER
A SOUTHERN COMPANY

July 31, 2000

000000-PU

Mr. Michael S. Haff
Engineer IV
Bureau of Electric Reliability/Conservation
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0850

Dear Mr. Haff:

Attached is Gulf Power Company's response to the Supplemental Data Request/2000 Ten-Year Site Plans that you requested in your letter dated June 8, 2000.

Sincerely,

Susan D. Ritenour

Susan D. Ritenour
Assistant Secretary and Assistant Treasurer

lw

Enclosure

APP ____
CAF ____
CMP ____
COM ____
CTR ____
ECR ____
LEG ____
OPC ____
PAI ____
RGO ____
SEC 1
SER ____
OTH ____

cc: Beggs and Lane
Jeffrey A. Stone, Esquire

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

ANSWER: Attached are the completed forms. As in previous years, some of the "high" and "low" case scenarios are not performed on an annual basis and are depicted on the forms as "Not Available."

2. Discuss the major updates occurring since last year's IRP which caused Gulf to have a different expansion plan this year than last. Discuss when the Southern Company plans to perform its next "full-blown" integrated resource planning process.

ANSWER: With the need to maintain a 15% Southern electric system reserve margin target coupled with higher load growth projections and the retirement of Smith A in December 2006, additional generation is now needed in 2007. Last Year's TYSP did not indicate additional generation in the planning horizon beyond that of Smith Unit 3 in 2002. The next Southern electric system "full-blown" IRP will become effective in January 2001.

3. Identify and discuss any firm power purchases that Gulf expects to make from other utilities over the planning horizon. Include purchases from other Southern Company members. If an unidentified or unconfirmed future power purchase is part of Gulf's generation expansion plan, explain the nature of that purchase.

ANSWER: Gulf has two firm power purchases; (1) from an electric utility in Louisiana and (2) from an independent power producer in Georgia. Both of these arrangements amount to a total of 293 megawatts and expire after the summer of 2001. Gulf plans to make up any capacity deficits through the use of short-term market purchases for the summer peak periods.

4. For each seasonal peak over the ten-year planning horizon, provide a table containing the annual forecasted reserve margin for the Southern Company system.

ANSWER: Southern Projected Reserve Margin

Year	% Reserves
2000	13.5
2001	13.5
2002	13.5
2003	15.0
2004	15.0
2005	15.0
2006	15.0
2007	15.0
2008	15.0
2009	15.0

5. For each of the generating unit contained in Gulf'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.

ANSWER: The following basic assumptions and time line estimates are common to all three of Gulf's future capacity additions shown in the 2000 Ten-Year Site plan beyond Smith Unit 3:

1. The units will be combustion turbines.
2. The units will be built outside of Florida and Gulf will merely share ownership in a portion of the facility.
3. The final decision point would occur after and exclusive of any solicitation of market source alternatives.
4. The decision point to move forward with construction of a combustion turbine is 36 months prior to the commercial in-service date.
5. The permitting and certification period for these units in the non-Florida jurisdictions will be conducted during the period of 34 through 27 months prior to commercial in-service.
6. Major equipment orders will be placed beginning at 30 months prior to the commercial in-service date. Engineering of the balance of plant (BOP) equipment will begin at the same time as major equipment is ordered.
7. Actual construction of the unit will begin with land clearing and site preparation at approximately 24 months before commercial operation.

6. Discuss Gulf's plan to meet reserve margin shortfalls forecasted for the following seasons: summer of 2000; and winter of 2000-2001 and 2001-2002.

ANSWER: Gulf is an integral part of the Southern electric system (SES) and therefore, can have planned reserve margins that fall below its individual company planning target as long as the SES has sufficient resources to meet their overall reserve margin target. During the period referenced above, the SES will have sufficient capacity resources to maintain its target reserve margin and thereby, support Gulf's temporary deficit in resources.

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

ANSWER: There were no new proposed or reasonably expected State or Federal environmental regulations or legislation that had any incremental effect on Gulf's capacity resource plans during this planning cycle.

8. Provide, on a system-wide basis, historical annual heating degree day (HDD) data for the period 1990 – 1999 and forecasted annual HDD data for the period 2000 – 2009.

ANSWER:

	Heating Degree Days Base 65
1990	1015
1991	1318
1992	1354
1993	1504
1994	1232
1995	1459
1996	1714
1997	1887
1998	1212
1999	1276
2000	1571
2001	1571
2002	1571
2003	1571
2004	1571
2005	1571
2006	1571
2007	1571
2008	1571
2009	1571

9. Provide, on a system-wide basis, historical annual cooling degree day (CDD) data for the period 1990 – 1999 and forecasted annual CDD data for the period 2000 – 2009.

ANSWER:

	Cooling Degree Days Base 65
1990	2831
1991	2895
1992	2578
1993	2686
1994	2658
1995	2771
1996	2682
1997	2492
1998	3062
1999	2670
2000	2680
2001	2680
2002	2680
2003	2680
2004	2680
2005	2680
2006	2680
2007	2680
2008	2680
2009	2680

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

ANSWER:

Annual Average Real Retail Price of Electricity
Deflated with the Gross Domestic Product
price deflator to 1987$

	Retail Cents per KWH Real 1987$
1990	4.96
1991	4.95
1992	4.69
1993	4.66
1994	4.68
1995	4.70
1996	4.57
1997	4.35
1998	3.99
1999	3.91
2000	3.87
2001	3.81
2002	3.82
2003	3.85
2004	3.78
2005	3.75
2006	3.71
2007	3.67
2008	3.64
2009	3.56

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

ANSWER:

1997		1998		1999	
DATE	PEAK	DATE	PEAK	DATE	PEAK
1/17/97	1,852	01/26/98	1,486	01/05/99	2,093
2/11/97	1,542	02/09/98	1,518	02/22/99	1,619
3/26/97	1,255	03/13/98	1,692	03/15/99	1,388
4/22/97	1,289	04/15/98	1,335	04/24/99	1,611
5/27/97	1,790	05/28/98	1,918	05/25/99	1,767
6/16/97	1,861	06/18/98	2,112	06/04/99	1,947
7/3/97	2,040	07/06/98	2,112	07/29/99	2,168
8/18/97	2,010	08/27/98	2,154	08/13/99	2,169
9/3/97	1,998	09/23/98	1,988	09/07/99	1,952
10/1/97	1,735	10/02/98	1,787	10/03/99	1,628
11/17/97	1,526	11/02/98	1,369	11/04/99	1,355
12/16/97	1,639	12/18/98	1,462	12/02/99	1,503

Schedule 3.1.3
History and Forecast of Summer Peak Demand - MW
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
history:									
1990									
1991									
1992									
1993									
1994									
1995									
1996									
1997									
1998									
1999									
					NOT AVAILABLE				
forecast:									
2000									
2001									
2002									
2003									
2004									
2005									
2006									
2007									
2008									
2009									

Schedule 3.1.2
History and Forecast of Summer Peak Demand - MW
Low Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
history:									
1990									
1991									
1992									
1993									
1994									
1995									
1996									
1997									
1998									
1999					NOT AVAILABLE				
forecast:									
2000									
2001									
2002									
2003									
2004									
2005									
2006									
2007									
2008									
2009									

Schedule 3.2.3
History and Forecast of Winter Peak Demand - MW
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
history:									
89-90									
90-91									
91-92									
92-93									
93-94									
94-95									
95-96									
96-97									
97-98									
98-99									
					NOT AVAILABLE				
forecast:									
99-00									
00-01									
01-02									
02-03									
03-04									
04-05									
05-06									
06-07									
07-08									
08-09									

Schedule 3.2.2
History and Forecast of Winter Peak Demand - MW
Low Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
history:									
89-90									
90-91									
91-92									
92-93									
93-94									
94-95									
95-96									
96-97									
97-98									
98-99									
					NOT AVAILABLE				
forecast:									
99-00									
00-01									
01-02									
02-03									
03-04									
04-05									
05-06									
06-07									
07-08									
08-09									

Schedule 3.3.3
History and Forecast of Annual Net Energy for Load - GWH
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total	Residential Conservation	Comm/Ind Conservation	Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %
history:								
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999				NOT AVAILABLE				
forecast:								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								

Schedule 3.3.2
History and Forecast of Annual Net Energy for Load - GWH
Low Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total	Residential Conservation	Comm/Ind Conservation	Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %
history:								
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999				NOT AVAILABLE				
forecast:								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								

Existing Generating Unit Operating Performance

(1)	(2)	(3)		(4)		(5)		(6)	
		Planned Outage Factor (POF)		Forced Outage Factor (FOF)		Equivalent Availabilitiy Factor (EAF)		Average Net Operating Heat Rate (ANOHR)	
Plant Name	Unit No.	Historical	Projected	Historical	Projected	Historical	Projected	Historical	Projected
Crist	1	.66	3.83	.12	.35	98.04	95.81	16,430	16,275
	2	.71	3.83	.39	.43	98.10	95.74	16,163	15,947
	3	2.81	3.83	.51	.49	96.48	95.68	15,100	14,687
	4	10.87	8.60	2.34	2.75	85.44	88.65	10,590	10,199
	5	12.44	7.83	3.46	3.65	83.33	88.52	10,401	10,134
	6	7.73	9.36	1.78	3.68	87.44	86.95	10,640	10,455
	7	9.04	9.17	8.20	5.86	79.53	84.97	10,298	10,168
Scholz	1	15.40	6.27	4.58	1.60	76.44	92.13	12,612	12,396
	2	2.63	7.61	4.03	1.01	91.67	91.38	12,508	12,512
Smith	1	10.57	9.06	1.87	2.38	85.96	88.56	10,160	10,041
	2	11.57	8.38	2.40	2.39	85.39	89.23	10,086	10,155
	A	0.00	0.00	2.28	.02	75.38	99.98	14,316	14,102
Daniel	1	17.98	9.69	4.10	4.38	72.18	85.93	10,442	10,027
	2	12.88	9.88	3.07	4.35	75.76	85.77	10,257	10,043
Scherer	3	7.14	5.94	2.00	2.75	89.70	91.31	10,291	10,218

NOTE: Historical – Average of the past three years
Projected – Average of the next ten years

Utility: Gulf Power Company

Nominal, Delivered Residual Oil Prices
Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Residual Oil (By Sulfur Content)								
	Less 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					None				
1999									
forecast:									
2000									
2001									
2002									
2003									
2004					None				
2005									
2006									
2007									
2008									
2009									

Utility: Gulf Power Company

Nominal, Delivered Residual Oil Prices
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Residual Oil (By Sulfur Content)								
	Less Than 0.7%		Escalation	0.7 - 2.0%		Escalation	Greater Than 2.0%		Escalation
Year	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%	$/BBL	C/MBTU	%

None

Utility: Gulf Power Company

Nominal, Delivered Residual Oil Prices
Low Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Residual Oil (By Sulfur Content)								
	Less Than 0.7%		Escalation	0.7 - 2.0%		Escalation	Greater Than 2.0%		Escalation
Year	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%	$/BBL	C/MBTU	%

None

Utility: Gulf Power Company

Nominal, Delivered 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	$/MCF	Escalation %
history:						
1997	25.87	446	2.5	237	2.51	-24.8
1998	19.87	341	-23.5	222	2.38	-6.3
1999	20.62	355	4.1	240	2.52	8.1
forecast:						
2000	21.55	365	2.8	261	2.69	9.0
2001	22.58	382	4.8	293	3.02	12.2
2002	23.77	402	5.3	306	3.15	4.2
2003	25.01	423	5.2	310	3.19	1.4
2004	25.72	436	2.8	315	3.25	1.7
2005	26.48	448	2.9	289	2.98	-8.2
2006	27.79	471	5.0	279	2.87	-3.7
2007	29.15	494	4.9	270	2.78	-3.2
2008	30.58	518	4.9	273	2.82	1.4
2009	31.79	538	3.9	290	2.98	5.9

ASSUMPTIONS FOR DISTILLATE OIL: 140,620 BTU/GAL, 0% ash, 0.50% sulfur

Note: MBTU = 10E6 BTU and MCF = 10E3 CF

Utility: Gulf Power Company

Nominal, Delivered Distillate Oil and Natural Gas Prices
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Distillate Oil			Natural Gas		
Year	$/BBL	c/MBTU	Escalation %	c/MBTU	$/MCF	Escalation %
history:						
1997						
1998						
1999						
forecast:						
2000				286	2.95	
2001				321	3.30	12.1
2002				335	3.45	4.4
2003				340	3.51	1.6
2004				346	3.56	1.6
2005		Not Available		315	3.25	-8.9
2006				304	3.13	-3.5
2007				295	3.04	-2.9
2008				300	3.09	1.5
2009				317	3.27	5.8

ASSUMPTIONS FOR DISTILLATE OIL: 140,620 BTU/GAL, 0% ash, 0.50% sulfur

Note: MBTU = 10E6 BTU and MCF = 10E3 CF

Utility: Gulf Power Company

Nominal, Delivered Distillate Oil and Natural Gas Prices
Low Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Distillate Oil			Natural Gas		
Year	$/BBL	c/MBTU	Escalation %	c/MBTU	$/MCF	Escalation %
history:						
1997						
1998						
1999						
forecast:						
2000				236	2.43	
2001				265	2.73	12.1
2002				277	2.85	4.6
2003				282	2.90	1.7
2004				286	2.95	1.5
2005		Not Available		263	2.70	-8.3
2006				252	2.60	-4.0
2007				244	2.51	-3.2
2008				247	2.55	1.4
2009				262	2.70	5.9

ASSUMPTIONS FOR DISTILLATE OIL: 140,620 BTU/GAL, 0% ash, 0.50% sulfur

Note: MBTU = 10E6 BTU and MCF = 10E3 CF

Utility: Gulf Power Company

Nominal, Delivered Coal Prices
Base 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%)			
Year	$/Ton	c/MBTU	Escalation %	%Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase
history:												
1997					45.46	187	--	75.2				
1998					38.76	156	-16.6	56.7				
1999					38.54	149	-4.4	46.0				
forecast:												
2000					40.87	170	14.2	20.0				
2001					42.16	175	3.1	20.0				
2002					42.87	178	1.7	20.0				
2003					43.54	181	1.6	20.0				
2004					44.22	184	1.6	20.0				
2005					44.91	187	1.5	20.0				
2006					45.31	188	0.9	20.0				
2007					46.06	191	1.7	20.0				
2008					46.57	194	1.1	20.0				
2009					47.09	196	1.1	20.0				

ASSUMPTIONS: Central Appalachia, 12,000 BTU, 9.0% ash

Utility: Gulf Power Company

Nominal, Delivered Coal Prices
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%)			
Year	$/Ton	c/MBTU	Escalation %	%Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase

Not Available

Utility: Gulf Power Company

Nominal, Delivered Coal Prices
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%)				High Sulfur Coal (>2.0%)			
Year	$/Ton	c/MBTU	Escalation %	%Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase

Not Available

Utility: Gulf Power Company

Nominal, Delivered Nuclear Fuel and Firm Purchases

Year	Nuclear c/MBTU	Nuclear Escalation %	Firm Purchases $/MWH	Firm Purchases Escalation %
history:				
1997	N/A		N/A	
1998			78.34	
1999			79.52	1.5
forecast:				
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				

Utility: Gulf Power Company

Financial Assumptions
Base Case

AFUDC Rate:	10.55 %
Capitalization Ratios:	
Debt	45 %
Preferred	10 %
Equity	45 %
Rate of Return:	
Debt	8.00 %
Preferred	8.75 %
Equity	13.50 %
Income Tax Rate:	
State	5.5 %
Federal	35.0 %
Effective	38.575 %
Other Tax Rate:	
Ad Valorem	1.07 %
Discount Rate:	8.82 %
Tax Depreciation Rate:	See adjacent table

Tax Depreciation Rates

Year	CC	CT
1	0.03750	0.05000
2	0.07219	0.09500
3	0.06677	0.08550
4	0.06177	0.07700
5	0.05713	0.06923
6	0.05285	0.06233
7	0.04888	0.05905
8	0.04522	0.05905
9	0.04462	0.05905
10	0.04461	0.05905
11	0.04462	0.05905
12	0.04461	0.05905
13	0.04462	0.05905
14	0.04461	0.05904
15	0.04462	0.05905
16	0.04461	0.02952
17	0.04462	0.00000
18	0.04461	0.00000
19	0.04462	0.00000
20	0.04461	0.00000
21	0.02231	0.00000

Utility: Gulf Power Company

Financial Escalation Assumptions

(1)	(2)	(3)	(4)	(5)
Year	General Inflation %	Plant Construction Cost %	Fixed O&M Cost %	Variable O&M Cost %
2000	2.325	2.325	2.325	2.325
2001	2.325	2.325	2.325	2.325
2002	2.325	2.325	2.325	2.325
2003	2.325	2.325	2.325	2.325
2004	2.325	2.325	2.325	2.325
2005	2.325	2.325	2.325	2.325
2006	2.325	2.325	2.325	2.325
2007	2.325	2.325	2.325	2.325
2008	2.325	2.325	2.325	2.325
2009	2.325	2.325	2.325	2.325

Utility: Gulf Power Company

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

(1)	(2)	(3)	(4) (A)	(5)	(6)	(7)
	Annual Isolated			Annual Assisted		
Year	Loss of Load Probability (Days/Yr)	Reserve Margin % (Including Firm Purch.)	Expected Unserved Energy (MWH)	Loss of Load Probability (Days/Yr)	Reserve Margin (%)	Expected Unserved Energy (MWH)
2000				(B)	12.2	301.6
2001					10.7	300.5
2002					17.3	297.2
2003					16.9	150.9
2004					15.6	150.1
2005					13.4	149.5
2006					14.4	149.1
2007					14.2	148.3
2008					13.7	147.7
2009					11.6	147.7

Notes:

(A) Information not available

(B) LOLP is not used by Gulf Power