

Susan D. Ritenour
Secretary and Treasurer
and Regulatory Manager

One Energy Place
Pensacola, Florida 32520-0781

Tel 850.444.6231
Fax 850.444.6026
SDRITENO@southernco.com



March 31, 2008

RECEIVED-FPSC
08 APR -2 AM 10:33
COMMISSION
CLERK

080000

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0870

Dear Ms. Cole:

Enclosed are an original and twenty-five copies of Gulf Power Company's 2008 Ten Year Site Plan, and it is filed pursuant to Rule No. 25-22.071. Included in the Ten Year Site Plan is the Company's Clean Air Act Compliance update, and it is filed pursuant to Order No. PSC-93-1376-FOF-EI.

Sincerely,

Susan D. Ritenour
bah

- CMP _____
- COM _____
- CTR _____
- ECR _____
- GCL 1
- OPC _____
- RCA _____
- SCR _____
- SGA _____
- SEC _____
- CLK 2
- OTH _____

bh

Enclosures

cc: Beggs & Lane
Jeffrey A. Stone, Esq.

APR 2 2008

DOCUMENT NUMBER-DATE

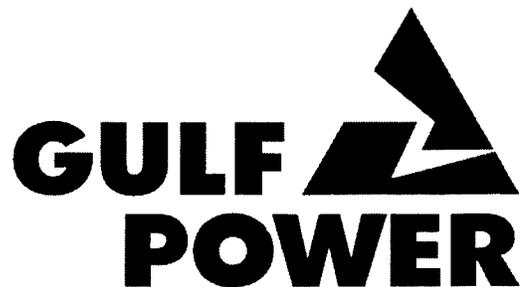
02519 APR-2 8

FPSC-COMMISSION CLERK

TEN YEAR SITE PLAN 2008-2017

FOR ELECTRIC GENERATING FACILITIES
AND
ASSOCIATED TRANSMISSION LINES

APRIL 2008



A **SOUTHERN COMPANY**

DOCUMENT NUMBER-DATE

02519 APR-28

FPSC-COMMISSION CLERK

GULF POWER COMPANY TEN YEAR SITE PLAN

**FOR ELECTRIC GENERATING FACILITIES
AND
ASSOCIATED TRANSMISSION LINES**

**Submitted To The
State of Florida
Public Service Commission**

APRIL 1, 2008

DOCUMENT NUMBER-DATE

02519 APR-28

FPSC-COMMISSION CLERK

TABLE OF CONTENTS

	<u>Page</u>
<u>EXECUTIVE SUMMARY</u>	1
<u>CHAPTER I DESCRIPTION OF EXISTING FACILITIES</u>	
Description of Existing Facilities	4
Schedule 1 Existing Generating Facilities	6
System Map	8
<u>CHAPTER II FORECAST OF ELECTRIC POWER DEMAND AND ENERGY CONSUMPTION</u>	
Forecasting Documentation	
Overview	9
I. Assumptions	10
II. Customer Forecast	12
III. Energy Sales Forecast	14
IV. Peak Demand Forecast	16
V. Data Sources	18
VI. Conservation Programs	19
VII. Small Power Production/ Renewable Energy	38
Schedule 2.1 History and Forecast of Energy Consumption and Number of Customers by Customer Class	39
Schedule 2.2 History and Forecast of Energy Consumption and Number of Customers by Customer Class	40

DOCUMENT NUMBER-DATE

I 02519 APR-28

FPSC-COMMISSION CLERK

	<u>Page</u>	
Schedule 2.3	History and Forecast of Energy Consumption and Number of Customers by Customer Class	41
Schedule 3.1	History and Forecast of Summer Peak Demand	42
Schedule 3.2	History and Forecast of Winter Peak Demand	43
Schedule 3.3	History and Forecast of Annual Net Energy for Load	44
Schedule 4	Previous Year Actual and Two-Year Forecast of Peak Demand and Net Energy for Load by Month	45
Schedule 5	Fuel Requirements	46
Schedule 6.1	Energy Sources - GWH	47
Schedule 6.2	Energy Sources - % of NEL	48
Schedule 6.3	Renewable Energy Sources	49
 <u>CHAPTER III PLANNING ASSUMPTIONS AND PROCESSES</u>		
	Integrated Resource Planning Process	50
	Transmission Planning Process	54
	Fuel Price Forecast Process	56
	Southern (SES) Generic Fuel Forecast	57
	Coal Price Forecast	58
	Natural Gas Price Forecast	60
	Natural Gas Availability	61
	Strategic Issues	63
	Environmental Concerns	65

	<u>Page</u>
Availability of System Interchange	70
Off-System Sales	70
<u>CHAPTER IV FORECAST OF FACILITIES REQUIREMENTS</u>	
Capacity Resource Alternatives	71
Preferred and Potential Sites for Capacity Additions	74
Schedule 7.1 Forecast of Capacity, Demand, and Scheduled Maintenance at Time Of Summer Peak	82
Schedule 7.2 Forecast of Capacity, Demand, and Scheduled Maintenance at Time Of Winter Peak	83
Schedule 8 Planned and Prospective Generating Facility Additions and Changes	84
Schedule 9 Status Report and Specifications of Proposed Generating Facilities	86
Schedule 10 Status Report and Specifications of Directly associated Transmission Lines	87

This page is intentionally blank.

GULF POWER COMPANY

TEN-YEAR SITE PLAN

Executive Summary

The Gulf Power Company 2008 Ten-Year Site Plan is filed with the Florida Public Service Commission (FPSC) in accordance with the requirements of Chapter 186.801, Florida Statutes, as revised by the Legislature in 1995. The revision replaced the Florida Department of Community Affairs with the FPSC as the state agency responsible for the oversight of the Ten-Year Site Plan (TYSP). The 2008 TYSP for Gulf Power Company (Gulf) is being filed in compliance with the applicable FPSC rules.

Gulf's 2008 TYSP contains the documentation of assumptions used for the load forecast, fuel forecasts, the planning processes, existing resources, and future capacity needs and resources. The resource planning process utilized by Gulf to determine its future capacity needs is coordinated within the Southern electric system Integrated Resource Planning (IRP) process. Gulf participates in the IRP process along with other Southern electric system operating companies, Alabama Power Company, Georgia Power Company, and Mississippi Power Company, (collectively, the "Southern electric system" or "SES"). Gulf shares in the benefits gained from planning in conjunction with a large system such as the SES. These benefits include the economic sharing of SES generating reserves, the ability to install large, efficient generating units, and reduced requirements for operating reserves.

DOCUMENT NUMBER-DATE

The capacity resource needs set forth in the SES IRP are driven by the demand forecast that includes projected demand-side measures embedded into the forecast prior to entering the generation mix process. The generation mix process uses PROVIEW® to screen the available technologies in order to produce a listing of preferred capacity resources from which to select the most cost-effective plan for the system. The resulting SES resource needs are then allocated among the operating companies based on reserve requirements, and each company then determines the resources that will best meet its capacity and reliability needs. The generation technologies screened in the latest SES IRP include gas-fired combustion turbine, gas-fired combined cycle, pulverized coal, and nuclear.

During the 2008 TYSP cycle, Gulf has two purchased power agreements (PPAs) that will supply 487 megawatts of peaking power from two existing regional market facilities to serve Gulf customers' electrical needs from June 1, 2009 until May 31, 2014. Gulf filed its petition for approval of these PPAs with the FPSC in December 2006, and they were approved by the Commission in Order No. PSC-07-0329-PAA EI dated April 16, 2007.

With the inclusion of this PPA capacity as committed capacity, Gulf's additional resource needs for this planning cycle begin in 2010 and increase annually to 1162 megawatts by the summer of 2017. The magnitude of the need has increased slightly from previously anticipated levels due primarily to an increase in expected summer peak demand projections for the 2008 TYSP cycle.

Gulf has continued to evaluate the construction of generating facilities or the acquisition of equivalent capacity resources in coordination with other SES operating companies in order to determine its next proposed capacity resource addition. These evaluations have resulted in Gulf's current generation expansion plan, which calls for the addition of an 840 megawatt gas-fired combined cycle unit in Northwest Florida in 2014. This proposed addition is subject to certification under Florida's Power Plant Siting Act (PPSA) and will, therefore, require the issuance of a Request for Proposals (RFP) for possible alternatives to Gulf's own construction. Gulf is currently planning to issue this RFP in the fall of 2008 and to make the "build or buy" decision by the fall of 2009. When combined with the proposed capacity additions of the other Southern electric system operating companies, Gulf's proposed additions will result in an SES planning reserve margin of approximately 15% through 2017.

If Gulf ultimately commits to the construction of this new combined cycle generating capacity, the installation is anticipated to coincide with the expiration of its firm market capacity purchases in May 2014. Studies to determine the best location for this potential combined cycle generating facility are underway, including efforts to determine what effect, if any, the recently adopted reductions in the Environmental Protection Agency's eight hour ozone standards will have on siting this proposed unit in Northwest Florida. The primary sites under study continue to be Gulf's existing generating facility sites in Northwest Florida. Schedules 8 and 9 of this TYSP document contain more detailed information on this potential combined cycle addition.

This page is intentionally blank.

CHAPTER I

DESCRIPTION OF EXISTING FACILITIES

DESCRIPTION OF EXISTING FACILITIES

Gulf owns and operates generating facilities at four sites in Northwest Florida (Plants Crist, Smith, Scholz, and Pea Ridge). Gulf also owns a 50% undivided ownership interest in Unit 1 and Unit 2 at Mississippi Power Company's Daniel Electric Generating Facility. Gulf has a 25% ownership in Unit 3 at Georgia Power Company's Scherer Electric Generating Facility which is completely dedicated to wholesale unit power sale contracts. This fleet of generating units consists of eleven fossil steam units, one combined cycle unit, and four combustion turbines. Schedule 1 shows 930 MW of steam generation located at the Crist Electric Generating Facility near Pensacola, Florida. The Lansing Smith Electric Generating Facility near Panama City, Florida, includes 357 MW of steam generation, 556 MW (summer rating) of combined cycle generation, and 32 MW (summer rating) of combustion turbine facilities. The Scholz Electric Generating Facility, near Sneads, Florida, consists of 92 MW of steam generation. Gulf's Pea Ridge Facility, in Pace, Florida, consists of three combustion turbines associated with an existing customer's cogeneration facility, which adds 12 MW (summer rating) to Gulf's existing capacity.

Including Gulf's ownership interest in the Daniel fossil steam Units 1 and 2 and the Scherer fossil steam Unit 3, Gulf has a total net summer generating capability of 2,714 MW and a total net winter generating capability of 2,752 MW.

The existing Gulf system in Northwest Florida, including generating plants, substations, transmission lines and service area, is shown on the system map on

page 8. Data regarding Gulf's existing generating facilities is presented on Schedule 1.

GULF POWER COMPANY

SCHEDULE 1
EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 2007

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Plant Name	Unit No.	Location	Unit Type	Fuel		Fuel Transp		Alt. Fuel Days Use	Com'l In-Service Mo/Yr	Exptd Retrmnt Mo/Yr	Gen Max Nameplate KW	Net Capability	
				Pri	Alt	Pri	Alt					Summer MW	Winter MW
Crist		Escambia County 25/1N/30W									<u>1,135,250</u>	<u>930.0</u>	<u>930.0</u>
	4		FS	C	NG	WA	PL	1	7/59	12/24	93,750	78.0	78.0
	5		FS	C	NG	WA	PL	1	6/61	12/26	93,750	78.0	78.0
	6		FS	C	NG	WA	PL	1	5/70	12/35	369,750	302.0	302.0
	7		FS	C	NG	WA	PL	1	8/73	12/38	578,000	472.0	472.0
Lansing Smith		Bay County 36/2S/15W									<u>1,001,500</u>	<u>945.0</u>	<u>981.0</u>
	1		FS	C	--	WA	--	--	6/65	12/30	149,600	162.0	162.0
	2		FS	C	--	WA	--	--	6/67	12/32	190,400	195.0	195.0
	3		CC	NG	--	PL	--	--	4/02	12/37	619,650	556.0	584.0
	A		CT	LO	--	TK	--	--	5/71	12/17	41,850	32.0	40.0
Scholz		Jackson County 12/3N/7W									<u>98,000</u>	<u>92.0</u>	<u>92.0</u>
	1		FS	C	--	RR	WA	--	3/53	12/11	49,000	46.0	46.0
	2		FS	C	--	RR	WA	--	10/53	12/11	49,000	46.0	46.0
(A) Daniel		Jackson County, MS 42/5S/6W									<u>548,250</u>	<u>516.0</u>	<u>516.0</u>
	1		FS	C	HO	RR	TK	--	9/77	12/32	274,125	261.0	261.0
	2		FS	C	HO	RR	TK	--	6/81	12/36	274,125	255.0	255.0
(A) Scherer	3	Monroe County, GA	FS	C	--	RR	--	--	1/87	12/42	222,750	219.0	219.0
Pea Ridge		Santa Rosa County 15/1N/29W									<u>14,250</u>	<u>12.0</u>	<u>13.8</u>
	1		CT	NG	--	PL	--	--	5/98	12/18	4,750	4.0	4.6
	2		CT	NG	--	PL	--	--	5/98	12/18	4,750	4.0	4.6
	3		CT	NG	--	PL	--	--	5/98	12/18	4,750	4.0	4.6
Total System											<u>2,714.0</u>	<u>2,751.8</u>	

SCHEDULE 1

Abbreviations:

Fuel

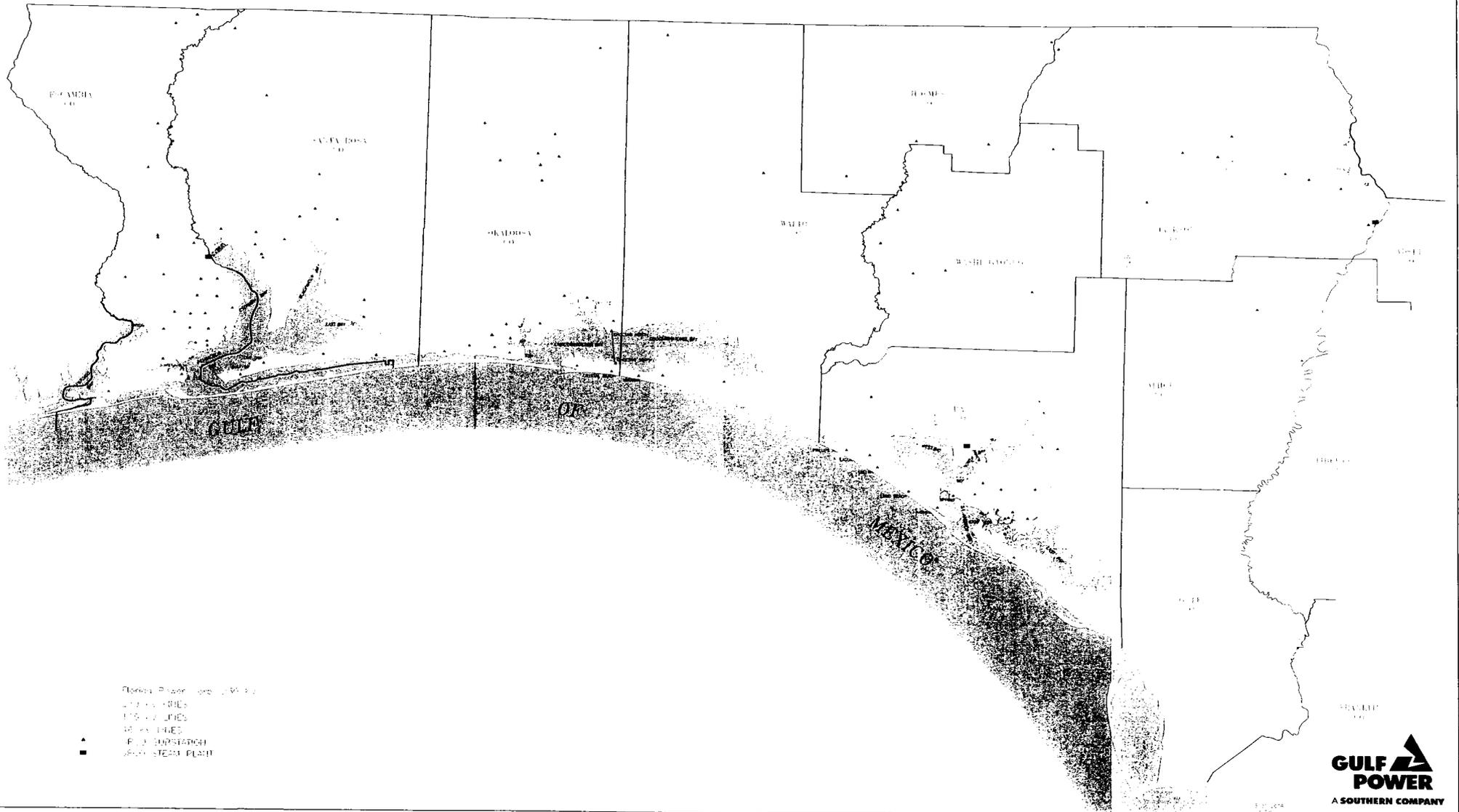
FS - Fossil Steam
CT - Combustion Turbine
CC - Combined Cycle
NG - Natural Gas
C - Coal
LO - Light Oil
HO - Heavy Oil

Fuel Transportation

PL - Pipeline
WA - Water
TK - Truck
RR - Railroad

NOTE: (A) Unit capabilities shown represent Gulf's portion of Daniel Units 1 & 2 (50%) and Scherer Unit 3 (25%).

GULF POWER COMPANY TRANSMISSION SYSTEM MAP



Florida Power Corp. (FPC)
 115 kV LINES
 138 kV LINES
 230 kV LINES
 SUBSTATIONS
 STEAM PLANT



Fig. 104
1970

CHAPTER II

FORECAST OF ELECTRIC POWER DEMAND AND ENERGY CONSUMPTION

GULF POWER COMPANY
LOAD FORECASTING METHODOLOGY
OVERVIEW

Gulf views the forecasting effort as a dynamic process requiring ongoing efforts to yield results which allow informed planning and decision-making. The total forecast is an integration of different techniques and methodologies, each applied to the task for which it is best suited. Many of the techniques take advantage of the extensive data made available through the Company's marketing efforts, which are predicated on the philosophy of knowing and understanding the needs, perceptions and motivations of our customers and actively promoting wise and efficient uses of energy which satisfy customer needs. Gulf has been a pacesetter in the energy efficiency market since the development and implementation of the GoodCents Home program in the mid-70's. This program brought customer awareness, understanding and expectations regarding energy efficient construction standards in Northwest Florida to levels unmatched elsewhere. Since that time, the GoodCents Home program has seen many enhancements, and has been widely accepted not only by our customers, but by builders, contractors, consumers, and other electric utilities throughout the nation, providing clear evidence that selling efficiency to customers can be done successfully.

The Marketing Services section of Gulf's Marketing Department is responsible for preparing forecasts of customers, energy and peak demand. A description of the assumptions and methods used in the development of these forecasts follows.

I. ASSUMPTIONS

A. ECONOMIC OUTLOOK

In the months since Gulf Power created its 2008 Budget, many economists have indicated that the national and Florida state economies have slipped into recession. However, the economics used in the forecast assumed slow but continued economic expansion as the nation continued to recover from the recession earlier this decade.

The 2008 Budget forecast assumes that during 2007 real GDP growth will slow to 2.4% before accelerating slightly to 3.1% during 2008 and then slipping again to 2.9% during 2009.

More than five years into the expansion, following the recession earlier this decade, the economy continues to perform well. Growth has been below trend since mid-2006 as monetary policy remains somewhat restrictive in an effort to take the edge off of underlying inflation. Inflationary pressures have abated somewhat in recent months as lower prices for energy and other commodities have also helped in this regard. Despite the below-trend growth, the unemployment rate has yet to move higher and is still consistent with full employment.

However, the economy does have a few vulnerabilities. The slumping housing market remains the major drag on U.S. growth. The first act of the housing slowdown, characterized by steep contractions in both home sales and home construction, is in full swing, leading to a sharp weakening in overall growth.

Data on manufacturing have turned broadly softer since the summer of 2006, with industrial production flat, readings from business surveys trending lower, and employment related to production plunging. The slowdown has spilled over from a few segments into other parts of the industrial base.

Over the long-run, real GDP and total employment forecasted growth compared to the 2007 Budget slows slightly during the next 20 years, but will match last year's outlook thereafter. Real GDP growth over the full 25 years of the forecast is predicted to rise from a 2.3% compound annual rate in the 2007

Budget to 2.4% in the 2008 Budget. Total employment was forecasted to grow by 1.0% annually in the 2007 Budget, but moved to 1.1% in the 2008 Budget. Real personal income posted stronger growth, climbing annually at 2.2% in the 2007 Budget, but moving to 2.3% in the 2008 Budget.

B. TERRITORIAL ECONOMIC OUTLOOK

Gulf's projections reflect the economic outlook for our service area as provided by Moody's Economy.com, a renowned economic service provider. Gulf's forecast assumes that service area population growth will continue to exceed the nation's growth and slightly exceed the rate of growth for the state of Florida. Gulf's projections incorporate electric price assumptions derived from the 2007 Gulf Power Official Long-Range Forecast. Fuel price projections for gas and oil are developed by Southern Company Services (SCS) Fuel Procurement staff with input from outside consultants. The following tables provide a summary of the assumptions associated with Gulf's forecast:

TABLE 1
ECONOMIC SUMMARY
(2006-2012)

GDP Growth	2.4 % - 3.0 %
Interest Rate (30 Year AAA Bonds)	6.4 % - 7.1 %
Inflation	2.8 % - 2.5 %

TABLE 2
AREA DEMOGRAPHIC SUMMARY
(2006-2012)

Population Gain	95,250
Net Migration	13,310
Average Annual Population Growth	1.6 %
Average Annual Labor Force Growth	1.9 %

II. CUSTOMER FORECAST

A. RESIDENTIAL CUSTOMER FORECAST

The immediate short-term forecast (0-2 years) of customers is based primarily on projections prepared by district personnel. Gulf district personnel remain abreast of local market and economic conditions within their service areas through direct contact with economic development agencies, developers, builders, lending institutions and other key contacts. The projections prepared by the districts are based upon recent historical trends in customer gains and their knowledge of locally planned construction projects from which they are able to estimate the near-term anticipated customer gains. These projections are then analyzed for consistency, and the incorporation of major construction projects and business developments is reviewed for completeness and accuracy. The end result is a near-term forecast of residential customers.

For the remaining forecast horizon (3-25 years), the Gulf Economic Model, a competition-based econometric model developed by Moody's Economy.com, is used in the development of residential customer projections. Projections of births, deaths, and population by age groups

are determined by past and projected trends. Migration is determined by economic growth relative to surrounding areas.

The forecast of residential customers is an outcome of the final section of the migration/demographic element of the model. The number of residential customers Gulf expects to serve is calculated by multiplying the total number of households located in the eight counties in which Gulf provides service by the percentage of customers in these eight counties for which Gulf currently provides service.

The number of households referred to above is computed by applying a household formation trend to the previously mentioned population by age group, and then by summing the number of households in each of five adult age categories. As indicated, there is a relationship between households, or residential customers, and the age structure of the population of the area, as well as household formation trends. The household formation trend is the product of initial year household formation rates in the Gulf service area and projected U.S. trends in household formation.

B. COMMERCIAL CUSTOMER FORECAST

The immediate short-term forecast (0-2 years) of commercial customers, as in the residential sector, is prepared by the district personnel in similar fashion utilizing recent historical customer gains information and their knowledge of the local area economies and upcoming construction projects. A review of the assumptions, techniques and results for each district is undertaken, with special attention given to the incorporation of major commercial development projects.

Beyond the immediate short-term period, commercial customers are forecast as a function of residential customers, reflecting the growth of commercial services to meet the needs of new residents. Implicit in the commercial customer forecast is the relationship between growth in total real disposable income and growth in the commercial sector.

III. ENERGY SALES FORECAST

A. RESIDENTIAL SALES FORECAST

The residential energy sales forecast is developed utilizing multiple regression analyses. Monthly class energy use per customer per billing day is estimated based upon recent historical data, expected normal weather and projected price. The model output is then multiplied by the projected number of customers and billing days by month to expand to the total residential class.

The residential sales forecast reflects the continued impacts of Gulf's GoodCents Home program and efficiency improvements undertaken by customers as a result of the GoodCents Energy Survey program, as well as conversions to higher efficient outdoor lighting. The residential sales forecast also reflects the anticipated incremental impacts of Gulf's Demand-Side Management (DSM) Plan, approved in March 2005, designed to meet the Commission-approved demand and energy reduction goals established in September 2004. Additional information on the residential conservation programs and program features are provided in the Conservation Programs section of this document.

B. COMMERCIAL SALES FORECAST

The commercial energy sales forecast is also developed utilizing multiple regression analyses. Monthly class energy use per customer per billing day is estimated based upon recent historical data, expected normal weather and projected price. The model output is then multiplied by the projected number of customers and billing days by month to expand to the total commercial class.

The commercial sales forecast reflects the continued impacts of Gulf's Commercial GoodCents building program and efficiency improvements undertaken by customers as a result of Commercial Energy Audits and Technical Assistance Audits, as well as conversions to higher efficient outdoor lighting. The commercial sales forecast also reflects the anticipated incremental impacts of Gulf's DSM Plan, approved in March 2005, designed to meet the

Commission-approved demand and energy reduction goals established in September 2004. Additional information on the Commercial Conservation programs and program features are provided in the Conservation Programs section of this document.

C. INDUSTRIAL SALES FORECAST

The short-term industrial energy sales forecast is developed using a combination of on-site surveys of major industrial customers, trending techniques, and multiple regression analysis. Gulf's largest industrial customers are interviewed to identify load changes due to equipment addition, replacement or changes in operating characteristics.

The short-term forecast of monthly sales to these major industrial customers is a synthesis of the detailed survey information and historical monthly load factor trends. The forecast of short-term sales to the remaining smaller industrial customers is developed using a combination of trending techniques and multiple regression analysis.

The long-term forecast of industrial energy sales is based on econometric models of the chemical, pulp and paper, other manufacturing, and non-manufacturing sectors. The industrial sales forecast also reflects the anticipated incremental impacts of Gulf's DSM Plan, approved in March 2005, designed to meet the Commission-approved demand and energy reduction goals established in September 2004. Additional information on the conservation programs and program features are provided in the Conservation Programs section of this document.

D. STREET LIGHTING SALES FORECAST

The forecast of monthly energy sales to street lighting customers is based on projections of the number of fixtures in service, for each of the available fixture types.

The projected number of fixtures by fixture type is developed from analyses of recent historical fixture data to discern the patterns of fixture additions and

deletions. The estimated monthly kilowatt-hour consumption for each fixture type is multiplied by the projected number of fixtures in service to produce total monthly sales for a given type of fixture. This methodology allows Gulf to explicitly evaluate the impacts of lighting programs, such as mercury vapor to high pressure sodium conversions.

E. WHOLESALE ENERGY FORECAST

The forecast of energy sales to wholesale customers is developed utilizing multiple regression analyses. Monthly energy purchases per day for each of Gulf's wholesale customers are estimated based upon recent historical data and expected normal weather. The model output is then multiplied by the projected number of days by month to expand to the customer totals, which are then summed to develop the class totals.

F. COMPANY USE & INTERDEPARTMENTAL ENERGY

The annual forecast for Company energy usage was based on recent historical values, with appropriate adjustments to reflect short-term increases in energy requirements for anticipated new Company facilities. The monthly spreads were derived using historical relationships between monthly and annual energy usage.

IV. PEAK DEMAND FORECAST

The peak demand forecast is prepared using the Hourly Electric Load Model (HELM), developed by ICF, Incorporated, for EPRI under Project RP1955-1. The resulting output from the model is hourly electrical loads over the forecast horizon.

The summer and winter peak demands are the maximum of the hourly forecasted loads in July and January, respectively. Gulf's summer peak demand typically occurs in the month of July, while Gulf's winter peak demand typically occurs in the month of January.

Load shape forecasts have always provided an important input to traditional system planning functions. Forecasts of the pattern of demand have acquired an added importance due to structural changes in the demand for electricity and increased utility involvement in influencing load patterns for the mutual benefit of the utility and its customers.

HELM represents an approach designed to better capture changes in the underlying structure of electricity consumption. Rapid increases in energy prices during the 1970's and early 1980's brought about changes in the efficiency of energy-using equipment. Additionally, sociodemographic and microeconomic developments have changed the composition of electricity consumption, including changes in fuel shares, housing mix, household age and size, construction features, mix of commercial services, and mix of industrial products.

In addition to these naturally occurring structural changes, utilities have become increasingly active in offering customers options which result in modified consumption patterns. An important input to the design of such demand-side programs is an assessment of their likely impact on utility system loads.

HELM has been designed to forecast electric utility load shapes and to analyze the impacts of factors such as alternative weather conditions, customer mix changes, fuel share changes, and demand-side programs. The structural detail of HELM provides forecasts of hourly class and system load curves by weighting and aggregating load shapes for individual rate level components.

Model inputs include rate level energy forecasts consistent with the cost of service (COS) load shape data collected from COS load research samples as well as individual customer load data for many of the larger customers. Inputs are also required to reflect new technologies, rate structures and other demand-side programs. Model outputs include hourly system and class load curves, load duration curves, monthly system and class peaks, load factors and energy requirements by season and rating period.

The methodology embedded in HELM may be referred to as a "bottom-up" approach. Class and system load shapes are calculated by aggregating the load shapes of component rates and individual large customer load shapes.

The system demand for electricity in hour i is modeled as the sum of demands by each end-use in hour i :

$$L_i = \sum_{R=1}^{N_R} L_{R,i} + \sum_{C=1}^{N_C} L_{C,i} + \sum_{I=1}^{N_I} L_{I,i} + \text{Misc}_i$$

Where: L_i = system demand for electricity in hour i ;
 N_R = number of residential rate class loads;
 N_C = number of commercial rate class loads;
 N_I = number of industrial rate class loads;
 $L_{R,i}$ = demand for electricity by residential rate R in hour i ;
 $L_{C,i}$ = demand for electricity by commercial rate C in hour i ;
 $L_{I,i}$ = demand for electricity by industrial rate/customer I in hour i ;
 Misc_i = other demands (wholesale, street lighting, losses, company use) in hour i .

V. DATA SOURCES

Gulf utilizes Company historical customer, energy and revenue data by rate and class, and historical hourly load data coupled with weather information from WDAS and NOAA to drive the energy and demand models. Individual customer historical data is utilized in developing the projections for Gulf's largest commercial and industrial customers.

Gulf's models also utilize economic projections provided by Moody's Economy.com, a renowned economic services provider. Moody's Economy.com utilizes the Bureau of Labor Statistics for data on employment, unemployment rate and labor force. Personal Income data is obtained from the Bureau of Economic Analysis. Population and Population by Age Cohort, Households and Housing Permit information is obtained from the U.S. Bureau of Census.

VI. CONSERVATION PROGRAMS

As previously mentioned, Gulf's forecast of energy sales and peak demand reflect the continued impacts of our conservation programs. The following provides a listing of the current conservation programs and program features with estimates of reductions in peak demand and net energy for load reflected in the forecast as a result of these programs. These reductions also reflect the anticipated impacts of these programs as submitted in Gulf's DSM Plan filed December 1, 2004, modified on January 26, 2005 (Docket No. 040032-EG) and approved by the FPSC in Order No. PSC-05-0273-PAA-EG issued March 14, 2005. By Order No. PSC-07-0455-PAA-EG issued on May 29, 2007, in Docket No. 070119-EG, the Commission approved minor modifications to Gulf's Commercial and Residential Geothermal Heat Pump Programs. Gulf's conservation programs were designed to meet the incremental impacts of the Commission-approved demand and energy reduction DSM goals established in Order No. PSC-04-0764-PAA-EG on August 9, 2004.

A. RESIDENTIAL CONSERVATION

1. GoodCents Home/Energy Star

In the residential sector, Gulf's GoodCents Home/Energy Star Program is designed to make cost-effective increases in the efficiencies of the new home construction market. This is being achieved by placing greater requirements on cooling and water heating equipment efficiencies, proper HVAC sizing, increased insulation levels in walls, ceilings, and floors, and tighter restrictions on glass area and infiltration reduction practices. In addition, Gulf monitors proper quality installation of all the above energy features. This program also provides the opportunity to offer the Energy Star Home Program to Gulf's builders and customers and correlates the performance of GoodCents Homes to the nationally recognized Energy Star efficiency label. In many cases, a standard GoodCents

Home will also qualify as an Energy Star home. Approximately 69,000 new homes have been constructed to Good Cents standards under this program resulting in an annual reduction of 79 MW of summer peak demand and annual energy savings of 203 GWh.

2. GoodCents Energy Survey

Gulf's GoodCents Energy Survey Program is designed to provide existing residential customers and individuals building new homes with energy conservation advice that encourages the implementation of efficiency measures and options that increase comfort and reduce energy operating costs. This program is offered as an on-site, mail-in, or on-line survey and in all cases the customer receives whole house recommendations. Approximately 72,000 customers have participated in the Energy Survey Program. These participants have implemented energy efficiency improvements estimated to result in an annual reduction of 14 MW of summer peak demand and 41 GWh energy.

3. Geothermal Heat Pump

The Residential Geothermal Heat Pump Program reduces the demand and energy requirements of new and existing residential customers through the promotion and installation of advanced and emerging geothermal systems. Geothermal heat pumps also provide significant benefits to participating customers in the form of reduced operating costs and increased comfort levels, and are superior to other available heating and cooling technologies with respect to source efficiency and environmental impacts. Gulf's Geothermal Heat Pump Program is designed to overcome existing market barriers, specifically, lack of consumer awareness, knowledge and acceptance of this technology. Additionally, the program promotes efficiency levels well above current market conditions. Approximately 2,100

geothermal heat pumps have been installed in Gulf's service area resulting in an annual reduction in summer peak demand of 4 MW and annual energy savings of 5 GWh.

4. **GoodCents Select**

The GoodCents Select Program, an advanced energy management (AEM) program, provides Gulf's customers with a means of conveniently and automatically controlling and monitoring their energy purchases in response to prices that vary during the day and by season in relation to Gulf's cost of producing or purchasing energy. The GoodCents Select system allows the customer to control more precisely the amount of electricity purchased for heating, cooling, water heating, and other selected loads and to purchase electric energy on a variable spot price rate. The various components of the GoodCents Select system installed in the customer's home, as well as the components installed at Gulf, provide constant communication between customer and utility. The combination of the GoodCents Select system and Gulf's innovative variable rate concept provide consumers with the opportunity to modify their usage of electricity in order to purchase energy at prices that are somewhat lower to significantly lower than standard rates a majority of the time. Further, the communication capabilities of the GoodCents Select system allow Gulf to send a critical price signal to the customer's premises during extreme peak load conditions. The signal results in a reduction attributable to predetermined thermostat and relay settings chosen by the individual participating customer. The customer's pre-programmed instructions regarding their desired comfort levels adjust electricity use for heating, cooling, water heating and other appliances automatically. Therefore, the customer's control of their electric bill is accomplished by allowing them to choose different comfort levels at different price levels in accordance with their individual lifestyles. Currently, approximately 8,800 customers are participating in this

program resulting in an annual reduction of 20 MW in summer peak demand and annual energy savings of 7 GWh.

B. COMMERCIAL/INDUSTRIAL CONSERVATION

1. GoodCents Building

In the commercial sector, Gulf's GoodCents Building Program is designed to make cost effective increases in efficiencies in both new and existing commercial buildings with requirements resulting in energy conserving investments that address the thermal efficiency of the building envelope, interior lighting, heating and cooling equipment efficiency, and solar glass area. Additional recommendations are made, where applicable, on energy conserving options that include thermal storage, heat recovery systems, water heating heat pumps, solar applications, energy management systems, and high efficiency outdoor lighting. Approximately 10,400 customers under this program have achieved an annual reduction of 105 MW in summer peak demand and annual energy savings of 212 GWh.

2. Commercial/Industrial Energy Analysis

The Commercial/Industrial (C/I) Energy Analysis Program is an interactive program that provides C/I customers assistance in identifying energy conservation opportunities. This program is a prime tool for the Gulf Power Company C/I Energy Specialist to personally introduce customers to conservation measures including low or no-cost improvements or new electro-technologies to replace old or inefficient equipment. Further, this program facilitates the load factor improvement process necessary to increase performance for both the customer and Gulf Power Company.

The C/I Energy Analysis Program allows the customer three primary ways to participate. A basic Energy Analysis Audit (EAA) is provided through either an on-site survey or a direct mail survey analysis. Additionally, a more comprehensive analysis can be

provided by conducting a Technical Assistance Audit (TAA).

Approximately 18,400 customers participating in these programs have achieved an annual reduction of 25 MW in summer peak demand and annual energy savings of 77 GWh.

3. Commercial Geothermal Heat Pump

The objective of the Commercial Geothermal Heat Pump Program is to reduce the demand and energy requirements of new and existing Commercial/Industrial customers through the promotion and installation of advanced and emerging geothermal systems. Due to the long life of space conditioning equipment, the choices that are made over the next decade regarding space conditioning equipment will have important economic and environmental ramifications lasting well into the future. Geothermal heat pumps provide significant benefits to participating customers in the form of reduced operating costs and increased comfort levels, and are superior to other available heating and cooling technologies with respect to source efficiency and environmental impacts. This program will promote efficiency levels well above current market conditions, specifically those units with an Energy Efficiency Ratio (EER) of 13.0 or higher.

4. Real-Time Pricing

Gulf's Real Time Pricing (RTP) program is designed to take advantage of customer price response to achieve peak demand reductions. Customer participation is voluntary. Due to the nature of the pricing arrangement included in this program, there are some practical limitations to customers' ability to participate. These limitations include the ability to purchase energy under a pricing plan which includes price variation and unknown future prices; the transaction costs associated with receiving, evaluating, and acting on prices received on a daily basis; customer risk management policy;

and other technical/economic factors. Customers participating in this program typically exhibit approximately 38 MW of reduction in summer peak demand.

5. Energy Services

Gulf's Energy Services Program is designed to offer advanced energy services and energy efficient end-use equipment to meet the individual needs of large customers. These energy services include comprehensive audits, design, construction and financing of demand reduction or efficiency improvement energy conservation projects. This program has resulted in a reduction of 13 MW of summer peak demand and 42 GWh in annual energy savings.

C. CONSERVATION RESULTS SUMMARY

The following tables provide direct estimates of the energy savings (reductions in peak demand and net energy for load) realized by Gulf's conservation programs. These reductions are verified through on-going monitoring in place on Gulf's major conservation programs and reflect estimates of conservation undertaken by customers as a result of Gulf's involvement. The conservation without Gulf's involvement has contributed to further unquantifiable reductions in demand and net energy for load. These unquantifiable additional reductions are captured in the time series regressions in our demand and energy forecasts.

HISTORICAL
TOTAL CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	344,685	6,842	17,493,998

2008 BUDGET FORECAST
TOTAL CONSERVATION PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	12,302	20,379	16,805,407
2008	11,725	20,471	17,032,914
2009	11,196	20,970	17,611,371
2010	11,070	21,062	17,551,578
2011	11,043	20,870	17,413,456
2012	11,052	20,938	17,457,641
2013	11,265	22,414	18,503,138
2014	11,330	22,860	18,816,675
2015	9,830	21,547	18,248,872
2016	8,710	20,123	17,837,630
2017	7,589	18,699	17,425,756

2008 BUDGET FORECAST
TOTAL CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	356,987	424,153	703,895,380
2008	368,712	444,625	720,928,295
2009	379,909	465,594	738,539,666
2010	390,979	486,656	756,091,244
2011	402,022	507,526	773,504,700
2012	413,074	528,464	790,962,342
2013	424,339	550,878	809,465,479
2014	435,669	573,738	828,282,155
2015	445,499	595,285	846,531,027
2016	454,208	615,408	864,368,657
2017	461,798	634,107	881,794,413

HISTORICAL
TOTAL RESIDENTIAL CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	171,217	261,758	353,930,063

2008 BUDGET FORECAST
TOTAL RESIDENTIAL CONSERVATION PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	8,898	18,121	11,097,327
2008	8,937	18,526	11,322,749
2009	9,056	19,348	11,905,276
2010	8,930	19,440	11,845,962
2011	8,902	19,248	11,709,933
2012	8,912	19,316	11,757,841
2013	9,125	20,792	12,803,673
2014	9,189	21,238	13,119,873
2015	7,812	19,969	12,570,172
2016	6,692	18,545	12,159,835
2017	5,572	17,121	11,749,498

2008 BUDGET FORECAST
TOTAL RESIDENTIAL CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	180,115	279,878	365,027,391
2008	189,052	298,404	376,350,139
2009	198,107	317,752	388,255,416
2010	207,037	337,192	400,101,377
2011	215,939	356,441	411,811,311
2012	224,851	375,757	423,569,151
2013	233,975	396,549	436,372,825
2014	243,164	417,787	449,492,698
2015	250,977	437,757	462,062,870
2016	257,669	456,302	474,222,705
2017	263,241	473,422	485,972,203

HISTORICAL
TOTAL COMMERCIAL/INDUSTRIAL DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	173,468	142,017	322,078,990

2008 BUDGET FORECAST
TOTAL COMMERCIAL/INDUSTRIAL DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	3,405	2,258	5,656,086
2008	2,788	1,945	5,660,227
2009	2,141	1,622	5,660,227
2010	2,141	1,622	5,660,227
2011	2,141	1,622	5,660,227
2012	2,141	1,622	5,660,227
2013	2,141	1,622	5,660,227
2014	2,141	1,622	5,660,227
2015	2,017	1,578	5,643,663
2016	2,017	1,578	5,643,663
2017	2,017	1,578	5,643,663

2008 BUDGET FORECAST
TOTAL COMMERCIAL/INDUSTRIAL DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	176,872	144,275	327,735,077
2008	179,661	146,220	333,395,304
2009	181,801	147,842	339,055,531
2010	183,942	149,464	344,715,759
2011	186,083	151,086	350,375,986
2012	188,224	152,707	356,036,213
2013	190,364	154,329	361,696,441
2014	192,505	155,951	367,356,668
2015	194,522	157,529	373,000,331
2016	196,539	159,107	378,643,994
2017	198,557	160,685	384,287,657

HISTORICAL
TOTAL OTHER DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	0	0	11080920

2008 BUDGET FORECAST
TOTAL OTHER DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	51993
2008	0	0	49938
2009	0	0	45867
2010	0	0	45389
2011	0	0	43295
2012	0	0	39573
2013	0	0	39237
2014	0	0	36575
2015	0	0	35037
2016	0	0	34132
2017	0	0	32594

2008 BUDGET FORECAST
TOTAL OTHER DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	11132913
2008	0	0	11182852
2009	0	0	11228719
2010	0	0	11274108
2011	0	0	11317403
2012	0	0	11356977
2013	0	0	11396214
2014	0	0	11432789
2015	0	0	11467826
2016	0	0	11501958
2017	0	0	11534552

HISTORICAL
TOTAL EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	233,891	292,936	555,984,444

2008 BUDGET FORECAST
TOTAL EXISTING DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	1088	7980	5500252
2008	1127	8385	5723618
2009	1246	9207	6302075
2010	1248	9221	6311964
2011	1220	9030	6173842
2012	1230	9097	6218027
2013	1443	10573	7263524
2014	1507	11020	7577061
2015	1507	11020	7575523
2016	1507	11020	7574619
2017	1507	11020	7573081

2008 BUDGET FORECAST
TOTAL EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	234,979	300,916	561,484,696
2008	236,106	309,300	567,208,314
2009	237,352	318,507	573,510,389
2010	238,600	327,728	579,822,354
2011	239,821	336,758	585,996,196
2012	241,051	345,855	592,214,223
2013	242,494	356,428	599,477,747
2014	244,001	367,448	607,054,808
2015	245,509	378,468	614,630,331
2016	247,016	389,487	622,204,950
2017	248,523	400,507	629,778,030

HISTORICAL
RESIDENTIAL EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	122,882	189,108	303,925,622

2008 BUDGET FORECAST
RESIDENTIAL EXISTING DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	1088	7980	5448259
2008	1127	8385	5673680
2009	1246	9207	6256208
2010	1248	9221	6266575
2011	1220	9030	6130547
2012	1230	9097	6178454
2013	1443	10573	7224287
2014	1507	11020	7540486
2015	1507	11020	7540486
2016	1507	11020	7540486
2017	1507	11020	7540486

2008 BUDGET FORECAST
RESIDENTIAL EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	123,970	197,088	309,373,881
2008	125,097	205,472	315,047,561
2009	126,343	214,679	321,303,769
2010	127,591	223,901	327,570,344
2011	128,812	232,930	333,700,891
2012	130,042	242,027	339,879,345
2013	131,485	252,601	347,103,631
2014	132,992	263,620	354,644,118
2015	134,499	274,640	362,184,604
2016	136,007	285,659	369,725,090
2017	137,514	296,679	377,265,576

HISTORICAL
COMMERCIAL/INDUSTRIAL EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	111,009	103,828	240,977,902

2008 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL EXISTING DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0

2008 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	111,009	103,828	240,977,902
2008	111,009	103,828	240,977,902
2009	111,009	103,828	240,977,902
2010	111,009	103,828	240,977,902
2011	111,009	103,828	240,977,902
2012	111,009	103,828	240,977,902
2013	111,009	103,828	240,977,902
2014	111,009	103,828	240,977,902
2015	111,009	103,828	240,977,902
2016	111,009	103,828	240,977,902
2017	111,009	103,828	240,977,902

HISTORICAL
OTHER EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	0	0	11080920

2008 BUDGET FORECAST
OTHER EXISTING DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	51993
2008	0	0	49938
2009	0	0	45867
2010	0	0	45389
2011	0	0	43295
2012	0	0	39573
2013	0	0	39237
2014	0	0	36575
2015	0	0	35037
2016	0	0	34132
2017	0	0	32594

2008 BUDGET FORECAST
OTHER EXISTING DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	11132913
2008	0	0	11182852
2009	0	0	11228719
2010	0	0	11274108
2011	0	0	11317403
2012	0	0	11356977
2013	0	0	11396214
2014	0	0	11432789
2015	0	0	11467826
2016	0	0	11501958
2017	0	0	11534552

HISTORICAL
TOTAL NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	110,793	110,838	131,105,530

2008 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL EXISTING DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	11,215	12,399	11,305,155
2008	10,598	12,087	11,309,296
2009	9,951	11,763	11,309,296
2010	9,822	11,841	11,239,614
2011	9,822	11,841	11,239,614
2012	9,822	11,841	11,239,614
2013	9,822	11,841	11,239,614
2014	9,822	11,841	11,239,614
2015	8,322	10,528	10,673,349
2016	7,202	9,103	10,263,012
2017	6,082	7,679	9,852,675

2008 BUDGET FORECAST
TOTAL NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	122,008	123,238	142,410,685
2008	132,606	135,324	153,719,981
2009	142,556	147,087	165,029,277
2010	152,379	158,928	176,268,891
2011	162,201	170,768	187,508,505
2012	172,023	182,609	198,748,119
2013	181,846	194,450	209,987,733
2014	191,668	206,290	221,227,347
2015	199,990	216,818	231,900,695
2016	207,192	225,921	242,163,707
2017	213,275	233,600	252,016,382

HISTORICAL
RESIDENTIAL NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	48,335	72,650	50,004,441

2008 BUDGET FORECAST
RESIDENTIAL NEW DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	7,810	10,141	5,649,069
2008	7,810	10,141	5,649,069
2009	7,810	10,141	5,649,069
2010	7,682	10,219	5,579,387
2011	7,682	10,219	5,579,387
2012	7,682	10,219	5,579,387
2013	7,682	10,219	5,579,387
2014	7,682	10,219	5,579,387
2015	6,305	8,950	5,029,686
2016	5,185	7,525	4,619,349
2017	4,065	6,101	4,209,012

2008 BUDGET FORECAST
RESIDENTIAL NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	56,145	82,791	55,653,510
2008	63,955	92,932	61,302,578
2009	71,764	103,073	66,951,647
2010	79,446	113,292	72,531,033
2011	87,127	123,511	78,110,420
2012	94,809	133,730	83,689,807
2013	102,491	143,948	89,269,193
2014	110,172	154,167	94,848,580
2015	116,477	163,117	99,878,266
2016	121,662	170,642	104,497,615
2017	125,727	176,744	108,706,627

HISTORICAL
COMMERCIAL/INDUSTRIAL NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	62,459	38,189	81,101,089

2008 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL NEW DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	3,405	2,258	5,656,086
2008	2,788	1,945	5,660,227
2009	2,141	1,622	5,660,227
2010	2,141	1,622	5,660,227
2011	2,141	1,622	5,660,227
2012	2,141	1,622	5,660,227
2013	2,141	1,622	5,660,227
2014	2,141	1,622	5,660,227
2015	2,017	1,578	5,643,663
2016	2,017	1,578	5,643,663
2017	2,017	1,578	5,643,663

2008 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	65,863	40,447	86,757,175
2008	68,651	42,393	92,417,402
2009	70,792	44,014	98,077,630
2010	72,933	45,636	103,737,857
2011	75,074	47,258	109,398,084
2012	77,214	48,879	115,058,312
2013	79,355	50,501	120,718,539
2014	81,496	52,123	126,378,766
2015	83,513	53,701	132,022,430
2016	85,530	55,279	137,666,093
2017	87,547	56,857	143,309,756

HISTORICAL
OTHER NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2006	0	0	0

2008 BUDGET FORECAST
OTHER NEW DSM PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0

2008 BUDGET FORECAST
OTHER NEW DSM PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0

VII. SMALL POWER PRODUCTION / RENEWABLE ENERGY

The current forecasts also consider Gulf's active position in the promotion of renewable energy resources. Gulf initiated implementation of a renewable energy program, *Solar for Schools*, to obtain funding for the installation of solar technologies in participating school facilities combined with energy conservation education of students. Initial solicitation began in September 1996 and has resulted in participation of approximately 225 customers contributing \$67,000 through December, 2007. Four small solar photovoltaic (PV) demonstration systems have been installed throughout Northwest Florida as part of this program.

Gulf customers also now have the opportunity to participate in a FPSC-approved "green pricing" alternative. Rate Rider PV gives customers an opportunity to help pay for the construction of a photovoltaic generating facility. This project is a Southern Company-wide effort; with Gulf and her sister company Alabama Power Company the first to roll out their programs. The facility will be built within Southern Company's service area or the power will be purchased from other photovoltaic generating facilities. Approximately 10,000 customers are initially needed to sign up in order to begin construction of a 1 MW generating facility. As of December, 2007, 62 customers have pledged to purchase a total of 82 hundred-watt blocks of generation at a monthly rate of \$6 per block. The time frame for potential construction will be determined as participation levels increase.

Please refer to the Capacity Resource Alternatives section of this TYSP for additional information concerning Gulf's efforts to promote and develop renewable energy resources.

GULF POWER COMPANY

Schedule 2.1

History and Forecast of Energy Consumption and
Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Population	Rural and Residential			Commercial			
		Members per Household	Average GWH	Average No. of Customers	Average KWH Consumption Per Customer	Average GWH	Average No. of Customers	Average KWH Consumption Per Customer
1998	792,336	2.60	4,438	304,413	14,577	3,112	45,510	68,379
1999	812,993	2.60	4,471	312,283	14,318	3,223	47,294	68,138
2000	828,849	2.59	4,790	319,506	14,992	3,379	47,584	71,020
2001	844,139	2.59	4,716	325,343	14,497	3,417	48,482	70,490
2002	860,642	2.60	5,144	331,637	15,510	3,553	49,139	72,304
2003	879,011	2.60	5,101	338,631	15,064	3,614	50,419	71,684
2004	896,851	2.60	5,215	345,467	15,096	3,695	51,981	71,093
2005	906,123	2.59	5,320	350,404	15,181	3,736	52,916	70,599
2006	933,738	2.59	5,425	360,930	15,032	3,843	53,479	71,862
2007	956,959	2.58	5,477	371,213	14,755	3,971	53,791	73,821
2008	982,388	2.57	5,698	382,472	14,899	3,886	54,962	70,696
2009	1,001,063	2.56	5,904	391,200	15,093	3,931	56,233	69,904
2010	1,017,922	2.55	6,078	399,287	15,223	4,008	57,568	69,625
2011	1,036,378	2.54	6,226	408,064	15,257	4,075	59,010	69,052
2012	1,056,169	2.53	6,374	417,437	15,269	4,148	60,546	68,509
2013	1,073,012	2.51	6,546	427,401	15,316	4,257	62,176	68,468
2014	1,094,827	2.50	6,738	437,769	15,391	4,384	63,870	68,641
2015	1,116,801	2.49	6,921	448,285	15,439	4,496	65,589	68,547
2016	1,139,103	2.48	7,109	459,017	15,488	4,614	67,344	68,521
2017	1,161,427	2.47	7,314	469,845	15,568	4,749	69,116	68,716
CAAG								
98-07	2.1%	-0.1%	2.4%	2.2%	0.1%	2.7%	1.9%	0.9%
07-12	2.0%	-0.4%	3.1%	2.4%	0.7%	0.9%	2.4%	-1.5%
07-17	2.0%	-0.4%	2.9%	2.4%	0.5%	1.8%	2.5%	-0.7%

* Historical and projected figures include portions of Escambia, Santa Rosa, Okaloosa, Bay, Walton, Washington, Holmes, and Jackson counties served by Gulf Power Company.

GULF POWER COMPANY

Schedule 2.2

History and Forecast of Energy Consumption and
Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Year	Industrial			Railroads and Railways GWH	Street & Highway Lighting GWH	Other Sales to Public Authorities GWH	Total Sales to Ultimate Consumers GWH
	GWH	Average No. of Customers	Average KWH Consumption Per Customer				
1998	1,834	263	6,971,767	0	18	0	9,401
1999	1,846	249	7,409,647	0	18	0	9,558
2000	1,925	269	7,141,925	0	18	0	10,112
2001	2,018	277	7,290,329	0	21	0	10,173
2002	2,054	272	7,552,563	0	21	0	10,772
2003	2,147	285	7,526,577	0	22	0	10,885
2004	2,113	279	7,569,053	0	23	0	11,046
2005	2,161	295	7,332,898	0	23	0	11,239
2006	2,136	294	7,260,626	0	24	0	11,429
2007	2,048	303	6,769,670	0	24	0	11,521
2008	2,057	336	6,122,554	0	26	0	11,666
2009	2,074	366	5,667,382	0	27	0	11,937
2010	2,092	377	5,550,884	0	28	0	12,206
2011	2,086	387	5,385,559	0	29	0	12,416
2012	2,078	398	5,225,123	0	31	0	12,631
2013	2,072	410	5,059,726	0	32	0	12,907
2014	2,065	421	4,905,463	0	33	0	13,221
2015	2,060	433	4,761,137	0	35	0	13,511
2016	2,055	445	4,615,522	0	36	0	13,815
2017	2,072	457	4,530,641	0	38	0	14,174
CAAG							
98-07	1.2%	1.6%	-0.3%	0.0%	3.4%	0.0%	2.3%
07-12	0.3%	5.6%	-5.0%	0.0%	4.6%	0.0%	1.9%
07-17	0.1%	4.2%	-3.9%	0.0%	4.5%	0.0%	2.1%

GULF POWER COMPANY

Schedule 2.3

History and Forecast of Energy Consumption and
Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)
<u>Year</u>	Sales for Resale <u>GWH</u>	Utility Use & Losses <u>GWH</u>	Net Energy for Load <u>GWH</u>	Other Customers <u>(Average No.)</u>	Total No. of Customers
1998	356	644	10,402	262	350,447
1999	348	559	10,467	286	360,113
2000	363	628	11,105	380	367,740
2001	360	671	11,204	460	374,561
2002	384	754	11,910	474	381,521
2003	383	685	11,952	473	389,809
2004	389	727	12,162	474	398,200
2005	418	666	12,322	472	404,086
2006	415	743	12,586	482	415,185
2007	417	733	12,672	486	425,793
2008	425	768	12,860	491	438,261
2009	432	788	13,157	497	448,296
2010	440	806	13,453	502	457,733
2011	447	821	13,684	508	467,969
2012	456	835	13,922	513	478,894
2013	466	854	14,227	519	490,505
2014	477	875	14,572	524	502,584
2015	488	894	14,894	530	514,836
2016	501	915	15,230	535	527,341
2017	511	938	15,623	541	539,959
<u>CAAG</u>					
98-07	1.8%	1.5%	2.2%	7.1%	2.2%
07-12	1.8%	2.6%	1.9%	1.1%	2.4%
07-17	2.0%	2.5%	2.1%	1.1%	2.4%

Note: Sales for Resale and Net Energy for Load include contracted energy allocated to certain customers by Southeastern Power Administration (SEPA).

GULF POWER COMPANY

Schedule 3.1

History and Forecast of Summer Peak Demand - MW
Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Year</u>	<u>Total</u>	<u>Wholesale</u>	<u>Retail</u>	<u>Interruptible</u>	<u>Residential Load Management</u>	<u>Residential Conservation</u>	<u>Comm/Ind Load Management</u>	<u>Comm/Ind Conservation</u>	<u>Net Firm Demand</u>
1998	2,406	82	2,324	0	0	115	0	138	2,154
1999	2,448	84	2,363	16	0	120	0	143	2,169
2000	2,558	86	2,472	0	0	128	0	142	2,289
2001	2,528	78	2,450	17	0	137	0	143	2,231
2002	2,755	86	2,669	0	0	145	0	148	2,462
2003	2,583	79	2,504	0	0	153	0	155	2,275
2004	2,751	84	2,666	0	0	161	0	159	2,431
2005	2,767	82	2,685	0	0	167	0	164	2,435
2006	2,824	89	2,735	0	0	173	0	168	2,483
2007	2,985	87	2,898	0	0	177	0	174	2,634
2008	2,938	95	2,843	0	0	185	0	177	2,576
2009	2,999	97	2,902	0	0	193	0	179	2,627
2010	3,067	98	2,969	0	0	201	0	181	2,685
2011	3,127	99	3,027	0	0	208	0	183	2,735
2012	3,162	101	3,061	0	0	216	0	186	2,760
2013	3,231	103	3,129	0	0	224	0	188	2,820
2014	3,312	104	3,208	0	0	231	0	190	2,891
2015	3,388	106	3,282	0	0	238	0	192	2,959
2016	3,440	108	3,331	0	0	243	0	194	3,003
2017	3,523	110	3,412	0	0	247	0	196	3,080
CAAG									
98-07	2.4%	0.6%	2.5%	0.0%	0.0%	4.9%	0.0%	2.7%	2.3%
07-12	1.2%	2.9%	1.1%	0.0%	0.0%	4.0%	0.0%	1.3%	0.9%
07-17	1.7%	2.4%	1.6%	0.0%	0.0%	3.4%	0.0%	1.2%	1.6%

42

NOTE 1: Includes contracted capacity and energy allocated to certain Resale customers by Southeastern Power Administration (SEPA)

NOTE 2: The forecasted interruptible amounts shown in col (5) are included here for information purposes only. The projected demands shown in column (2), column (4) and column (10) do not reflect the impacts of interruptible. Gulf treats interruptible as a supply side resource.

GULF POWER COMPANY

Schedule 3.2

History and Forecast of Winter Peak Demand - MW

Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
<u>Year</u>	<u>Total</u>	<u>Wholesale</u>	<u>Retail</u>	<u>Interruptible</u>					
97-98	1,981	61	1,919	0	0	171	0	118	1,692
98-99	2,392	79	2,313	0	0	177	0	122	2,093
99-00	2,225	75	2,150	0	0	188	0	126	1,911
00-01	2,486	86	2,401	0	0	200	0	126	2,160
01-02	2,530	85	2,445	0	0	211	0	129	2,190
02-03	2,857	92	2,766	0	0	225	0	133	2,500
03-04	2,445	76	2,369	0	0	240	0	134	2,070
04-05	2,518	89	2,428	0	0	250	0	137	2,130
05-06	2,475	89	2,386	0	0	263	0	140	2,072
06-07	2,643	85	2,558	0	0	276	0	143	2,224
07-08	2,783	77	2,706	0	0	286	0	145	2,352
08-09	2,852	79	2,773	0	0	296	0	147	2,409
09-10	2,913	80	2,833	0	0	306	0	149	2,458
10-11	2,956	81	2,875	0	0	317	0	150	2,489
11-12	3,013	83	2,930	0	0	327	0	152	2,534
12-13	3,072	84	2,987	0	0	337	0	154	2,581
13-14	3,131	86	3,045	0	0	347	0	155	2,629
14-15	3,199	88	3,111	0	0	356	0	157	2,686
15-16	3,268	90	3,178	0	0	364	0	158	2,746
16-17	3,359	92	3,267	0	0	370	0	160	2,829
17-18	3,420	93	3,327	0	0	375	0	161	2,884
CAAG									
98-07	3.3%	3.7%	3.2%	0.0%	0.0%	5.5%	0.0%	2.2%	3.1%
07-12	2.7%	-0.7%	2.8%	0.0%	0.0%	3.4%	0.0%	1.1%	2.6%
07-17	2.4%	0.7%	2.5%	0.0%	0.0%	3.0%	0.0%	1.1%	2.4%

NOTE 1: Includes contracted capacity and energy allocated to certain Resale customers by Southeastern Power Administration (SEPA)

NOTE 2: The forecasted interruptible amounts shown in col (5) are included here for information purposes only. The projected demands shown in column (2), column (4) and column (10) do not reflect the impacts of interruptible. Gulf treats interruptible as a supply side resource.

GULF POWER COMPANY

Schedule 3.3

History and Forecast of Annual Net Energy for Load - GWH
Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Year</u>	<u>Total</u>	<u>Residential Conservation</u>	<u>Comm/Ind Conservation</u>	<u>Retail</u>	<u>Wholesale</u>	<u>Utility Use & Losses</u>	<u>Net Energy for Load</u>	<u>Load Factor %</u>
1998	10,950	292	257	9,402	356	644	10,402	55.1%
1999	11,038	297	274	9,559	348	559	10,467	55.1%
2000	11,690	305	280	10,113	363	628	11,105	55.2%
2001	11,801	314	284	10,173	360	671	11,204	57.3%
2002	12,520	323	288	10,772	384	754	11,910	55.2%
2003	12,584	335	297	10,885	383	685	11,952	60.0%
2004	12,813	348	303	11,046	389	727	12,162	57.0%
2005	12,998	357	319	11,239	418	666	12,322	57.8%
2006	13,277	366	325	11,429	415	743	12,586	57.9%
2007	13,377	376	329	11,521	417	733	12,672	54.9%
2008	13,576	382	335	11,666	425	768	12,860	56.8%
2009	13,885	387	341	11,937	432	788	13,157	57.2%
2010	14,192	393	346	12,206	440	806	13,453	57.2%
2011	14,435	399	352	12,416	447	821	13,684	57.1%
2012	14,684	404	358	12,631	456	835	13,922	57.4%
2013	15,000	410	363	12,907	466	854	14,227	57.6%
2014	15,357	415	369	13,221	477	875	14,572	57.5%
2015	15,689	421	375	13,511	488	894	14,894	57.5%
2016	16,035	425	380	13,815	501	915	15,230	57.7%
2017	16,439	429	386	14,174	511	938	15,623	57.9%
<u>CAAG</u>								
98-07	2.2%	2.9%	2.8%	2.3%	1.8%	1.5%	2.2%	0.0%
07-12	1.9%	1.5%	1.7%	1.9%	1.8%	2.6%	1.9%	0.9%
07-17	2.1%	1.3%	1.6%	2.1%	2.0%	2.5%	2.1%	0.5%

NOTE: Wholesale and total columns include contracted capacity and energy allocated to certain Resale customers by Southeastern Power Administration (SEPA).

GULF POWER COMPANY

Schedule 4

Previous Year Actual and Two Year Forecast of Peak Demand and Net Energy for Load by Month

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2007 Actual		2008 Forecast		2009 Forecast	
<u>Month</u>	<u>Peak Demand</u> <u>MW</u>	<u>NEL</u> <u>GWH</u>	<u>Peak Demand</u> <u>MW</u>	<u>NEL</u> <u>GWH</u>	<u>Peak Demand</u> <u>MW</u>	<u>NEL</u> <u>GWH</u>
January	2,183	962	2,352	1,028	2,409	1,052
February	2,216	906	2,137	878	2,195	898
March	1,798	872	1,858	932	1,888	943
April	1,784	866	1,858	920	1,912	946
May	2,001	1,065	2,210	1,121	2,250	1,141
June	2,435	1,238	2,381	1,239	2,426	1,266
July	2,529	1,356	2,576	1,351	2,627	1,381
August	2,626	1,414	2,548	1,383	2,600	1,414
September	2,342	1,187	2,501	1,146	2,544	1,167
October	2,180	1,037	2,132	1,012	2,141	1,018
November	1,644	850	1,739	853	1,839	901
December	1,819	919	2,220	998	2,288	1,030

NOTE: Includes contracted capacity and energy allocated to certain Resale customers by Southeastern Power Administration (SEPA)

Gulf Power Company

Schedule 5
Fuel Requirements

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	<u>Fuel Requirements</u>		<u>Units</u>	<u>Actual 2006</u>	<u>Actual 2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
(1)	Nuclear		Trillion BTU	None	None	None	None	None	None	None	None	None	None	None	None
(2)	Coal		1000 TON	6,795	6,793	6,370	6,414	6,121	6,111	5,796	6,039	6,002	5,701	5,362	5,759
(3)	Residual	Total	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(4)		Steam	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(5)		CC	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(6)		CT	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(7)		Diesel	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(8)	Distillate	Total	1000 BBL	14	13	9	7	8	7	8	6	7	7	8	7
(9)		Steam	1000 BBL	12	11	8	7	7	7	7	6	6	7	7	6
(10)		CC	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(11)		CT	1000 BBL	2	2	1	0	1	0	1	0	1	0	1	1
(12)		Diesel	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(13)	Natural Gas	Total	1000 MCF	14,830	16,880	16,881	18,842	20,496	19,742	18,648	21,498	32,414	38,946	39,461	39,947
(14)		Steam	1000 MCF	155	145	0	0	0	0	0	0	0	0	0	0
(15)		CC	1000 MCF	14,675	16,735	16,881	17,283	18,574	17,910	16,372	18,737	32,275	38,946	39,461	39,947
(16)		CT	1000 MCF	0	0	0	1,559	1,922	1,832	2,276	2,761	139	0	0	0
(17)	Other		Trillion BTU	None	None	None	None	None	None	None	None	None	None	None	None

Utility: Gulf Power Company

Schedule 6.1
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources	Units	Actual 2006	Actual 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
(1)	Annual Firm Interchange	GWH	(3,772)	(4,042)	(4,370)	(4,344)	(3,363)	(2,986)	(1,904)	(2,500)	(3,731)	(3,637)	(2,592)	(3,148)	
(2)	Nuclear	GWH	None	None	None	None	None	None	None	None	None	None	None	None	
(3)	Coal	GWH	14,216	14,281	14,688	14,754	13,841	13,786	13,115	13,631	13,437	12,700	11,922	12,803	
(4)	Residual	Total	GWH	0	0	0	0	0	0	0	0	0	0	0	
(5)		Steam	GWH	0	0	0	0	0	0	0	0	0	0	0	
(6)		CC	GWH	None	None	None	None	None	None	None	None	None	None	None	
(7)		CT	GWH	None	None	None	None	None	None	None	None	None	None	None	
(8)		Diesel	GWH	None	None	None	None	None	None	None	None	None	None	None	
(9)	Distillate	Total	GWH	1	1	1	0	1	0	1	0	1	0	1	
(10)		Steam	GWH	None	None	None	None	None	None	None	None	None	None	None	
(11)		CC	GWH	None	None	None	None	None	None	None	None	None	None	None	
(12)		CT	GWH	1	1	1	0	1	0	1	0	1	0	1	
(13)		Diesel	GWH	None	None	None	None	None	None	None	None	None	None	None	
(14)	Natural Gas	Total	GWH	2,132	2,374	2,481	2,687	2,914	2,824	2,650	3,036	4,805	5,771	5,839	
(15)		Steam	GWH	20	10	0	0	0	0	0	0	0	0	0	
(16)		CC	GWH	2,072	2,315	2,368	2,432	2,625	2,544	2,329	2,673	4,679	5,658	5,726	
(17)		CT	GWH	40	49	113	255	289	280	321	363	126	113	113	
(18)	NUGs	GWH	9	58	60	60	60	60	60	60	60	60	60	60	
(19)	Net Energy for Load	GWH	12,586	12,672	12,860	13,157	13,453	13,684	13,922	14,227	14,572	14,894	15,230	15,623	

NOTE: Includes energy generated and sold under existing power sales contracts, and energy from projected short term firm purchases.

Utility: Gulf Power Company

Schedule 6.2
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources		Units	Actual 2006	Actual 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
(1)	Annual Firm Interchange		%	(29.97)	(31.91)	(33.98)	(33.02)	(25.00)	(21.82)	(13.68)	(17.57)	(25.60)	(24.42)	(17.02)	(20.15)
(2)	Nuclear		%	None	None	None	None	None	None	None	None	None	None	None	None
(3)	Coal		%	112.95	112.71	114.21	112.14	102.88	100.75	94.20	95.81	92.21	85.27	78.28	81.95
(4)	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
(5)		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
(6)		CC	%	None	None	None	None	None	None	None	None	None	None	None	None
(7)		CT	%	None	None	None	None	None	None	None	None	None	None	None	None
(8)		Diesel	%	None	None	None	None	None	None	None	None	None	None	None	None
(9)	Distillate	Total	%	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.01
(10)		Steam	%	None	None	None	None	None	None	None	None	None	None	None	None
(11)		CC	%	None	None	None	None	None	None	None	None	None	None	None	None
(12)		CT	%	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.01
(13)		Diesel	%	None	None	None	None	None	None	None	None	None	None	None	None
(14)	Natural Gas	Total	%	16.94	18.74	19.29	20.42	21.66	20.64	19.03	21.34	32.97	38.75	38.34	37.81
(15)		Steam	%	0.16	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(16)		CC	%	None	18.27	18.41	18.48	19.51	18.59	16.73	18.79	32.11	37.99	37.60	37.09
(17)		CT	%	0.32	0.39	0.88	1.94	2.15	2.05	2.31	2.55	0.86	0.76	0.74	0.72
(18)	NUGs		%	0.07	0.46	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.40	0.39	0.38
(19)	Net Energy for Load		%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Utility: Gulf Power Company
Schedule 6.3
Renewable Energy Sources

(1)	(2)	(3) Actuals	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Renewable Energy Sources (A)		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
(1) Renewable Generating Capacity												
	MW	0	0	0	0	0	0	0	0	0	0	0
	MWh	47,562	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
	% of Capacity Mix	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	% of NEL	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	% of Fuel Mix	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
(2) Self-Service Generation By Renewable Generation												
	MW	68	68	68	68	68	68	68	68	68	68	68
	MWh (B)	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies

(A) Owned and/or Purchased by Gulf.

This page is intentionally blank.

CHAPTER III

PLANNING ASSUMPTIONS AND PROCESSES

THE INTEGRATED RESOURCE PLANNING PROCESS

As previously mentioned, Gulf participates in the SES IRP process. This process begins with a team of experts from within and outside the SES that meets to discuss current and historical economic trends and conditions, as well as future expected economic conditions which would impact the SES's business over the next twenty to twenty-five years. This economic panel determines the various escalation and inflation rates that will impact the financial condition of the SES. This determination acts as a basis for the assumptions surrounding general inflation and escalation that will affect fuel costs, construction costs, labor rates and variable O&M.

In addition to the work of the economic panel, there are a number of activities that are conducted in parallel with one another in the IRP process. These activities include energy and demand forecasting, fuel price forecasting, technology screening analysis and evaluation, engineering cost estimation modeling, evaluation of active and passive demand-side options, and other miscellaneous issues. The SES operating companies have also remained active in offering customers options which result in modified consumption patterns. An important input into the design of such demand-side programs is an assessment of their likely impact on system loads.

Gulf's forecast of energy sales and peak demand reflects the continued impacts of its conservation programs. Furthermore, an update of demand-side measure cost and benefits is conducted in order to perform cost-effectiveness

evaluations against the selected supply-side technologies in the integration process.

A number of existing generating units on the SES are also evaluated with respect to their currently planned retirement dates, as well as the economics and appropriateness of possible repowering over the planning horizon. These evaluations are extremely important in order to maximize the benefit of existing investment from both a capital and an operations and maintenance expense perspective.

Additionally, the market for potential power purchases is analyzed in order to determine its cost-effectiveness in comparison to the available supply-side and demand-side options. Power purchases are evaluated on both a near-term and long-term basis as a possible means of meeting the system's demand requirements. These power purchases can be procured from utility sources as well as from non-utility generators.

The supply side of the IRP process focuses on the SES as a whole, which has as its planning criterion a 15% reserve margin target for the year 2011 and beyond. This reserve margin is the optimum economic point at which the system can meet its energy and demand requirements after accounting for load forecast error, abnormal weather conditions, and unit-forced outage conditions. It also balances the cost of adding additional generation with the societal cost of not serving all the energy requirements of the customer.

Once the necessary assumptions are determined, generating unit technologies are screened to determine the most acceptable candidates, the

necessary planning inputs are defined and the generation mix analysis is initiated. The main optimization tool used in the generation mix analysis is the PROVIEW® model. The supply-side technology candidates are input into PROVIEW® in specific MW block sizes for selection over the planning horizon for the entire SES. Although this model uses many data inputs and assumptions in the process of optimizing system generation additions, the key assumptions are load forecasts, demand side options (DSOs), candidate units, reserve margin requirements, cost of capital, and escalation rates.

PROVIEW® uses a dynamic programming technique to develop the optimum resource mix. This technique allows PROVIEW® to evaluate for every year all the many combinations of generation additions that satisfy the reserve margin constraint. Annual system operating costs are simulated and are added to the construction costs required to build each combination of resource additions. A least cost resource addition schedule is developed by evaluating each year sequentially and comparing the results of each combination. A least cost resource plan is developed only after reviewing many construction options.

PROVIEW® produces a number of different combinations over the planning horizon, h evaluating both the capital cost components for unit additions as well as the operating and maintenance cost of existing and future supply option additions. The program produces a report which ranks all of the different combinations with respect to the total net present value cost over the entire twenty-year planning horizon. The leading combinations from the program are then evaluated for reasonableness and validity. Once again, it is important to

note that supply option additions from the PROVIEW® program output are for the entire SES and are reflective of the various technology candidates selected.

After the SES results are verified, each individual operating company's specific needs over the planning horizon are evaluated. Each company is involved in recommending the type and timing of its unit additions. When all companies are satisfied with their capacity additions, and the sum of these additions matches the system need, the system base supply-side plan is complete. The result is an individual operating company supply plan that fits within the SES planning criteria.

Once the individual operating company supply plans are determined, it is necessary to evaluate demand-side options as a cost-effective alternative to the supply plan. After the incorporation of the cost effective demand-side impacts, a final integrated resource plan is produced.

Finally, a financial analysis of the impact of the plan is performed. The plan is analyzed for changes in load forecast and fuel price variations in order to assess the impact on the system's cost. Once the plan has proven to be robust and financially feasible, it is reviewed with and presented for approval to executive management.

In summary, the SES IRP process involves a significant amount of manpower and computer resources in order to produce a truly least-cost, integrated demand-side and supply-side resource plan. During the entire process, the SES is continually looking at a broad range of alternatives in order to meet the SES's projected demand and energy requirements. The SES

updates its IRP each year to account for the changes in the demand and energy forecast, as well as the other major assumptions previously mentioned in this section. A remix is then performed to insure that the IRP is the most economical and cost-effective plan. The resulting product of the SES IRP process is an integrated plan which meets the needs of the SES's customers in a cost-effective and reliable manner.

TRANSMISSION PLANNING PROCESS

The transmission system is not studied as a part of the IRP process, but it is studied, nonetheless, for reliability purposes. Commonly, a transmission system is viewed as a medium used to transport electric power from its generation source to the point of its conversion to distribution voltages under a number of system conditions known as contingencies. The results of the IRP are factored into transmission studies in order to determine the impacts of various generation site options upon the transmission system. The transmission system is studied under different contingencies for various load levels to insure that the system can operate adequately without exceeding conductor thermal and system voltage limits.

When the study reveals a potential problem with the transmission system that warrants the consideration of correction in order to maintain or restore reliability, a number of possible solutions are identified. These solutions and their costs are evaluated to determine which is the most cost-effective. Once a solution is chosen to correct the problem, a capital budget expenditure request is

prepared for executive approval. It should be noted that not all thermal overloads or voltage limit violations warrant correction. This may be due to the small magnitude of the problem or because the probability of occurrence is insufficient to justify the capital investment of the solution.

In prior years, Gulf has entered into a series of purchased power agreements to meet its needs, and it will continue this practice in the future when economically attractive opportunities are available. The planned transmission has proven adequate to handle these purchased power transactions during the periods when Gulf has needed additional capacity. It has been and will continue to be Gulf's practice to perform a transmission analysis of viable purchased power proposals to determine any transmission constraints. Gulf will formulate a plan, if needed, to resolve any transmission issues in a reasonable, cost effective manner prior to proceeding with negotiations for purchased power agreements.

FUEL PRICE FORECAST PROCESS

FUEL PRICE FORECASTS

Fuel price forecasts are used for a variety of purposes within the Southern Electric System (SES), including such diverse uses as long-term generation planning and short-term fuel budgeting. The SES fuel price forecasting process is designed to support these various uses.

The delivered price of any fuel consists of a variety of components. The main components are commodity price and transportation cost. Coal commodity domestic prices are forecast on either a mine-mouth basis or FOB barge basis, while import coals are forecast on a FOB ship basis at the port of export. Natural gas prices are forecast at the Henry Hub, Louisiana benchmark delivery point. Because mine-mouth coal prices vary by source, sulfur content, and Btu level, the SES prepares commodity price forecasts for fifteen different coal classifications used on the SES. Because natural gas does not possess the same quality variations as coal, the SES prepares a single commodity price forecast for gas at Henry Hub, and applies a historical basis differential between Henry Hub and the various pipelines serving SES plants. Four price forecasts are developed for oil, based on grade of oil, sulfur, and heat content.

The level of detail with which transportation costs are projected depends on the purpose for which the forecast will be used. Generic transportation costs, reflecting an average cost for delivery within the SES service area, are used in the delivered price forecast when modeling generic unit additions in the IRP process. Site-specific transportation costs are developed for existing units to

produce delivered price forecasts for both the IRP process and the fuel budget process. Similarly, when site-specific unit additions are under consideration, site-specific transportation costs are developed for each option.

SES GENERIC FUEL FORECAST

Each year, SES develops a fuel price forecast for coal, oil, and natural gas which extends through the Company's 10-year planning horizon. This forecast is developed by Southern Company Services (SCS) Fuel Procurement staff with input from outside consultants. The forecast is approved by the fuel procurement managers at each of the SES operating companies responsible for the fuel programs at that company.

The fuel price forecast process begins with an annual Fossil Fuel Price Workshop that is held with representatives from recognized leaders in energy-related economic forecasting and transportation-related industries. Presenters at the 2007 Fuel Price Workshop included representatives from Energy Ventures Analysis, JD Energy, McClosky Coal, Cambridge Energy Research Associates, Criton Corp, Energy and Environmental Analysis, L.E Peabody & Associates, and PIRA Energy Group.

During the Fossil Fuel Price Workshop, each fuel representative presents their "base case" forecast and assumptions. High and low fuel price scenarios are also presented.

After the workshop, the SCS Fuel Procurement staff references the outside consultant forecasts and identifies any major assumption differences.

The Fuel Procurement staff then consolidates both the internal and external forecasts and assumptions to develop a commodity forecast for each type of fuel. Fuel Procurement's 2007 commodity price forecasts for bituminous 1.0% sulfur coal, natural gas and low sulfur #2 oil are included in the table below.

SES GENERIC FUEL PRICE FORECAST
(\$/MMBtu)

	<u>COAL*</u>	<u>NAT. GAS**</u>	<u>OIL***</u>
2008	1.938	8.250	15.176
2009	1.979	8.250	15.056
2010	2.021	8.200	14.817
2011	2.063	8.150	14.579
2012	2.125	8.100	14.519
2013	2.176	8.050	14.399
2014	2.216	7.950	14.772
2015	2.265	7.850	15.152
2016	2.333	8.101	15.719
2017	2.404	8.354	16.301

*Central Appalachia CSX, 12000 Btu/lb., 1% Sulfur

**Henry Hub

***U.S. Gulf Coast LS No.2 Oil, 0.05% Sulfur

COAL PRICE FORECAST

In 2007, coal production in the United States reached 1,144 million short tons, a 1.4% decrease over year 2006 production levels. The Central Appalachian region in the U.S. experienced a 3.7% decrease in production. Like the Central Appalachian region, the Interior region of the U.S. also recorded a

2.9% decrease in production. The Western U.S. region, however, experienced a 0.26% increase in production.

Total U.S. coal stocks increased during the year, as electric generators built their stockpiles in the second half of 2007 on milder weather and improved rail transportation from the prior year. At the same time, the expanding economy, the warmer than normal summer weather in 2007, and the milder winter weather in 2007 helped to drive up the demand for coal in the electric power sector during the year. There were no significant delivery issues experienced in the U.S. market in 2007. In the world market, flooding of several coal producing regions such as Australia, Indonesia and South Africa inhibited coal production as well as coal deliveries, placing upward pressure on world coal pricing.

The coal industry continues to experience pricing pressures from environmental and legal challenges, labor and mining cost increases, and more recently, from increased global demand for coal. Bituminous coal prices in the U.S. increased in real terms through 1980 then declined in real terms through year 2000, after which real price increases have occurred. Sub-bituminous coal prices declined in real terms through 2001 and have increased since then. During 2007, spot market prices were relatively flat in nominal terms from the higher levels experienced in 2006 but then rebounded in late 2007 due mainly to the worldwide supply-demand imbalance. The Central Appalachian, the Powder River Basin, and the Western Colorado-Utah markets all saw price increases at the end of 2007. Overall, import coal pricing into the U.S. from Colombia remained relatively flat in 2007.

The generic coal prices used in the IRP process are based on an average expectation of coal commodity costs combined with average transportation fees. These generic coal prices are used in conjunction with plant specific transportation fees and plant specific contract coal prices to develop the existing fuel price projection for the SES annual budget process.

NATURAL GAS PRICE FORECAST

Continuing the trend of the last few years, supply remained tight relative to demand in the 2007 gas market. Actual prices in 2007 tracked well below the forecast prepared in September 2006. Prices diverged from the forecast as a result of the combination of historically warmer winter weather, the absence of hurricane-related supply disruptions in 2007, and the resulting record levels of natural gas in storage. While the above normal temperatures in the summer of 2007 resulted in summer storage withdrawals to meet increased gas-fired generation, the continuing storage overhang and increasing presence of Liquefied Natural Gas (LNG) in the market kept natural gas prices below the 2006 forecast for the remainder of 2007.

Although forward gas prices and analysts' long-term price forecasts available during the budget preparation in 2006 had shifted upward from the previous year due to higher production costs and declining Canadian imports, the forward prices and forecasts showed a near-term downward-sloping trend in gas prices with the expectation that increasing LNG imports would ease future supply limitations. The SES budget forecast in 2006 anticipated stronger oil prices in

both the near and long-term due to strong, although slowing, worldwide economic growth and continued tightening of capacity by OPEC. These forecasts did not assume any impact from potential carbon legislation.

NATURAL GAS AVAILABILITY

Overall, domestic production is expected to remain relatively flat in the short-term. Declines in Gulf of Mexico production should be partially offset by rising unconventional production in eastern Texas and the Rocky Mountains. While pipeline transportation capacity from these regions is currently limited, pipeline additions are being developed and are expected to be operational by the 2008 - 2009 timeframe. Even with new unconventional supplies becoming available, however, LNG imports will remain critical to balance supply and demand. Total U.S. LNG imports were estimated to have increased from 0.6 Bcfd in 2002 to approximately 1.8 Bcfd in 2004, were slightly reduced in 2005 and 2006, and then increased to an estimated 2.1 Bcfd in 2007. A notable decrease in U.S. LNG imports was observed in the fourth quarter of 2007 as strong global competition pulled cargoes away from the U.S. market. In the short run, LNG supply will continue to grow with new liquefaction projects in Trinidad, Qatar, Norway, West Africa and elsewhere, but substantial increases in LNG imports are not expected until the 2009 - 2010 timeframe due to delays in several of the overseas facilities becoming fully operational.

Despite the lack of significant growth in near-term gas supply, sufficient supply remains available to meet operating needs. Pricing will remain volatile as

a result of the tight balance between demand and supply availability, the higher cost of oil as an alternative fuel, and the uncertainty of the market's reaction to weather events. One market observer has noted that a wide range of natural gas prices in 2008 is likely to occur on the basis of weather alone.

STRATEGIC ISSUES

Gulf has executed two PPAs that provide supply side flexibility and diversity that will allow Gulf to react quickly to changing market conditions without negative financial impacts to the Company and its customers. These PPAs will supply firm dual-fuel fired peaking capacity to serve system load from June 2009 through May 2014.

Gulf's latest generation expansion plan, developed in conjunction with other SES operating company planned capacity additions, indicates the need to build or contract for new internal combined cycle (CC) generating capacity with an in-service date of June 2014 in order to reliably meet Gulf's projected load growth. The above-mentioned strategy of supplementing Gulf's development of long-term capacity resources with shorter-term power purchases has proven successful over the years, and Gulf will continue to follow this strategy when appropriate and cost-effective to do so in the future.

Another important strategic advantage for Gulf is its association with the SES as it relates to integrated planning and operations. Drawing on the planning resources of Southern Company Services (SCS) to perform coordinated planning and having the capacity resources of the SES available to Gulf through the Intercompany Interchange Contract's (IIC) reserve sharing mechanism in times when Gulf is temporarily short of reserves are key benefits that Gulf and its customers realize through its association with the SES. In addition, the SES's

generation organization actively pursues firm energy market products at prices that can lead to significant savings to the SES and its customers.

Over the next decade, Gulf will face significant challenges in developing a generation expansion plan that serves not only its customers' load growth but its existing base need for capacity. As discussed in the Environmental Concerns section of this TYSP, compliance with new environmental regulations, particularly any that may be issued to require lower CO₂ emissions from power plants, may lead to accelerated retirements of Gulf's existing coal units and the addition of new gas-fired and nuclear units to replace this capacity. Gulf continues to monitor the development of state and national policy in the area of CO₂ regulation and will consider its options for compliance with the resulting regulations while still fulfilling its obligation to serve the energy needs of its retail customers in Northwest Florida with reliable and reasonably priced electricity. The addition of the 2014 gas-fired CC that Gulf has discussed in this TYSP is the next unit addition needed to serve Gulf's future load requirements regardless of which, if any, of the currently proposed state and federal carbon emission standards ultimately become effective.

ENVIRONMENTAL CONCERNS

Gulf will continue to take all necessary actions to fully comply with all environmental laws and regulations as they apply to the operation of Gulf's existing generation facilities and the installation of new generation. The Company's next potential generating unit addition, an 840 megawatt "G" class combined cycle scheduled to be on-line in June 2014, will be designed and constructed to comply with all applicable environmental laws and regulations. Gulf has developed and routinely updates its environmental compliance strategy to serve as a road map for a reasonable, cost-effective compliance plan. This road map establishes general direction, but allows for individual decisions to be made based on specific information available at the time. This approach is an absolute necessity in maintaining the flexibility to match a dynamic regulatory environment with the variety of available compliance options.

Gulf updates or reviews its environmental compliance strategy on an annual basis unless significant events dictate otherwise. The focus of the strategy updates has, to date, centered on compliance with the acid rain requirements, while considering other significant clean air requirements and potential new requirements. There are a number of issues associated with future regulatory requirements that could significantly impact both the scope and cost of compliance over the next decade. The following is a summary of Gulf's actions taken, or to be taken to comply with each major area of existing and emerging environmental law and regulations.

Clean Air Act Amendments of 1990

In 1990, Congress passed major revisions to the Clean Air Act requiring existing coal-fired generating plants to substantially reduce air emissions of sulfur dioxide (SO₂) and nitrogen oxides (NO_x) by 50 percent by the end of 2000. Compliance actions for SO₂ have included fuel switching to lower sulfur coals coupled with the use of banked emission allowances and the acquisition of additional allowances for future year compliance. In addition to reducing SO₂ emissions, Gulf has installed low NO_x burners on all but two of its coal-fired units and installed an additional post-combustion NO_x control on its largest coal-fired unit. The Company utilizes a system-wide NO_x emissions averaging plan to meet the requirements of the Act.

Air Quality Standards for Ozone

In 1997, the EPA announced a stringent new eight-hour National Ambient Air Quality Standard (NAAQS) for ozone based on an eight-hour average. In 2002, Gulf entered into an agreement with the Florida Department of Environmental Protection (FDEP) to reduce NO_x emissions at Plant Crist in order to help ensure that the new ozone standard is attained in the Pensacola area. Gulf installed Selective Catalytic Reduction (SCR) controls on Crist Unit 7 in May 2005. In addition to the SCR controls on Unit 7, the Company installed Selective Non-Catalytic Reduction (SNCR) Controls and over-fire air on Crist Unit 6 in February 2006 and SNCR controls on Crist Unit 4 and Unit 5 in April 2006. These controls have achieved the overall plant-wide NO_x emissions average of 0.20 lbs/mmbtu as outlined in the FDEP Agreement. Gulf also retired Crist Unit 1 in March 2003 and Crist Units 2 and 3 in May 2006.

All Florida counties currently meet the new standard; however, in March 2008, the EPA issued new rules lowering the eight-hour ozone standard. Based on data from 2004-2006, counties within Gulf's service area would be designated non-attainment under the new standard. However, controls that have been recently installed or that are planned in response to EPA's Clean Air Interstate Rule may achieve compliance without additional measures. States are required

to recommend designations to EPA by March 2009, and EPA will officially designate non-attainment areas by March 2010. States must then submit revisions to their State Implementation Plans by March 2013.

Clean Air Interstate Rule

The EPA issued the final Clean Air Interstate Rule in March 2005. This cap-and-trade rule addresses power plant SO₂ and NO_x emissions that were found to contribute to non-attainment of the eight-hour ozone and fine particulate matter standards in downwind states. Twenty-eight eastern states, including Florida and Mississippi, are subject to the requirements of the rule. The rule calls for additional reductions of NO_x and/or SO₂ to be achieved in two phases, 2009/2010 and 2015, respectively. Compliance with this rule will be accomplished by the installation of additional emission controls at Gulf's coal-fired facilities and by the purchase of supplemental emission allowances through a cap-and-trade program.

Clean Air Visibility Rule

The Clean Air Visibility Rule (formerly called the Regional Haze Rule) was finalized in July 2005. The goal of this rule is to restore natural visibility conditions in certain areas (primarily national parks and wilderness areas) by 2064. The rule involves the application of Best Available Retrofit Technology (BART) requirements and, beginning in 2018, a review each decade, and implementation of the additional emissions reductions necessary to continue making reasonable progress toward the goal of natural visibility. BART requires that certain BART-eligible sources that contribute to visibility impairment implement additional emission reductions to address these contributions. For power plants, the Clean Air Visibility Rule allows states to determine that the Clean Air Interstate Rule satisfies BART requirements for SO₂ and NO_x but not particulate matter, which required a separate BART analysis. In addition to BART controls, additional requirements could be imposed to achieve progress toward the long-term goal. By December 17, 2007, states must submit implementation plans that contain emission reduction strategies for implementing

BART requirements and for achieving sufficient and reasonable progress toward the goal. Florida missed the 2007 deadline due to several petitions by sources impacted by Florida's BART proposed rule. Gulf's generating facilities will not be impacted by the early phases of the Clean Air Visibility Rule.

Clean Air Mercury Rule

In March 2005, the EPA announced the final Clean Air Mercury Rule, a cap-and-trade program for the reduction of mercury emissions from coal-fired power plants. The rule sets caps on mercury emissions to be implemented in two phases, 2010 and 2018, respectively, and provides for an emissions allowance trading market. Florida submitted state rules intended to implement the Clean Air Mercury Rule to EPA in December 2006. In February 2008, however, the U.S. Court of Appeals for the District of Columbia Circuit vacated the federal Clean Air Mercury Rule. Industry groups are expected to file petitions for rehearing and may petition the U.S. Supreme Court for certiorari of the Court of Appeals' decision. An adverse outcome in the case could require substantial capital expenditures or affect the timing of current budgeted capital expenditures that cannot be determined at this time.

Global Climate Issues

In April 2007, the U.S. Supreme Court ruled that the EPA has authority under the Clean Air Act to regulate greenhouse gas emissions from new motor vehicles. The EPA is currently developing its response to this decision. Regulatory decisions that will follow from this response may have implications for both new and existing stationary sources, such as power plants. The ultimate outcome of these rulemaking activities cannot be determined at this time; however, as with the current legislative proposals, mandatory restrictions on the Company's greenhouse gas emissions could result in significant additional compliance costs that could affect future unit retirement and replacement decisions.

On July 13, 2007, the Governor of the State of Florida signed three executive orders addressing the reduction of greenhouse gas emissions within

the state, including statewide emission reduction targets beginning in 2017. Included in the orders is a directive to the Florida Secretary of Environmental Protection to develop rules adopting maximum allowable emissions levels of greenhouse gases for electric utilities, consistent with the statewide emission reduction targets, and a request to the Florida PSC to initiate rulemaking requiring utilities to produce at least 20% of their electricity from renewable sources. The impact of these orders on the Company will depend on the development, adoption, and implementation of any rules governing greenhouse gas emissions, and the ultimate outcome cannot be determined at this time.

Gulf will continue its involvement in the development of strategies to address any future clean air requirements in order to minimize the uncertainty related to the scope and cost of compliance. As new clean air initiatives emerge, Gulf will support any proposal that would help it meet environmental goals and objectives in a logical and cost-effective way, provided that the standards are based on sound science and economics which allow for adequate time to comply without compromising the safe, reliable and affordable supply of electricity to Gulf's customers.

AVAILABILITY OF SYSTEM INTERCHANGE

Gulf coordinates its operations with the other operating companies of the SES: Alabama Power Company, Georgia Power Company, Mississippi Power Company, and Southern Power Company. In any year, an individual operating company may have a temporary surplus or deficit in generating capacity, depending on the relationship of its generating capacity to its load and reserve responsibility. Each SES operating company either buys or sells its temporary deficit or surplus capacity from or to the pool in order to satisfy its reserve responsibility requirement. This is accomplished through the reserve sharing provisions of the SES Intercompany Interchange Contract (IIC) that is reviewed and updated annually.

OFF-SYSTEM SALES

Gulf and other SES operating companies have negotiated the sale of capacity and energy to several utilities outside the SES. The terms of the existing contracts began prior to 2005 and extend into 2010. In addition, new contracts have been finalized, and are scheduled to be in effect from the summer of 2010 through the summer of 2015. Gulf's share of the capacity and energy sales is reflected in the reserves on Schedules 7.1 and 7.2 and the energy and fuel use on Schedules 5 and 6.1.

This page is intentionally blank.

CHAPTER IV

FORECAST OF FACILITIES REQUIREMENTS

CAPACITY RESOURCE ALTERNATIVES

POWER PURCHASES

Gulf's use of purchased power arrangements in previous years has proven to be a successful approach to meeting its reliability needs. In order to meet its future need for capacity in 2014 and beyond, longer-term purchased power from the market will be factored into expansion studies in order to evaluate its effect on supply flexibility and reduced commitment risk during periods in which environmental regulations (with considerable economic impacts) and legislative initiatives focusing on generation additions are in various stages of development.

Gulf will continue to utilize both short-term and longer-term purchased power in the future to balance its approach to supply side resource development. In efforts to further diversify its generation fuel mix, Gulf is currently developing a RFP for the supply of capacity and energy from renewable resources. Gulf plans to issue its renewables RFP in 2008. If this solicitation ultimately results in a proposal that is competitive with resources that Gulf would otherwise develop, the Company will secure this renewable capacity and energy through a PPA.

Another avenue for the purchase of renewable energy is through Gulf's Renewable Standard Offer Contract (RSOC) that is on file with the FPSC and is continually available to developers of renewable resources. This contract offers to purchase renewable capacity and energy at the Company's avoided cost of its next planned generating unit additions as shown in its current TYSP. Finally, per

FPSC rules related to renewable energy procurement, Gulf may negotiate a PPA with a renewable energy supplier if the terms and conditions of the RSOC are not suitable for a particular renewable project.

CAPACITY ADDITIONS

In conjunction with the SES, Gulf will conduct economic evaluations of its potential supply options in order to determine the most cost-effective means of meeting its future capacity obligations. Gulf will evaluate its internal construction options versus external development of capacity resources in order to determine how to best meet its future capacity obligations. All commercially available generating technologies such as gas combustion turbine and combined cycle, conventional pulverized coal, and nuclear will be included in future SES IRP mix studies. In addition, emerging integrated gasification combined cycle (IGCC) technologies, such as air blown IGCC, will be added to the future generation mix studies so that their potential economic and technical viabilities may be evaluated. While there is only limited operational experience that aids in approximating the economic and performance characteristics of full-scale air blown IGCC facilities, the potential benefits of the technology include greater efficiency and lower environmental emissions.

As previously mentioned, Gulf's current capacity resource expansion plan reflects the possible installation of an 840 MW combined cycle generating unit (CC) in 2014 at a site that will soon be determined. This potential addition is currently outlined in Schedules 8 and 9 of this document. Before the Company

commits to the construction of this unit, it must first issue an RFP to evaluate supply-side alternatives to its self-build proposal. This RFP will not only solicit projects based on conventionally fueled technologies, but it will also be extended to those resources that generate electrical power using renewable fuel sources. In addition, in an effort to achieve fuel diversity, the Company is actively considering the development and ownership of renewable energy projects that will be fueled by readily available fuels such as biomass and landfill gas.

If subsequent mix studies or RFPs identify alternative power supply technologies or purchased power options that are more economical or that deliver more desirable results, Gulf will modify its expansion plan to reflect the proposed procurement of these resources. Gulf will continue to review all available capacity resource possibilities in order to serve the energy needs of its retail customers in Northwest Florida with reliable and reasonably priced electricity.

PREFERRED AND POTENTIAL SITES FOR CAPACITY ADDITIONS

Studies to determine a preferred site for the construction of the future CC unit identified on Schedules 8 and 9 of this TYSP are expected to be finalized in the next several months. Potential sites being considered for locating Gulf's next planned generating unit are each of Gulf's existing generation sites in Northwest Florida: Plant Crist in Escambia County, Florida; Plant Smith in Bay County, Florida; and Plant Scholz in Jackson, County, Florida. Each of these potential sites has unique characteristics that offer construction and/or operational advantages related to the potential installation of natural gas-fired CCs. A selection will be made for Gulf's next planned generating unit based on existing infrastructure, available acreage and land use, transmission, fuel facilities, environmental factors including evolving ozone standards, and overall project economics.

The required environmental and land use information for each potential site is set forth below. The estimated peak water usage for the proposed CC should be identical for each site mentioned below. Gulf projects that approximately 5000 gallons per minute (gpm) would be required for industrial cooling water needs, while 250 gpm would be required for domestic, irrigation, and other potable and non-potable water uses.

Potential Site #1: Plant Crist, Escambia County

The project site would be located on Gulf's existing Plant Crist property in Escambia County, Florida. If a future project is ultimately located on this property, detailed studies must first be completed to determine the exact size and location of the project site within the plant property's boundaries in order to meet Gulf's needs while insuring full compliance with local, state, and federal requirements. The plant property, approximately 10 miles north of Pensacola, Florida, is located on the Escambia River and can be accessed via county roads from nearby U. S. Highway 29. As shown on Schedule 1, the existing Plant Crist facility consists of 930 MW of steam generation.

U. S. Geological Survey (USGS) Map

A USGS map showing the general location of the Plant Crist property is found on page 79 of this chapter.

Land Uses and Environmental Features

The Plant Crist property is dedicated to industrial use. The land adjacent to the property is currently being used for residential, commercial, and industrial purposes. General environmental features of the undeveloped portion of the property include mixed scrub, mixed hardwood/pine forest, and some open grassy areas. This property is located on the Escambia River. There are no unique or significant environmental features on the property that would substantially affect project development.

Water Supply Sources

For industrial processing, cooling, and other water needs, Gulf would likely use a combination of groundwater from on-site wells, available surface water, and potential reclaimed water sources.

Potential Site #2: Plant Smith, Bay County

The project site would be located on Gulf's existing Plant Smith property in Bay County, Florida. If a future project is ultimately located on this property, detailed studies must first be completed to determine the exact size and location of the project site within the plant property's boundaries in order to meet Gulf's needs while insuring full compliance with local, state, and federal requirements. The plant property, approximately 10 miles northwest of Panama City, Florida, is located on North Bay and can be accessed via a county road from nearby State Road 77. As shown on Schedule 1, the existing Plant Smith facility consists of 357 MW of steam generation, 556 MW of combined cycle generation, and 32 MW of CT generation.

U. S. Geological Survey (USGS) Map

A USGS map showing the general location of the Plant Smith property is found on page 80 of this chapter.

Land Uses and Environmental Features

The Plant Smith property is dedicated to industrial use. The land adjacent to the property is rural and consists of planted pine plantations. General environmental features of the property include a mixture of upland and wetland areas. This property is located on North Bay, which connects to

St. Andrews Bay. The property has no unique or significant environmental features that would substantially affect project development.

Water Supply Sources

For industrial processing, cooling, and other water needs, Gulf would likely use a combination of groundwater from on-site wells and available surface water.

Potential Site #3: Plant Scholz, Jackson County

The project site would be located on Gulf's existing Plant Scholz property in Jackson County, Florida. If a future project is ultimately located on this property, detailed studies must first be completed to determine the exact size and location of the project site within the plant property's boundaries in order to meet Gulf's needs while insuring full compliance with local, state, and federal requirements. The plant property, approximately 3 miles southeast of Sneads, Florida, is located on the Apalachicola River and can be accessed via a private road from nearby U. S. Highway 90. As shown on Schedule 1, the existing Plant Scholz facility consists of 92 MW of steam generation.

U. S. Geological Survey (USGS) Map

A USGS map showing the general location of the Plant Scholz property is found on page 81 of this chapter.

Land Uses and Environmental Features

The Plant Scholz property is dedicated to industrial use. The land adjacent to the property is primarily rural and in a natural state, but some

agricultural development exists. General environmental features of the property include a mixture of hardwood and pine forest areas. This property is located on the Apalachicola River and has no unique or significant environmental features that would substantially affect project development.

Water Supply Sources

For industrial processing, cooling, and other water needs, Gulf would likely use a combination of groundwater from on-site wells and available surface water.

Notes:

1. Grid lines shown are based on the Florida North Zone (#903), NAD83-90 H.A.R.N. State Plane Coordinate System.
2. Taken from U.S.G.S. Quadrangle Maps "Pace, FL and Cantonment, FL."

1000 0 1000 2000

SCALE: 1 INCH = 2000 FEET

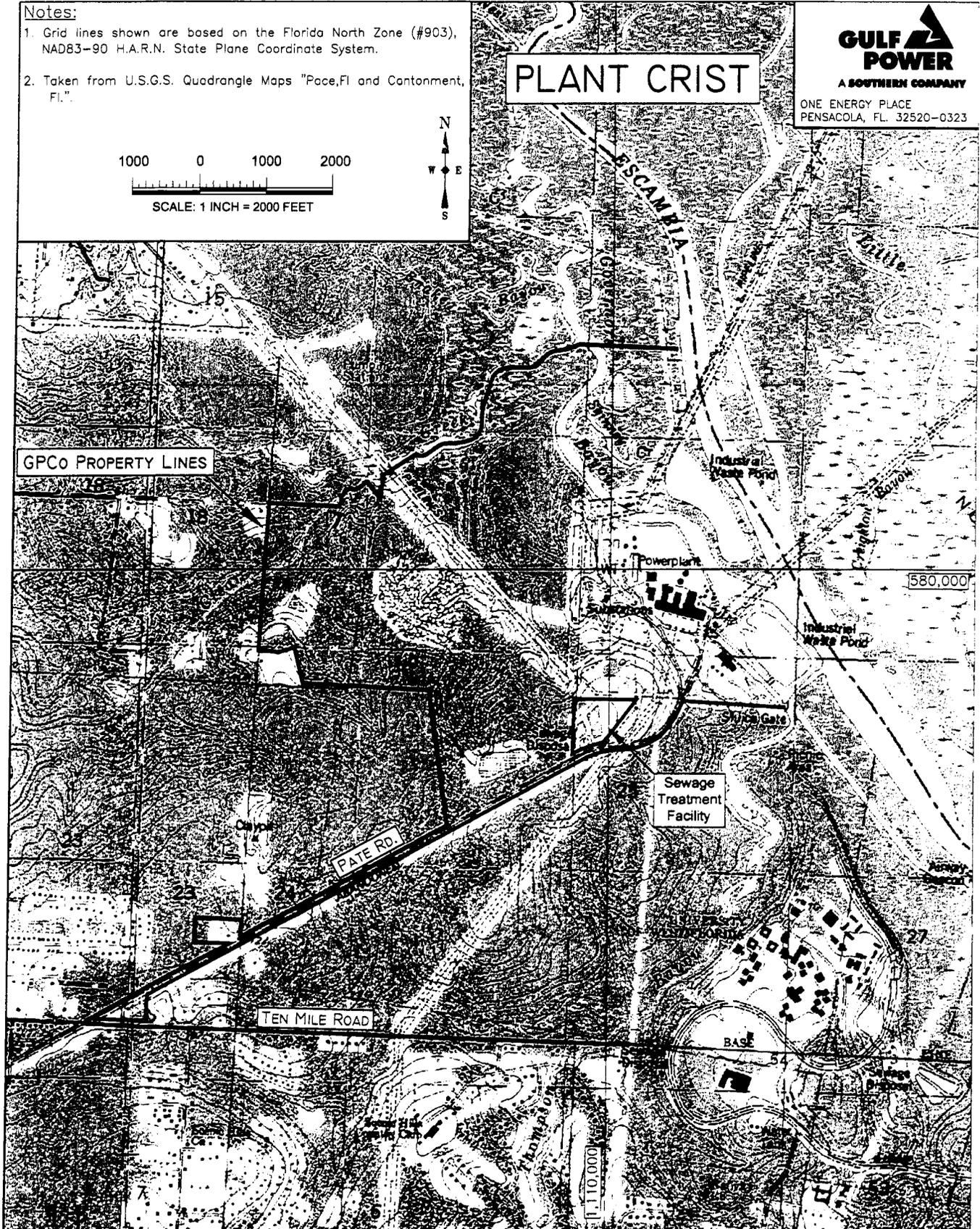


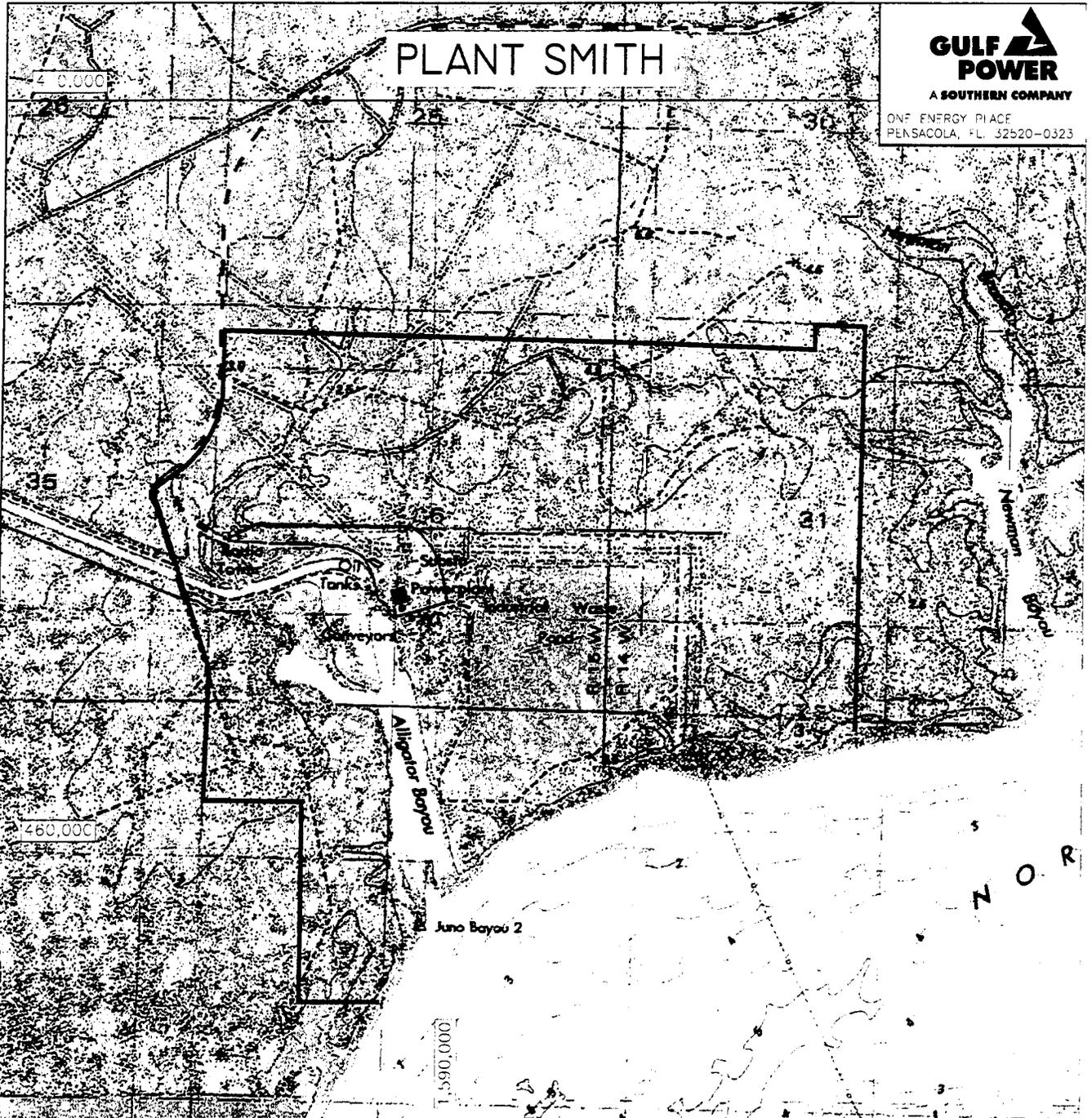
PLANT CRIST



ONE ENERGY PLACE
PENSACOLA, FL. 32520-0323

GPCO PROPERTY LINES



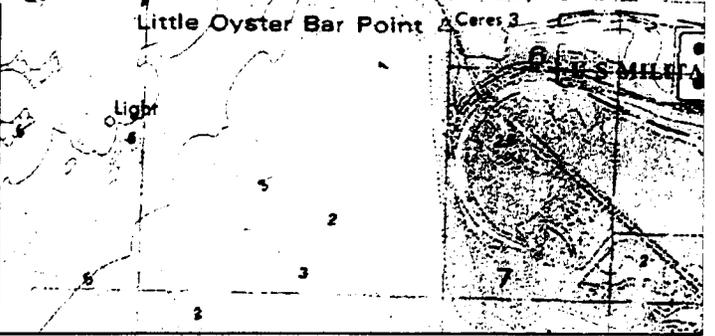


GULF POWER
 A SOUTHERN COMPANY
 ONE ENERGY PLACE
 PENSACOLA, FL. 32520-0323

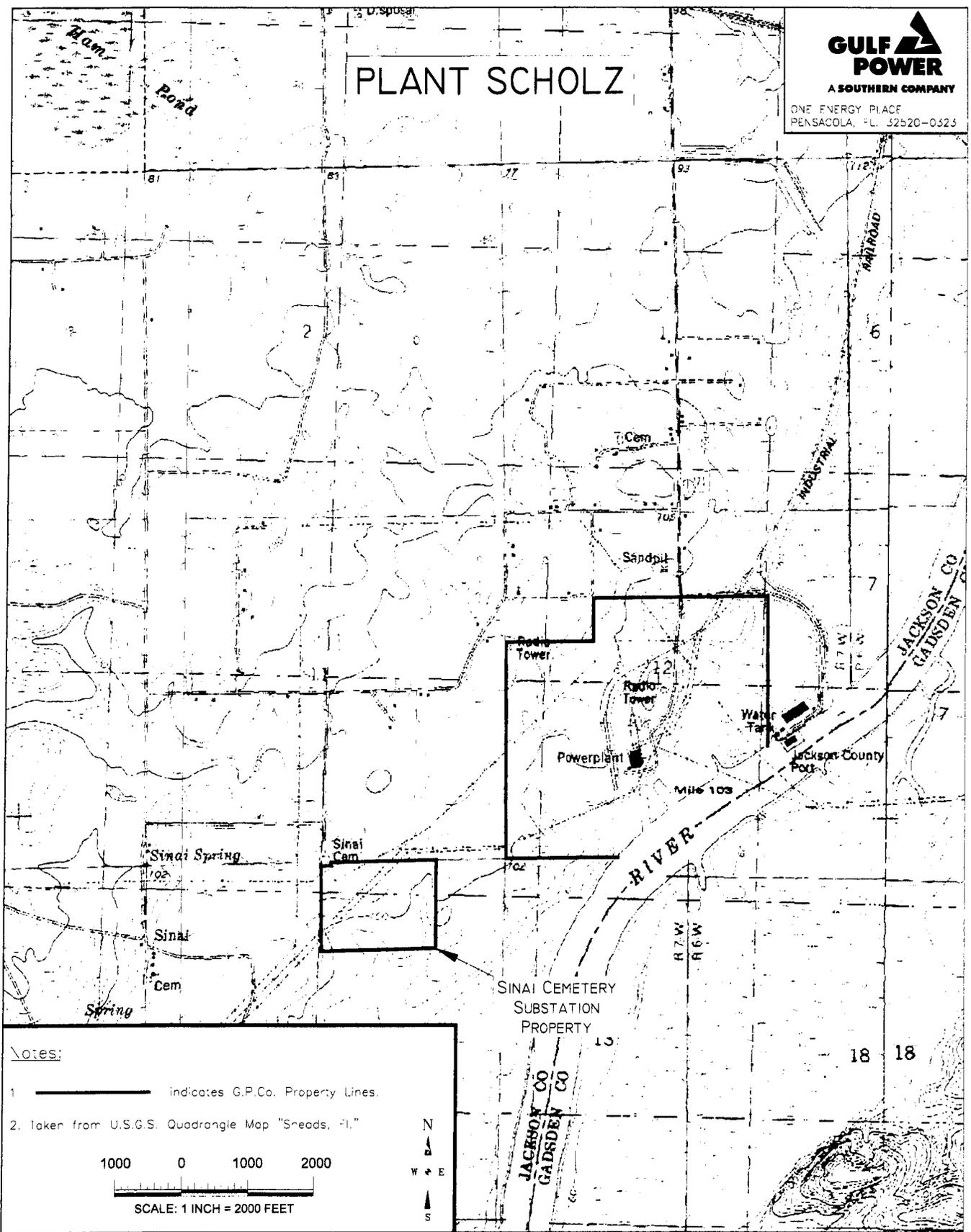
Notes:

1. Grid lines shown are based on the Florida North Zone (#903), NAD83-90 H.A.R.N. State Plane Coordinate System.
2. ————— indicates G.P.Co. Property Lines.
3. Taken from U.S.G.S. Quadrangle Map "Southport"

1000 0 1000 2000
 SCALE: 1 INCH = 2000 FEET



PLANT SCHOLZ



Notes:

1. ——— indicates G.P.Co. Property Lines.
2. Taken from U.S.G.S. Quadrangle Map "Sneads, -1."



SCALE: 1 INCH = 2000 FEET



GULF POWER COMPANY

SCHEDULE 7.1

FORECAST OF CAPACITY, DEMAND, AND SCHEDULED MAINTENANCE AT TIME OF SUMMER PEAK (A)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (9)		(10)	(11) (12)	
YEAR	TOTAL INSTALLED CAPACITY MW	FIRM CAPACITY IMPORT MW	FIRM CAPACITY EXPORT MW	NUG MW	TOTAL CAPACITY AVAILABLE MW	FIRM PEAK DEMAND MW	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE MW	RESERVE MARGIN AFTER MAINTENANCE	
							MW	% OF PEAK		MW	% OF PEAK
2008	2,711	0	(211)	0	2,500	2,576	(76)	-3.0%	NONE	(76)	-3.0%
2009	2,710	487	(211)	0	2,986	2,627	359	13.7%		359	13.7%
2010	2,677	487	(211)	0	2,953	2,685	268	10.0%		268	10.0%
2011	2,662	487	(211)	0	2,938	2,735	203	7.4%		203	7.4%
2012	2,570	487	(211)	0	2,846	2,760	86	3.1%		86	3.1%
2013	2,570	487	(211)	0	2,846	2,820	26	0.9%		26	0.9%
2014	3,406	0	(211)	0	3,195	2,891	304	10.5%		304	10.5%
2015	3,388	0	(211)	0	3,177	2,959	218	7.4%		218	7.4%
2016	3,388	0	(211)	0	3,177	3,003	174	5.8%		174	5.8%
2017	3,388	0	(211)	0	3,177	3,080	97	3.1%		97	3.1%

NOTE: (A) CAPACITY ALLOCATIONS AND CHANGES MUST BE MADE BY JUNE 30 TO BE CONSIDERED IN EFFECT AT THE TIME OF THE SUMMER PEAK. ALL VALUES ARE SUMMER NET MW.

GULF POWER COMPANY

SCHEDULE 7.2

FORECAST OF CAPACITY, DEMAND, AND SCHEDULED MAINTENANCE AT TIME OF WINTER PEAK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (9)		(10)	(11) (12)	
YEAR	TOTAL INSTALLED CAPACITY MW	FIRM CAPACITY IMPORT MW	FIRM CAPACITY EXPORT MW	NUG MW	TOTAL CAPACITY AVAILABLE MW	FIRM PEAK DEMAND MW	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE MW	RESERVE MARGIN AFTER MAINTENANCE	
							MW	% OF PEAK		MW	% OF PEAK
2007-08	2,752	0	(211)	0	2,541	2,352	189	8.0%	NONE	189	8.0%
2008-09	2,750	0	(211)	0	2,539	2,409	130	5.4%		130	5.4%
2009-10	2,749	487	(211)	0	3,025	2,458	567	23.1%		567	23.1%
2010-11	2,716	487	(211)	0	2,992	2,489	503	20.2%		503	20.2%
2011-12	2,701	487	(211)	0	2,977	2,534	443	17.5%		443	17.5%
2012-13	2,609	487	(211)	0	2,885	2,581	304	11.8%		304	11.8%
2013-14	2,609	487	(211)	0	2,885	2,629	256	9.7%		256	9.7%
2014-15	3,505	0	(211)	0	3,294	2,686	608	22.6%		608	22.6%
2015-16	3,487	0	(211)	0	3,276	2,746	530	19.3%		530	19.3%
2016-17	3,487	0	(211)	0	3,276	2,829	447	15.8%		447	15.8%

GULF POWER COMPANY

SCHEDULE 8

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Plant Name	Unit No.	Location	Unit Type	Fuel		Fuel Transport		Const Start Mo/Yr	Com'l In-Service Mo/Yr	Expected Retirement Mo/Yr	Gen Max Nameplate KW	Net Capability		Status
				Pri	Alt	Pri	Alt					Summer MW	Winter MW	
Daniel	1	Jackson Cnty, MS 42/5S/6W	FS	C	HO	RR	TK	--	09/77	06/08	274,125	(1.0)	(1.0)	CR
Daniel	2	Jackson Cnty, MS 42/5S/6W	FS	C	HO	RR	TK	--	06/81	06/08	274,125	(2.0)	(2.0)	CR
Pea Ridge	1-3	Santa Rosa Cnty 25/1N/29W	CT	NG	--	PL	--	--	04/98	06/08	15,000	0.0	1.0	CR
Scherer	3	Monroe Cnty, GA --	FS	C	--	RR	--	--	1/87	06/09	222,750	(1.0)	(1.0)	D
Crist	4	Escambia County 25/1N/30W	FS	C	NG	WA	PL	--	7/59	06/10	93,750	(5.0)	(5.0)	D
Crist	5	Escambia County 25/1N/30W	FS	C	NG	WA	PL	--	6/61	06/10	93,750	(5.0)	(5.0)	D
Crist	6	Escambia County 25/1N/30W	FS	C	NG	WA	PL	--	05/70	06/10	369,750	(6.0)	(6.0)	D
Crist	7	Escambia County 25/1N/30W	FS	C	NG	WA	PL	--	08/73	06/10	578,000	(17.0)	(17.0)	D
Scherer	3	Monroe Cnty, GA --	FS	C	--	RR	--	--	1/87	06/11	222,750	(2.0)	(2.0)	D
Crist	6	Escambia County 25/1N/30W	FS	C	NG	WA	PL	--	05/70	06/11	369,750	(13.0)	(13.0)	D

GULF POWER COMPANY
SCHEDULE 8

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Plant Name	Unit No.	Location	Unit Type	Fuel		Fuel Transport		Const Start Mo/Yr	Com'l In-Service Mo/Yr	Expected Retirement Mo/Yr	Gen Max Nameplate KW	Net Capability		Status
				Pri	Alt	Pri	Alt					Summer MW	Winter MW	
Scholz	1	Jackson Cnty, FL 12/3N/7W	FS	C	--	RR	WA	--	03/53	12/11	49,000	(46.0)	(46.0)	R
Scholz	2	Jackson Cnty, FL 12/3N/7W	FS	C	--	RR	WA	--	10/53	12/11	49,000	(46.0)	(46.0)	R
Daniel	1	Jackson Cnty, MS 42/5S/6W	FS	C	HO	RR	TK	--	09/77	06/14	274,125	(2.0)	(2.0)	D
Daniel	2	Jackson Cnty, MS 42/5S/6W	FS	C	HO	RR	TK	--	06/81	06/14	274,125	(2.0)	(2.0)	D
Unlocated	A	Unknown --	CC	NG	--	PL	--	07/12	06/14	12/54	986,000	840.0	900.0	P
Daniel	1	Jackson Cnty, MS 42/5S/6W	FS	C	HO	RR	TK	--	09/77	06/15	274,125	(9.0)	(9.0)	D
Daniel	2	Jackson Cnty, MS 42/5S/6W	FS	C	HO	RR	TK	--	06/81	06/15	274,125	(9.0)	(9.0)	D

85

Abbreviations:	<u>Unit Type</u>	<u>Status</u>	<u>Fuel Transportation</u>
	C - Coal	CR - Certified Rating change	PL - Pipeline
	CT - Combustion Turbine	D - Environmental derate	TK - Truck
	CC - Combined Cycle	P - Planned, but not authorized by utility	RR - Railroad
	NG - Natural Gas	R - To be retired	WA - Water
	LO - Light Oil	V - Under construction, more than 50% complete	
	HO - Heavy Oil		

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	Unknown
(2)	Capacity	
	a. Summer:	840 MW
	b. Winter:	900 MW
(3)	Technology Type:	High Output "G" Combined Cycle
(4)	Anticipated Construction Timing	
	a. Field construction start - date:	10/11
	b. Commercial in-service date:	06/14
(5)	Fuel	
	a. Primary fuel:	Natural Gas
	b. Alternate fuel:	N/A
(6)	Air Pollution Control Strategy:	Dry low NOx combustor for natural gas SCR
(7)	Cooling Method:	Evaporative cooling
(8)	Total Site Area:	Unknown
(9)	Construction Status:	This facility is planned but not authorized by Utility
(10)	Certification Status:	Not applied
(11)	Status with Federal Agencies:	Not applied
(12)	Projected Unit Performance Data	
	Planned Outage Factor (POF):	5.8%
	Unplanned Outage Factor (UOF):	5.5%
	Equivalent Availability Factor (EAF):	88.7%
	Capacity Factor (%):	65.0%
	Average Net Operating Heat Rate (ANOHR):	6,874
(13)	Projected Unit Financial Data ^(A)	
	Book Life (Years):	40
	Total Installed Cost (In-Service Year \$/kW):	806
	Direct Construction Cost ('08 \$/kW):	627
	AFUDC Amount ('14 \$/kW):	128
	Escalation (\$/kW):	51
	Fixed O&M ('14 \$/kW - Yr):	7.95
	Variable O&M ('14 \$/MWH):	3.16
	K Factor:	1.4366

(A) Fixed O&M without firm gas transportation cost

Gulf Power Company

Schedule 10

Status Report and Specifications of Proposed Directly Associated Transmission Lines

(1) Point of Origin and Termination:	Unknown
(2) Number of Lines:	Unknown
(3) Right-of-Way:	Unknown
(4) Line Length:	Unknown
(5) Voltage:	Unknown
(6) Anticipated Construction Timing:	Unknown
(7) Anticipated Capital Investment:	Unknown
(8) Substations:	Unknown
(9) Participation with Other Utilities:	N/A