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March 31, 2010

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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 2010 Ten Year Site Plan, and it is filed pursuant to Rule No. 25-22.071.

Sincerely,

Susan D. Ritenou (lu)

mr

Enclosures

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

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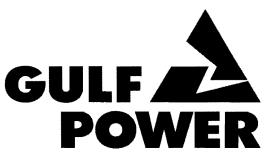
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FPSC-COMMISSION CLERK

TEN YEAR SITE PLAN 2010-2019

FOR ELECTRIC GENERATING FACILITIES AND ASSOCIATED TRANSMISSION LINES

APRIL 2010



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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, 2010

DOCUMENT NUMBER - DATE 02362 APR - 1 2 FPSC-COMMISSION CLERK

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GULF POWER COMPANY

TEN-YEAR SITE PLAN

Executive Summary

The Gulf Power Company 2010 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 2010 TYSP for Gulf Power Company (Gulf) is being filed in compliance with the applicable FPSC rules.

Gulf's 2010 TYSP contains the documentation of assumptions used for Gulf's 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 retail operating companies, Alabama Power Company, Georgia Power Company, and Mississippi Power Company, (collectively, the "Southern electric system" or SES), and it shares in a number of 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.

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The capacity resource needs set forth in the SES IRP are driven by the demand forecast that includes the load reduction effects of projected demandside measures that are 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.

During the 2010 TYSP cycle, Gulf will continue to utilize the two purchased power agreements (PPAs) that supply 488 megawatts (MW) of peaking power from two existing regional market facilities to serve customers' electrical needs until their expiration on May 31, 2014. In addition to these PPAs and its existing generating units shown on Schedule 1 of this TYSP, Gulf currently anticipates that the construction of its 3 MW landfill gas-to-energy facility at the Escambia County, Florida landfill will be completed by mid to late . Summer of 2010.

Gulf's 2009 TYSP indicated that Gulf would need to add additional capacity resources in June 2014 due to the expiration of the peaking power PPAs and projected load growth. To meet this future resource need, Gulf executed a purchased power agreement with Shell Energy North America (Shell PPA) on March 16, 2009 for 885 MWs of capacity from an existing gas-fired combined cycle generating unit located in Alabama. Gulf received final FPSC approval of the Shell PPA in Order No. PSC-09-0629-CO-EI on September 17,

2009. This 885 MW resource became available to Gulf on a non-firm basis on November 2, 2009, and is scheduled to meet Gulf's firm capacity requirements no later than June 2014 until it expires in May 2023.

With the 885 MW PPA capacity and the 3 MW renewable generation capacity shown as committed capacity, Gulf is currently expected to have the committed resources it needs to satisfy its reliability requirements during this 2010-2019 planning cycle. Therefore, Gulf does not expect to need to add new generation resources during this planning cycle. In order to meet its future capacity needs, Gulf will continue to evaluate the construction of generating facilities or the acquisition of equivalent capacity resources in coordination with other SES operating companies.

Gulf continues to study the conversion of its two 46 MW coal-fired units at Plant Scholz in Jackson County, Florida to biomass as new regulations develop. Therefore, Scholz will continue to operate on coal beyond 2011 as Gulf continues to consider biomass conversion and the effects that new regulations will have on Scholz operations.

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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 2,703 MW and a total net winter generating capability of 2,742 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 9 of this TYSP. Data regarding Gulf's existing generating facilities is presented on Schedule 1 of this TYSP.

GULF POWER COMPANY

					ING GE	CHEDULE NERATIN CEMBER	G FACI					Page 1 o	f 2
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Plant Nam	Unit ie No.	Location	Unit Type	F Pri	uel <u>Alt</u>	Fuel T Pri	ransp <u>Alt</u>	Alt. Fuel Days <u>Use</u>	Com'l In- Service Mo/Yr	Exptd Retrmnt Mo/Yr	Gen Max Nameplate KW	Net Ca Summer <u>MW</u>	apability Winter <u>MW</u>
Crist		Escambia County 25/1N/30W									1,135,250	<u>930.0</u>	<u>930.0</u>
	4 5 6 7	25/11/3000	FS FS FS FS	с с с	NG NG NG NG	WA WA WA	PL PL PL PL	1 1 1 1	07/59 06/61 05/70 08/73	12/24 12/26 12/35 12/38	93,750 93,750 369,750 578,000	78.0 78.0 302.0 472.0	78.0 78.0 302.0 472.0
Lansing Sr	mith	Bay County 36/2S/15W									1,001,500	<u>945.0</u>	<u>981.0</u>
	1 2 3 A	36/23/1370	FS FS CC CT	C C NG LO		WA WA PL TK		 	06/65 06/67 04/02 05/71	12/30 12/32 12/42 12/27	149,600 190,400 619,650 41,850	162.0 195.0 556.0 32.0	162.0 195.0 584.0 40.0
(A) Scholz)	Jackson County									98,000	<u>92.0</u>	<u>92.0</u>
	1 2	12/3N/7W	FS FS	C C		RR RR	WA WA		03/53 10/53	Note A Note A	49,000 49,000	46.0 46.0	46.0 46.0
(B) Daniel	:)	Jackson County, MS 42/5S/6W									548,250	506.0	<u>506.0</u>
	1 2	42,00,000	FS FS	C C	HO HO	RR RR	TK TK		09/77 06/81	12/42 12/46	274,125 274,125	253.0 253.0	253.0 253.0
(Scherer	(<i>B</i>) 3	Monroe County, GA	FS	С		RR			01/87	12/52	222,750	218.0	218.0
Pea Ridge		Santa Rosa County 15/1N/29W									14,250	<u>12.0</u>	<u>15.0</u>
	1 2 3		CT CT CT	NG NG NG		PL PL PL		-	05/98 05/98 05/98	12/18 12/18 12/18	4,750 4,750 4,750	4.0 4.0 4.0	5.0 5.0 5.0
										-	Total Sustam	2 702 0	27420

Total System 2,703.0 2,742.0

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

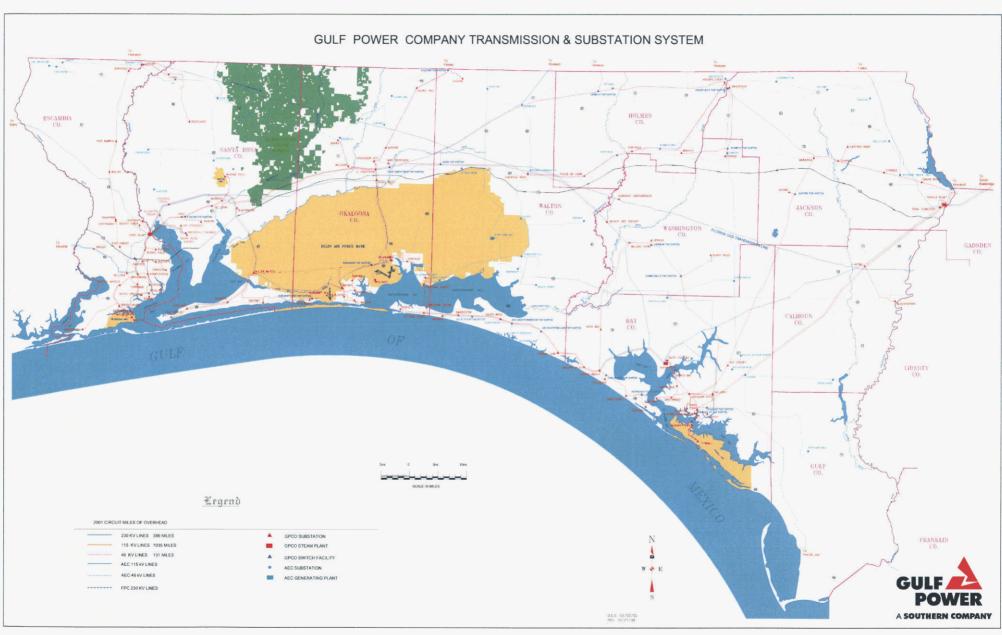
PL - Pipeline WA - Water TK - Truck RR - Railroad

NOTE: (A) Scholz Units 1 & 2 will continue to operate on coal beyond 2011.

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

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Page 2 of 2





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.

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

The December 2009 economic forecast from Moody's Economy.com, whose economics drive the Gulf Power 2010 Budget, incorporates the recession that started in December 2007 and estimates that national economic recovery started in late summer of 2009. By December 2009, predictions were that the national economy was slowly recovering, real GDP was on track to grow by a respectable 3% annualized during the second half of the year, and the job market was finally stabilizing after two years of massive employment losses. The Northwest Florida economy, by comparison, did not yet transition from recession to recovery, due to a still fractured housing market, continued relatively high unemployment rates, and continued decline in real personal income.

The 2010 Budget forecast assumes that during 2009 U.S. real GDP growth will decline by -2.5% and will grow by 2.3% in 2010 and by 3.8% in 2011 before accelerating to 5.2% in 2012.

The 2010 national economic forecast predicts the economy will not come roaring back in the coming months but expects the tentative and fragile recovery will successfully evolve into a self-sustaining economic expansion by the end of the year. The pace and consistency of the transition from recovery to expansion depends on how soon businesses resume hiring. The ongoing foreclosure crisis threatens the recovery but government policies have attempted to correct this situation, including first-time homebuyer tax credits, Federal Reserve crediteasing efforts, and the Home Affordable Modification Program. The credit crunch creates additional threats to the recovery as hundreds of small banks failed and

the structured finance market for securitized mortgages, credit cards, and small business loans remained dormant.

With these threats to the recovery, the 2010 Budget forecast expects real GDP to weaken to 2% growth during the first half of 2010. This is still enough growth to bring an end to job losses in early 2010, particularly since the federal government will be hiring hundreds of thousands of temporary workers to conduct the 2010 Census. However employment growth will not be enough to forestall a rising unemployment rate, and the jobless rate is expected to peak at 10.6% in the third quarter of 2010. Monetary and fiscal policy makers, however, will provide just enough additional support to ensure that the recovery will not backtrack into recession in early 2010 and will evolve into a self-sustaining economic expansion by late 2010.

Over the long-run, real GDP and total employment are forecasted to grow slightly slower compared to the 2009 Budget. The long-term results generally match last year's outlook. Real GDP growth over the full 25 years of the forecast is predicted to decelerate from a 2.5% compound annual rate in the 2009 Budget to 2.4% in the 2010 Budget. Total employment over the 25-year long-term was forecast to grow 1% in the 2009 Budget but slows to 0.9% in the 2010 Budget. Real personal income growth remained at 2.3% in both the 2009 Budget and 2010 Budget.

B. <u>TERRITORIAL ECONOMIC OUTLOOK</u>

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. Gulf's projections incorporate electric price assumptions derived from the 2009 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 (2008-2014)

GDP Growth	0.4 % - 2.8 %
Interest Rate (30 Year AAA Bonds)	4.3 % - 5.7 %
Inflation	3.8 % - 2.0 %

TABLE 2

AREA DEMOGRAPHIC SUMMARY (2008-2014)

Population Gain	47,992
Net Migration	23,801
Average Annual Population Growth	1.0 %
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.

The forecast of residential customers is an outcome of the final section of the model. The number of residential customers Gulf expects to serve is derived 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 may be 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. 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. <u>COMMERCIAL CUSTOMER FORECAST</u>

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. <u>RESIDENTIAL SALES FORECAST</u>

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, income 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 impacts of conservation and energy efficiency programs undertaken by customers. The residential sales forecast also reflects the anticipated incremental impacts of Gulf's Demand-Side Management (DSM) Plan. Additional information on the residential conservation programs and program features are provided in the <u>Conservation Programs</u> 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, employment, 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 impacts of conservation and energy efficiency programs undertaken by customers. The commercial sales forecast also reflects the anticipated incremental impacts of Gulf's DSM Plan. Additional information on the Commercial Conservation programs and program features are provided in the <u>Conservation Programs</u> 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 analyses. 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 analyses.

The long-term forecast of industrial energy sales is based on econometric models of the relevant industrial sectors. The industrial sales forecast also reflects the anticipated incremental impacts of Gulf's DSM Plan. Additional information on the conservation programs and program features are provided in the <u>Conservation Programs</u> 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 KWH sales.

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.

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 share, 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 weather conditions, customer mix changes, fuel share changes, and demand-side programs. The structural detail of HELM provides forecasts of 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 factors, peaks and energy.

The methodology embedded in HELM may be referred to as a "bottom-up" approach. Class and system load shapes are derived by aggregating the load shapes of component rates and individual large customer load shapes. The system demand for electricity in any hour is modeled as the sum of demands for each class for that hour.

V. DATA SOURCES

Gulf utilizes historical customer, energy and revenue data by rate and class, and historical hourly load data coupled with weather information from The National Oceanic and Atmospheric Administration (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 Analyses. Population, 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 energy efficiency and conservation activities, including programs approved in Gulf's current DSM plan. 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. 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. In December of 2009, in Order No. PSC-09-0855-FOF-EG,

the FPSC approved new conservation goals for the period 2010 through 2019. In accordance with FPSC rules, a new DSM Plan for this period was filed on March 30, 2010 and, upon approval, will be reflected in Gulf's energy and demand forecast.

A. <u>RESIDENTIAL CONSERVATION</u>

1. <u>GoodCents Home/Energy Star</u>

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 13 MW of summer peak demand and 40 GWh annual energy savings.

3. <u>Geothermal Heat Pump</u>

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 2,300 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. Energy Select

The Energy Select Program, an advanced energy management 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 Energy 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 price rate, including a critical peak price (CPP). The various components of the Energy 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 Energy 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 Energy Select system allow Gulf to send a CPP 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 9,200 customers are participating in this program resulting in an annual reduction of 25 MW in summer peak demand and annual energy savings of 14 GWh.

5. Solar Thermal Water Heating 2009 (pilot)

The solar thermal water heating pilot program offers residential customers a \$1,000 rebate upon installation of a qualified solar water heating system. Solar thermal water heating can reduce energy usage 50-75% compared to conventional electric resistance water heating and also provide summer coincident peak demand savings.

6. Energy Education 2009 (pilot)

The energy education program is designed to increase the overall awareness of energy conservation opportunities across Gulf's customer base and participation in Gulf's existing energy efficiency and conservation programs. The program includes a broad based awareness campaign, school-based education and teacher training, and building contractor training on energy efficient construction practices.

B. <u>COMMERCIAL/INDUSTRIAL CONSERVATION</u>

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 10,600 customers under this program have achieved an annual reduction of 106 MW in summer peak demand and annual energy savings of 212 GWh.

2. Commercial/Industrial Energy Analyses

The Commercial/Industrial (C/I) Energy Analyses 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 Analyses 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 7,064 customers participating in these programs have achieved an annual reduction of 9 MW in summer peak demand and annual energy savings of 26 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 47 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 Gulf's demand and energy forecasts.

HISTORICAL TOTAL CONSERVATION PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

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

2008 357,403 423,064 709,09	57,40	357,403 423,064	709,	099,	050)
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2010 BUDGET FORECAST TOTAL CONSERVATION PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2009	4,295	12,924	14,141,398
2010	6,018	15,127	14,782,043
2011	5,990	14,935	14,646,014
2012	6,000	15,002	14,693,921
2013	6,213	16,478	15,739,754
2014	6,277	16,925	16,055,954
2015	7,397	18,349	16,466,291
2016	7,397	18,349	16,466,291
2017	7,397	18,349	16,466,291
2018	7,397	18,349	16,466,291
2019	7,397	18,349	16,466,291

2010 BUDGET FORECAST TOTAL CONSERVATION PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2009	361,698	435,988	723,240,448
2010	367,716	451,115	738,022,491
2011	373,706	466,050	752,668,505
2012	379,706	481,052	767,362,426
2013	385,919	497,530	783,102,180
2014	392,196	514,455	799,158,134
2015	399,593	532,804	815,624,425
2016	406,990	551,153	832,090,716
2017	414,387	569,502	848,557,007
2018	421,784	587,851	865,023,298
2019	429,181	606,200	881,489,589

HISTORICAL TOTAL RESIDENTIAL CONSERVATION CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 175,748 276,441 366,803,564

2010 BUDGET FORECAST TOTAL RESIDENTIAL CONSERVATION INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	2,356	11,622	9,100,709
2010	4,079	13,825	9,741,354
2011	4,051	13,633	9,605,326
2012	4,061	13,700	9,653,233
2013	4,274	15,177	10,699,066
2014	4,338	15,623	11,015,265
2015	5,458	17,047	11,425,602
2016	5,458	17,047	11,425,602
2017	5,458	17,047	11,425,602
2018	5,458	17,047	11,425,602
2019	5,458	17,047	11,425,602

2010 BUDGET FORECAST

TOTAL RESIDENTIAL CONSERVATION CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK	PEAK	FOR LOAD
	(KW)	(KW)	(KWH)
2009	178,104	288,063	375,904,273
2010	182,183	301,888	385,645,627
2011	186,234	315,521	395,250,953
2012	190,295	329,221	404,904,186
2013	194,569	344,398	415,603,252
2014	198,907	360,021	426,618,517
2015	204,365	377,068	438,044,119
2016	209,823	394,115	449,469,721
2017	215,281	411,162	460,895,323
2018	220,739	428,209	472,320,925
2019	226,197	445,256	483,746,527

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

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

2008 181,653 146,625 331,214,567

2010 BUDGET FORECAST TOTAL COMMERCIAL/INDUSTRIAL DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

	SUMMER	WINTER	NET ENERGY
	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	1,939	1,302	5,040,688
2010	1,939	1,302	5,040,688
2011	1,939	1,302	5,040,688
2012	1,939	1,302	5,040,688
2013	1,939	1,302	5,040,688
2014	1,939	1,302	5,040,688
2015	1,939	1,302	5,040,688
2016	1,939	1,302	5,040,688
2017	1,939	1,302	5,040,688
2018	1,939	1,302	5,040,688
2019	1,939	1,302	5,040,688

2010 BUDGET FORECAST

TOTAL COMMERCIAL/INDUSTRIAL DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	SUMMER	WINTER	NET ENERGY
	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	183,592	147,927	336,255,255
2010	185,531	149,229	341,295,943
2011	187,470	150,531	346,336,631
2012	189,409	151,833	351,377,319
2013	191,348	153,135	356,418,007
2014	193,287	154,437	361,458,695
2015	195,226	155,739	366,499,383
2016	197,165	157,041	371,540,071
2017	199,104	158,343	376,580,759
2018	201,043	159,645	381,621,447
2019	202,982	160,947	386,662,135

HISTORICAL TOTAL OTHER DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 - - 11,080,919

2010 BUDGET FORECAST TOTAL OTHER DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	. . .	-	-
2010	а. Т.	-	
2011	-	-	-
2012	-	-	- 1
2013	-	-	-
2014	-		-
2015	-	-	-
2016	-	-	-
2017	-	-	1.
2018	. .	-	-
2019	-		-

2010 BUDGET FORECAST TOTAL OTHER DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
	()	()	(
2009	-	-	11,080,919
2010	-	-	11,080,919
2011	-	-	11,080,919
2012	-	-	11,080,919
2013	-		11,080,919
2014	-	- 1	11,080,919
2015	-	-0	11,080,919
2016	-	-	11,080,919
2017		-	11,080,919
2018		-	11,080,919
2019	- 1	-	11,080,919

HISTORICAL TOTAL EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 235,035 300,154 561,245,006

2010 BUDGET FORECAST TOTAL EXISTING DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK	PEAK	FOR LOAD
	(KW)	(KW)	(KWH)
2009	1,246	9,207	6,256,208
2010	1,248	9,221	6,266,575
2011	1,220	9,030	6,130,547
2012	1,230	9,097	6,178,454
2013	1,443	10,573	7,224,287
2014	1,507	11,020	7,540,486
2015	1,507	11,020	7,540,486
2016	1,507	11,020	7,540,486
2017	1,507	11,020	7,540,486
2018	1,507	11,020	7,540,486
2019	1,507	11,020	7,540,486

2010 BUDGET FORECAST TOTAL EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	236,281	309,361	567,501,214
2010	237,529	318,582	573,767,789
2011	238,749	327,612	579,898,336
2012	239,979	336,709	586,076,790
2013	241,422	347,282	593,301,077
2014	242,929	358,302	600,841,563
2015	244,436	369,322	608,382,049
2016	245,943	380,342	615,922,535
2017	247,450	391,362	623,463,021
2018	248,957	402,382	631,003,507
2019	250,464	413,402	638,543,993

HISTORICAL RESIDENTIAL EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 123,970 196,443 308,885,157

2010 BUDGET FORECAST RESIDENTIAL EXISTING DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	1,246	9,207	6,256,208
2010	1,248	9,221	6,266,575
2011	1,220	9,030	6,130,547
2012	1,230	9,097	6,178,454
2013	1,443	10,573	7,224,287
2014	1,507	11,020	7,540,486
2015	1,507	11,020	7,540,486
2016	1,507	11,020	7,540,486
2017	1,507	11,020	7,540,486
2018	1,507	11,020	7,540,486
2019	1,507	11,020	7,540,486

2010 BUDGET FORECAST RESIDENTIAL EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	125,216	205,650	315,141,365
2010	126,464	214,871	321,407,940
2011	127,684	223,901	327,538,487
2012	128,914	232,998	333,716,941
2013	130,357	243,571	340,941,228
2014	131,864	254,591	348,481,714
2015	133,371	265,611	356,022,200
2016	134,878	276,631	363,562,686
2017	136,385	287,651	371,103,172
2018	137,892	298,671	378,643,658
2019	139,399	309,691	386,184,144

HISTORICAL COMMERCIAL EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 111,065 103,711 241,278,929

2010 BUDGET FORECAST COMMERCIAL EXISTING DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	-	-	
2010	-	-	-
2011	-	-	-
2012		<u>-</u>	. –
2013	-	-	- <u>-</u> -
2014	-	-	-
2015	-	-	-
2016	-	-	· - ` `
2017	-	-	
2018	-	-	-
2019	-	-	-

2010 BUDGET FORECAST COMMERCIAL EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	111,065	103,711	241,278,929
2010	111,065	103,711	241,278,929
2011	111,065	103,711	241,278,929
2012	111,065	103,711	241,278,929
2013	111,065	103,711	241,278,929
2014	111,065	103,711	241,278,929
2015	111,065	103,711	241,278,929
2016	111,065	103,711	241,278,929
2017	111,065	103,711	241,278,929
2018	111,065	103,711	241,278,929
2019	111,065	103,711	241,278,929

HISTORICAL OTHER EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 - - 11,080,920

2010 BUDGET FORECAST OTHER EXISTING DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2008	-	_	-
2009	-	~=	-
2010	-		-
2011	-		-
2012	2=	-	-
2013	-	-	-
2014	-	-	-
2015	-	-	-
2016	-	-	-
2017	-	-	π.
2018	-	-	=

2010 BUDGET FORECAST

OTHER EXISTING DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
	(((())))	(((())))	(((())))
2009	-	-	11,080,920
2010	-	-	11,080,920
2011	-	-	11,080,920
2012	°-	-	11,080,920
2013	-	-	11,080,920
2014	-	-	11,080,920
2015	-	-	11,080,920
2016	-	-	11,080,920
2017	-	-	11,080,920
2018	-	÷.	11,080,920
2019	-	-	11,080,920

HISTORICAL TOTAL NEW DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 122,366 122,912 147,854,043

2010 BUDGET FORECAST TOTAL NEW DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
	(1.00)	(((())))	(((())))
2009	3,049	3,717	7,885,190
2010	4,770	5,905	8,515,467
2011	4,770	5,905	8,515,467
2012	4,770	5,905	8,515,467
2013	4,770	5,905	8,515,467
2014	4,770	5,905	8,515,467
2015	5,890	7,329	8,925,804
2016	5,890	7,329	8,925,804
2017	5,890	7,329	8,925,804
2018	5,890	7,329	8,925,804
2019	5,890	7,329	8,925,804

2010 BUDGET FORECAST TOTAL NEW DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	125,415	126,629	155,739,233
2010	130,185	132,534	164,254,700
2011	134,955	138,439	172,770,167
2012	139,725	144,344	181,285,634
2013	144,495	150,249	189,801,101
2014	149,265	156,154	198,316,568
2015	155,155	163,483	207,242,372
2016	161,045	170,812	216,168,176
2017	166,935	178,141	225,093,980
2018	172,825	185,470	234,019,784
2019	178,715	192,799	242,945,588

HISTORICAL TOTAL NEW RESIDENTIAL DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 51,778 79,998 57,918,407

2010 BUDGET FORECAST TOTAL NEW RESIDENTIAL DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	1,110	2,416	2,844,501
2010	2,831	4,603	3,474,779
2011	2,831	4,603	3,474,779
2012	2,831	4,603	3,474,779
2013	2,831	4,603	3,474,779
2014	2,831	4,603	3,474,779
2015	3,951	6,028	3,885,116
2016	3,951	6,028	3,885,116
2017	3,951	6,028	3,885,116
2018	3,951	6,028	3,885,116
2019	3,951	6,028	3,885,116

2010 BUDGET FORECAST

TOTAL NEW RESIDENTIAL DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
52,888	82,414	60,762,908
55,719	87,017	64,237,687
58,550	91,620	67,712,466
61,381	96,223	71,187,245
64,212	100,826	74,662,024
67,043	105,429	78,136,803
70,994	111,457	82,021,919
74,945	117,485	85,907,035
78,896	123,513	89,792,151
82,847	129,541	93,677,267
86,798	135,569	97,562,383
	(KW) 52,888 55,719 58,550 61,381 64,212 67,043 70,994 74,945 78,896 82,847	(KW)(KW)52,88882,41455,71987,01758,55091,62061,38196,22364,212100,82667,043105,42970,994111,45774,945117,48578,896123,51382,847129,541

HISTORICAL COMMERCIAL/INDUSTRIAL NEW DSM CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

PEAK	PEAK	FOR LOAD
(KW)	(KW)	(KWH)

2008 70,588 42,914 89,935,636

2010 BUDGET FORECAST COMMERCIAL/INDUSTRIAL NEW DSM INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

SUMMER WINTER NET ENERGY

	PEAK	PEAK	FOR LOAD
	(KW)	(KW)	(KWH)
2009	1,939	1,302	5,040,688
2010	1,939	1,302	5,040,688
2011	1,939	1,302	5,040,688
2012	1,939	1,302	5,040,688
2013	1,939	1,302	5,040,688
2014	1,939	1,302	5,040,688
2015	1,939	1,302	5,040,688
2016	1,939	1,302	5,040,688
2017	1,939	1,302	5,040,688
2018	1,939	1,302	5,040,688
2019	1,939	1,302	5,040,688

2010 BUDGET FORECAST COMMERCIAL/INDUSTRIAL NEW DSM CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	PEAK (KW)	PEAK (KW)	FOR LOAD (KWH)
2009	72,527	44.216	94,976,324
2010	74,466	45,518	100,017,012
2011	76,405	46,820	105,057,700
2012	78,344	48,122	110,098,388
2013	80,283	49,424	115,139,076
2014	82,222	50,726	120,179,764
2015	84,161	52,028	125,220,452
2016	86,100	53,330	130,261,140
2017	88,039	54,632	135,301,828
2018	89,978	55,934	140,342,516
2019	91,917	57,236	145,383,204

HISTORICAL OTHER NEW DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

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

2008 - - -

2010 BUDGET FORECAST OTHER NEW DSM PROGRAMS INCREMENTAL ANNUAL REDUCTIONS AT GENERATOR

	SUMMER	WINTER	NET ENERGY
	PEAK	PEAK	FOR
	(KW)	(KW)	(KWH)
2009	-	-	-
2010	-	-	-
2011	-	-	-
2012	-	-	-
2013	-	-	-
2014		-	-
2015	-		-
2016	-	-	-
2017	<u> </u>	-	-
2018	-	-	-
2019	-	-	-

2010 BUDGET FORECAST OTHER NEW DSM PROGRAMS CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

	SUMMER	WINTER	NET ENERGY
	PEAK	PEAK	FOR
	(KW)	(KW)	(KWH)
2009	-	-	-
2010	-	-	-
2011	-	-	_?:
2012	-	-	- 1
2013	÷.	-	-
2014	-	-	-
2015		-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-

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 194 customers contributing \$78,800 through December 2009. 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 FPSCapproved "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 one MW generating facility. As of December 2009, 53 customers have pledged to purchase a total of 65 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.

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)
			F	Rural and Resid	ential			Commercial	
			Members		Average	Average KWH		Average	Average KWH
			per		No. of	Consumption		No. of	Consumption
	Year	Population	Household	<u>GWH</u>	Customers	Per Customer	<u>GWH</u>	Customers	Per Customer
	2000	826,944	2.59	4,790	319,506	14,992	3,379	47,584	71,020
	2001	842,198	2.59	4,716	325,343	14,497	3,417	48,482	70,490
	2002	858,994	2.59	5,144	331,637	15,510	3,553	49,139	72,304
	2003	877,664	2.59	5,101	338,631	15,064	3,614	50,420	71,683
	2004	895,476	2.59	5,215	345,467	15,096	3,695	51,981	71,093
	2005	908,214	2.59	5,320	350,404	15,181	3,736	52,916	70,599
	2006	935,893	2.59	5,425	360,930	15,032	3,843	53,479	71,862
	2007	963,240	2.59	5,477	371,213	14,755	3,971	53,791	73,821
-	2008	971,995	2.59	5,349	374,709	14,274	3,961	53,810	73,610
-	2009	970,197	2.59	5,254	374,010	14,049	3,896	53,414	72,942
	2010	969,685	2.59	5,151	374,386	13,758	3,857	53,995	71,427
	2011	971,877	2.58	5,261	376,236	13,984	3,924	54,566	71,916
	2012	976,672	2.57	5,560	379,394	14,655	4,074	55,020	74,040
	2013	987,039	2.56	5,832	385,033	15,148	4,198	55,739	75,324
	2014	1,005,189	2.56	5,976	392,993	15,206	4,259	56,705	75,109
	2015	1,023,928	2.55	6,139	401,377	15,295	4,327	57,718	74,974
	2016	1,042,515	2.55	6,296	409,587	15,373	4,414	58,713	75,188
	2017	1,062,278	2.54	6,485	417,970	15,517	4,523	59,728	75,723
	2018	1,082,266	2.54	6,651	426,302	15,601	4,598	60,740	75,696
	2019	1,102,720	2.54	6,835	434,496	15,731	4,709	61,746	76,261
	CAAG								
	00-09	1.8%	0.0%	1.0%	1.8%	-0.7%	1.6%	1.3%	0.3%
	09-14	0.7%	-0.3%	2.6%	1.0%	1.6%	1.8%	1.2%	0.6%
	09-19	1.3%	-0.2%	2.7%	1.5%	1.1%	1.9%	1.5%	0.4%

• Historical and projected figures include portions of Escambia, Santa Rosa, Okaloosa, Bay, Walton, Washington, Holmes, and Jackson counties served by 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)
		Industrial			Street &	Other Sales	Total Sales
		Average	Average KWH	Railroads	Highway	to Public	to Ultimate
		No. of	Consumption	and Railways	Lighting	Authorities	Consumers
Year	<u>GWH</u>	Customers	Per Customer	GWH	GWH	GWH	<u>GWH</u>
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	2,211	291	7,592,204	0	23	0	11,543
2009	1,727	280	6,164,567	0	25	0	10,903
2010	1,859	279	6,664,644	0	25	0	10,892
2011	1,977	279	7,082,335	0	26	0	11,188
2012	1,987	280	7,085,949	0	26	0	11,647
2013	1,994	281	7,083,466	0	26	0	12,051
2014	2,003	282	7,102,797	0	27	0	12,265
2015	2,011	283	7,093,358	0	27	0	12,504
2016	2,020	284	7,100,629	0	27	0	12,758
2017	2,026	285	7,108,364	0	28	0	13,062
2018	2,035	287	7,092,887	0	28	0	13,312
2019	2,044	288	7,108,321	0	28	0	13,617
CAAG							
00-09	-1.2%	0.4%	-1.6%	0.0%	3.7%	0.0%	0.8%
09-14	3.0%	0.1%	2.9%	0.0%	1.2%	0.0%	2.4%
09-19	1.7%	0.3%	1.4%	0.0%	1.2%	0.0%	2.2%

Schedule 2.3 History and Forecast of Energy Consumption and Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)
	Sales for	Utility Use	Net Energy	Other	Total
	Resale	& Losses	for Load	Customers	No. of
Year	<u>GWH</u>	<u>GWH</u>	<u>GWH</u>	(Average No.)	Customers
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	12,671	486	425,793
2008	398	653	12,595	493	429,302
2009	390	682	11,975	502	428,206
2010	357	690	11,939	507	429,167
2011	364	709	12,261	512	431,593
2012	378	737	12,762	517	435,211
2013	390	762	13,203	522	441,576
2014	397	776	13,438	527	450,508
2015	403	791	13,699	533	459,911
2016	410	807	13,974	538	469,122
2017	417	826	14,305	544	478,527
2018	425	841	14,578	549	487,877
2019	434	861	14,911	555	497,084
CAAG					
00-09	0.8%	0.9%	0.8%	3.1%	1.7%
09-14	0.4%	2.6%	2.3%	1.0%	1.0%
09-19	1.1%	2.4%	2.2%	1.0%	1.5%

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

Schedule 3.1 History and Forecast of Summer Peak Demand - MW Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Residential Load	Residential	Comm/Ind Load	Comm/Ind	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management	Conservation	Management	Conservation	Demand
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	95	2,890	0	0	177	0	174	2,634
2008	2,895	88	2,807	0	0	179	0	175	2,541
2009	2,904	85	2,818	0	0	181	0	177	2,546
2010	2,950	79	2,871	0	0	183	0	178	2,589
2011	2,934	80	2,854	0	0	185	0	180	2,569
2012	2,938	83	2,855	0	0	187	0	181	2,570
2013	2,950	84	2,866	0	0	190	0	183	2,577
2014	2,944	85	2,859	0	0	192	0	184	2,568
2015	3,000	86	2,914	0	0	195	0	186	2,619
2016	3,056	87	2,969	0	0	198	0	187	2,671
2017	3,127	89	3,038	0	0	201	0	189	2,737
2018	3,184	90	3,094	0	0	204	0	190	2,790
2019	3,254	91	3,163	0	0	207	0	192	2,855
CAAG									
00-09	1.4%	-0.1%	1.5%	0.0%	0.0%	3.9%	0.0%	2.5%	1.2%
09-14	0.3%	0.0%	0.3%	0.0%	0.0%	1.2%	0.0%	0.8%	0.2%
09-19	1.1%	0.7%	1.2%	0.0%	0.0%	1.4%	0.0%	0.8%	1.2%

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

Schedule 3.2 History and Forecast of Winter Peak Demand - MW Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Residential		Comm/Ind		
					Load	Residential	Load	Comm/Ind	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management	Conservation	Management	Conservation	Demand
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	2,791	94	2,698	0	0	277	0	144	2,370
08-09	2,718	69	2,649	0	0	281	0	145	2,292
			0.070				<u>^</u>		
09-10	2,717	65	2,652	0	0	284	0	146	2,287
10-11	2,655	65	2,590	0	0	288	0	147	2,220
11-12	2,693	67	2,626	0	0	291	0	148	2,254
12-13	2,755	69	2,686	0	0	295	0	149	2,311
13-14	2,745	71	2,674	0	0	299	0	150	2,296
14-15	2,807	72	2,735	0	0	303	0	151	2,353
15-16	2,870	73	2,797	0	0	308	0	152	2,410
16-17	2,948	74	2,874	0	0	313	0	153	2,482
17-18	2,995	75	2,920	0	0	317	0	154	2,524
18-19	3,064	76	2,988	0	0	322	0	155	2,587
19-20	3,132	78	3,054	0	0	326	0	156	2,650
CAAG	0.00/	1.00/	0 10/	0.00/	0.00/	4 50/	0.00/	1.00/	0.007
00-09	2.2%	-1.0%	2.4%	0.0%	0.0%	4.5%	0.0%	1.6%	2.0%
09-14	0.2%	0.6%	0.2%	0.0%	0.0%	1.3%	0.0%	0.7%	0.0%
09-19	1.2%	1.1%	1.2%	0.0%	0.0%	1.4%	0.0%	0.7%	1.2%

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

Schedule 3.3 History and Forecast of Annual Net Energy for Load - GWH Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Residential	Comm/Ind	-		Utility Use	Net Energy	Load
Year	Total	Conservation	Conservation	Retail	Wholesale	<u>& Losses</u>	for Load	Factor %
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	12,671	54.9%
2008	13,307	379	333	11,543	398	653	12,595	56.4%
2009	12,695	382	338	10,903	390	682	11,975	53.7%
2010	12,667	385	342	10,892	357	690	11,939	52.6%
2011	12,997	389	347	11,188	364	709	12,261	54.5%
2012	13,505	392	352	11,647	378	737	12,762	56.5%
2013	13,954	395	356	12,051	390	762	13,203	58.5%
2014	14,197	398	361	12,265	397	776	13,438	59.7%
2015	14,466	402	366	12,504	403	791	13,699	59.7%
2016	14,750	405	370	12,758	410	807	13,974	59.6%
2017	15,089	409	375	13,062	417	826	14,305	59.7%
2018	15,370	413	380	13,312	425	841	14,578	59.6%
2019	15,711	416	384	13,617	434	861	14,911	59.6%
CAAG								
00-09	0.9%	2.5%	2.1%	0.8%	0.8%	0.9%	0.8%	-0.3%
09-14	2.3%	0.8%	1.3%	2.4%	0.4%	2.6%	2.3%	2.2%
09-19	2.2%	0.9%	1.3%	2.2%	1.1%	2.4%	2.2%	1.1%

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

	Scnedule 4 Previous Year Actual and Two Year Forecast of Peak Demand and Net Energy for Load by Month													
(1)	(1) (2) (3)		(4)	(5)	(6)	(7)								
	2009 Actua		2010 Foreca			2011 Forecast								
	Peak Demand	NEL	Peak Demand	NEL	Peak Demand	NEL								
<u>Month</u>	MW	<u>GWH</u>	MW	GWH	MW	GWH								
January	2,292	938	2,270	962	2,290	966								
February	2,320	823	2,100	803	2,123	810								
March	1,930	835	1,766	837	1,796	882								
April	1,674	833	1,919	870	1,954	886								
May	2,055	1,049	2,187	1,020	2,228	1,043								
June	2,546	1,246	2,301	1,158	2,341	1,184								
July	2,429	1,258	2,401	1,261	2,442	1,289								
August	2,317	1,182	2,423	1,247	2,466	1,279								
September	2,180	1,093	2,214	1,082	2,254	1,114								
October	2,202	975	2,031	966	2,076	1,000								
November	1,387	796	1,714	825	1,760	861								
December	1,932	948	2,043	906	2,100	948								

Schedule 4

GULF POWER COMPANY

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

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							Schedule 5 Requireme								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Fuel Requ	irements	Units	Actual 2008	Actual 2009	2010	2011	2012	2013	2014	2015	2016	_2017	2018	2019
(1)	Nuclear		Trillion BTU	None	None	None	None	None	None	None	None	None	None	None	None
(2)	Coal		1000 TON	5,891	4,427	4,813	4,873	4,394	6,081	5,898	5,653	5,587	5,708	5,534	5,831
(3) (4) (5) (6) (7)	Residual	Total Steam CC CT Diesel	1000 BBL 1000 BBL 1000 BBL 1000 BBL 1000 BBL	0 0 None None	0 None None None	0 0 None None None									
(8) (9) (10) (11) (12)	Distillate	Total Steam CC CT Diesel	1000 BBL 1000 BBL 1000 BBL 1000 BBL 1000 BBL	15 14 None 1 None	15 14 None 1 None	8 8 None 0 None	9 9 None 0 None	9 9 None 0 None	7 7 None 0 None	6 6 None 0 None	6 None 0 None	6 6 None 0 None	7 7 None 0 None	6 6 None 0 None	6 6 None 0 None
(13) (14) (15) (16)	Natural Gas	Total Steam CC CT	1000 MCF 1000 MCF 1000 MCF 1000 MCF	16,961 185 16,776 0	28,355 632 26,702 1,021	16,879 0 16,738 141	22,645 0 22,582 63	24,895 0 24,460 435	16,242 0 15,778 464	23,611 0 23,596 15	25,140 0 25,140 0	25,126 0 25,126 0	26,650 0 26,650 0	27,254 0 27,254 0	29,593 0 29,593 0
(17)	Other		Trillion BTU	None	None	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Gulf Power Company

	Energy Sources														
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources	S	Units	Actual 2008	Actual 2009	2010	2011	2012	_2013	2014	2015	2016	2017	2018	2019
(1)	1) Annual Firm Interchange		GWH	(2,209)	(996)	(1,352)	(2,153)	(881)	(3,180)	(3,552)	(2,796)	(2,332)	(2,501)	(1,880)	(2,442)
(2)	Nuclear		GWH	None	None	None	None	None	None	None	None	None	None	None	None
(3)	Coal		GWH	12,334	8,871	10,667	10,939	9,858	13,882	13,432	12,789	12,601	12,884	12,453	13,117
(4) (5) (6) (7) (8)	Residual	Total Steam CC CT Diesel	GWH GWH GWH GWH GWH	0 0 None None None	0 0 None None None	0 0 None None None	0 0 None None None	0 0 None None	0 0 None None	0 0 None None	0 0 None None	0 0 None None	0 0 None None None	0 0 None None	0 0 None None None
(9) (10) (11) (12) (13)		Total Steam CC CT Diesel	GWH GWH GWH GWH GWH	1 None None 1 None	0 None 0 None	0 None 0 None	0 None 0 None	0 None 0 None	0 None 0 None	0 None None 0 None	0 None 0 None	0 None 0 None	0 None None 0 None	0 None None 0 None	0 None 0 None
(14) (15) (16) (17)		Total Steam CC CT	GWH GWH GWH GWH	2,428 8 2,373 47	4,024 6 3,858 160	2,521 0 2,395 126	3,365 0 3,246 119	3,674 0 3,518 156	2,389 0 2,233 156	3,446 0 3,332 114	3,641 0 3,528 113	3,639 0 3,526 113	3,855 0 3,742 113	3,938 0 3,825 113	4,168 0 4,168 0
(18)	NUGs		GWH	41	76	103	110	111	112	112	65	66	67	67	68
(19)	Net Energy for Load		GWH	12,595	11,975	11,939	12,261	12,762	13,203	13,438	13,699	13,974	14,305	14,578	14,911

Utility: Gulf Power Company

Schedule 6.1

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NOTE: Line (18) includes energy purchased from Non-Renewable and Renewable resources, as well as energy from Gulf-owned Renewable resources shown on Schedule 8.

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 2008	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
(1)	Annual Firm Interchan	ige	%	(17.54)	(8.32)	(11.32)	(17.56)	(6.90)	(24.09)	(26.43)	(20.41)	(16.69)	(17.48)	(12.90)	(16.38)
(2)	Nuclear		%	None	None	None	None	None	None	None	None	None	None	None	None
(3)	Coal		%	97.93	74.08	89.35	89.22	77.24	105.14	99.96	93.36	90.17	90.07	85.42	87.97
(4) (5) (6) (7) (8)	Residual	Total Steam CC CT Diesel	% % % %	0.00 0.00 None None	0.00 0.00 None None	0.00 0.00 None None None	0.00 0.00 None None None	0.00 0.00 None None	0.00 0.00 None None	0.00 0.00 None None	0.00 0.00 None None	0.00 0.00 None None	0.00 0.00 None None	0.00 0.00 None None None	0.00 0.00 None None None
(9) (10) (11) (12) (13)		Total Steam CC CT Diesel	% % % %	0.01 None 0.01 None	0.00 None None 0.00 None	0.00 None None 0.00 None	0.00 None None 0.00 None	0.00 None 0.00 None	0.00 None None 0.00 None	0.00 None 0.00 None	0.00 None None 0.00 None	0.00 None None 0.00 None	0.00 None None 0.00 None	0.00 None None 0.00 None	0.00 None 0.00 None
(14) (15) (16) (17)		Total Steam CC CT	% % %	19.28 0.06 18.84 0.37	33.60 0.05 32.22 1.34	21.12 0.00 20.06 1.06	27.44 0.00 26.47 0.97	28.79 0.00 27.57 1.22	18.09 0.00 16.91 1.18	25.64 0.00 24.80 0.85	26.58 0.00 25.75 0.82	26.04 0.00 25.23 0.81	26.95 0.00 26.16 0.79	27.01 0.00 26.24 0.78	27.95 0.00 27.95 0.00
(18)	NUGs		%	0.33	0.63	0.86	0.90	0.87	0.85	0.83	0.47	0.47	0.47	0.46	0.46
(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)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Renewable Energy Sources (A)		Actuals 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
(1)	Renewable Generating Capacity												
		MW (B)	0	3	3	3	3	3	3	3	3	3	3
		MWh	39,901	67,495	73,543	73,610	73,543	73,543	25,363	25,430	25,363	25,363	25,363
		% of Capacity Mix	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		% of NEL	0.3	0.6	0.6	0.6	0.6	0.5	0.2	0.2	0.2	0.2	0.2
		% of Fuel Mix	0.3	0.5	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.1
(2)	Self-Service Generation By												
	Renewable Generation	MW	68	68	68	68	68	68	68	68	68	68	68
		MWh (C)	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies

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(A) Owned and/or Purchased by Gulf.
(B) Includes Firm MWs only.
(C) Energy produced by these customers' generators varies depending on demand for their product.

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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 developing the general inflation and escalation assumptions 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 activities. The SES operating companies have also remained active in offering customers programs and 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 from the IRP 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 2013 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 above mentioned planning 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, 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 of 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, 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 additions. After the incorporation of the cost effective demand-side impacts, a final integrated resource plan is produced.

Finally, a financial analysis of the plan is performed 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 freight on board (FOB) barge basis, while import coals are forecast on an 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, 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, SES prepares a single commodity price forecast for gas at Henry Hub, and applies a 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. Transportation costs, to be used in the delivered price forecast, are developed for potential sites 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

SES develops short-term (current year +2) and long-term (year 4 and beyond) fuel price forecasts for coal, oil, and natural gas which extend through the Company's 10-year planning horizon. The short-term forecasts are used in the system's fuel budgeting process and marginal pricing dispatch procedures. This forecast is developed by Southern Company Services (SCS) Fuel Services and is approved by the designated fuel managers from each of the SES operating companies.

The long-term forecasts are developed in early spring of each year for use in system planning activities. The long-term forecasts are governed by the SCS Executive Planning Coordination Team (Executive PCT). Charles River & Associates International (CRA) is the modeling vendor used by the system to develop the long-term forecasts. This process is a collaborative effort between CRA and members of the cross-functional Planning Coordination Team (PCT) with final approval from the Executive PCT and/or Southern Company Management Council.

The 2010 commodity price forecasts for bituminous 1.0% sulfur coal, natural gas and low sulfur #2 oil are included in the table below.

	COAL*	NAT. GAS**	OIL***
2010	3.042	5.64	14.31
2011	3.084	6.59	15.42
2012	3.093	7.47	17.65
2013	3.102	8.11	20.69
2014	3.110	8.75	23.72
2015	3.118	9.40	26.75
2016	3.062	9.80	27.93
2017	3.004	10.21	29.11
2018	2.944	10.61	30.28
2019	2.881	11.02	31.46

SES GENERIC FUEL PRICE FORECAST (\$/MMBtu)

*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 2009, coal production in the United States reached 814 million short tons, a 30.5% decrease over year 2008 production levels. The Central Appalachian region in the U.S. experienced a 36% decrease in production. Like the Central Appalachian region, the Interior region (Illinois Basin) of the U.S. recorded a 21.3% decrease in production. The Western U.S. region (Powder River Basin, Colorado, Utah and Wyoming), also experienced a 31% decrease in production.

Total U.S. coal stockpiles increased during the year, as electric generators built their stockpiles throughout 2009 due to lower demand resulting from the U.S recession. There were no significant delivery issues experienced in the U.S. market in 2009. The world market saw similar increases in coal stockpiles and decreases in demand.

The coal industry continues to experience pricing pressure from environmental and legal challenges, labor and mining cost increases, and from the global recession. The decrease in U.S coal market prices during 2009 was primarily caused by the U.S recession. Throughout 2009, world demand dropped as the global recession grew and the financial collapse accelerated. 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 occurred through the first half of 2008 and decreased throughout 2009. Sub-bituminous coal prices declined in real terms through 2001 and increased through the first half of 2008 and decreased through the first half of 2008. Spot market prices, during 2009, also decreased. The Central Appalachian, the Powder River Basin, and the Western Colorado-Utah markets all saw price decreases during 2009, again due to the global recession. Like its counterparts, import coal pricing into the U.S. from Colombia saw the same pricing trends in 2009.

Fuel assumptions, provided by SES, are integrated into CRA's model to develop forecasted coal prices used in the IRP. These prices are developed for existing units and potential green field/brown field sites for future expansion, and include both commodity and transportation prices.

NATURAL GAS PRICE FORECAST

Consistent with the year 2008, supply has outpaced demand in the 2009 gas market. The year 2009 began with Henry Hub gas prices above \$6.00, and then prices gradually decreased and bottomed out in late summer below \$2.00, then increased back above \$6.00 at the end of the year. The average price of \$3.91 for the year of 2009 was well below the September 2008 forecast price of \$9.25. Prices diverged from the forecast for the year as a result of the combination of milder summer weather, healthy levels of natural gas in storage, excess natural gas production and low demand due to the global economic slowdown. Gas-fired generation increased in 2009 as some natural gas generation displaced coal generation. However, the combination of high levels of natural gas in storage and increasing continental gas supply from shale gas production kept natural gas prices suppressed despite the increase in demand from power generation. Liquefied Natural Gas (LNG) import volume gradually decreased throughout 2009 because LNG importers were able to secure higher prices in Europe and Asia than in the U.S. However, the presence of LNG in the market offered a small contribution towards the downward price pressure of natural gas. Several analysts predict near-term gas prices to average in the range of \$5.00 to \$6.00.

Forward gas prices and analysts' long-term price forecasts available during the budget preparation for 2009 had shifted downward in the near term from the previous year. The forward prices and forecasts showed an upward-sloping trend in gas prices. The forecasts indicate that the shut-down of active drilling rigs will cause a reduction in supply which will eventually balance out demand. Additionally, the SES budget forecast anticipated strengthening oil prices in both the near and long-term due to a moderate

rebound in 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 gas production is expected to be adequate in the short term. The global economic recession has moderated, and an expected slight increase in GDP for 2010 should result in an increase in natural gas demand. Due to the improved technologies for cost-efficient drilling of unconventional reserves, additional supply is coming from unconventional gas plays. Pipeline additions from these new gas plays are being developed and are expected to be operational by the 2010/2011 timeframe. Total U.S. LNG imports were slightly reduced in 2005 and 2006, increased to an estimated 2.1 Bcfd in 2007, and then fell off to 0.9 Bcfd in 2008, but increased slightly to 1.2 Bcfd in 2009. A notable decrease in U.S. LNG imports was observed in 2008 and 2009 as strong global competition pulled cargoes away from the U.S. market. LNG imports are expected to remain flat in 2010, but this level will still contribute to the current oversupply situation. 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 2011 timeframe or later.

Due to moderated demand caused by the prolonged economic recession and increases in gas production, sufficient gas supply remains available to meet operating needs. Pricing will remain soft in the near term as a result of the oversupply of gas relative to demand and may remain soft as drilling activity increases and demand remains relatively flat.

STRATEGIC ISSUES

Gulf has successfully executed three PPAs that provide supply side diversity and the flexibility for Gulf to adapt its future generation expansion plans to changing market conditions without negative financial impacts to the Company and its customers. Two of these PPAs currently supply 488 MW of firm peaking capacity from dual-fuel fired combustion turbines (CT), and they will continue to serve system load until their expiration on May 31, 2014. In June 2014, Gulf's third PPA, the Shell PPA, will provide 885 MW of firm capacity and energy from an existing gas-fired combined cycle (CC) generating unit that is interconnected with the SES in Alabama. The Shell PPA, approved by the FPSC in September 2009, will meet Gulf capacity needs through the end of the 2010 TYSP planning cycle and will expire on May 24, 2023. This strategy of supplementing Gulf's development of long-term capacity resources with shorter-term power purchases has proven to be effective 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, particularily 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. With the addition of the three PPAs that provide 1373 MW of gas-fired capacity during the 2010-2019 planning cycle, Gulf is well positioned to meet current and future load requirements regardless of which, if any, of the currently proposed state and federal environmental compliance 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. Having received FPSC approval of Gulf's recently signed 885 MW Shell PPA, the Company's next potential generating unit addition would not be on-line until the Shell PPA expires in May 2023. If needed, this unit 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, least-cost 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. Also, Gulf completed installation and began operating flue gas de-sulfurization equipment on Plant Crist Units 4 through 7 in December 2009 which will significantly reduce SO₂ emissions at these coal-fired units. In additional post-combustion NO_X control on all but two of its coal-fired units. 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 Environmental Protection Agency (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 control on Unit 7, the Company installed Selective Non-Catalytic Controls (SNCR) and overfire 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 overage 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 establishing a more stringent eight hour ozone standard. In January 2010 the EPA proposed further reductions in the eight hour standard. Based on data from 2007-2009, counties within Gulf's service area would be designated non-attainment under the new standard. The EPA is expected to finalize the revised ozone standard in August 2010, and States must implement plans for any nonattainment areas by December 2013.

Air Quality Standards for Fine Particulate Matter

During 2005, the EPA's annual fine particulate matter nonattainment designations became effective for several areas within Georgia. State plans for addressing the nonattainment designations for this standard could require further reductions in SO_2 and NO_x emissions from power plants, including plants owned in part by the Company. On December 8, 2009, the EPA also proposed revisions to the National Ambient Air Quality Standard for SO_2 . The EPA is expected to finalize the revised SO_2 standard in June 2010.

Clean Air Interstate Rule

The EPA issued the final Clean Air Interstate Rule (CAIR) in March 2005. This cap-and-trade rule addresses power plant SO_2 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 SO_2 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/or by the purchase of emission allowances. In July 2008 and December 2008, the U.S. Court of Appeals for the District of Columbia Circuit issued decisions invalidating certain aspects of CAIR, but left CAIR compliance requirements in place while the EPA develops a revised rule. The EPA is expected to issue a proposed CAIR replacement rule in July 2010.

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 (1) the application of Best Available Retrofit Technology (BART) to certain sources built between 1962 and 1977, and (2) the application of any additional emissions reductions which may be deemed necessary for each designated area to achieve reasonable progress by 2018 toward the natural conditions goal. Thereafter, for each 10-year planning period, additional emissions reductions will be required to continue to demonstrate reasonable progress in each area during that period. For power plants, the Clean Air Visibility Rule allows states to determine that CAIR satisfies BART requirements for SO₂ and NO_x but not particulate matter, which requires a separate BART analysis. In addition to BART controls, additional requirements could be imposed

to achieve progress toward the long-term goal. Florida has developed a State Implementation Plan (SIP) for submission to EPA that contains emission reduction strategies for implementing BART requirements and for achieving sufficient and reasonable progress toward the goal. If Florida's SIP is approved by EPA, 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 published the final Clean Air Mercury Rule, a capand-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 provided for an emissions allowance trading market. In February 2008, however, the U.S. Court of Appeals for the District of Columbia Circuit vacated the federal Clean Air Mercury Rule. The vacatur became effective with the issuance of the court's mandate on March 14, 2008. With CAMR voided, electric generating facilities are no longer required to install mercury controls to meet the CAMR cap and trade emission limits. In a separate proceeding in the U.S. District Court for the District of Columbia, the EPA entered into a proposed consent decree that requires the EPA to issue proposed Maximum Achievable Control Technologies (MACT) standards for power plants by March 2011, and a final rule by November 2011. Gulf is expected to be required to comply with the new HAPs MACT rules by early 2015. Development of new MACT mercury standards could require substantial capital expenditures or affect the timing of current budgeted capital expenditures that cannot be determined at this time.

Clean Water Act

In July 2004, the EPA published final regulations under the Clean Water Act to reduce impingement and entrainment of fish, shellfish and other forms of aquatic life at existing power plant cooling water intake structures. The use of cost-benefit analysis in the rule was ultimately appealed to the U.S. Supreme Court. On April 1, 2009, the U.S. Supreme Court held that the EPA could consider costs in arriving at its standards and in providing variances from those standards for existing intake structures. The EPA is now in the process of revising the regulations. While the U.S. Supreme Court's decision may ultimately result in greater flexibility for demonstrating compliance with the standards, the full scope of the regulations will depend on further rulemaking by the EPA and the actual requirements established by state regulatory agencies and, therefore, cannot be determined at this time.

On December 28, 2009, the EPA announced its determination that revision of the current effluent guidelines for steam electric power plants is warranted and proposed a plan to adopt such revisions by 2013. New wastewater treatment requirements are expected and may result in the installation of additional controls on certain Company facilities. The impact of revised guidelines will depend on the studies conducted in connection with the rulemaking, as well as the specific requirements of the final rule, and, therefore, cannot be determined at this time.

Coal Combustion Byproducts

The EPA is currently evaluating whether additional regulation of coal combustion byproducts is merited under federal solid and hazardous waste laws. The EPA has collected information from the electric utility industry on surface impoundment safety and conducted on-site inspections at three Southern Company system facilities as part of its evaluation. The Company has a routine and robust inspection program in place to ensure the integrity of its coal ash surface impoundments. The EPA is expected to issue a proposal regarding additional regulation of coal combustion byproducts in early 2010. The impact of these additional regulations on the Company will depend on the specific provisions of the final rule and cannot be determined at this time. However, additional regulation of coal combustion byproducts could have a significant impact on the Company's management, beneficial use, and disposal of such byproducts and could result in significant additional compliance costs that could affect future unit retirement and replacement decisions and results of operations, cash flows, and financial condition if such costs are not recovered through regulated rates.

Global Climate Issues

Federal legislative proposals that would impose mandatory requirements related to greenhouse gas emissions continue to be considered in Congress, with the reduction of greenhouse gas (GHG) emissions being identified as a high priority by the current Administration. On June 26, 2009, the American Clean Energy and Security Act of 2009 (ACES), which would impose mandatory GHG restrictions through implementation of a cap and trade program and renewable

energy standards, was passed by the U. S. House of Representatives. ACES would require reductions of GHG emissions on a national basis to a level that is 17% below 2005 levels by 2020, 42% below 2005 levels by 2030, and 83% below 2005 levels by 2050. The financial and operational impact of such legislation, if enacted, will depend on factors such as the specific GHG emissions limits, the implementation timing of these limits, the level of emissions allowances allocated and the level that must be purchased, the purchase price of emissions allowances, and the development and commercial availability of technologies for the reduction of GHG emissions.

In April 2007, the U.S. Supreme Court ruled that the EPA has authority under the Clean Air Act to regulate GHG emissions from new motor vehicles. On December 15, 2009, the EPA published a final determination, which became effective on January 14, 2010, that certain GHG emissions from new motor vehicles endanger public health and welfare due to climate change. On September 28, 2009, the EPA published a proposed rule regulating GHG emissions from new motor vehicles under the Clean Air Act. The EPA has stated that once this rule is effective, it will cause carbon dioxide and other GHGs to become regulated pollutants under EPA programs which both apply to power plants. As a result, the construction of new facilities or the major modification of existing facilities could require the installation of the best available control technology for carbon dioxide and other GHGs. The EPA also published a proposed rule governing how these programs would be applied to stationary sources, including power plants, on October 27, 2009. The EPA has stated that it expects to finalize these proposed rules in March 2010.

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. On June 25, 2008 Florida's Governor signed into law House Bill 7135 that includes authorizations for the Florida Department of Environmental Protection (FDEP) to develop rules for a cap-and-trade program to address GHG emissions from electric utilities, conditioned upon their ratification by the Florida legislature no sooner than the 2010 legislative session. The legislation also authorized the Florida Public Service Commission (FPSC) to adopt a renewable portfolio standard (RPS) for public utilities subject to legislative ratification. As of March 2010, the FDEP has not completed a rulemaking for the state cap-and-trade program. The FPSC submitted its draft RPS rule to the legislature in January 2009, but it has not yet been ratified.

The ultimate outcome of these federal and state 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.

Gulf will continue its involvement in the development of strategies to address any future clean air, water, or other requirements in order to minimize the uncertainty related to the scope and cost of compliance. As new 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 firm capacity and energy specific generating units to several utilities outside the SES. The terms of the existing contracts began prior to 2005 and extend through May 2010. In addition, three new contracts have been executed, and are scheduled to be in effect beginning in June 2010. Two of the contracts end in December 2015, while the other contract will end in December 2019. 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.

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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. As Gulf considers resources that can potentially meet its future need for capacity, longerterm 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 has secured the supply of capacity and/or energy from several renewable facilities. Gulf issued a RFP for renewables in 2008, and will be prepared to do so in the future as conditions warrant. If future solicitations ultimately result in proposals that are competitive with resources that Gulf would otherwise develop, the Company will secure this renewable capacity and energy through a PPA.

Gulf also has access to possible purchases of renewable energy through its Renewable Standard Offer Contract (RSOC) on file with the FPSC. Consistent with state law, Gulf updates its pricing for the RSOC as needed so that a standard offer for the purchase of renewable energy is continually

available to developers of renewable resources. Gulf may also 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.

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

Gulf has satisfied its need for firm capacity for the June 2014 through May 2023 time period with the acquisition of the 885 MW Shell PPA. Therefore, selection of a site on which to construct new facilities during the 2010-2019 planning cycle will be deferred. Because the Company will need to add capacity in the 2023 timeframe, Gulf is showing the Plant Crist site in Escambia County, Florida, the Plant Smith site in Bay County, Florida, the Plant Scholz site in Jackson County, Florida, and the undeveloped Shoal River property as potential sites for locating its future generating unit(s) in Northwest 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 CTs and/or CCs. Site selection for Gulf's next planned generating unit will be 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.

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, 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 86 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 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 87 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 88 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. Because the river is designated as Outstanding Florida Waters, certain criteria must be satisfied to ensure that the river is not significantly degraded. Water withdrawals for any future generation sited here would be limited to volumes currently permitted for Plant Scholz. There are no other 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 #4: Shoal River Property, Walton County

The project site would be located on undeveloped Gulf property in Walton County, Florida. If the project is ultimately located on this property, detailed studies will first be required to determine the exact size and location of the project site within the property's boundaries in order to meet Gulf's needs while insuring full compliance with local, state, and federal requirements. This property, approximately 3 miles northwest of Mossy Head, Florida, is located on the Shoal River and can be accessed via a county road from nearby U. S. Highway 90.

U. S. Geological Survey (USGS) Map

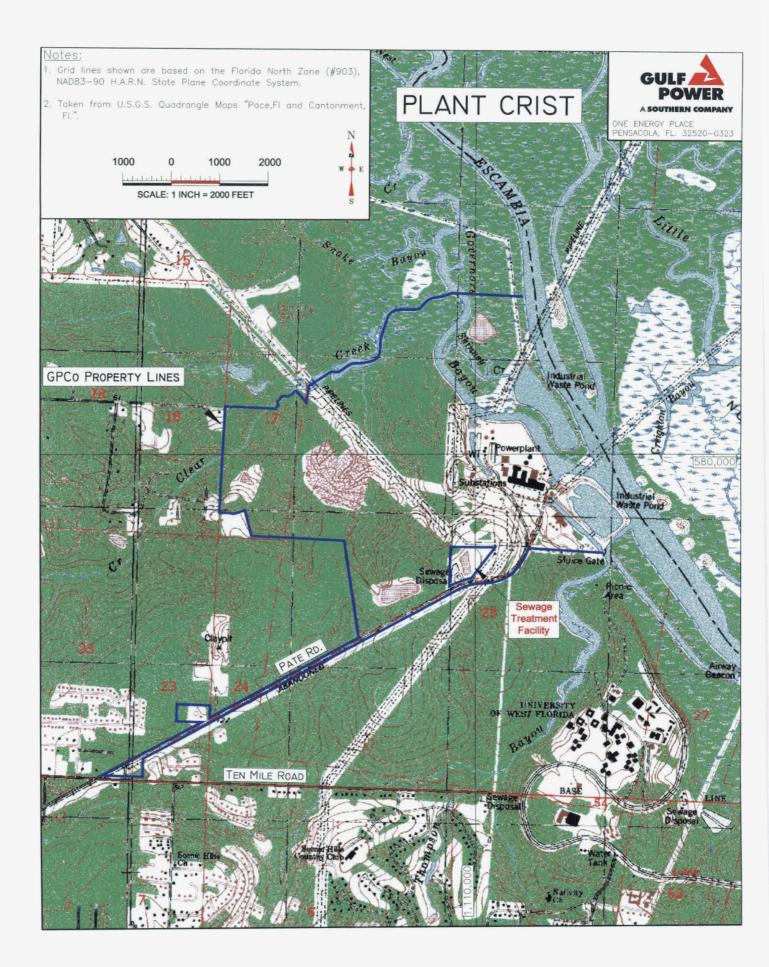
A USGS map showing the general location of the Shoal River property is found on page 89 of this chapter.

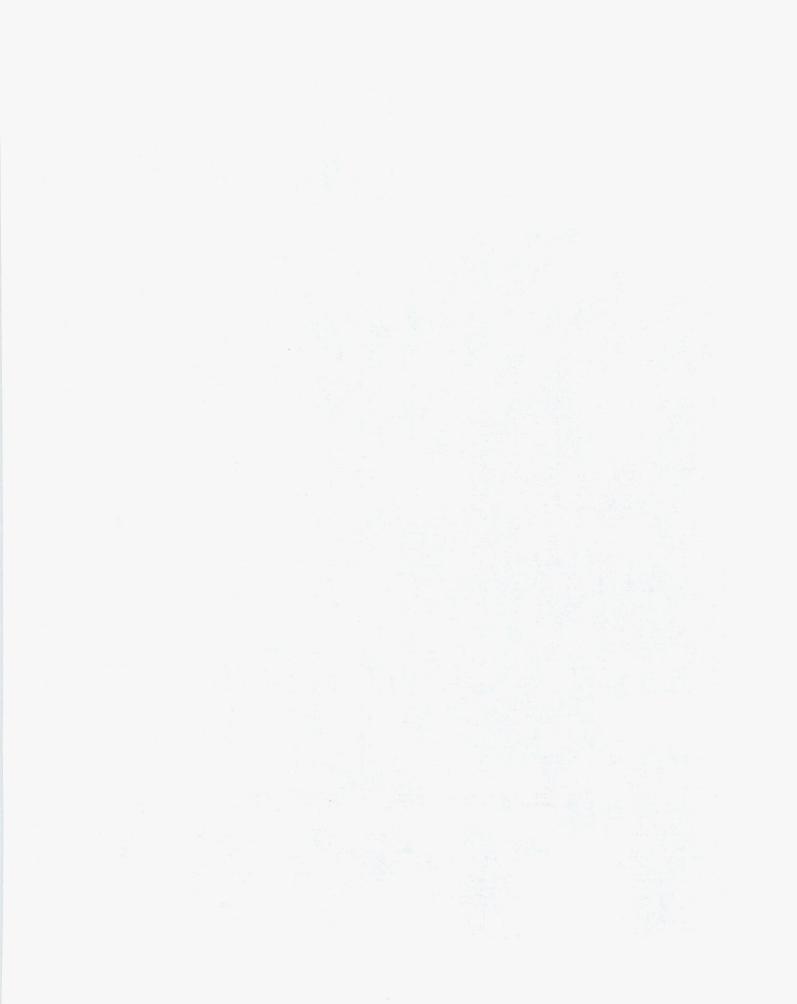
Land Uses and Environmental Features

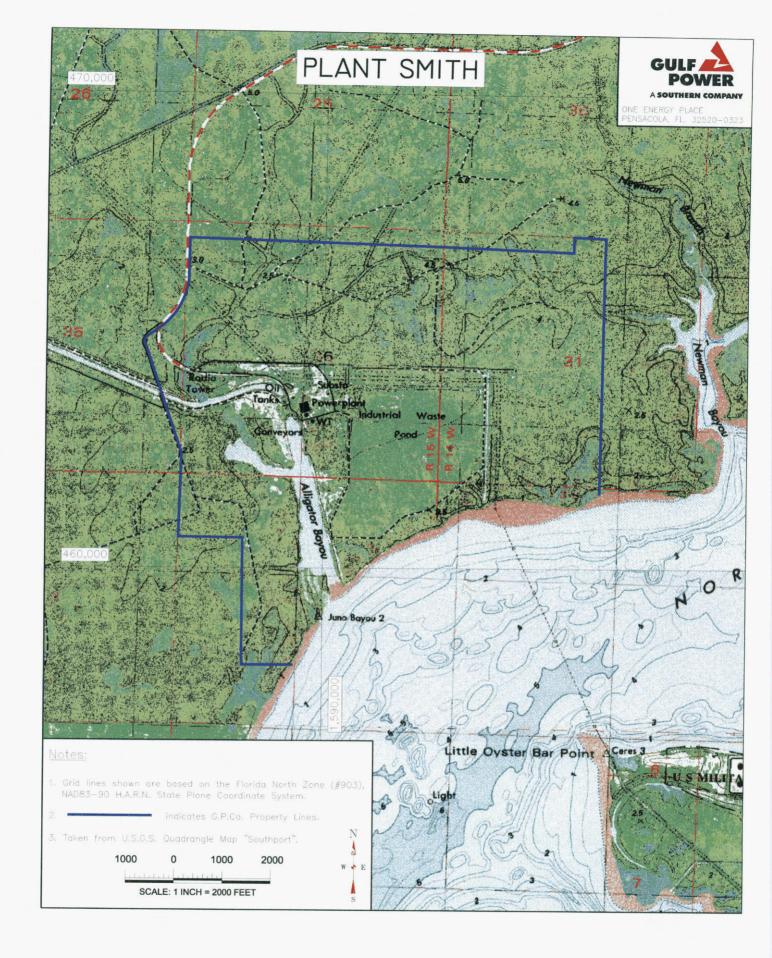
The Shoal River property is currently dedicated to agricultural and rural residential use. The northern part of the site, some 150 acres, is designated General Agricultural in Walton County's Comprehensive Future Land Use Plan. The land adjacent to the property is rural and in a natural state. General environmental features of the property mainly include wooded upland areas. This property is located on the Shoal River. Because the river is designated as Outstanding Florida Waters, certain criteria must be satisfied to ensure that the river is not significantly degraded. There are no other unique or significant environmental features on the property that would substantially affect project development.

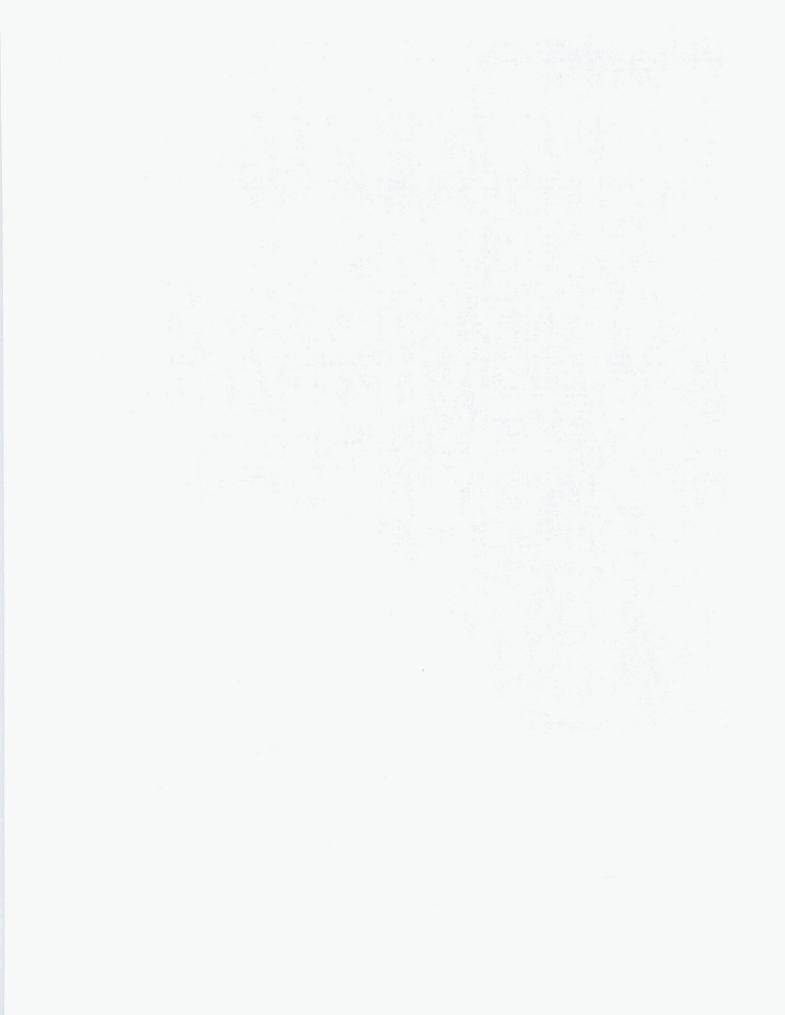
Water Supply Sources

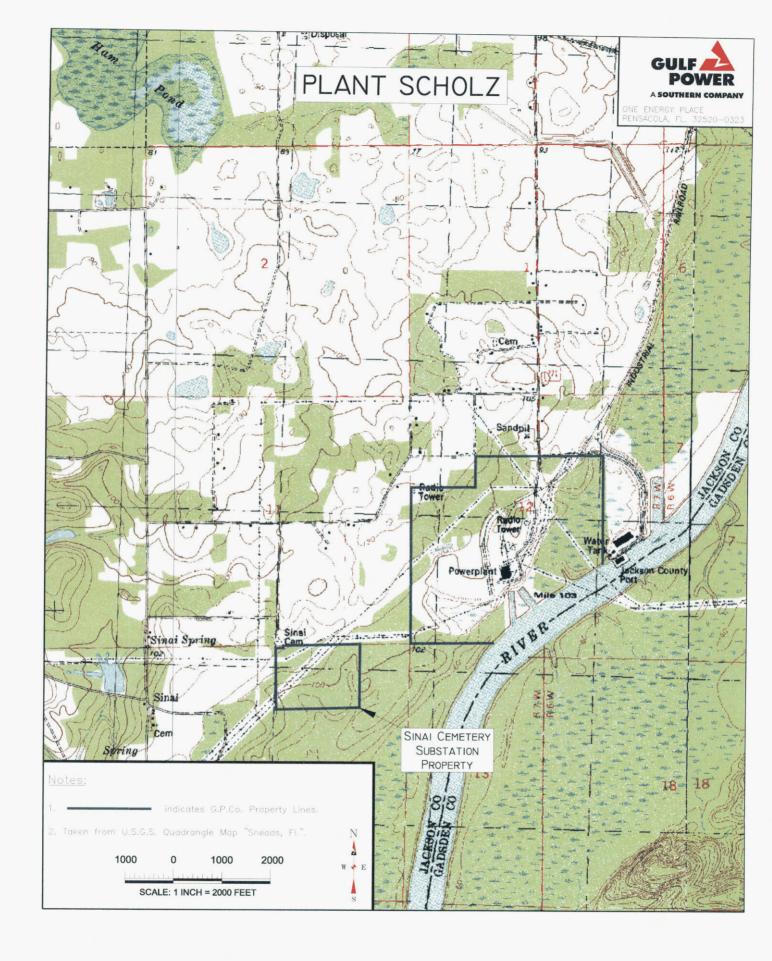
For industrial processing, cooling, and other water needs, Gulf would likely use groundwater from on-site wells.

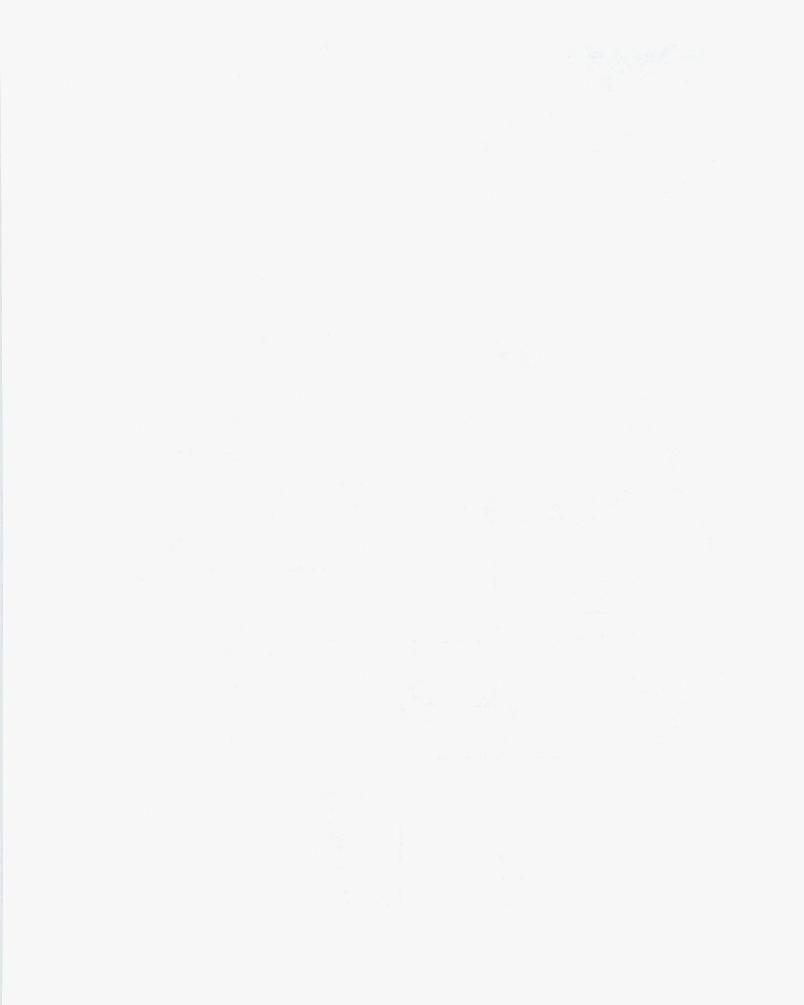


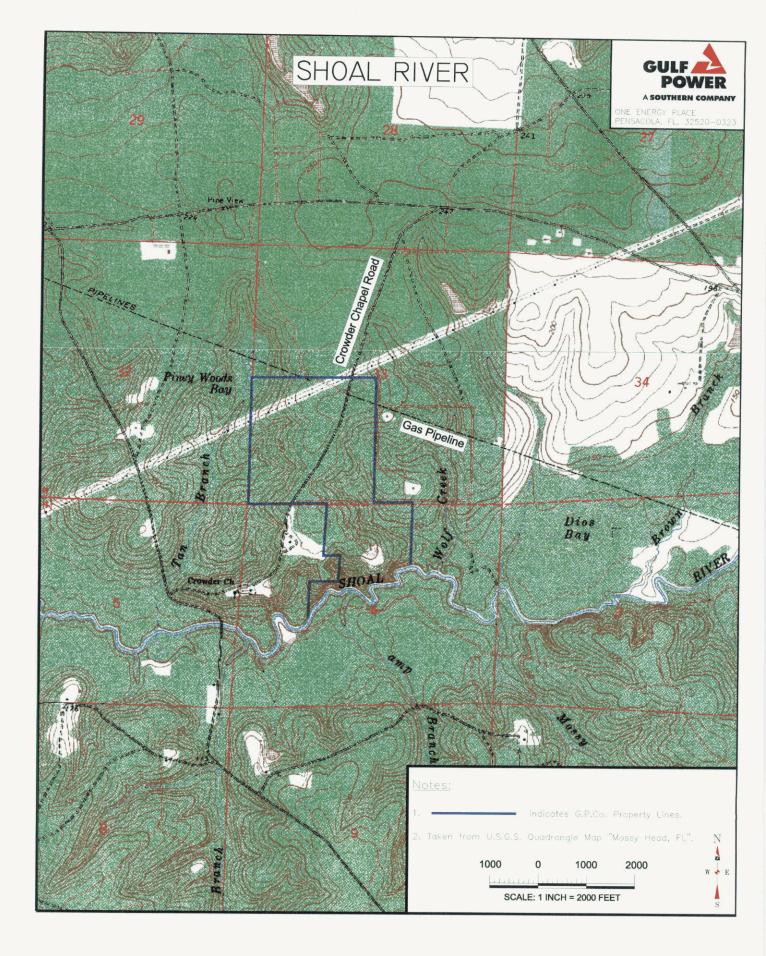


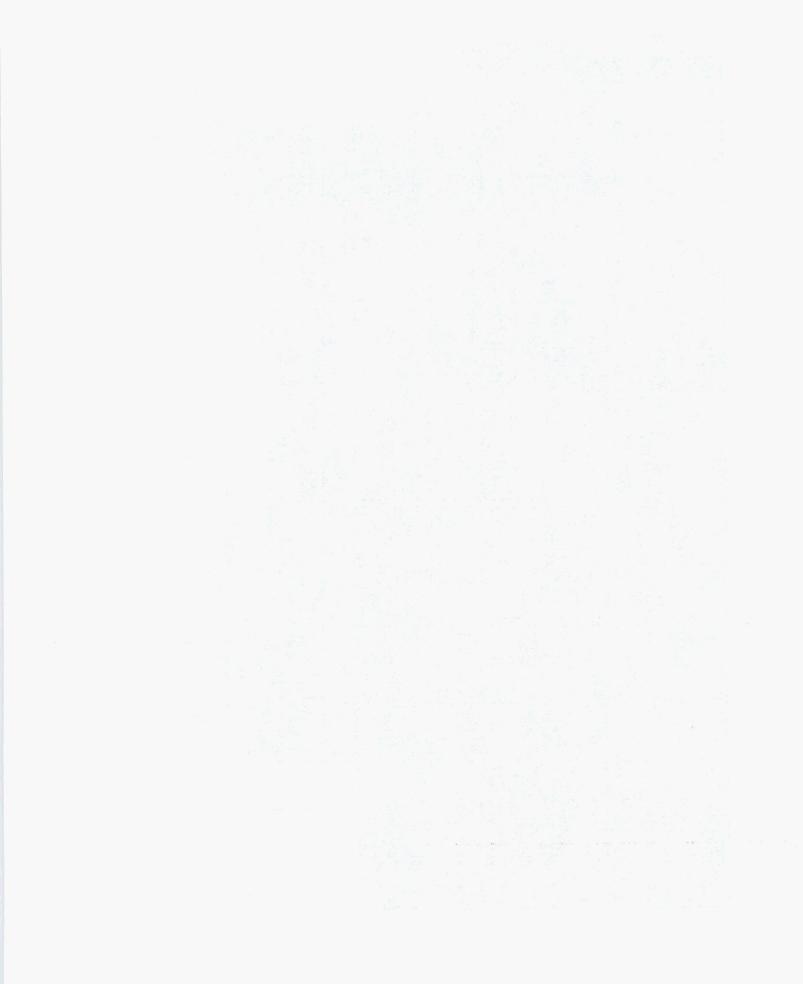












(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	TOTAL INSTALLED CAPACITY	FIRM CAPACITY IMPORT	FIRM CAPACITY EXPORT	NUG	TOTAL CAPACITY AVAILABLE	FIRM PEAK DEMAND	MARGIN	ERVE BEFORE ENANCE %	SCHEDULED MAINTENANCE	MARC	SERVE GIN AFTER TENANCE %
YEAR	MW	MVV	MW	MW	MW	MW	MW	OF PEAK	MW	MW	OF PEAK
2010	2,686	488	(211)	0	2,963	2,589	374	14.4%	NONE	374	14.4%
2011	2,685	488	(211)	0	2,962	2,569	393	15.3%		393	15.3%
2012	2,684	488	(211)	0	2,961	2,570	391	15.2%		391	15.2%
2013	2,684	488	(211)	0	2,961	2,577	384	14.9%		384	14.9%
2014	2,684	885	(211)	0	3,358	2,568	790	30.8%		790	30.8%
2015	2,674	885	(211)	0	3,348	2,619	729	27.8%		729	27.8%
2016	2,673	885	(211)	0	3,347	2.671	676	25.3%		676	25.3%
2017	2,673	885	(211)	0	3,347	2,737	610	22.3%		610	22.3%
2018	2,665	885	(211)	0	3,339	2,790	549	19.7%		549	19.7%
2019	2,653	885	(211)	0	3,327	2,855	472	16.5%		472	16.5%

SCHEDULE 7.1 FORECAST OF CAPACITY, DEMAND, AND SCHEDULED MAINTENANCE AT TIME OF SUMMER PEAK

		FORECAST	OF CAPACITY, E		D SCHEDULED	MAINTENANC	CE AT TIM	E OF WINTER	PEAK		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	TOTAL INSTALLED CAPACITY	FIRM CAPACITY IMPORT	FIRM CAPACITY EXPORT	NUG	TOTAL CAPACITY AVAILABLE	FIRM PEAK DEMAND	MARGI	SERVE N BEFORE ENANCE%	SCHEDULED MAINTENANCE	MARG	SERVE IN AFTER ENANCE%
YEAR	MW	MW	MW	MW	MW	MW	MW	OF PEAK	MVV	MW	OF PEAK
2009-10	2,742	488	(211)	0	3,019	2,287	732	32.0%	NONE	732	32.0%
2010-11	2,725	488	(211)	0	3,002	2,220	782	35.2%		782	35.2%
2011-12	2,724	488	(211)	0	3,001	2,254	747	33.1%		747	33.1%
2012-13	2,723	488	(211)	0	3,000	2,311	689	29.8%		689	29.8%
2013-14	2,723	488	(211)	0	3,000	2,296	704	30.7%		704	30.7%
2014-15	2,723	885	(211)	0	3,397	2,353	1,044	44.4%		1,044	44.4%
2015-16	2,713	885	(211)	0	3,387	2,410	977	40.5%		977	40.5%
2016-17	2,712	885	(211)	0	3,386	2,482	904	36.4%		904	36.4%
2017-18	2,712	885	(211)	0	3,386	2,524	862	34.2%		862	34.2%
2018-19	2,689	885	(211)	0	3,363	2,587	776	30.0%		776	30.0%

SCHEDULE 7.2

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES (1) (2) (3) (4) (5) (6) (7) (8) (11) (9) (10)(12)(13)(14) Fuel Const Com'l In-Expected Gen Max Net Capability Unit Unit Fuel Transport Summer Winter Start Service Retirement Nameplate Plant Name No. Location Туре Pri Alt Pri Ait Mo/Yr Mo/Yr Mo/Yr KW MW MW Daniel 1 Jackson Cnty, MS FS С HO RR TK 09/77 06/10 2.0 2.0 ---274,125 42/5S/6W 2 Daniel Jackson Cnty, MS FS C HO RR ΤK 06/81 06/10 274,125 2.0 2.0 ----42/5S/6W Crist 4 Escambia County FS С NG WA PL 07/59 06/10 ---93,750 (3.0)(3.0)25/1N/30W Crist 5 **Escambia County** FS С NG PL WA ---06/61 06/10 93,750 (3.0)(3.0)25/1N/30W 6 Crist Escambia County FS С NG WA PL ---05/70 06/10 369,750 (11.0)(11.0)

WA PL

PL

RR

08/73

07/10

01/87

03/10

-

06/10

12/29

06/11

578,000

3,200

222,750

(7.0)

3.0

(1.0)

(7.0)

3.0

(1.0)

SCHEDULE 8	
PROSPECTIVE GENERATING FACILITY ADDITIONS	AND

(15)

Status

CR

CR

D

D

D

D

U

D

Crist

Perdido

Scherer

25/1N/30W

25/1N/30W

Escambia County

Escambia County

Monroe Cnty, GA

-

FS

IC

FS

С

LFG

С

NG

22

7

1-2

SCHEDULE 8 PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES											Page 2 of 2			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Plant Name	Unit No.	Location	Unit Type	Fu 	iel	Fi Tran Pri	uel sport <u>Alt</u>	Const Start Mo/Yr	Com'l In- Service Mo/Yr	Expected Retirement Mo/Yr	Gen Max Nameplate KW	Net Cap Summer <u>MW</u>	ability Winter <u>MW</u>	<u>Status</u>
Crist	6	Escambia County 25/1N/30W	FS	С	NG	WA	PL		05/70	06/12	369,750	(1.0)	(1.0)	D
Daniel	1	Jackson Cnty, MS 42/5S/6W	FS	С	HO	RR	ΤK		09/77	06/15	274,125	(5.0)	(5.0)	D
Daniel	2	Jackson Cnty, MS 42/5S/6W	FS	С	HO	RR	ΤK		06/81	06/15	274,125	(5.0)	(5.0)	D
Daniel	2	Jackson Cnty, MS 42/5S/6W	FS	С	НО	RR	ΤK		06/81	06/16	274,125	(1.0)	(1.0)	D
Lansing Smith	1	Bay County 36/2S/15W	FS	С		WA	-		06/65	06/18	149,600	(4.0)	(4.0)	D
Lansing Smith	2	Bay County 36/2S/15W	FS	С		WA		-	06/67	06/18	190,400	(4.0)	(4.0)	D
Pea Ridge	1 - 3	Santa Rosa County 15/1N/29W	СТ	NG		PL		-	05/98	12/18	14,250	(12.0)	(15.0)	R
Abbreviations:	Ī	Unit Type		Fuel				Status				Fuel Transpo	rtation	
	(FS - Fossil Steam S - Steam CT - Combustion Turbine CC - Combined Cycle IC - Internal Combustion	3	LO - L HO - H LFG -	Coal Natural Ga ight Oil Heavy Oil Landfill G - Wood W	as	id	D - Envi P - Plan R - To b U - Unde equa	e retired er constructio al to 50% com	rate uthorized by utili n, less than or		PL - Pipeline TK - Truck RR - Railroad WA - Water		

Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	No Unit planned for 2010-2019
(2)	Net Capacity a. Summer: b. Winter	N/A N/A
	Gross Capacity a. Summer: b. Winter	N/A N/A
(3)	Technology Type:	
(4)	Anticipated Construction Timing a. Field construction start - date: b. Commercial in-service date:	N/A N/A
(5)	Fuel a. Primary fuel: b. Alternate fuel:	N/A N/A
(9)	Air Pollution Control Strategy:	NIA
(2)	Cooling Method:	N/A
(8)	Total Site Area:	N/A
(6)	Construction Status:	N/A
(10)	Certification Status:	N/A
(11)	Status with Federal Agencies:	N/A
(12)	Projected Unit Performance Data Planned Outage Factor (POF): Unplanned Outage Factor (UOF): Equivalent Availability Factor (EAF): Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	N/A
(13)	Projected Unit Financial Data Book Life (Years): Total Installed Cost (In-Service Year \$/kW): Direct Construction Cost ('10 \$/kW): AFUDC Amount ('19 \$/kW): Escalation (\$/kW): Fixed O&M ('19 \$/WWH): Variable O&M ('19 \$/MWH): K Factor:	N/A

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