TEN YEAR SITE PLAN
2017-2026

FOR ELECTRIC GENERATING FACILITIES
AND
ASSOCIATED TRANSMISSION LINES

APRIL 2017

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 3, 2017

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GULF POWER COMPANY

TEN-YEAR SITE PLAN

Executive Summary

The Gulf Power Company (Gulf or Company) 2017 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 designated the FPSC as the state agency responsible for the oversight of the Ten-Year Site Plan (TYSP). This TYSP is being filed in compliance with FPSC Rule No. 25-22.071, F.A.C.

Gulf's 2017 TYSP provides documentation of assumptions used for Gulf's load forecast, fuel forecasts, 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 (SES IRP) process. Gulf participates in the SES 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.

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

side measures that are embedded into the forecast prior to entering the generation mix process. The generation mix process uses Strategist® (which utilizes 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.

Gulf indicated in its 2016 TYSP that gas-fired generating capacity was needed following the expiration of Gulf's 885 MW Power Purchase Agreement (PPA) with Shell Energy North America (Shell PPA) which provides firm capacity and energy from a gas-fired combined cycle generating unit located in Alabama. Because the SES IRP results indicated that peaking capacity was the leading technology needed to meet target reserve margins, information regarding the potential addition of combustion turbine (CT) capacity was disclosed in the Company's 2016 TYSP.

With the expiration of the Shell PPA, a future capacity resource addition, combined with capacity and energy supplied from Gulf's existing fleet of coal, natural gas, and renewable resources will be required to reliably serve Gulf's retail customers through the planning cycle. Gulf's existing fleet of coal, natural gas, and renewable resources includes the portion of the Company's Scherer Unit 3 that became available in 2016 following expiration of two wholesale unit power sales agreements and the remaining portion of Gulf's Scherer 3 that will

be available for retail service following expiration of the last remaining wholesale unit power sales agreement.

As planning activities continued in 2016, Gulf worked to refine its self-build option by evaluating the addition of CTs at Gulf-owned generation sites throughout Northwest Florida. Also, because future environmental regulations such as the Environmental Protection Agency's (EPA) Clean Power Plan could lead to additional retirements of SES coal units, Gulf believes it is important to consider the addition of combined cycle (CC) capacity at Gulf owned sites as a potential 2023 self-build generation resource option. To date, studies indicate that locating two CTs at Gulf's North Escambia site and one CT at its Plant Smith site would be the leading CT alternative. The studies have also shown that the leading CC option would be to locate this facility at Gulf's North Escambia site.

Although a comparison of these two leading options currently shows CTs at North Escambia and Smith as the leading self-build capacity addition at this time, updated costs for new gas-fired CC technologies and evolving system reliability needs may lead to the conclusion that a CC addition on Gulf's system would be the best self-build alternative. Therefore, Gulf will continue to update its studies until a commitment to select a particular self-build gas-fired technology is required later in 2017. Gulf's future gas-fired unit additions, possibly consisting of CT or CC units, may be complemented by energy purchased under agreements with providers of renewable energy generated by municipal solid waste (MSW), solar, and wind facilities. The current MSW agreement became effective in 2014 and provides for the purchase of energy for a three year period ending July 2017 from the existing waste-to-energy facility located in Bay County,

Florida. Gulf is in discussions with the facility owners to extend this agreement. Gulf's solar energy purchase agreements which were approved by the FPSC in 2015 will provide energy produced by three solar facilities located in Northwest Florida when they come on-line in 2017. These agreements each have a term of 25 years. The Company's two wind energy purchase agreements with Morgan Stanley Capital Group were approved in 2015 and 2016, respectively. These agreements have terms of 20 years each and began supplying energy to Gulf in 2016 and 2017, respectively. These renewable energy purchase agreements are discussed in more detail in the Renewable Resources section of this TYSP.

Although Gulf's peak demand and energy loads for the 2017-2026 planning cycle are forecasted to be slightly lower than the loads discussed in Gulf's 2016 TYSP, current self-build analyses indicate that gas-fired CTs may be needed as early as 2023 in order to provide adequate capacity reserves on the system. However, as previously mentioned, Gulf will continue to update its studies as new technical data become available. Future natural gas-fired additions, combined with Gulf's diverse fleet of existing coal, natural gas, oil, and renewable resources will enable Gulf to meet reserve margin requirements during the 2017-2026 TYSP cycle.

CHAPTER I

DESCRIPTION OF EXISTING FACILITIES

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DESCRIPTION OF EXISTING FACILITIES

Gulf owns and operates generating facilities at four sites in Northwest Florida (Plants Crist, Smith, Pea Ridge, and Perdido). Gulf also owns a 50% undivided ownership interest in Unit 1 and Unit 2 and a proportional undivided ownership interest in the associated common facilities at Mississippi Power Company's Daniel Electric Generating Facility. Gulf has a 25% undivided ownership share in Unit 3 and a proportional undivided ownership interest in the associated common facilities at the Scherer Electric Generating Facility located near Macon, Georgia which is operated on Gulf's behalf by Georgia Power Company, the unit's other co-owner. Gulf's ownership interest in Plant Daniel Unit 1 and Unit 2 and in Plant Scherer Unit 3 were acquired as part of Gulf's resource planning for meeting the long term needs of its retail customers. With the encouragement and support of the FPSC, Gulf committed a portion of its ownership interest in Plant Daniel to off-system sales in the 1980s and also committed its owned capacity in Plant Scherer to off-system sales through a succession of several wholesale power sales contracts since Unit 3 began commercial operation in 1987. The Scherer contracts began expiring at the end of 2015 allowing Scherer to begin serving the retail customers for whom Gulf's ownership interest was originally planned, acquired and built. The last off-system wholesale power sales contract related to Gulf's ownership interest in Scherer Unit 3 expires at the end of 2019.

As of December 31, 2016, Gulf's fleet of generating units consists of seven coal-fired steam units, one natural gas-fired combined cycle unit, three small natural gas-fired combustion turbines, one oil-fired combustion turbine, and two internal combustion engine units fueled by landfill gas. Schedule 1 shows 924 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 556 MW (summer rating) of combined cycle and 32 MW (summer rating) of combustion turbine generating facilities. 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. The Perdido Landfill Gas-to-Energy Facility in Escambia County, Florida provides 3 MW from two internal combustion generating units. Including Gulf's ownership interest in the Daniel fossil steam Units 1 and 2 and the Scherer fossil steam Unit 3, Schedule 1, as of December 31, 2016, shows Gulf's total net summer generating capability to be 2,251 MW and its total net winter generating capability to be 2,290 MW.

Gulf's existing system in Northwest Florida, including major generating plants, substations, and transmission lines, is shown on the system map on page 9 of this TYSP. Specific data related to Gulf's existing generating facilities is presented on Schedule 1 of this TYSP.

GULF POWER COMPANY

SCHEDULE 1

EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 2016

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
				Fuel		Fuel Transp		Alt. Fuel	Com'l In-	Exptd	Gen Max	Net Capability	
Plant Name	Unit No.	Location	Unit Type	Pri	Alt	Pri	Alt	Days Use	Service Mo/Yr	Retrmnt Mo/Yr	Nameplate KW	Summer MW	Winter MW
Crist		Escambia County 25/1N/30W									1,135,250	924.0	924.0
	4		FS	C	NG	WA	PL	1	07/59	12/24	93,750	75.0	75.0
	5		FS	C	NG	WA	PL	1	06/61	12/26	93,750	75.0	75.0
	6		FS	C	NG	WA	PL	1	05/70	12/35	369,750	299.0	299.0
	7		FS	C	--	WA	--	--	08/73	12/38	578,000	475.0	475.0
Lansing Smith		Bay County 36/2S/15W									661,500	588.0	624.0
	3		CC	NG	--	PL	--	--	04/02	12/42	619,650	556.0	584.0
	A		CT	LO	--	TK	--	--	05/71	12/27	41,850	32.0	40.0
Daniel [A]		Jackson County, MS 42/5S/6W									548,250	510.0	510.0
	1		FS	C	--	RR	--	--	09/77	12/42	274,125	255.0	255.0
	2		FS	C	--	RR	--	--	06/81	12/46	274,125	255.0	255.0
Scherer [A]	3	Monroe County, GA	FS	C	--	RR	--	--	01/87	12/52	222,750	214.0	214.0
Pea Ridge		Santa Rosa County 15/1N/29W									14,250	12.0	15.0
	1		CT	NG	--	PL	--	--	05/98	12/18	4,750	4.0	5.0
	2		CT	NG	--	PL	--	--	05/98	12/18	4,750	4.0	5.0
	3		CT	NG	--	PL	--	--	05/98	12/18	4,750	4.0	5.0

SCHEDULE 1
EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 2016

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
				Fuel		Fuel Transp		Alt. Fuel	Com'l In-	Exptd	Gen Max	Net Capability	
Plant Name	Unit No.	Location	Unit Type	Pri	Alt	Pri	Alt	Days Use	Service Mo/Yr	Retrmnt Mo/Yr	Nameplate KW	Summer MW	Winter MW
Perdido LFG		Escambia County									3,200.0	3.0	3.0
	1		IC	LFG	--	PL	--	--	10/10	12/29	1,600.0	1.5	1.5
	2		IC	LFG	--	PL	--	--	10/10	12/29	1,600.0	1.5	1.5
											Total System	2,251	2,290

Abbreviations:

Type and Fuel

FS - Fossil Steam	C - Coal
CT - Combustion Turbine	LO - Light Oil
CC - Combined Cycle	IC - Internal Combustion
NG - Natural Gas	LFG - Landfill Gas

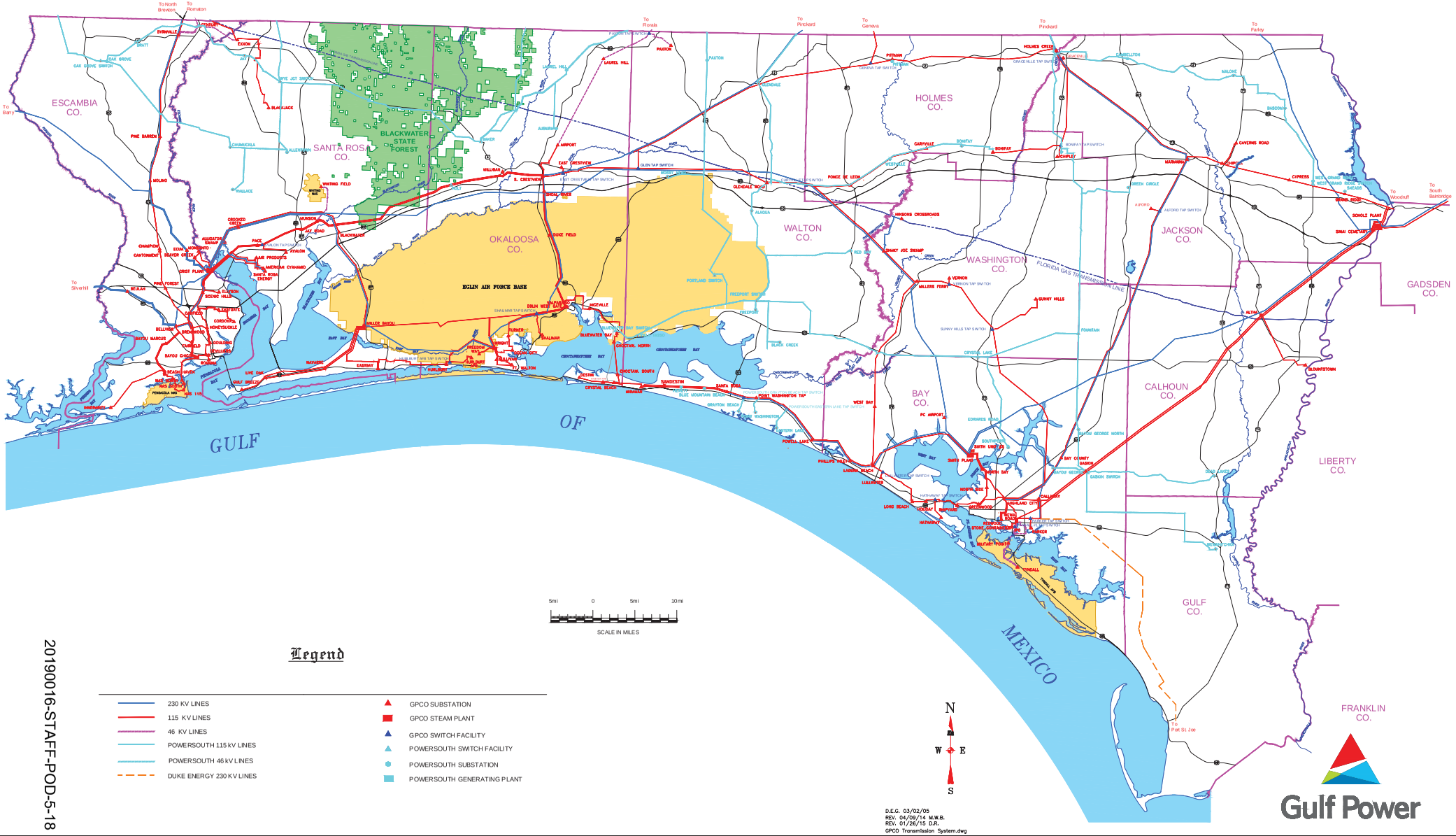
Fuel Transportation

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

NOTES:

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

GULF POWER COMPANY TRANSMISSION & SUBSTATION SYSTEM



Legend

- 230 KV LINES
- 115 KV LINES
- 46 KV LINES
- POWERSOUTH 115 kV LINES
- POWERSOUTH 46 kV LINES
- DUKE ENERGY 230 KV LINES
- GPCO SUBSTATION
- GPCO STEAM PLANT
- GPCO SWITCH FACILITY
- POWERSOUTH SWITCH FACILITY
- POWERSOUTH SUBSTATION
- POWERSOUTH GENERATING PLANT

D.E.G. 03/02/05
REV. 04/09/14 M.W.B.
REV. 01/26/15 D.R.
GPCO Transmission System.dwg

Gulf Power

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CHAPTER II

FORECAST OF ELECTRIC POWER DEMAND AND ENERGY CONSUMPTION

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GULF POWER COMPANY
FORECASTING METHODOLOGY
OVERVIEW

Gulf views the forecasting effort as a dynamic process requiring ongoing activities to yield results that 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 customer service efforts. These efforts are predicated on the philosophy of striving to understand the needs, perceptions, and motivations of our customers while actively promoting wise and efficient uses of energy to 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-70s. This program brought high levels of customer awareness, understanding, and expectations of energy efficient construction standards to Northwest Florida.

The Forecasting section of Gulf's Accounting, Finance, and Treasury 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 economic assumptions used to develop Gulf's forecast of customers, energy sales, and peak demand for this Ten Year Site Plan were derived from the May 2016 economic projection provided by Moody's Analytics.

The May 2016 economic projection assumed the Federal Reserve would continue the gradual normalization of monetary policy. U.S. real gross domestic product (GDP) was expected to grow 1.8% in 2016 and 3.0% in 2017. The U.S. economy was projected to reach full employment by the end of 2016 with wage growth following.

B. NORTHWEST FLORIDA ECONOMIC OUTLOOK

Gulf's retail service area is generally represented by three Metropolitan Statistical Areas (MSAs): Pensacola-Ferry Pass-Brent, Crestview-Fort Walton Beach-Destin, and Panama City. Moody's projected that the economy in Northwest Florida would experience normal growth in 2017 and throughout the forecast period.

Northwest Florida's real disposable personal income increased 3.5% in 2015 and 1.9% in 2016, compared to flat growth for the period 2010 to 2013. Real disposable personal income was projected to grow over the next five years at an average annual rate of 2.5%. The region's employment bottomed out in late 2009 to early 2010, but since then has shown positive year over year growth with an increase of 1.7% in 2016. Employment was projected to grow at an

average annual rate of 1.1% over the next five years. Single family housing starts have shown modest improvements since 2009 and returned to near normal levels in 2016. Population growth in Northwest Florida was 1.6% in 2016 and was projected to maintain an average annual rate of 1.6% for the next five years. Over the long-run, Northwest Florida was projected to see normal growth throughout the forecast period.

Gulf's projections incorporate electric price assumptions derived from the 2016 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 5-year summary of assumptions associated with Gulf's forecast:

TABLE 1

NATIONAL ECONOMIC SUMMARY
AVERAGE ANNUAL GROWTH RATES
(2016-2021)

GDP Growth	2.2 %
Interest Rate (30 Year AAA Bonds)	4.5 %
Inflation	2.6 %

TABLE 2

AREA DEMOGRAPHIC SUMMARY
(2016-2021)

Population Gain	78,000
Average Annual Net Migration	3,200
Average Annual Population Growth	1.6 %
Average Annual Labor Force Growth	1.7 %

II. CUSTOMER FORECAST

A. RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL CUSTOMER FORECAST

The short-term forecasts of residential, commercial, and industrial non-lighting customers were based primarily on projections prepared by Gulf's field marketing managers with the assistance of their field employees. These projections reflect recent historical trends in net customer gains and anticipated effects of changes in the local economy, the real estate market, planned construction projects, and factors affecting population such as military personnel movements and changes in local industrial production.

After collecting initial input from field managers, forecasters reviewed the one-year-out customer projections by rate schedule, checking for consistency with historical trends, consistency with economic outlooks, and consistency across the three MSAs in Gulf's service area. Forecasters then supplied field managers with draft second-year-out customer projections based on number of households from Moody's Analytics, which the field managers reviewed and modified as necessary.

Gulf utilized growth in the number of households to extend the short-term residential forecast of customers to the long-term horizon. Beyond the short-term period, commercial customers were forecast as a function of residential customers, reflecting the growth of commercial services to meet the needs of new residents. Long-term projections of industrial customers are based on input from Gulf's field marketing managers.

B. OUTDOOR LIGHTING CUSTOMER FORECAST

Gulf projected the number of outdoor lighting customers by rate and class based on historical growth rates and input from Gulf's lighting team to gain insight into future trends.

III. ENERGY SALES FORECAST

A. RESIDENTIAL SALES FORECAST

The short-term non-lighting residential energy sales forecast was developed utilizing a multiple linear regression analysis. Monthly use per customer per billing day was estimated based on historical data, normal weather, real disposable income per household, national energy efficiency standards, and price of electricity. The model output was then multiplied by the projected number of non-lighting residential customers and projected billing days by month to expand to the total residential class.

Long-term projections of residential sales were developed utilizing the LoadMAP-R model, an electric utility end-use forecasting tool. LoadMAP-R forecasts end-use or appliance-specific residential energy demand using a variety of demographic, housing, economic, energy, and weather information. Gulf utilized growth rates from the LoadMAP-R projection to extend the short-term residential sales forecast to the long-term horizon.

The residential sales forecast was adjusted to reflect the expected impacts of conservation programs approved in Gulf's 2015 DSM plan. Additional

information on the residential conservation programs and program features are provided in the Conservation Programs section of this document. The residential sales forecast was also adjusted to reflect the anticipated impact of the continued introduction of electric vehicles to the market.

B. COMMERCIAL SALES FORECAST

The short-term non-lighting commercial energy sales forecast was also developed utilizing multiple linear regression analyses. The energy forecast for the commercial class was separated into two segments, small commercial (rate schedules GS and Flat-GS) and large commercial (all other commercial rate schedules). Separate models were developed for each segment to estimate monthly use per customer per billing day. The estimates were based upon historical data, normal weather, MSA-level GDP per capita, and price of electricity. The outputs from each model were multiplied by the projected number of customers in each segment and the projected number of billing days by month. The forecast for the commercial class is the sum of the forecasted energy sales for each segment.

Long-term projections of commercial sales were developed utilizing the LoadMAP-C model, an electric utility end-use forecasting tool that provides a conceptual framework for organizing commercial market building-type and end-use information. Gulf utilized growth rates from the LoadMAP-C projection to extend the short-term commercial sales forecast to the long-term horizon.

The commercial sales forecast was adjusted to reflect the expected impacts of conservation programs approved in Gulf's 2015 DSM plan. Additional

information on the commercial conservation programs and program features are provided in the Conservation Programs section of this document.

C. INDUSTRIAL SALES FORECAST

The short-term non-lighting industrial energy sales forecast was developed using a combination of on-site surveys of major industrial customers and historical average consumption per customer per billing day. Gulf's largest industrial customers were interviewed by Gulf's industrial account representatives to identify expected load changes due to equipment additions, replacements, or changes in operating schedules and characteristics. The short-term forecast of monthly sales to these major industrial customers was a synthesis of the detailed survey information and historical monthly to annual energy ratios.

The forecast of sales to the remaining smaller industrial customers was developed by rate schedule and month, using historical averages. The resulting estimates of energy purchases per customer per billing day were multiplied by the expected number of small industrial customers and projected billing days by month to expand to the rate level totals. The sum of the energy sales forecast for the major industrial customers and the remaining smaller industrial customers resulted in the total industrial energy sales forecast. Long-term projections of industrial sales were developed using historical averages.

D. OUTDOOR LIGHTING SALES FORECAST

Outdoor lighting energy forecasts were developed by rate and class using historical growth rates and input from Gulf's lighting team to gain insight into future trends.

E. WHOLESALE ENERGY FORECAST

The forecast of territorial wholesale energy sales was developed utilizing a multiple linear regression analysis. Monthly wholesale energy purchases per day were estimated based on historical data, normal weather, and MSA-level GDP. The model output was then multiplied by the projected number of days by month to expand to the total wholesale energy forecast.

F. COMPANY USE FORECAST

The forecast of company energy use was based on recent historical averages by month.

IV. PEAK DEMAND FORECAST

The annual system peak demand forecast was prepared using the Peak Demand Model (PDM). PDM inputs include historical load shapes and projections of net energy for load, which were based on the forecasted energy sales described previously. PDM spreads the energy projections using the historical load shapes to develop hourly system load shapes. The monthly

forecasted system peak demands are the single highest hour of demand for each month. Gulf's annual system peak demand typically occurs in the month of July.

The resulting monthly system peak demand projections were adjusted to reflect the anticipated impacts of conservation programs approved in Gulf's 2015 DSM plan. Additional information on the peak demand impacts of Gulf's conservation programs are provided in the Conservation Programs section of this document.

V. DATA SOURCES

Gulf utilized 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 support the energy and demand models. Individual customer historical data was utilized in developing projections for Gulf's largest industrial customers.

Gulf's models also utilized economic projections provided by Moody's Analytics, a renowned economic services provider. Moody's relies on the Bureau of Labor Statistics for data on employment, unemployment rate and labor force. Moody's obtains personal income and GDP data from the Bureau of Economic Analysis. Moody's obtains population, households and housing starts information from the U.S. Census Bureau.

VI. CONSERVATION PROGRAMS

Gulf's forecast of energy sales and peak demand reflect the continued impacts of energy efficiency and conservation activities, including the impacts of programs proposed by Gulf in its most recent DSM plan, which was approved by the Commission in Order No. PSC-15-0330-PAA-EG on August 19, 2015. Gulf's conservation programs were designed to meet the goals established by the Commission in Order No. PSC-14-0696-FOF-EG in December of 2015. Following is a brief description of the currently approved programs and tables indicating the historical and projected conservation impacts of Gulf's ongoing conservation efforts.

A. RESIDENTIAL CONSERVATION

1. Residential Energy Audit and Education – This program is the primary educational program to help customers improve the energy efficiency of their new or existing home through energy conservation advice and information that encourages the implementation of efficiency measures and behaviors resulting in energy and utility bill savings.
2. *EnergySelect* - This program is designed to provide the customer with a means of conveniently and automatically controlling and monitoring 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

EnergySelect system includes field units utilizing a communication gateway, major appliance load control relays, and a programmable thermostat, all operating at the customer's home.

3. Community Energy Saver Program - This program is designed to assist low-income families with escalating energy costs through the direct installation of conservation measures at no cost to them. The program will also educate families on energy efficiency techniques and behavioral changes to help control their energy use and reduce their utility operating costs.
4. HVAC Efficiency Improvement Program - This program is designed to increase energy efficiency and improve HVAC cooling system performance for new and existing homes through maintenance, quality installation, and duct repair.
5. Residential Custom Incentive Program - This program will promote the installation of various energy efficiency measures available through other programs including HVAC, insulation, windows, water heating, lighting, appliances, etc. including additional incentives as appropriate to overcome the split-incentive barrier which exists in a landlord/renter situation.
6. Residential Building Efficiency Program - This program is designed as an umbrella efficiency program to promote the purchase and installation of energy saving measures – high

performance windows, reflective roofs, and ENERGY STAR window A/C - for residential customers as a means of reducing energy and demand.

B. COMMERCIAL/INDUSTRIAL CONSERVATION

1. Commercial/Industrial (C/I) Energy Analysis – This is an interactive program that provides commercial and industrial customers assistance in identifying energy conservation opportunities. The program is a prime tool for the Gulf Power Company C/I Energy Specialists to personally introduce a customer to conservation measures, including low or no-cost improvements or new electro-technologies to replace old or inefficient equipment.
2. Commercial HVAC Retrocommissioning Program - This program offers basic retrocommissioning at a reduced cost for qualifying commercial and industrial customers designed to diagnose the performance of the HVAC cooling unit(s) with the support of an independent computerized quality control process and make improvements to the system to bring it to its full efficiency.
3. Commercial Building Efficiency Program - This program is designed as an umbrella efficiency program for existing commercial and industrial customers to increase awareness and

customer demand for high-efficiency, energy-saving equipment; increase availability and market penetration of energy efficient equipment; and contribute toward long-term energy savings and peak demand reductions.

4. Commercial/Industrial Custom Incentive - This program is designed to establish the capability and process to offer advanced energy services and energy efficient end-user equipment (including comprehensive audits, design, and construction of energy conservation projects) not offered through other programs to Commercial or Industrial customers.

C. CONSERVATION RESULTS SUMMARY

The following tables provide estimates of the reductions in peak demand and net energy for load realized by Gulf's customers as a result of participation in Gulf's conservation programs.

HISTORICAL
TOTAL CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2016	492,884	552,042	1,077,203,000

2017 BUDGET FORECAST
TOTAL CONSERVATION PROGRAMS
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2017	6,000	3,800	8,300,000
2018	6,600	4,000	9,400,000
2019	7,100	5,500	10,500,000
2020	8,000	6,600	11,800,000
2021	8,800	7,700	12,800,000
2022	9,600	8,600	13,900,000
2023	10,300	9,600	14,700,000
2024	10,900	10,700	15,500,000
2025	10,900	10,700	15,500,000
2026	10,900	10,700	15,500,000

2017 BUDGET FORECAST
TOTAL CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2017	498,884	555,842	1,085,503,000
2018	505,484	559,842	1,094,903,000
2019	512,584	565,342	1,105,403,000
2020	520,584	571,942	1,117,203,000
2021	529,384	579,642	1,130,003,000
2022	538,984	588,242	1,143,903,000
2023	549,284	597,842	1,158,603,000
2024	560,184	608,542	1,174,103,000
2025	571,084	619,242	1,189,603,000
2026	581,984	629,942	1,205,103,000

HISTORICAL
RESIDENTIAL CONSERVATION
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2016	264,434	376,887	649,202,000

2017 BUDGET FORECAST
RESIDENTIAL CONSERVATION
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2017	5,000	3,600	6,100,000
2018	5,500	3,800	7,100,000
2019	6,000	5,300	8,200,000
2020	6,800	6,400	9,300,000
2021	7,500	7,400	10,100,000
2022	8,200	8,300	10,900,000
2023	8,800	9,300	11,500,000
2024	9,300	10,300	12,000,000
2025	9,300	10,300	12,000,000
2026	9,300	10,300	12,000,000

2017 BUDGET FORECAST
RESIDENTIAL CONSERVATION
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2017	269,434	380,487	655,302,000
2018	274,934	384,287	662,402,000
2019	280,934	389,587	670,602,000
2020	287,734	395,987	679,902,000
2021	295,234	403,387	690,002,000
2022	303,434	411,687	700,902,000
2023	312,234	420,987	712,402,000
2024	321,534	431,287	724,402,000
2025	330,834	441,587	736,402,000
2026	340,134	451,887	748,402,000

HISTORICAL
COMMERCIAL/INDUSTRIAL CONSERVATION
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2016	228,450	175,155	428,001,000

2017 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL CONSERVATION
INCREMENTAL ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2017	1,000	200	2,200,000
2018	1,100	200	2,300,000
2019	1,100	200	2,300,000
2020	1,200	200	2,500,000
2021	1,300	300	2,700,000
2022	1,400	300	3,000,000
2023	1,500	300	3,200,000
2024	1,600	400	3,500,000
2025	1,600	400	3,500,000
2026	1,600	400	3,500,000

2017 BUDGET FORECAST
COMMERCIAL/INDUSTRIAL CONSERVATION
CUMULATIVE ANNUAL REDUCTIONS
AT GENERATOR

	SUMMER PEAK (KW)	WINTER PEAK (KW)	NET ENERGY FOR LOAD (KWH)
2017	229,450	175,355	430,201,000
2018	230,550	175,555	432,501,000
2019	231,650	175,755	434,801,000
2020	232,850	175,955	437,301,000
2021	234,150	176,255	440,001,000
2022	235,550	176,555	443,001,000
2023	237,050	176,855	446,201,000
2024	238,650	177,255	449,701,000
2025	240,250	177,655	453,201,000
2026	241,850	178,055	456,701,000

VII. SMALL POWER PRODUCTION / RENEWABLE ENERGY

Gulf's 2015 DSM Plan does not have any small power production programs that affect the forecast.

Please refer to the Renewable Resources section of this TYSP for additional information concerning Gulf's efforts to promote and develop supply-side renewable energy resources.

GULF POWER COMPANY

Schedule 2.1

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Rural and Residential					Commercial		
Year	Population*	Members per Household*	GWH	Average No. of Customers	Average KWH Consumption Per Customer	GWH	Average No. of Customers	Average KWH Consumption Per Customer
2007	860,170	2.56	5,477	371,213	14,755	3,971	53,791	73,821
2008	862,830	2.55	5,349	374,709	14,274	3,961	53,810	73,610
2009	866,130	2.55	5,254	374,010	14,049	3,896	53,414	72,942
2010	872,300	2.54	5,651	375,847	15,036	3,997	53,349	74,912
2011	880,780	2.55	5,305	378,157	14,028	3,911	53,409	73,235
2012	898,060	2.55	5,054	379,897	13,303	3,859	53,706	71,846
2013	912,470	2.53	5,089	382,599	13,301	3,810	54,261	70,215
2014	924,710	2.53	5,362	386,765	13,865	3,838	54,749	70,104
2015	938,320	2.52	5,365	391,465	13,705	3,898	55,234	70,566
2016	953,180	2.51	5,358	396,408	13,515	3,869	55,876	69,236
2017	968,440	2.51	5,390	400,915	13,444	3,753	56,346	66,600
2018	984,090	2.50	5,426	406,255	13,356	3,795	56,852	66,757
2019	999,960	2.50	5,469	410,955	13,309	3,824	57,291	66,748
2020	1,015,820	2.50	5,532	415,321	13,320	3,863	57,696	66,954
2021	1,031,160	2.50	5,566	419,169	13,278	3,894	58,060	67,074
2022	1,046,030	2.49	5,573	422,477	13,190	3,917	58,377	67,101
2023	1,060,670	2.49	5,576	425,601	13,102	3,949	58,674	67,301
2024	1,075,140	2.49	5,587	428,685	13,032	3,981	58,967	67,509
2025	1,089,350	2.49	5,603	431,699	12,980	4,010	59,255	67,670
2026	1,103,320	2.49	5,623	434,618	12,938	4,040	59,532	67,865
CAAG								
07-16	1.1%	-0.2%	-0.2%	0.7%	-1.0%	-0.3%	0.4%	-0.7%
16-21	1.6%	-0.1%	0.8%	1.1%	-0.4%	0.1%	0.8%	-0.6%
16-26	1.5%	-0.1%	0.5%	0.9%	-0.4%	0.4%	0.6%	-0.2%

* Historical and projected figures include Pensacola, Crestview, and Panama City MSAs

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						
Year	GWH	Average No. of Customers	Average KWH Consumption Per Customer	Railroads and Railways GWH	Street & Highway Lighting GWH	Other Sales to Public Authorities GWH	Total Sales to Ultimate Consumers GWH
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	1,686	275	6,133,961	0	26	0	11,359
2011	1,799	273	6,586,591	0	25	0	11,040
2012	1,725	267	6,453,071	0	25	0	10,663
2013	1,700	258	6,581,320	0	21	0	10,620
2014	1,849	258	7,165,343	0	25	0	11,075
2015	1,798	249	7,235,499	0	25	0	11,086
2016	1,830	247	7,402,625	0	25	0	11,082
2017	1,664	250	6,652,672	0	24	0	10,830
2018	1,663	252	6,600,826	0	23	0	10,907
2019	1,663	252	6,600,826	0	21	0	10,978
2020	1,664	252	6,602,571	0	20	0	11,079
2021	1,663	252	6,600,826	0	20	0	11,144
2022	1,663	252	6,600,826	0	20	0	11,173
2023	1,663	252	6,600,826	0	20	0	11,209
2024	1,664	252	6,602,571	0	20	0	11,252
2025	1,663	252	6,600,826	0	20	0	11,297
2026	1,663	252	6,600,826	0	20	0	11,347
CAAG							
07-16	-1.2%	-2.2%	1.0%	0.0%	0.2%	0.0%	-0.4%
16-21	-1.9%	0.4%	-2.3%	0.0%	-4.1%	0.0%	0.1%
16-26	-1.0%	0.2%	-1.1%	0.0%	-2.1%	0.0%	0.2%

GULF POWER COMPANY

Schedule 2.3

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

(1)	(2)	(3)	(4)	(5)	(6)
Year	Sales for Resale GWH	Utility Use & Losses GWH	Net Energy for Load GWH	Other Customers (Average No.)	Total No. of Customers
2007	417	733	12,671	486	425,793
2008	398	676	12,617	493	429,302
2009	390	682	11,975	502	428,206
2010	409	750	12,518	559	430,030
2011	382	663	12,086	564	432,403
2012	339	597	11,598	572	434,441
2013	330	602	11,552	579	437,698
2014	332	645	12,052	598	442,370
2015	330	580	11,996	610	447,557
2016	331	618	12,030	609	453,140
2017	324	596	11,750	617	458,128
2018	330	600	11,837	617	463,976
2019	335	604	11,917	617	469,115
2020	340	609	12,029	617	473,886
2021	343	613	12,100	617	478,098
2022	347	615	12,135	617	481,722
2023	350	617	12,175	617	485,144
2024	352	619	12,223	617	488,522
2025	353	621	12,271	617	491,823
2026	355	624	12,326	617	495,019
CAAG					
07-16	-2.6%	-1.9%	-0.6%	2.5%	0.7%
16-21	0.8%	-0.2%	0.1%	0.3%	1.1%
16-26	0.7%	0.1%	0.2%	0.1%	0.9%

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

GULF POWER COMPANY

Schedule 3.1

History and Forecast of Summer Peak Demand - MW

Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
2007	2,989	99	2,891	0	0	175	0	180	2,634
2008	2,898	91	2,807	0	0	176	0	182	2,541
2009	2,909	92	2,817	0	0	177	0	186	2,546
2010	2,896	88	2,807	0	0	178	0	192	2,525
2011	2,919	89	2,830	0	0	186	0	198	2,535
2012	2,769	76	2,693	0	0	206	0	212	2,351
2013	2,810	74	2,736	0	0	229	0	220	2,362
2014	2,905	75	2,830	0	0	243	0	224	2,437
2015	2,982	78	2,904	0	0	259	0	228	2,495
2016	3,001	76	2,924	0	0	264	0	228	2,508
2017	2,932	69	2,863	0	0	269	0	229	2,433
2018	2,958	71	2,888	0	0	275	0	231	2,453
2019	2,982	72	2,909	0	0	281	0	232	2,469
2020	3,006	73	2,932	0	0	288	0	233	2,485
2021	3,028	74	2,954	0	0	295	0	234	2,499
2022	3,041	75	2,966	0	0	303	0	236	2,502
2023	3,056	76	2,981	0	0	312	0	237	2,507
2024	3,073	76	2,997	0	0	322	0	239	2,513
2025	3,094	77	3,017	0	0	331	0	240	2,523
2026	3,117	77	3,040	0	0	340	0	242	2,535
CAAG									
07-16	0.0%	-2.8%	0.1%	0.0%	0.0%	4.7%	0.0%	2.7%	-0.5%
16-21	0.2%	-0.6%	0.2%	0.0%	0.0%	2.2%	0.0%	0.5%	-0.1%
16-26	0.4%	0.1%	0.4%	0.0%	0.0%	2.5%	0.0%	0.6%	0.1%

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

GULF POWER COMPANY

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation	Comm/Ind Load Management	Comm/Ind Conservation	Net Firm Demand
06-07	2,644	91	2,554	0	0	275	0	146	2,224
07-08	2,793	97	2,696	0	0	276	0	147	2,370
08-09	2,757	98	2,659	0	0	287	0	150	2,320
09-10	2,996	107	2,890	0	0	289	0	154	2,553
10-11	2,950	99	2,851	0	0	297	0	157	2,495
11-12	2,621	89	2,532	0	0	317	0	165	2,139
12-13	2,275	70	2,205	0	0	341	0	169	1,766
13-14	3,223	90	3,132	0	0	356	0	172	2,694
14-15	3,039	85	2,954	0	0	372	0	175	2,492
15-16	2,595	74	2,521	0	0	377	0	175	2,043
16-17	2,709	72	2,637	0	0	380	0	175	2,153
17-18	2,733	74	2,659	0	0	384	0	176	2,173
18-19	2,755	76	2,679	0	0	390	0	176	2,190
19-20	2,778	77	2,701	0	0	396	0	176	2,206
20-21	2,797	79	2,718	0	0	403	0	176	2,217
21-22	2,806	80	2,727	0	0	412	0	177	2,218
22-23	2,817	80	2,736	0	0	421	0	177	2,219
23-24	2,830	81	2,748	0	0	431	0	177	2,221
24-25	2,847	82	2,765	0	0	442	0	178	2,228
25-26	2,868	83	2,785	0	0	452	0	178	2,238
CAAG									
07-16	-0.2%	-2.3%	-0.1%	0.0%	0.0%	3.6%	0.0%	2.1%	-0.9%
16-21	1.5%	1.2%	1.5%	0.0%	0.0%	1.4%	0.0%	0.1%	1.6%
16-26	1.0%	1.1%	1.0%	0.0%	0.0%	1.8%	0.0%	0.2%	0.9%

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

GULF POWER COMPANY

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total	Residential Conservation	Comm/Ind Conservation	Retail	Wholesale	Utility Use & Losses	Net Energy for Load	Load Factor %
2007	13,373	375	327	11,521	417	733	12,671	54.9%
2008	13,326	378	331	11,543	398	676	12,617	56.5%
2009	12,704	384	345	10,903	390	682	11,975	53.7%
2010	13,256	388	350	11,359	409	750	12,518	56.0%
2011	12,864	417	361	11,040	382	663	12,086	54.4%
2012	12,453	482	374	10,663	339	597	11,598	56.2%
2013	12,502	551	399	10,620	330	602	11,552	55.8%
2014	13,064	595	416	11,075	332	645	12,052	51.1%
2015	13,066	642	427	11,086	330	580	11,996	54.9%
2016	13,107	649	428	11,082	331	618	12,030	54.6%
2017	12,836	655	430	10,830	324	596	11,750	55.1%
2018	12,932	662	433	10,907	330	600	11,837	55.1%
2019	13,022	671	435	10,978	335	604	11,917	55.1%
2020	13,146	680	437	11,079	340	609	12,029	55.1%
2021	13,230	690	440	11,144	343	613	12,100	55.3%
2022	13,279	701	443	11,173	347	615	12,135	55.4%
2023	13,334	712	446	11,209	350	617	12,175	55.4%
2024	13,397	724	450	11,252	352	619	12,223	55.4%
2025	13,461	736	453	11,297	353	621	12,271	55.5%
2026	13,531	748	457	11,347	355	624	12,326	55.5%
CAAG								
07-16	-0.2%	6.3%	3.0%	-0.4%	-2.6%	-1.9%	-0.6%	-0.1%
16-21	0.2%	1.2%	0.6%	0.1%	0.8%	-0.2%	0.1%	0.2%
16-26	0.3%	1.4%	0.7%	0.2%	0.7%	0.1%	0.2%	0.2%

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

GULF POWER COMPANY

Schedule 4

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2016 Actual		2017 Forecast		2018 Forecast	
	Peak Demand	NEL	Peak Demand	NEL	Peak Demand	NEL
Month	MW	GWH	MW	GWH	MW	GWH
January	2,043	970	2,153	935	2,173	944
February	2,008	828	1,929	794	1,935	798
March	1,595	832	1,633	804	1,644	810
April	1,829	821	1,707	814	1,722	821
May	2,125	1,018	2,171	1,013	2,190	1,022
June	2,341	1,200	2,327	1,178	2,344	1,186
July	2,508	1,341	2,433	1,269	2,453	1,280
August	2,408	1,269	2,378	1,256	2,398	1,267
September	2,299	1,151	2,190	1,094	2,211	1,104
October	2,075	969	1,986	902	2,000	909
November	1,717	788	1,679	799	1,685	802
December	1,739	843	1,926	892	1,929	894

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

Gulf Power Company

Schedule 5
Fuel Requirements

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Fuel Requirements		Units	Actual 2015	Actual 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(1)	Nuclear		Trillion BTU	None	None	None	None	None	None	None	None	None	None	None	None
(2)	Coal		1000 TON	2,490	2,553	2,025	1,110	1,814	2,025	2,422	2,210	2,727	2,897	3,156	3,074
(3)	Residual	Total	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(4)		Steam	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(5)		CC	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(6)		CT	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(7)		Diesel	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(8)	Distillate	Total	1000 BBL	19	20	12	7	10	10	11	11	15	15	13	17
(9)		Steam	1000 BBL	17	19	12	7	10	10	11	11	13	13	12	14
(10)		CC	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(11)		CT	1000 BBL	2	1	0	0	0	0	0	0	2	2	1	3
(12)		Diesel	1000 BBL	None	None	None	None	None	None	None	None	None	None	None	None
(13)	Natural Gas	Total	1000 MCF	54,704	58,310	61,652	64,864	67,591	59,551	54,390	54,622	34,306	27,280	30,252	29,625
(14)		Steam	1000 MCF	383	520	0	0	0	0	0	0	0	0	0	0
(15)		CC	1000 MCF	53,333	56,792	60,457	63,669	67,591	59,551	54,390	54,622	29,098	20,691	22,904	21,997
(16)		CT	1000 MCF	988	998	1,195	1,195	0	0	0	0	5,208	6,589	7,348	7,628
(17)	Other [(A)]		1000 MCF	258	257	239	239	239	240	239	239	239	240	239	239

(A) Perdido Units' landfill gas burn included in Other

GULF POWER COMPANY

Schedule 6.1
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources		Units	Actual 2015	Actual 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(1)	Annual Firm Interchange		GWH	(903)	(2,318)	(2,679)	(1,100)	(3,120)	(2,447)	(2,579)	(2,113)	(3,294)	437	(530)	(177)
(2)	Nuclear		GWH	None	None	None	None	None	None	None	None	None	None	None	None
(3)	Coal		GWH	4,876	4,697	4,517	2,481	4,093	4,651	5,574	5,116	6,315	6,661	7,279	7,085
(4)	Residual	Total	GWH	0	0	0	0	0	0	0	0	0	0	0	0
(5)		Steam	GWH	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CC	GWH	None	None	None	None	None	None	None	None	None	None	None	None
(7)		CT	GWH	None	None	None	None	None	None	None	None	None	None	None	None
(8)		Diesel	GWH	None	None	None	None	None	None	None	None	None	None	None	None
(9)	Distillate	Total	GWH	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.6	1.1
(10)		Steam	GWH	None	None	None	None	None	None	None	None	None	None	None	None
(11)		CC	GWH	None	None	None	None	None	None	None	None	None	None	None	None
(12)		CT	GWH	0.8	0.4	0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.6	1.1
(13)		Diesel	GWH	None	None	None	None	None	None	None	None	None	None	None	None
(14)	Natural Gas	Total	GWH	7,787	8,724	8,547	8,986	9,473	8,352	7,634	7,660	7,680	3,648	4,047	3,943
(15)		Steam	GWH	23	19	0	0	0	0	0	0	0	0	0	0
(16)		CC	GWH	7,697	8,637	8,466	8,905	9,473	8,352	7,634	7,660	7,164	2,996	3,319	3,187
(17)		CT	GWH	67	68	81	81	0	0	0	0	516	652	728	756
(18)	NUGs		GWH	156	171	172	174	176	177	179	181	183	185	186	188
(19)	Renewables	Total	GWH	79	756	1193	1296	1295	1296	1292	1291	1290	1291	1288	1,286
(20)		LFG	GWH	25	24	25	25	25	25	25	25	25	25	25	25
(21)		MSW	GWH	54	57	33	0	0	0	0	0	0	0	0	0
(22)		Solar	GWH	0	0	104	240	239	238	236	235	234	233	232	230
(23)		Wind	GWH	0	675	1,031	1,031	1,031	1,033	1,031	1,031	1,031	1,033	1,031	1,031
(19)	Net Energy for Load		GWH	11,996	12,030	11,750	11,837	11,917	12,029	12,100	12,135	12,175	12,223	12,271	12,326

NOTE: Line (18) includes energy received from Non-Renewable resources. See Schedule 6.3 for details on Gulf's renewable resources .

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 2015	Actual 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(1)	Annual Firm Interchange		%	(7.53)	(19.27)	(22.80)	(9.29)	(26.18)	(20.34)	(21.31)	(17.41)	(27.05)	3.58	(4.32)	(1.44)
(2)	Nuclear		%	None	None	None	None	None	None	None	None	None	None	None	None
(3)	Coal		%	40.65	39.04	38.44	20.96	34.35	38.66	46.07	42.16	51.87	54.50	59.32	57.48
(4)	Residual	Total	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(5)		Steam	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(6)		CC	%	None	None	None	None	None	None	None	None	None	None	None	None
(7)		CT	%	None	None	None	None	None	None	None	None	None	None	None	None
(8)		Diesel	%	None	None	None	None	None	None	None	None	None	None	None	None
(9)	Distillate	Total	%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
(10)		Steam	%	None	None	None	None	None	None	None	None	None	None	None	None
(11)		CC	%	None	None	None	None	None	None	None	None	None	None	None	None
(12)		CT	%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
(13)		Diesel	%	None	None	None	None	None	None	None	None	None	None	None	None
(14)	Natural Gas	Total	%	64.91	72.52	72.74	75.91	79.49	69.43	63.09	63.12	63.08	29.85	32.98	31.99
(15)		Steam	%	0.19	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(16)		CC	%	64.16	71.80	72.05	75.23	79.49	69.43	63.09	63.12	58.84	24.51	27.05	25.86
(17)		CT	%	0.56	0.57	0.69	0.68	0.00	0.00	0.00	0.00	4.24	5.33	5.93	6.13
(18)	NUGs		%	1.96	7.71	11.62	12.42	12.34	12.25	12.16	12.13	12.10	12.08	12.01	11.96
(19)	Renewables	Total	%	0.66	6.28	10.15	10.95	10.87	10.77	10.68	10.64	10.60	10.56	10.50	10.43
(20)		LFG	%	0.21	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20
(21)		MSW	%	0.45	0.47	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(22)		Solar	%	0.00	0.00	0.89	2.03	2.01	1.98	1.95	1.94	1.92	1.91	1.89	1.87
(23)		Wind	%	0.00	5.61	8.77	8.71	8.65	8.59	8.52	8.50	8.47	8.45	8.40	8.36
(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

NOTE: Line (18) based on energy received from Non-Renewable resources. See Schedule 6.3 for details on Gulf's renewable resources .

CHAPTER III

PLANNING ASSUMPTIONS AND PROCESSES

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THE INTEGRATED RESOURCE PLANNING PROCESS

In order to coordinate its plans for future resource additions, Gulf participates in the SES IRP process. This planning process begins with a determination of the various escalation and inflation rates that will impact the financial condition of the SES. Experts from within and outside the SES meet 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. Information gathered from these discussions serves 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 on the economic assumptions, 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, generation technology screening analysis and evaluation, engineering cost estimation, evaluation of dispatchable and non-dispatchable demand-side management (DSM) programs, and other planning activities.

The SES operating companies remain active in offering customers various DSM programs which result in modified consumption patterns. The impact of such DSM programs on system loads is assessed and included as an input into the SES IRP process. DSM programs which are identified as cost-effective alternatives to the supply-side resources are integrated with the supply-side options to produce a final integrated resource plan. Gulf's forecast of energy

sales and peak demand reflects the continued impacts of its conservation programs. The DSM programs' costs and benefits are regularly updated in order to facilitate 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 anticipated compliance costs. 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 for meeting any identified capacity need. 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 which utilize conventional or renewable fuels.

The supply side of the IRP process focuses on the SES as a whole. The current SES IRP used in the development of Gulf's 2017 TYSP has as its planning criterion a 16.25% reserve margin target for the year 2020 and beyond.(1) The 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.

(1) The retail SES operating companies have adopted this long-term reserve margin target for development of the system's IRP.

It also balances the cost of adding additional generation with the 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 Strategist® model. Strategist® employs a generation mix optimization module named PROVIEW™. The supply-side technology candidates are input into Strategist® 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 fuel forecasts, load forecasts, DSM programs, 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 many combinations of generation additions that satisfy the reserve margin constraint for every year. Annual system operating costs are simulated and are added to the construction costs required to build each combination of resource additions. An indicative schedule of least cost resource additions is developed by evaluating each year sequentially and comparing the results of each combination. 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-side 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 reviewed for reasonableness and validity. It is important to note that supply-side 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 responsible for recommending the type and timing of its unit additions. When all companies are satisfied with their capacity additions, the system base supply-side plan is complete. The result is an individual operating company supply plan that fits within the SES planning criteria.

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 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 mix study is again performed to ensure that the IRP is the most economical and cost-effective plan. The resulting product of the SES IRP process is an integrated indicative 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 resource 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 ensure 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.

In prior years, Gulf has entered into a series of power purchase agreements to meet its capacity needs, and it will continue this practice in the future if economically attractive opportunities which satisfy Gulf's system reliability needs are available. In order to ensure that adequate transmission facilities are in place to handle these purchase transactions when Gulf has the need for additional capacity, it has been and will continue to be Gulf's practice to perform a transmission analysis of viable power purchase proposals to determine any transmission constraints. Gulf will formulate a plan, if needed, to resolve any transmission issues in a cost-effective manner prior to proceeding with negotiations for power purchase agreements.

FUEL PRICE FORECAST PROCESS

FUEL PRICE FORECASTS

Fuel price forecasts are used for a variety of purposes within the 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. Domestic coal commodity prices are forecast on either a mine-mouth basis or free on board (FOB) barge basis, while import coals are forecast on an FOB ship basis at the port of import. 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, commodity price forecasts are prepared for different coal classifications used on the SES. Because natural gas does not possess the same quality variations as coal, a single commodity price forecast for gas at Henry Hub is prepared, and a basis differential between Henry Hub and the various pipelines serving SES plants is applied. One price forecast is developed for ultra-low sulfur diesel (ULSD) oil, which is the only oil used in the SES.

Transportation costs, to be used in the delivered price forecast, are developed for potential sites when modeling generic unit additions in the resource planning process. Site-specific transportation costs are developed for existing units to produce delivered price forecasts for both the resource planning 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

The 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 developed by SCS Fuel Services for use in the system's fuel budgeting process and marginal pricing dispatch procedures.

The long-term forecasts are developed in the spring of each year for use in system planning activities. Charles River & Associates (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 cross-functional SES planning teams, including Gulf Power personnel, and is governed by an SES executive team.

Fuel market assumptions, developed in collaboration between CRA and SES, are integrated into CRA's model to develop commodity forecast prices. Transportation prices are developed by the SES and are combined with the CRA commodity prices to produce the total delivered prices used in the resource planning process. These prices are developed for existing units and potential green field/brown field sites for future expansion.

COAL PRICE FORECAST

In 2016, coal production in the United States was approximately 743 million short tons, a decrease of 17% from the 900 million short tons produced in 2015, and the lowest level since 1978. The annual decline in coal production in the Powder River Basin coal supply region was 70 million short tons (17%) from 2015 levels. Other declines in coal production relative to 2015 levels ranged from 16% to 26% in the Northern and Central Appalachian basins, the Rocky Mountain region, and the Illinois Basin. Low natural gas pricing, warmer-than-normal temperatures during the 2015-16 winter that reduced electricity demand, retirements of some coal-fired generating units, and lower international coal demand for U.S. basin coals, have contributed to declining U.S. coal production. It is estimated that Colombian coal production remained flat in 2016.

Even though coal production declined in the U.S. due to the aforementioned reasons, overall global demand for coal saw an increase in 2016. The major thermal and metallurgical importer on the world market continues to be China. China had experienced less demand over the last few years, however, in mid to late 2016, demand increased on the back of governmental policies regulating domestic coal production and the amount of coal end users were allowed to import. The primary supply for China continues to be from Indonesia and Australia. European demand also picked up slightly in 2016 with the primary supply coming from Colombia and its secondary source being supplied from either South Africa or Russia and, to a lesser extent, the U.S. when an imbalance occurs.

From an overall global market supply perspective, the 2016 coal market was more in balance than in previous years. This fact, coupled with governmental policy in China, contributed to strengthened prices in the world market. In the U.S., this price increase continues to be tempered by a combination of abundant low priced natural gas, renewable generation alternatives and environmental regulations which continue to displace coal generation. Even though U.S. exports were minimal in 2016, steam coal prices in major basins did experience mostly double-digit percentage increases in 2016. For example, Central Appalachian coal spot prices increased by 34% in 2016. Coal prices in the Powder River, Illinois, and Northern Appalachian coal supply regions increased 22%, 8%, and 31%, respectively in 2016. Colombian coal prices have doubled over the last couple of years.

Coal production from the Central Appalachian coal region continues to decline as a result of the inability of mines to compete with lower price coal basins, including the Illinois Basin and the Powder River Basin. Over the last few years, Illinois Basin coal production has seen steady increases, in large part, as a result of the widespread installation of scrubbers at eastern power generation stations. Capital investment is typically required to enable Illinois Basin or Central Appalachian coal-fired generating units to utilize the less expensive Powder River Basin coal. With the completion of these controlled units, Illinois Basin will be forced again to compete with Powder River Basin coal.

Historically, Powder River Basin regional coal production has grown at 5% per year over sustained periods, but, as mentioned above, production levels decreased by 17% in 2016. Production costs in the PRB have increased slightly

as mining moves from East to West across the basin and deeper reserves are accessed. Increased overburden and distance to rail load outs have put upward pressure on costs, but the continued decrease in fuel oil prices will provide some cost relief. Overall, the economics of surface mining in this region remain favorable.

Demand for Western Bituminous coal is expected to remain flat to declining as several generators in Colorado have ceased burning this coal. The quality of the coal that can be exported from this region will have a major impact on its long term production levels. As for the movements into the southeast, the high transportation costs make Western Bituminous coals less economic to this region.

NATURAL GAS PRICE FORECAST

In 2016, Gas Daily Henry Hub prices averaged $2.48/mmBtu, a modest $0.13/mmBtu decrease over the average of $2.61/mmBtu for 2015. The 2016 Henry Hub natural gas price was the lowest since 1999 as a result of a very mild winter that left natural gas inventories at a record high for the end of March 2016. However, high natural gas use for electricity generation during the summer and declining production contributed to Henry Hub natural gas prices rising from an average of $2.00/mmBtu in the first quarter of 2016 to an average of $2.88/mmBtu in the third quarter of 2016. Cold weather across much of the northern United States in mid-December led to an increase in demand contributing to natural gas inventories ending the month and year below the five-year average. As a result, Henry Hub spot prices passed the $3.00/mmBtu mark at the end of November ultimately averaging $3.59/mmBtu in December 2016.

This was the first month prices averaged above $3.00/mmBtu since December 2014. January 2017 was the warmest since 2006. The mild weather caused the average Henry Hub natural gas prices to fall by $0.29/mmBtu from December levels to $3.30/mmBtu. The continued mild weather in February 2017 has seen natural gas prices fall further into the $2.90s. Continued weakening gas prices are predicted as the outlook for season heating demand looks increasingly bearish.

NATURAL GAS STORAGE

In 2016 natural gas storage inventory levels began the year above the five year average and consistently registered above the five year historical range throughout the year. January 2016 saw a dramatic increase in storage withdraws with cold temperatures. Even with triple-digit storage withdrawals throughout the month, January inventories remained well above the five year average. Warmer-than-normal weather the remainder of winter resulted in the withdrawal season ending in March 2016 with 2.5 Tcf of working gas in storage compared to 1.5 Tcf in 2015 and the five year average of 1.6 Tcf. By end of June inventory levels topped 3.0 Tcf. This was the earliest time ever in the injection season this level was achieved. Historically inventory does not reach 3.0 Tcf until August or September. Warm temperatures in the summer and declining production slowed the gas storage inventory build. The third quarter ended with an inventory balance at 3.6 Tcf, in-line with 2015 inventory. The warmer weather continued into the Fall and natural gas storage peaked at 4.05 Tcf in the week ending November 11th. The US Energy Information Administration (EIA) reported this level set a new all-time record high. However, cold weather and high gas

demand in December resulted in large inventory draws. The 2016 final storage inventory report as of December 30th was 3.3 Tcf. By the end of January 2017, storage levels had shifted back above the 5 year average to 2.8 Tcf.

NATURAL GAS AVAILABILITY

Increasing capacity for natural gas-fired electric generation, growing domestic natural gas consumption, and new LNG export capabilities contribute to the natural gas forecast. The EIA projects Henry Hub natural gas prices to average $3.43/mmBtu in 2017 and $3.70/mmBtu in 2018. U.S. natural gas production is forecast to increase to 73.7 Bcf/day and 77.8 Bcf/day in 2017 and 2018, respectively. The increase is a reversal of the 2016 production decline, the nation's first decline since 2005. U.S. natural gas production growth is the result of continued development of shale gas and tight oil plays which account for nearly two-thirds of natural gas production by 2040. Marcellus, Utica and Haynesville have the largest undeveloped natural gas resources.

Continued technological advancement and improvement in industry practices are expected to lower costs and increase the expected ultimate recovery per well. Little demand growth is expected in the residential and commercial sectors. Industrial and electric power markets will drive the rising domestic consumption of natural gas in the future. A brief decline in natural gas-fired generation is expected in 2017 due to strong growth in renewable generation and higher gas prices. However, demand is expected to rebound slightly in 2018. Exports of LNG will continue to increase as four more LNG export facilities are scheduled to be completed by 2020. Exports of natural gas to Mexico are projected to rise as pipeline infrastructure currently under

development allows for increased exports to meet Mexico's increased demand for natural gas to fuel electric power generation. The United States is expected to become a net export market in the next few years.

STRATEGIC ISSUES

Power Purchase Agreements have provided supply-side diversity and flexibility that allows Gulf to adapt its future generation expansion plans to changing market conditions without negative financial impacts to the Company and its customers. Gulf's Shell PPA provides 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. With the Shell PPA in place, Gulf will have sufficient capacity to meet its load service and reliability requirements until June 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 in the future when appropriate and cost-effective to do so.

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 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 its reserve requirements 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 Compliance section of this TYSP, compliance with additional environmental regulations has led to retirements of several Gulf coal-fired units. The current system resource plan indicates that the addition of new gas-fired units will be needed in 2023 to supplement the generating unit capacity remaining after these unit retirements that have already occurred and the expiration of the Shell PPA in May 2023. Gulf continues to monitor the development of state and national policy in the area of air, land, and water regulations. Gulf will consider options for compliance with the resulting regulations that fulfill its obligation to serve the energy needs of its retail customers in Northwest Florida with reliable and cost-effective electricity. With Gulf's Shell PPA that provides firm gas-fired generating capacity until May 2023 of the current planning cycle, Gulf is well positioned to meet current and future load requirements as proposed state and federal environmental compliance standards are finalized.

ENVIRONMENTAL COMPLIANCE

Gulf has developed and routinely updates its environmental compliance strategy to serve as a road map for a cost-effective compliance plan. This road map establishes general direction, but allows for individual decisions to be made based on specific information available at the time. The focus of the strategy updates is centered on compliance with the acid rain requirements and other significant clean air requirements, as well as new land and water requirements. This approach is necessary to preserve the flexibility to match a dynamic regulatory environment with the available compliance options.

Gulf will continue to take all necessary actions to fully comply with all environmental laws and regulations as they apply to the operation of its existing generation facilities and the installation of new generation. The following is a summary of each major area of existing and emerging environmental regulations and Gulf's actions taken to comply with these regulations.

Existing Environmental 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 (SO_2) and nitrogen oxides (NO_X). Gulf's compliance activities for SO_2 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 (scrubbers) on Plant Crist Units 4 through 7

in December 2009, Plant Scherer Unit 3 in March 2011, and Plant Daniel Units 1 and 2 in November 2015 which are now achieving significant reductions of SO_2 emissions at these coal-fired units. In addition to reducing SO_2 emissions, Gulf has installed low NO_X burners and/or additional post-combustion NO_X controls on its coal-fired units. Compliance with the Clean Air Act and resulting regulations has been and will continue to be a significant focus for the Company.

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 Reduction Controls (SNCR) and over-fire air on Crist Unit 6 in February 2006 and SNCR controls on Crist Unit 4 and Unit 5 in April 2006. These controls have achieved the overall plant-wide NO_X emissions average of 0.2 lbs/mmBtu as outlined in the FDEP Agreement. In accordance with the FDEP agreement, Gulf also retired Crist Unit 1 in 2003 and Crist Units 2 and 3 in 2006. The Company installed SCR controls on Scherer 3 in December 2010 as required by the Georgia Multipollutant Rule to reduce NOx. The Crist 6 SNCR and over-fire air were replaced with SCR technology in April 2012 in order to further reduce NO_X emissions.

The EPA regulates ground level ozone concentrations through implementation of an eight-hour ozone National Ambient Air Quality Standard (NAAQS). In 2008, the EPA adopted a revised eight-hour ozone NAAQS and published its final area designations in 2012. All areas within the Company's geographic service area have achieved attainment of the 2008 standard. In October 2015, the EPA published a more stringent eight-hour ozone NAAQS. States were required to recommend area designations by October 2016. The State of Georgia recommended that an 8-hour area in metro Atlanta be designated nonattainment. All other areas in the Company's geographic service area were recommended to be designated attainment. EPA is expected to finalize designations for the 2015 ozone standard by late 2017 or early 2018.

Air Quality Standards for Fine Particulate Matter

The EPA regulates fine particulate matter concentrations on an annual and 24-hour average basis. Attainment with the 1997 and 2006 particulate matter NAAQS has been achieved in all geographical areas served by the Company. In 2012, the EPA issued a final rule that increased the stringency of the annual fine particulate matter standard. All areas in which the Company's generating units are located have been determined by the EPA to be in attainment with those standards.

Air Quality Standards for SO_2 and NO_2

In 2010, the EPA revised the NAAQS for sulfur dioxide (SO_2), establishing a new one-hour standard. No areas within the Company's geographic service area have been designated as nonattainment under this standard. However, in

2015, the EPA finalized a data requirements rule to support final EPA designation decisions for all remaining areas under the SO_2 standard, which could result in nonattainment designations for areas within the Company's service area. On June 30, 2016, the EPA administrator signed the final round two SO_2 designations in which the area surrounding Plant Scherer was designated attainment. Round three, based on the modeling requirements, will be finalized by December 2017. Nonattainment designations could require additional reductions in SO_2 emissions and increased compliance and operational costs.

Clean Air Interstate Rule / Cross State Air Pollution Rule

The EPA issued its final Clean Air Interstate Rule (CAIR) in 2005 which called for phased reductions in SO_2 and NO_x emissions from power plants in 28 eastern states. In 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 developed a revised rule. In 2011, the EPA promulgated the Cross State Air Pollution Rule (CSAPR) to replace CAIR. Like CAIR, CSAPR is an emissions trading program that limits SO_2 and NO_x emissions from power plants in two phases – Phase I which began in 2015 and Phase II which began in January 2017. On October 26, 2016, the EPA published a final rule that updates the CSAPR ozone-season NO_x program, establishing more stringent ozone-season emissions budgets in Mississippi and removing Florida from the program. The State of Georgia’s emission budget was not affected by the revisions, but Georgia’s CSAPR interstate emissions trading

is restricted unless the state decides to voluntarily adopt a significantly reduced budget. Georgia is also in the CSAPR annual SO_2 and NO_x programs.

Decisions regarding Gulf's CAIR/CSAPR compliance strategy were made jointly with the Clean Air Visibility Rule (CAVR) and CAMR/MATS compliance plans due to co-benefits of proposed controls. Compliance is being accomplished by operation of emission controls installed for CAIR at Gulf's coal-fired facilities and/or by the purchase of emission allowances as needed.

Clean Air Visibility Rule

The CAVR was finalized in 2005 in order to restore natural visibility conditions in certain areas (primarily national parks and wilderness areas) by 2064. The rule involves the application of Best Available Retrofit Technology (BART) to certain sources built between 1962 and 1977 and any additional emission reductions necessary for each designated area to achieve reasonable progress toward the natural conditions goal by 2018 and for each 10-year planning period thereafter.

On December 14, 2016, the EPA finalized revisions to the regional haze regulations. These regulations establish a deadline of July 31, 2021 for states to submit revised State Implementation Plans (SIP) to the EPA demonstrating reasonable progress toward the statutory goal of achieving natural background conditions by 2064. State implementation of the reasonable progress requirements defined in this final rule could require further reductions in SO_2 or NO_x emissions.

Startup Shutdown and Malfunction

In June 2015, the EPA published a final rule requiring certain states (including Florida, Georgia, and Mississippi) to revise or remove the provisions of their SIPs relating to the regulation of excess emissions at industrial facilities, including fossil fuel-fired generating facilities, during periods of startup, shut-down, or malfunction (SSM). SIP revisions were to be submitted by November 22, 2016, by the affected states where the Company's generating units are located, however, the EPA has not acted on any of the required SIPs revisions.

Mercury and Air Toxics Standards

In 2012, the EPA finalized the Mercury and Air Toxics Standards (MATS) rule which imposes stringent emissions limits for acid gases, mercury, and particulate matter on coal- and oil-fired electric utility steam generating units. The compliance deadline set by the final MATS rule was April 16, 2015 or April 16, 2016 for affected units for which extensions were granted.

Gulf evaluated a number of options for its coal-fired generation to comply with emission standards required by the MATS rule and EPA's proposed land and water rules. As described in Gulf's Air Quality Compliance Program Update that was filed with the FPSC, Gulf determined that transmission upgrades provide the best MATS compliance option for Plant Crist. For the Plant Daniel coal units, the best options to meet MATS limits included installing scrubbers, bromine injection, and activated carbon injection. The Plant Daniel scrubbers were placed in-service in November 2015 and the Plant Daniel bromine and activated carbon injection systems were placed in service in December 2015.

The Plant Daniel and the Plant Crist MATS continuous emission monitoring systems (CEMS) were also placed in-service during 2015. For Plant Scherer Unit 3, installation of the scrubber, SCR, baghouse and mercury monitoring for compliance with the Georgia Multipollutant Rule also provided compliance with the MATS limits.

In 2013, the Company determined that the most cost-effective MATS compliance option for Plant Scholz was to retire the plant. Therefore, Plant Scholz was retired in April 2015. In early 2015, the Company finalized its MATS compliance strategy for Plant Smith. The most cost-effective compliance option was to retire the Plant Smith coal-fired Units 1 and 2 in March of 2016. Plant Smith's remaining units will continue to operate and generate electricity. All of the Company's units that are subject to the MATS rule completed the measures necessary to achieve compliance with this rule or were retired prior to or during 2016.

EMERGING ENVIRONMENTAL REGULATIONS

316(b) Intake Structures

The EPA published a final 316 (b) rule in August 2014 that became effective on October 14, 2014. The rule establishes standards for reducing effects on fish and other aquatic life caused by cooling water intake structures at existing power plants and manufacturing facilities. The rule also addresses cooling water intake structures for new units at existing facilities. Compliance with the final rule may require changes to existing cooling water intake structures at certain Gulf generating facilities; however, the ultimate effect of this final rule

will depend on the results of additional studies and implementation of the rule by regulators based on site-specific factors. National Pollutant Discharge Elimination System permits issued after July 14, 2018 must include conditions to implement and ensure compliance with the standards and protective measures required by the rule.

Effluent Limitations

In November 2015, the EPA published a final effluent guidelines rule which imposes stringent technology-based requirements for certain waste streams from steam electric power plants. The revised technology-based limits and compliance dates will be incorporated into future renewals of National Pollutant Discharge Elimination System permits at affected units and may require the installation and operation of multiple technologies sufficient to ensure compliance with applicable new numeric wastewater compliance limits. Compliance deadlines between November 1, 2018 and December 31, 2023 will be established in permits based on information provided for each applicable waste stream.

Waters of the U.S. Final Rule (WOTUS)

In 2015, the EPA and the U.S. Army Corps of Engineers (jointly, “the Agencies”) published a final rule revising the regulatory definition of waters of the U.S. for all Clean Water Act (CWA) programs. The final rule significantly expands the scope of federal jurisdiction under the CWA. This rule could significantly increase permitting and regulatory requirements and costs

associated with the siting of new facilities and the installation, expansion, and maintenance of transmission and distribution lines.

The WOTUS rule became effective August 28, 2015, but on October 9, 2015, the U.S. Court of Appeals for the Sixth Circuit issued an order staying implementation of the final rule. The case is held in abeyance pending review by the U.S. Supreme Court of challenges to the U.S. Court of Appeals for the Sixth Circuit's jurisdiction in the case.

On February 28, 2017, President Trump signed an Executive Order (EO) that instructs the Agencies to review the Obama Administration's WOTUS Rule. Following the EO, the Agencies published in the *Federal Register* a notice of intent to review and rescind or revise the Rule. On March 6, 2017 the government filed a motion to hold the briefing schedule in abeyance in the Supreme Court litigation. A decision on the motion is expected during April, 2017.

Water Quality and Total Maximum Daily Loads

In addition to this federal action, State of Florida nutrient water quality standards that limit the amount of nitrogen and phosphorous allowed in state waters are in effect for the State's streams and estuaries. The impact of these standards will depend on further regulatory action in connection with their site-specific implementation through the State of Florida's National Pollutant Discharge Elimination System permitting program and Total Maximum Daily Load restoration program and cannot be determined at this time.

Coal Combustion Residuals (CCR)

The Company currently manages CCR at three onsite storage units. These consist of an ash pond at one facility and landfills and surface impoundments (CCR Units) at two electric generating plants in Florida. Gulf is a co-owner of units at generating plants located in Mississippi and Georgia operated by Mississippi Power and Georgia Power, respectively. In addition to on-site storage, the Company sells a portion of its CCR to third parties for beneficial reuse. Individual states regulate CCR and the States of Florida, Mississippi, and Georgia each have their own regulatory requirements. The Company has an inspection program in place to assist in maintaining the integrity of its coal ash surface impoundments.

The CCR Rule, which became effective in October 2015, regulates the disposal of CCR, including coal ash and gypsum, as non-hazardous solid waste in CCR Units at active generating power plants. The CCR Rule does not automatically require closure of CCR Units but includes minimum criteria for active and inactive surface impoundments containing CCR and liquids, lateral expansions of existing units, and active landfills. Failure to meet the minimum criteria can result in the required closure of a CCR Unit. On December 16, 2016, President Obama signed the Water Infrastructure Improvements for the Nation Act (WIIN Act). The WIIN Act allows states to establish an EPA approved permit program for implementing the CCR Rule and allows for federal permits and EPA enforcement where a state permitting program does not exist.

The Company has posted closure and post-closure care plans to its public website as required by the CCR Rule; however, the ultimate impact of the CCR Rule will depend on the results of initial and ongoing minimum criteria assessments and the implementation of state or federal permit programs. As further analysis is performed, including evaluation of the expected method of compliance, refinement of assumptions underlying the cost estimates, such as the quantities of CCR at each site, and the determination of timing with respect to compliance, the Company expects to continue to periodically update cost estimates and schedules for the CCR compliance activities.

Greenhouse Gas Regulations

In October 2015, the EPA published two final actions that would limit CO_2 emissions from fossil fuel-fired electric generating units. One of the final actions contains specific emission standards governing CO_2 emissions from new, modified, and reconstructed units. The other final action, known as the Clean Power Plan, establishes guidelines for states to develop plans to meet EPA-mandated CO_2 emission rates or emission reduction goals for existing units. The EPA's final guidelines require state plans to meet interim CO_2 performance rates between 2022 and 2029 and final rates in 2030 and thereafter. At the same time, the EPA published a proposed federal plan and model rule that, when finalized, states can adopt or that would be put in place if a state either does not submit a state plan or its plan is not approved by the EPA. In December 2016, the EPA withdrew the proposed model rule and released the rule as a working draft, meaning the rule is for informational purposes only and not considered

final. On February 9, 2016, the U.S. Supreme Court granted a stay of the Clean Power Plan, pending disposition of petitions for review with the courts. The stay will remain in effect through the resolution of the litigation, including any review by the U.S. Supreme Court.

These guidelines and standards could result in operational restrictions and material compliance costs, including capital expenditures, which could affect future unit retirement and replacement decisions and decisions on infrastructure expansion and improvements. However, the ultimate financial and operational impact of the final rules on the Company cannot be determined at this time and will depend upon numerous factors, including the outcome of pending legal challenges, including legal challenges filed by the traditional electric operating companies, and any individual state implementation of the EPA's final guidelines in the event the rule is upheld and implemented.

Conclusion

Gulf has made substantial investments in environmental controls to comply with current and pending laws and regulations. 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 cost-effective 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 engaged in the sale of firm capacity and energy to several utilities outside the SES through a series of long-term wholesale power sales agreements with initial terms beginning prior to 1987. Gulf's share of these long-term off-system sales of capacity and energy varies from year to year and is reflected in the reserve calculations on Schedules 7.1 and 7.2, while the fuel use and the energy associated with Gulf’s portion of these sales are included on Schedules 5 and 6.1 respectively. In the early to late 1980s, Gulf committed much of its owned capacity in Plant Daniel Units 1 and 2 through a long-term off-system sales contract. However, Gulf's primary contribution to these long-term off-system sales has come from its ownership interest in Unit 3 at Plant Scherer which Gulf acquired as part of its long range

resource planning to meet the needs of its retail electric service customers. The initial contracts for sales out of Plant Scherer Unit 3 became effective with its commercial operation in 1987 for terms through 2010 and were succeeded by subsequent contracts that became effective in 2005 for terms beginning in 2010. The expiration dates for the 2005 vintage agreements vary by contract with one having termed out at the end of 2015 and another ending in May 2016. The remaining contract is scheduled to end in December 2019.

CHAPTER IV

FORECAST OF FACILITIES REQUIREMENTS

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CAPACITY RESOURCE ALTERNATIVES

POWER PURCHASES

As Gulf considers self-build resources that can potentially meet its future need for capacity, longer-term power purchases from the market will be evaluated in order to determine their 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 market purchases in the future to balance its approach to supply side resource development.

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 continue to evaluate its internal construction options versus external development of capacity resources in order to determine how to best meet its future capacity obligations. Commercially available generating technologies such as natural gas-fired combustion turbine, natural gas-fired combined cycle, and nuclear technologies will be included in future SES IRP mix studies. In addition, generating facilities with carbon capture technology may be added to the future generation mix studies so that their potential economic and technical viabilities may be evaluated. The potential benefits of these technologies may include greater efficiency and lower environmental emissions.

If subsequent mix studies or market solicitations identify alternative power supply technologies or power purchase 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 cost-effective electricity.

RENEWABLE RESOURCES

Gulf has secured the supply of capacity and/or energy from several renewable facilities. Schedule 6.3 of this TYSP includes the amount of renewable energy that Gulf has produced or purchased from existing renewable resources, and the amounts currently projected to be produced or purchased from existing renewable resources during the 2017-2026 planning cycle.

Gulf will continue to purchase renewable energy produced by the Bay County Resource Recovery Facility through a negotiated energy purchase agreement that was executed in 2014. This facility, operated and maintained by Engen, LLC, is located in Panama City, Florida and uses municipal solid waste to produce energy for delivery to Gulf on a non-firm basis. Per terms of the agreement, Gulf purchases the energy delivered to its system at fixed prices. The agreement expires in July 2017, and Gulf is in discussions with the facility owners to extend this agreement. In 2010, Gulf began receiving energy from its Perdido landfill gas-fired generating facility that is located on leased property adjacent to Escambia County's Perdido Landfill which is northwest of Pensacola, Florida. Gulf's Perdido facility consists of two Caterpillar G3520C internal combustion generating units that have a maximum capacity rating of 1.6 MW each. The facility is operated and maintained under contract with LFG Technologies, Inc. Gulf has an agreement with Escambia County, Florida for the purchase of their landfill gas to fuel this Gulf-owned facility. The agreement has a term of 20 years and can be renewed for additional, successive 12 month periods.

Gulf Power has energy purchase agreements that secure renewable energy from three solar facilities (Gulf Coast Solar Center I, Gulf Coast Solar Center II, and Gulf Coast Solar Center III) and two energy purchase agreements for renewable energy from the Kingfisher Wind project to serve Gulf's customers. The solar projects are being constructed at three military bases in Northwest Florida. The Kingfisher Wind project produces renewable energy from a facility located in Oklahoma.

On October 30, 2014 and November 7, 2014, Gulf Power and Gulf Coast Solar Center I, II, & III, LLC (subsidiaries of Coronal Development Services, LLC) executed three separate agreements that provide for the sale of energy produced by the solar facilities to Gulf. Each solar energy purchase agreement has a term of twenty-five years and contains robust performance security provisions to protect Gulf and its customers in case of contract default.

Gulf Coast Solar Center I, LLC will develop, construct, own, operate and maintain a 30 MW solar generation facility on Eglin Air Force Base in Okaloosa County, Florida. Gulf Coast Solar Center II, LLC will develop, construct, own, operate and maintain a 40 MW solar generation facility on the U.S. Navy's Holley Outlying Field in Santa Rosa County, Florida. Gulf Coast Solar Center Ill, LLC will develop, construct, own, operate and maintain a 50 MW solar generation facility on the U.S. Navy's Saufley Outlying Field in Escambia County, Florida. Each of the facilities will be directly interconnected to Gulf Power transmission facilities and the owners are fully responsible for the costs of interconnection. These solar energy purchase agreements are expected to provide multiple

benefits to Gulf Power and its customers including, but not limited to, cost savings over the term of the agreements, fuel diversity, promotion of renewable energy generation in Florida, and assistance to the United States Air Force and the United States Navy in achieving their goals for the promotion of renewable generation.

On December 18, 2014, Gulf Power and Morgan Stanley executed an energy purchase agreement (Kingfisher I) with a term of approximately twenty years which is subject to early termination provisions. The Kingfisher Wind project, constructed as a result of this agreement, is located in Kingfisher and Canadian Counties, Oklahoma. Included in the agreement are performance security provisions designed to protect Gulf and its customers in case of default. Morgan Stanley is obligated to deliver a fixed number of MWhs to Gulf in each hour of the agreement's twenty year term, and Gulf will purchase the energy at prices as specified in the agreement. Morgan Stanley bears all risks and responsibilities associated with delivering energy to the SES Transmission System. The agreement is expected to provide multiple benefits to Gulf and its customers including, but not limited to, substantial cost savings over the term of the agreement, reduced exposure to future fuel cost increases and volatility, and promotion of new renewable wind energy generation.

On June 10, 2016, Gulf and Morgan Stanley executed a second energy purchase agreement (Kingfisher II) with a term of approximately twenty years which is also subject to early termination provisions. This Kingfisher II agreement is substantially similar the Kingfisher I agreement, wherein Morgan

Stanley is obligated to deliver a fixed number of MWhs to Gulf in each hour of the agreement's twenty year term, and Gulf will purchase the energy at prices as specified in the agreement.

Under the solar and wind energy purchase agreements, Gulf retains the flexibility to serve its retail customers with renewable energy by retiring the associated environmental attributes or selling the energy and/or environmental attributes separately or bundled together to third parties. To the extent that Gulf Power opts to sell renewable attributes, the proceeds from such sales would be returned to Gulf's retail customers in the form of credits to the Fuel and Purchased Power Cost Recovery Clause.

Gulf is continuously looking for opportunities to provide cost-effective renewable energy to increase its fuel diversity. This includes opportunities to construct its own facilities or to purchase energy from new or existing renewable facilities. Gulf 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.

GULF POWER COMPANY

Schedule 6.3
Renewable Energy Sources

(1)	(2)	(3) Actuals	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Renewable Energy Sources [A]	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
(1)	Renewable Generating Capacity											
	Perdido (MW)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Kingfisher Wind [B] (MW)	58.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
	Perdido (MWh)	24,158	24,699	24,699	24,699	24,765	24,699	24,699	24,699	24,765	24,699	24,699
	Bay County (MWh)	57,117	33,318	0	0	0	0	0	0	0	0	0
	Gulf Coast Solar Center I @ Eglin (MWh)	0	34,700	59,995	59,693	59,539	59,090	58,789	58,487	58,330	57,884	57,583
	Gulf Coast Solar Center II @ Holley (MWh)	0	31,021	80,797	80,391	80,192	79,579	79,173	78,767	78,564	77,955	77,549
	Gulf Coast Solar Center III @ Saufley (MWh)	0	38,668	99,202	98,703	98,447	97,706	97,208	96,709	96,448	95,712	95,214
	Kingfisher Wind I (MWh)	674,795	673,737	673,737	673,737	675,538	673,737	673,737	673,737	675,538	673,737	673,737
	Kingfisher Wind II (MWh)	0	356,843	356,843	356,843	357,458	356,843	356,843	356,843	357,458	356,843	356,843
	Total MWh	756,070	1,192,986	1,295,273	1,294,066	1,295,939	1,291,654	1,290,449	1,289,242	1,291,103	1,286,830	1,285,625
	% of Capacity Mix	1.9	2.8	2.8	2.8	2.8	2.8	2.8	3.1	3.1	3.1	3.1
	% of NEL	6.3	10.2	10.9	10.9	10.8	10.7	10.6	10.6	10.6	10.5	10.4
	% of Fuel Mix	5.3	8.3	10.0	8.6	9.0	8.8	9.1	8.3	11.0	10.1	10.3
(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

(A) Owned and/or Purchased by Gulf.
(B) MWs scheduled during the system peak hour per contract obligation to deliver fixed amount per hour.
(C) Energy produced by these customers' generators varies depending on demand for their product.

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PREFERRED AND POTENTIAL SITES FOR CAPACITY ADDITIONS

Gulf is currently evaluating options to construct new generating facilities by June 2023 of the current planning cycle following the expiration of its 885 MW Shell PPA. The Company's next need is for natural gas-fired generation, and both CT and CC capacity additions are being studied. Gulf's studies will focus on its existing Florida sites at Plant Crist in Escambia County, Plant Smith in Bay County, and Plant Scholz in Jackson County, as well as its greenfield sites in Florida at Shoal River in Walton County, at Caryville in Holmes County, and at North Escambia in Escambia County as potential sites for locating future generating units in Northwest Florida.

Each of these potential sites has unique characteristics that may offer construction and/or operational advantages related to the potential installation of natural gas-fired CTs or CCs. Please note that the sites discussed herein are not listed in any particular order based on their individual attributes. Site selection for Gulf's next generating unit addition 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. The estimated peak water usage for a CT or a CC should be identical for each site mentioned below. Gulf estimates water usage to be approximately 500 gpm for a single CT and approximately 4,800 gpm for one CC, with the majority of the CC water needs being required for

cooling purposes. However, more precise water usage estimates are highly dependent upon the selected generation technology and quality of the water body at each potential site.

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 ensuring 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 924 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 84 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 ensuring 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 556 MW of combined cycle generation and 32 MW of CT generation. Plant Smith coal-fired units 1 and 2 were retired in March 2016.

U. S. Geological Survey (USGS) Map

A USGS map showing the general location of the Plant Smith property is found on page 85 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. The Plant Scholz facility was retired in April 2015.

U. S. Geological Survey (USGS) Map

A USGS map showing the general location of the Plant Scholz property is found on page 86 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 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, also referred to as the Mossy Head property, is approximately 3 miles northwest of

Mossy Head, Florida. It 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 87 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.

Potential Site #5: Caryville Property, Holmes County

The project site would be located on undeveloped Gulf property that is bisected by the Holmes/Washington County, Florida line. If the project is

ultimately located on this property, detailed studies will 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 ensuring full compliance with local, state, and federal requirements. This property is approximately 1.5 miles northeast of Caryville, Florida. It is located just east of the Choctawhatchee River and can be accessed via County Road 179 from nearby U. S. Highway 90.

U. S. Geological Survey (USGS) Map

A USGS map showing the general location of the Caryville property is found on page 88 of this chapter.

Land Uses and Environmental Features

The Caryville property is certified under the Power Plant Siting Act for two 500 MW coal-fired units, but is also suitable for natural gas-fired generating units. The site is approximately 2,200 acres in size and is adjacent to a major railroad line on its southern boundary. The land surrounding the property is primarily rural and is used mainly for agriculture and timber harvesting. General environmental features of the property mainly include wooded upland areas, with areas of wetlands. 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 and available surface water.

Potential Site #6: North Escambia Property, Escambia County

The project site would be located on undeveloped Gulf property that is located in the northern part of Escambia County, Florida, approximately 5 miles southwest of Century, Florida. It is located just west of the Escambia River and can be accessed via County Road 4 from nearby U. S. Highway 29. If the project is ultimately located on this property, detailed studies will 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.

U. S. Geological Survey (USGS) Map

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

Land Uses and Environmental Features

The North Escambia property is primarily dedicated to timber harvesting and agricultural use. The property is in close proximity to transmission, natural gas pipelines, railroad, major highways and access to water, all suitable to accommodate new generation needs. The site is currently 2,728 acres and includes property located directly on the Escambia River to support the water supply needs for any future generating facility. The land surrounding the property is primarily rural and is used mainly for timber harvesting and agriculture. General environmental features of the property mainly include wooded upland areas, with areas of hardwood/pine forest and wetlands. There are no other unique or

significant environmental features on the property that would substantially affect future 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.

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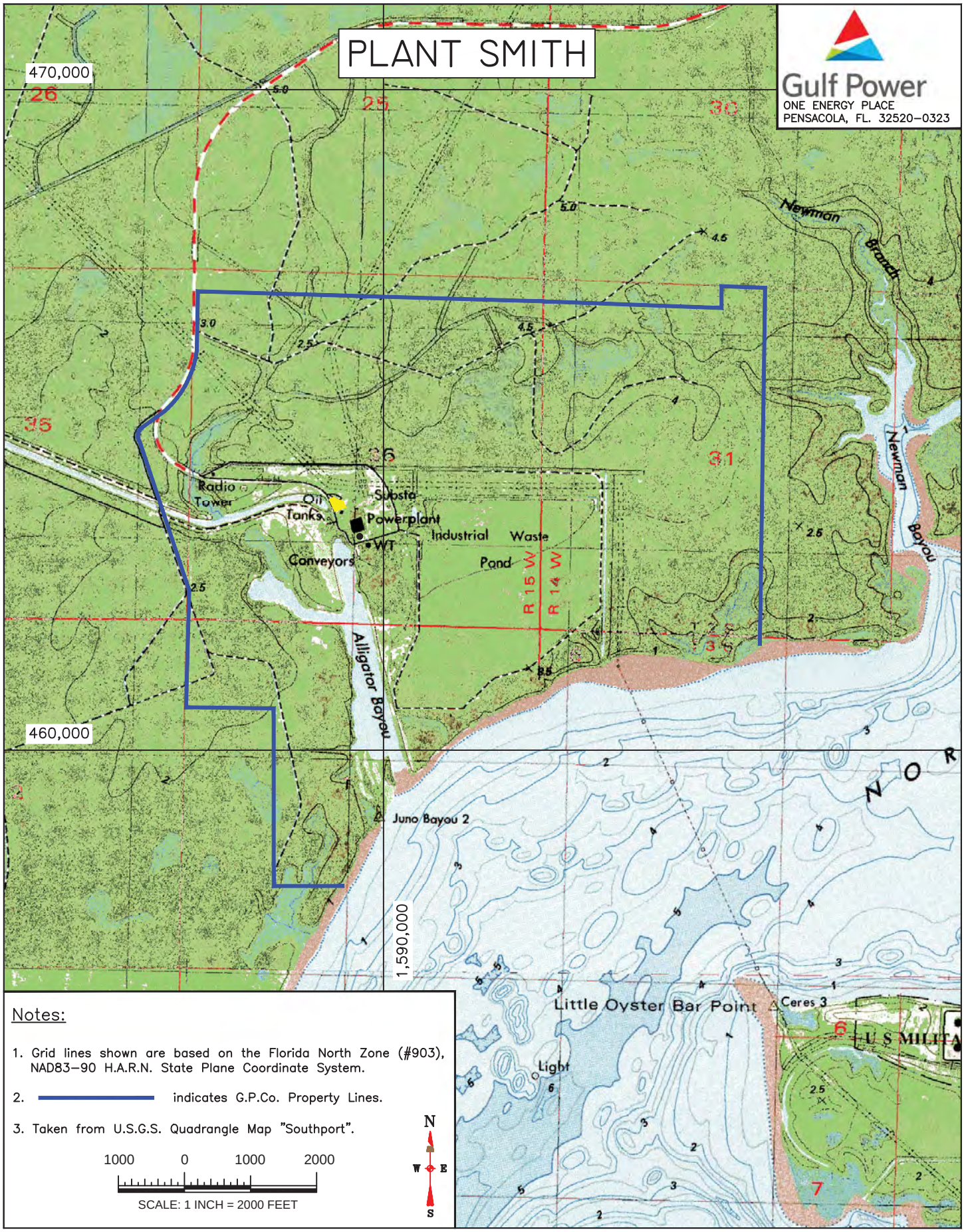

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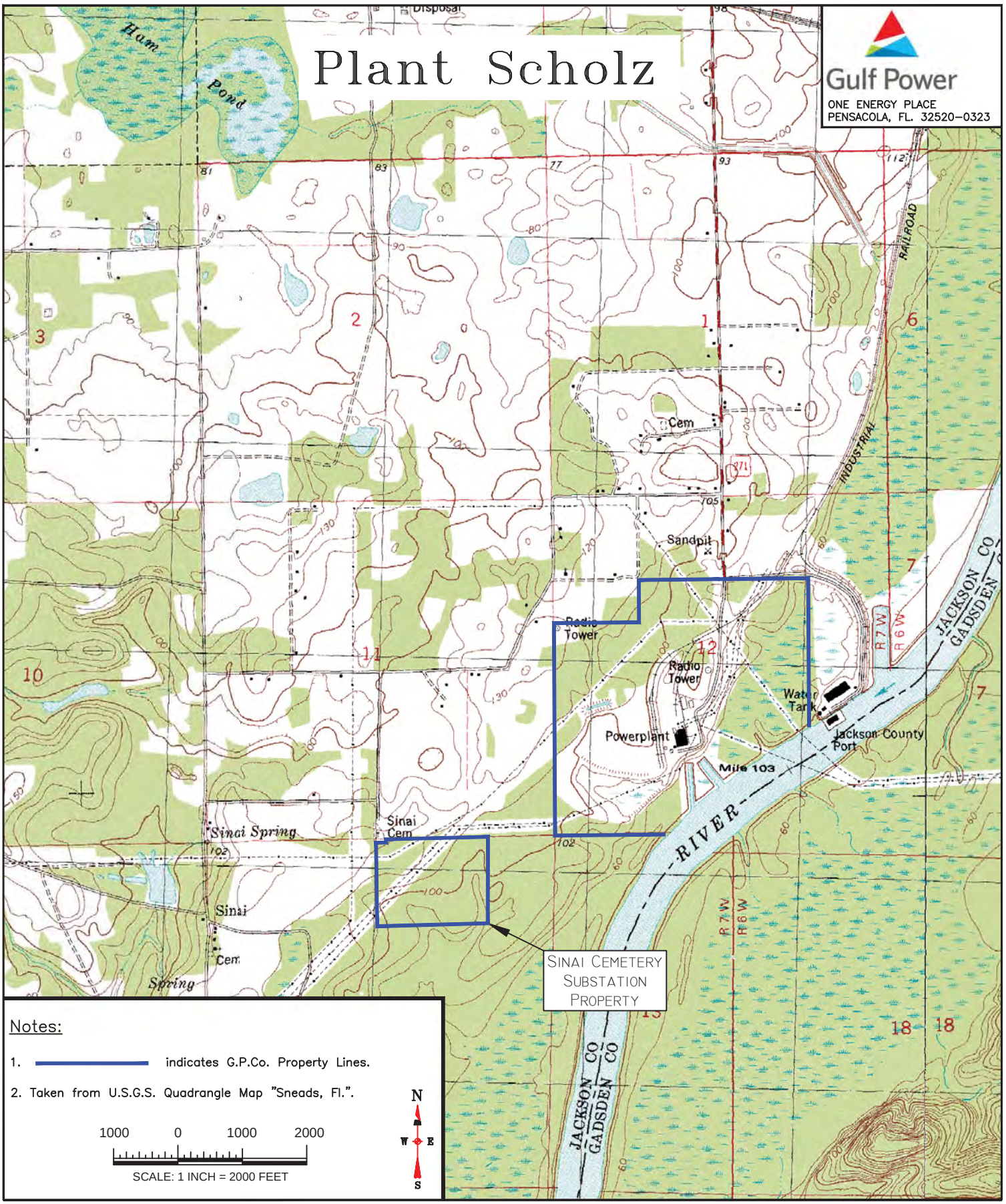

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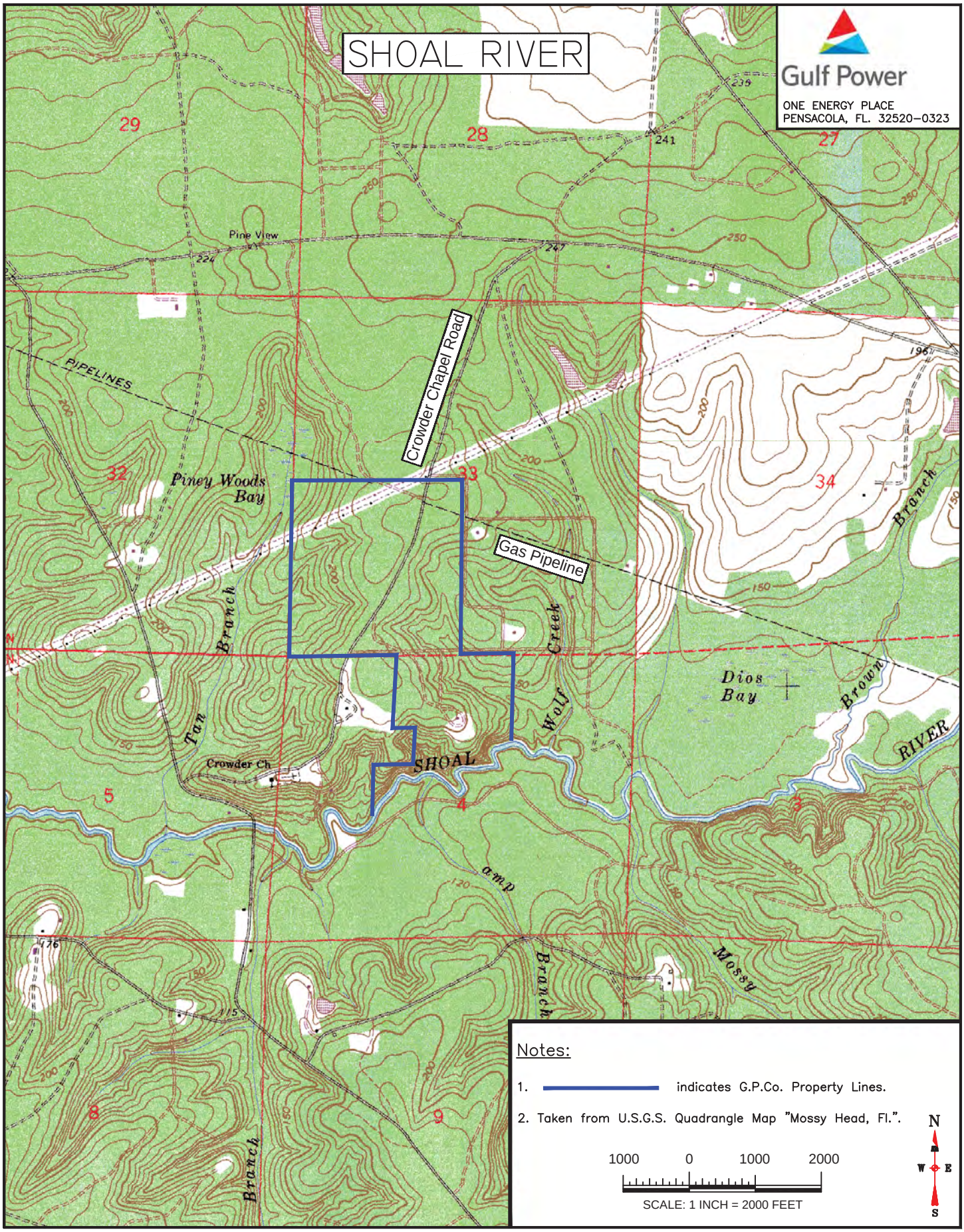

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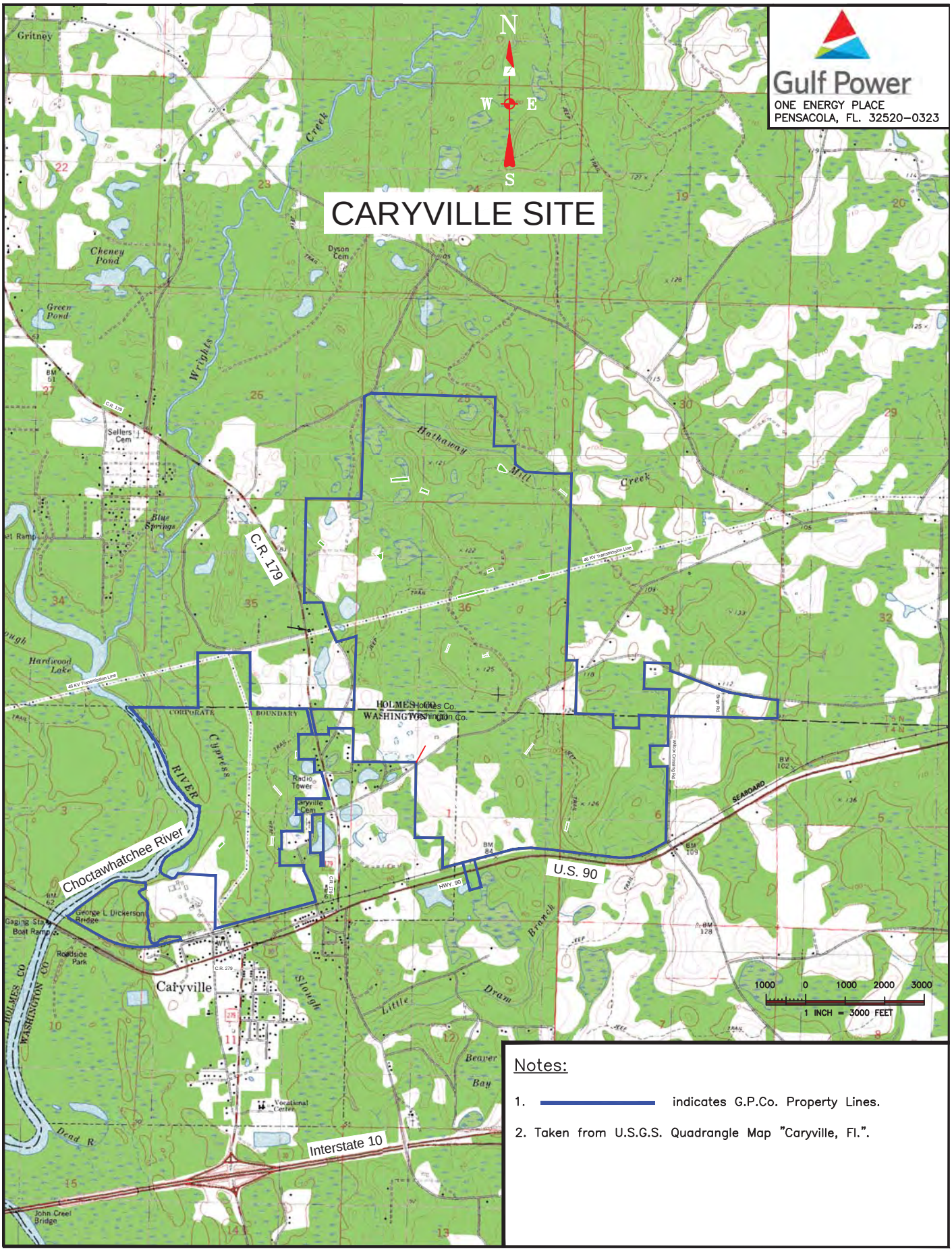

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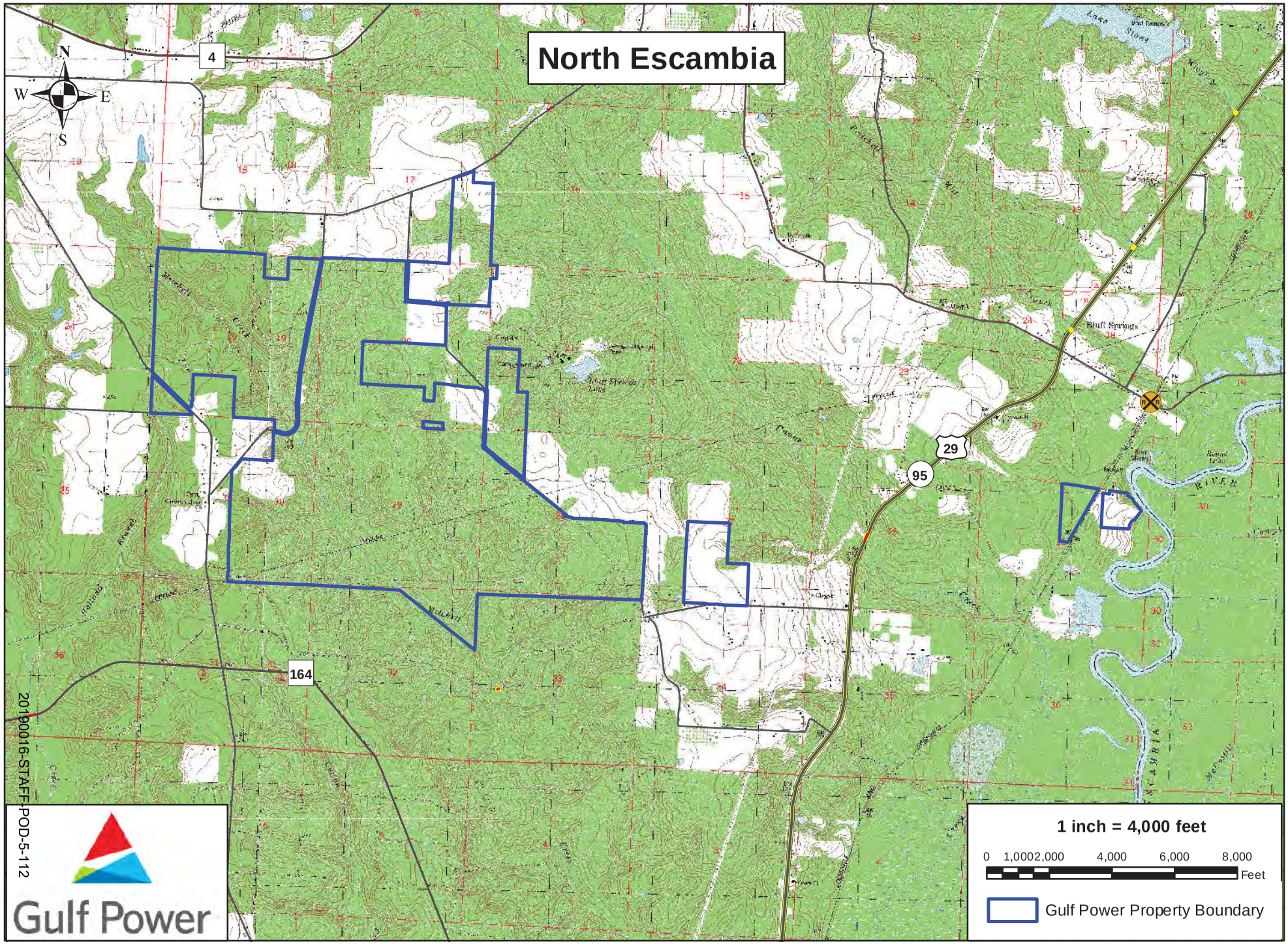
North Escambia
N
W
E
S
4
29
95
164
Bluff Springs
20190016-STAFF-POD-5-112
Gulf Power
1 inch = 4,000 feet
0 1,000 2,000 4,000 6,000 8,000
Feet
Gulf Power Property Boundary

GULF POWER COMPANY

SCHEDULE 7.1

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
							RESERVE MARGIN BEFORE MAINTENANCE			RESERVE MARGIN AFTER MAINTENANCE	
YEAR	TOTAL INSTALLED CAPACITY MW	FIRM CAPACITY IMPORT MW	FIRM CAPACITY EXPORT MW	NUG MW	TOTAL CAPACITY AVAILABLE MW	FIRM PEAK DEMAND MW	MW	% OF PEAK	SCHEDULED MAINTENANCE MW	MW	% OF PEAK
2017	2,272	974	(50)	0	3,196	2,433	763	31.4%	NONE	763	31.4%
2018	2,272	974	(50)	0	3,196	2,453	743	30.3%		743	30.3%
2019	2,260	974	(50)	0	3,184	2,469	715	29.0%		715	29.0%
2020	2,260	974	0	0	3,234	2,485	749	30.1%		749	30.1%
2021	2,260	974	0	0	3,234	2,499	735	29.4%		735	29.4%
2022	2,260	974	0	0	3,234	2,502	732	29.3%		732	29.3%
2023	2,914	89	0	0	3,003	2,507	496	19.8%		496	19.8%
2024	2,914	89	0	0	3,003	2,513	490	19.5%		490	19.5%
2025	2,914	89	0	0	3,003	2,523	480	19.0%		480	19.0%
2026	2,914	89	0	0	3,003	2,535	468	18.5%		468	18.5%

GULF POWER COMPANY

SCHEDULE 7.2

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
							RESERVE MARGIN BEFORE MAINTENANCE			RESERVE MARGIN AFTER MAINTENANCE	
YEAR	TOTAL INSTALLED CAPACITY MW	FIRM CAPACITY IMPORT MW	FIRM CAPACITY EXPORT MW	NUG MW	TOTAL CAPACITY AVAILABLE MW	FIRM PEAK DEMAND MW	MW	% OF PEAK	SCHEDULED MAINTENANCE MW	MW	% OF PEAK
2016-17	2,311	994	(55)	0	3,250	2,153	1,097	51.0%	NONE	1,097	51.0%
2017-18	2,311	994	(50)	0	3,255	2,173	1,082	49.8%		1,082	49.8%
2018-19	2,296	994	(50)	0	3,240	2,190	1,050	47.9%		1,050	47.9%
2019-20	2,296	994	(50)	0	3,240	2,206	1,034	46.9%		1,034	46.9%
2020-21	2,296	994	0	0	3,290	2,217	1,073	48.4%		1,073	48.4%
2021-22	2,296	994	0	0	3,290	2,218	1,072	48.3%		1,072	48.3%
2022-23	2,296	994	0	0	3,290	2,219	1,071	48.3%		1,071	48.3%
2023-24	2,973	109	0	0	3,082	2,221	861	38.8%		861	38.8%
2024-25	2,973	109	0	0	3,082	2,228	854	38.3%		854	38.3%
2025-26	2,973	109	0	0	3,082	2,238	844	37.7%		844	37.7%

GULF POWER COMPANY

SCHEDULE 8

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
						Fuel Transport						Net Capability		
Plant Name	Unit No.	Location	Unit Type	Fuel Pri	Fuel Alt	Pri	Alt	Const Start Mo/Yr	Com'l In-Service Mo/Yr	Effective Date Mo/Yr	Gen Max Nameplate KW	Summer MW	Winter MW	Status
Lansing Smith	3	Bay County 36/2S/15W	CC	NG	--	PL	--	--	04/02	01/17	619,650	21.0	21.0	CR
Pea Ridge	1 - 3	Santa Rosa County 15/1N/29W	CT	NG	--	PL	--	--	05/98	12/18	14,250	(12.0)	(15.0)	R
Combustion Turbines	1 - 3	Unknown	CT	NG	DFO	PL	TK	06/19	06/23	06/23	696,000	654.0	677.0	P

Abbreviations:

Unit Type
- FS - Fossil Steam
- S - Steam
- CT - Combustion Turbine
- CC - Combined Cycle
- IC - Internal Combustion

Fuel
- C - Coal
- NG - Natural Gas
- DFO - Distillate Fuel Oil
- LFG - Landfill Gas
- WDS - Wood Waste Solid

Status
- CR - Certified Rating change
- D - Environmental derate
- P - Planned, but not authorized by utility
- R - To be retired
- U - Under construction, less than or equal to 50% complete
- V - Under construction, more than 50% complete

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

GULF POWER COMPANY

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	Combustion Turbines
(2)	Net MW Capacity	
	a. Summer:	654
	b. Winter	677
	Gross MW Capacity	
	a. Summer:	662
	b. Winter	685
(3)	Technology Type:	GT
(4)	Anticipated Construction Timing	
	a. Field construction start - date:	06/19
	b. Commercial in-service date:	06/23
(5)	Fuel	
	a. Primary fuel:	NG
	b. Alternate fuel:	DFO
(6)	Air Pollution Control Strategy:	Dry Low NOx Burners
(7)	Cooling Method:	Evaporative Cooling
(8)	Total Site Area:	Unknown
(9)	Construction Status:	Planned Not Committed
(10)	Certification Status:	Not Applied
(11)	Status with Federal Agencies:	Not Applied
(12)	Projected Unit Performance Data	
	Planned Outage Factor (POF):	1.4%
	Unplanned Outage Factor (UOF):	3.6%
	Equivalent Availability Factor (EAF):	95.0%
	Capacity Factor (%):	12.9%
	Average Net Operating Heat Rate (ANOHR):	10,304
(13)	Projected Unit Financial Data	
	Book Life (Years):	40
	Total Installed Cost (In-Service Year $/kW):	564
	Direct Construction Cost ('17 $/kW):	447
	AFUDC Amount ($/kW):	59
	Escalation ($/kW):	58
	Fixed O&M ('23 $/kW - Yr):	18.57
	Variable O&M ('23 $/MWH):	5.08
	K Factor:	1.3782

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

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