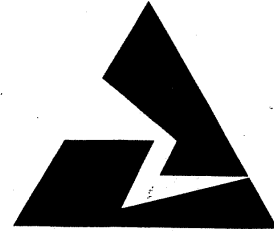


Gulf Power



TEN YEAR SITE PLAN

1982 - 1991

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

APRIL, 1982

**GULF POWER COMPANY
TEN YEAR SITE PLAN
FOR ELECTRICAL GENERATING FACILITIES
AND
ASSOCIATED TRANSMISSION LINES**

Submitted to the
State of Florida
Department of Veteran and Community Affairs
Division of Local Resource Management
Bureau of Land and Water Management
Power Plant Siting Program

APRIL 1, 1982

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CHAPTER 1

DESCRIPTION OF EXISTING FACILITIES

UTILITY GULF POWER COMPANY
EXISTING GENERATING FACILITIES

(1) Plant	(2) Unit No.	(3) Location	(4) Type	(5) Fuel Pri Alt	(6) Com'l In-Service Mo/Yr	(7) Exptd Retirmt Mo/Yr	(8) Gen Max Nameplate KW	(9) Net Capacity		(11) MW	(12) Fuel Transp Pri Alt	(13) Alt Fuel Days Use
								Summer	Winter			
Crist	1	Pensacola 25/1N/30W	F	NG HO	1/45	1990	1,229,000	1049.8	1049.8	21.9	PL TK	-
	2		F	NG HO	6/49	1990	28,125	21.9	21.9	21.0	PL TK	-
	3		F	NG HO	9/52	1990	37,500	37.8	37.8	37.8	PL TK	-
	4		F	C NG	7/59	1996	93,750	81.1	81.1	81.1	WA PL	-
	5		F	C NG	6/61	1996	93,750	85.6	85.6	85.6	WA PL	-
	6		F	C NG	5/70	2005	369,750	316.8	316.8	316.8	WA -	-
	7		F	C no	8/73	2008	578,000	485.6	485.6	485.6	WA -	-
Lansing Smith	1	Panama City 36/2S/15W	F	C no	6/65	2002	381,850	379.5	383.0	160.2	WA -	-
	2		F	C no	6/67	2004	149,600	160.2	160.2	188.0	WA -	-
	A		CT	LO no	5/71	1991	190,400	188.0	188.0	34.8	TK -	-
Scholz	1	Sneads 12/3N/7W	F	C no	3/53	1990	98,000	92.7	92.7	46.3	RR -	-
	2		F	C no	10/53	1990	49,000	46.3	46.4	46.4	RR -	-
Daniel (1)	1	Jackson County, MS 42/5S/6W	F	C HO	4/77	2017	548,250	509.0	509.0	255.6	RR -	-
	2		F	C HO	6/81	2021	274,125	253.4	253.4	253.4	RR -	-

Total System as of December 31, 1981 2031.0 2034.5

1) Gulf acquired ownership of 50% of units 1 and 2 on June 1, 1981.

UTILITY Gulf Power Company

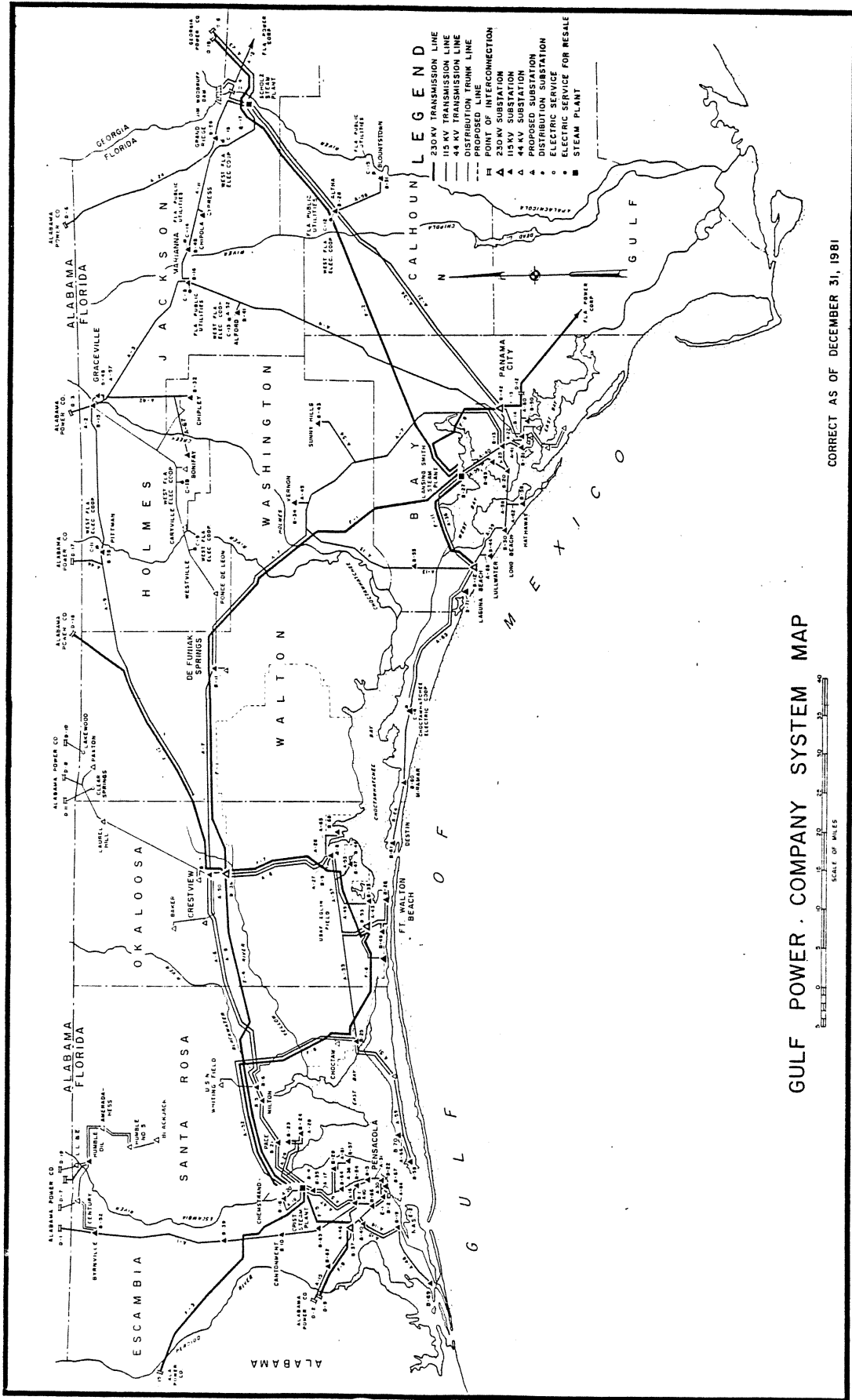
EXISTING GENERATING FACILITIES
LAND USE AND INVESTMENT

(1) Plant Name	(2)	(3)	(4)		(5)	(6)	(7)
	Total Acres	Land Area In Use Acres	Land	Plant Capital Investment (in \$1,000)	Structures & Improvement	Equipment	Total
Steam Total			5,838	84,081	425,602		515,521
Crist	676.00	200	1,742	32,843	184,202		218,787
Lansing Smith	841.40	270	221	10,890	58,651		69,762
Scholz	293.15	168	45	4,821	18,808		23,674
Daniel	2,657.00 (1)	500 (1)	3,830 (2)	35,527 (2)	163,748 (2)		203,105 (2)
Caryville (Weather Station)					193		193
<u>Combustion Turbine Total</u>				<u>104</u>	<u>3,776</u>		<u>3,880</u>
Lansing Smith CT				104	3,776		3,880

(1) Daniel Plant information refers to total area owned jointly by Gulf and Mississippi Power.
(2) Gulf Power's portion of Plant Daniel only.

UTILITY GULF POWER COMPANY
 EXISTING GENERATING FACILITIES
 ENVIRONMENTAL CONSIDERATIONS FOR STEAM GENERATING UNITS

(1) PLANT NAME	(2) UNIT	(3) FLUE GAS CLEANING		(4) SOx	(5) NOx	(6) COOLING TYPE
		PARTICULATE	SOx			
Crist	1	no	no	no	no	WCTM
	2	no	no	no	no	WCTM
	3	no	no	no	no	WCTM
	4	EP	no	no	no	WCTM
	5	EP	no	no	no	WCTM
	6	EP	no	no	no	WCTM
	7	EP	no	no	no	WCTM
Lansing Smith	1	EP	no	no	no	OTS
	2	EP	no	no	no	OTS
Scholz	1	EP	no	no	no	OTF
	2	EP	no	no	no	OTF
Daniel	1	EP	no	no	no	CP
	2	EP	no	no	no	CP



CHAPTER II

FORECAST OF ELECTRIC POWER DEMAND

UTILITY Gulf Power Company

HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(1) Year	(2) Population	(3) Members Per Household	(4) Rural & Residential			(5) Average			(6) Average KWH Consumption Per Customer	(7) GWH	(8) Average No. of Customers	(9) Average KWH Consumption Per Customer
			(4) GWH	(5) No. of Customers	(5) No. of Customers	(5) No. of Customers	(5) No. of Customers					
1972	508,041	2.92	1,602	135,437	11,828	860	18,088	47,547				
1973	519,287	2.87	1,800	142,434	12,637	946	18,938	49,964				
1974	530,534	2.82	1,835	150,257	12,212	969	19,589	49,457				
1975	541,781	2.77	1,889	154,170	12,253	1,041	19,769	52,642				
1976	553,028	2.72	2,046	158,492	12,913	1,128	20,364	55,376				
1977	564,275	2.67	2,156	163,121	13,220	1,207	20,964	57,559				
1978	575,521	2.62	2,243	168,156	13,342	1,254	21,567	58,124				
1979	586,768	2.57	2,225	172,906	12,868	1,269	21,949	57,832				
1980	598,015	2.52	2,335	180,166	12,959	1,293	22,459	57,564				
1981	612,965	2.47	2,361	187,489	12,591	1,352	23,243	58,190				
1982	627,915	2.42	2,468	193,561	12,750	1,368	23,865	57,343				
1983	642,865	2.37	2,555	200,705	12,729	1,406	24,608	57,120				
1984	657,815	2.32	2,642	208,066	12,700	1,438	25,232	56,981				
1985	672,767	2.28	2,720	215,324	12,634	1,483	26,130	56,772				
1986	687,717	2.24	2,801	222,794	12,573	1,521	27,029	56,269				
1987	702,667	2.20	2,904	230,190	12,615	1,572	27,932	56,280				
1988	717,618	2.16	3,005	237,441	12,655	1,616	28,817	56,079				
1989	732,568	2.13	3,102	244,612	12,682	1,662	29,690	55,980				
1990	747,518	2.10	3,201	251,951	12,705	1,713	30,582	56,014				
1991	762,469	2.07	3,301	259,358	12,727	1,766	31,483	56,092				

UTILITY Gulf Power Company

HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(10)	(11)	(12)	(13)	(14)	(15)	(16)
Year	GWH	Average No. of Customers	Average KWH Consumption Per Customer	Street & Highway Lighting GWH	Other Sales to Ultimate Consumers GWH	Total Sales to Ultimate Consumers GWH
		Industrial				
1972	1,308	149	8,779,500	12,040	0	3,782
1973	1,382	159	8,688,182	9,318	0	4,137
1974	1,325	159	8,333,692	12,933	0	4,142
1975	1,340	160	8,372,019	12,950	0	4,283
1976	1,435	154	9,321,214	12,955	0	4,622
1977	1,494	156	9,577,808	13,537	0	4,871
1978	1,530	160	9,560,894	13,877	0	5,041
1979	1,552	164	9,465,628	14,037	0	5,060
1980	1,494	166	9,002,560	14,357	0	5,136
1981	1,482	165	8,983,484	14,038	0	5,282
1982	1,534	178	8,618,017	12,529	0	5,383
1983	1,593	181	8,803,497	11,737	0	5,566
1984	1,617	185	8,740,324	11,090	0	5,708
1985	1,622	189	8,579,651	10,654	0	5,836
1986	1,628	194	8,394,180	10,128	0	5,961
1987	1,688	198	8,525,621	10,220	0	6,174
1988	1,733	201	8,621,398	10,347	0	6,364
1989	1,783	206	8,655,746	10,491	0	6,557
1990	1,839	212	8,674,462	10,602	0	6,764
1991	1,894	218	8,688,009	10,853	0	6,972

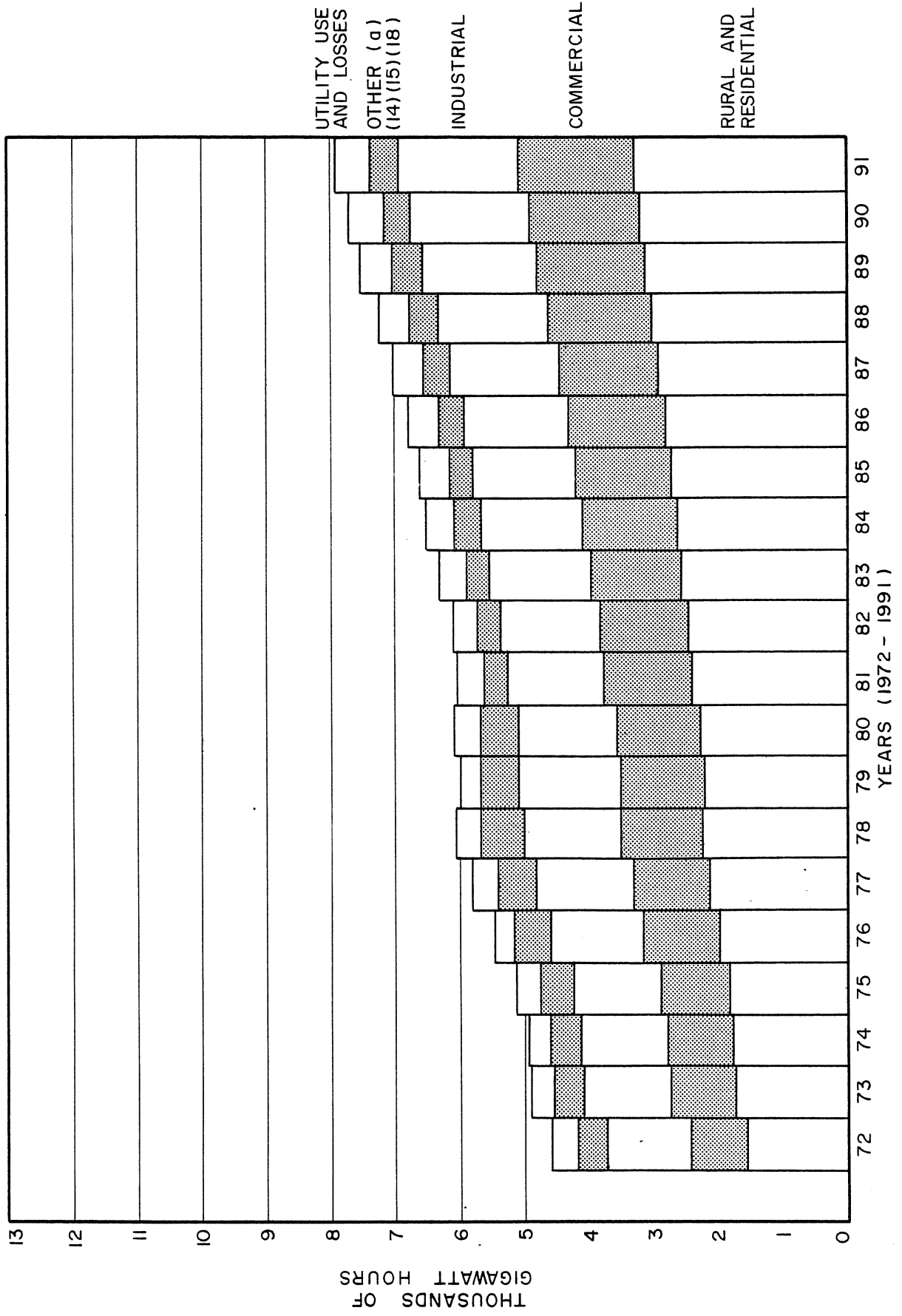
UTILITY Gulf Power Company

HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(17)	(18)	(19)	(20)	(21)	(22)
Year	Sales For Resale GWH	Utility Use & Losses GWH	Net Energy For Load GWH	Other Customers (Average No.)	Total No. of Customers
1972	428	394	4,604	57	153,731
1973	448	393	4,978	60	161,591
1974	470	371	4,983	60	170,065
1975	505	360	5,148	59	174,158
1976	519	334	5,475	60	179,070
1977	552	401	5,823	60	184,301
1978	569	434	6,044	59	189,942
1979	558	412	6,030	59	195,078
1980	574	437	6,148	60	202,851
1981	400	395	6,004	57	210,954
1982	350	398	6,131	56	217,660
1983	355	415	6,336	56	225,550
1984	361	430	6,499	56	233,539
1985	369	443	6,648	56	241,699
1986	379	456	6,796	56	250,073
1987	391	472	7,037	55	258,375
1988	402	487	7,253	55	266,514
1989	414	502	7,473	56	274,564
1990	427	518	7,709	55	282,800
1991	438	533	7,943	56	291,115

Note: Columns (18) and columns (20) include energy allocated to certain resale customers by Southeastern Power Administration (SEPA).

GRAPH I
 HISTORY AND FORECAST
 OF ENERGY USE BY TYPE OF CUSTOMER



NOTE: (a) Includes energy allocated to certain resale customers by SEPA.

UTILITY Gulf Power Company

ENERGY SOURCES		Actual 1980	Actual 1981	1982	1983	1984	1985
ENERGY SOURCES(1)							
(1)	ANNUAL ENERGY INTERCHANGE	(3)	(1553)	(1728)	(1911)	(2030)	(2930)
(2)	NUCLEAR	None	None	None	None	None	None
(3)	COAL	5819	7486	7803	8228	8495	9472
(4)	RESIDUAL-TOTAL	1	None	None	None	None	None
(5)	Steam	1	None	None	None	None	None
(6)	CC	None	None	None	None	None	None
(7)	CT	None	None	None	None	None	None
(8)	Diesel	None	None	None	None	None	None
(9)	DISTILLATE-TOTAL	7	3	2	1	3	13
(10)	Steam	None	None	None	None	None	None
(11)	CC	None	None	None	None	None	None
(12)	CT	7	3	2	1	3	13
(13)	Diesel	None	None	None	None	None	None
(14)	NATURAL GAS-TOTAL	324	68	54	18	31	93
(15)	Steam	324	68	54	18	31	93
(16)	CC	None	None	None	None	None	None
(17)	CT	None	None	None	None	None	None
(18)	Diesel	None	None	None	None	None	None
(19)	OTHER	None	None	None	None	None	None
(20)	NET ENERGY FOR LOAD	6148	6004	6131	6336	6499	6648

(1) Includes energy generated from the capacity sold under existing Unit Power Sales contracts and letters of intent.

UTILITY Gulf Power Company

ENERGY SOURCES		ENERGY SOURCES (1)						
		1986	1987	1988	1989	1990	1991	
(1)	ANNUAL ENERGY INTERCHANGE	GWH (1)	(3394)	(3200)	(3000)	(3062)	(4356)	(4432)
(2)	NUCLEAR	GWH	None	None	None	None	None	None
(3)	COAL	GWH (1)	10,047	10,179	10,188	10,491	12,028	12,371
(4)	RESIDUAL-TOTAL	GWH	None	None	None	None	None	None
(5)	Steam	GWH	None	None	None	None	None	None
(6)	CC	GWH	None	None	None	None	None	None
(7)	CT	GWH	None	None	None	None	None	None
(8)	Diesel	GWH	None	None	None	None	None	None
(9)	DISTILLATE-TOTAL	GWH	24	6	8	3	6	4
(10)	Steam	GWH	None	None	None	None	None	None
(11)	CC	GWH	None	None	None	None	None	None
(12)	CT	GWH	24	6	8	3	6	4
(13)	Diesel	GWH	None	None	None	None	None	None
(14)	NATURAL GAS-TOTAL	GWH	119	52	57	41	31	0
(15)	Steam	GWH	119	52	57	41	31	0
(16)	CC	GWH	None	None	None	None	None	None
(17)	CT	GWH	None	None	None	None	None	None
(18)	Diesel	GWH	None	None	None	None	None	None
(19)	OTHER	GWH	None	None	None	None	None	None
(20)	NET ENERGY FOR LOAD	GWH	6796	7037	7253	7473	7709	7943

(1) Includes energy generated from the capacity sold under existing Unit Power Sales contracts and letters of intent.

UTILITY Gulf Power Company

FUEL REQUIREMENTS		FUEL REQUIREMENTS (1)					
		Actual 1980	Actual 1981	1982	1983	1984	1985
(1)	NUCLEAR	None	None	None	None	None	None
(2)	COAL	2645	3425	3577	3775	3905	4361
(3)	RESIDUAL-TOTAL	1.3	None	None	None	None	None
(4)	Steam	1.3	None	None	None	None	None
(5)	CC	None	None	None	None	None	None
(6)	CT	None	None	None	None	None	None
(7)	Diesel	None	None	None	None	None	None
(8)	DISTILLATE-TOTAL	39	43	46	42	48	76
(9)	Steam	22	34	39	40	41	45
(10)	CC	None	None	None	None	None	None
(11)	CT	17	9	7	2	7	31
(12)	Diesel	None	None	None	None	None	None
(13)	NATURAL GAS-TOTAL	4128	1332	611	285	495	1386
(14)	Steam	4128	1332	611	285	495	1386
(15)	CC	None	None	None	None	None	None
(16)	CT	None	None	None	None	None	None
(17)	Diesel	None	None	None	None	None	None
(18)	OTHER	None	None	None	None	None	None
(19)	ANNUAL AVG. FOSSIL NET H.R.	10,913	11,090	11,002	11,011	11,032	11,052

(1) Includes energy generated from the capacity sold under existing Unit Power Sales contracts and letters of intent.

UTILITY Gulf Power Company

		FUEL REQUIREMENTS (1)					
FUEL REQUIREMENTS		1986	1987	1988	1989	1990	1991
(1)	NUCLEAR	None	None	None	None	None	None
	BTUx10 ¹²						
(2)	COAL	4636	4655	4658	4805	5480	5608
	1000 TON(1)						
(3)	RESIDUAL-TOTAL	None	None	None	None	None	None
(4)	Steam	None	None	None	None	None	None
(5)	CC	None	None	None	None	None	None
(6)	CT	None	None	None	None	None	None
(7)	Diesel	None	None	None	None	None	None
	1000 BBL						
(8)	DISTILLATE-TOTAL	108	64	69	58	67	64
(9)	Steam	48	49	49	51	53	54
(10)	CC	None	None	None	None	None	None
(11)	CT	60	15	20	7	14	10
(12)	Diesel	None	None	None	None	None	None
	1000 BBL						
(13)	NATURAL GAS-TOTAL	1751	819	910	680	509	0
(14)	Steam	1751	319	910	680	509	0
(15)	CC	None	None	None	None	None	None
(16)	CT	None	None	None	None	None	None
(17)	Diesel	None	None	None	None	None	None
	1000 MCF						
(18)	OTHER	None	None	None	None	None	None
	BTUx10 ⁶						
(19)	ANNUAL AVG. FOSSIL NET H.R.	11,074	10,975	10,974	10,993	10,935	10,879
	BTU/KWH						

(1) Includes energy generated from the capacity sold under existing Unit Power Sales contracts and letters of intent.

UTILITY Gulf Power Company

HISTORY AND FORECAST OF SEASONAL PEAK DEMAND AND ANNUAL NET ENERGY FOR LOAD

(1) Year	(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10) Load Factor %
	Retail	Wholesale	Wholesale	Total	Interrupt	Total	Retail	Wholesale	Total	Retail	Wholesale	Total	Retail	Wholesale	Total		
1972				956													54.81
1973				1,014													56.02
1974				1,081													52.60
1975				1,078													54.52
1976				1,140													54.65
1977				1,180													56.33
1978				1,257													54.89
1979				1,232													55.87
1980				1,392													50.28
1981				1,309													52.54
1982				1,285													54.47
1983				1,325													54.59
1984				1,357													54.67
1985				1,386													54.75
1986				1,416													54.79
1987				1,462													54.95
1988				1,504													55.05
1989				1,547													55.14
1990				1,592													55.28
1991				1,638													55.36

Note: Includes capacity and Energy Allocated to Certain Resale Customers by Southeastern Power Administration (SEPA).

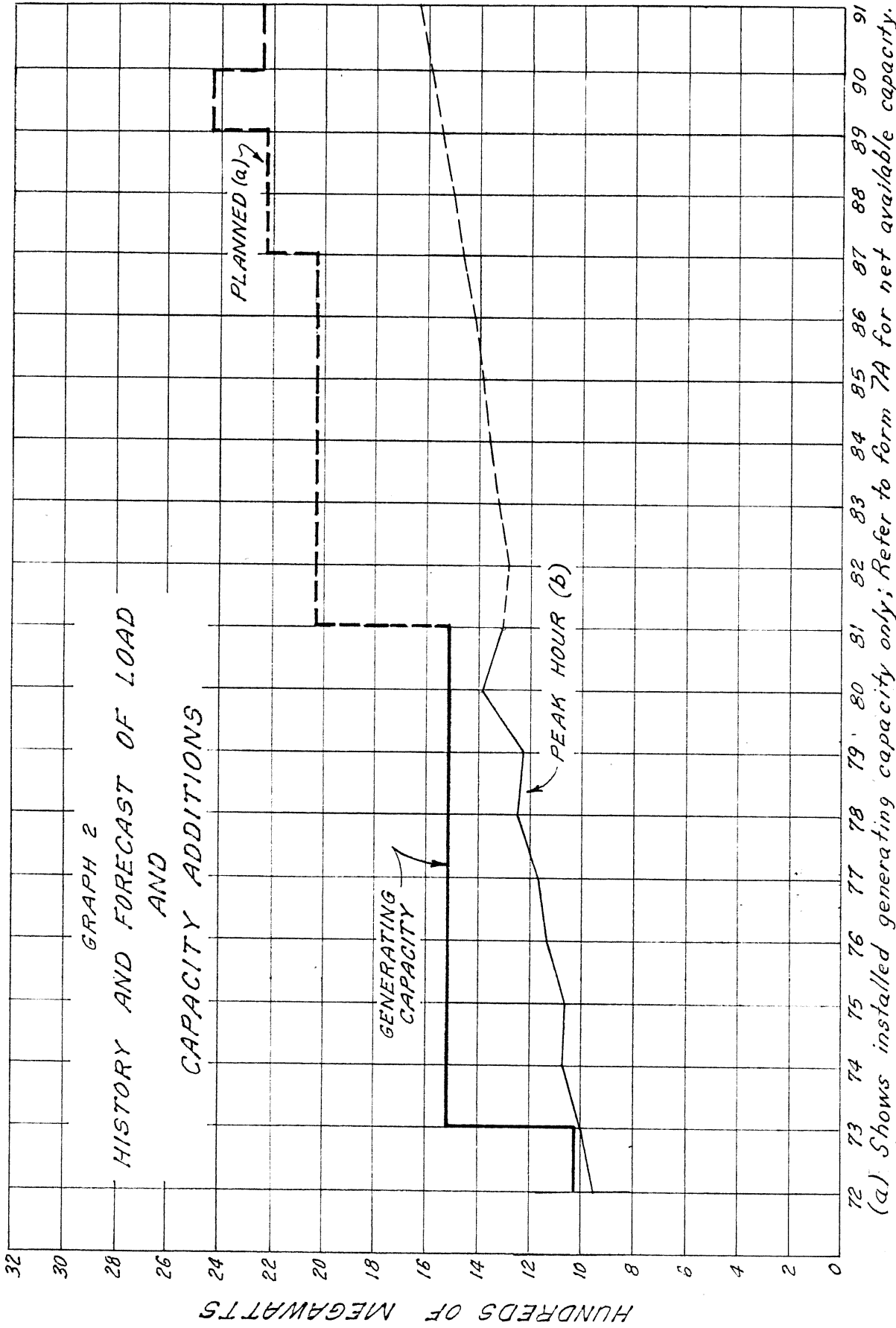
UTILITY Gulf Power Company

HISTORY AND FORECAST OF SEASONAL PEAK DEMAND AND ANNUAL NET ENERGY FOR LOAD

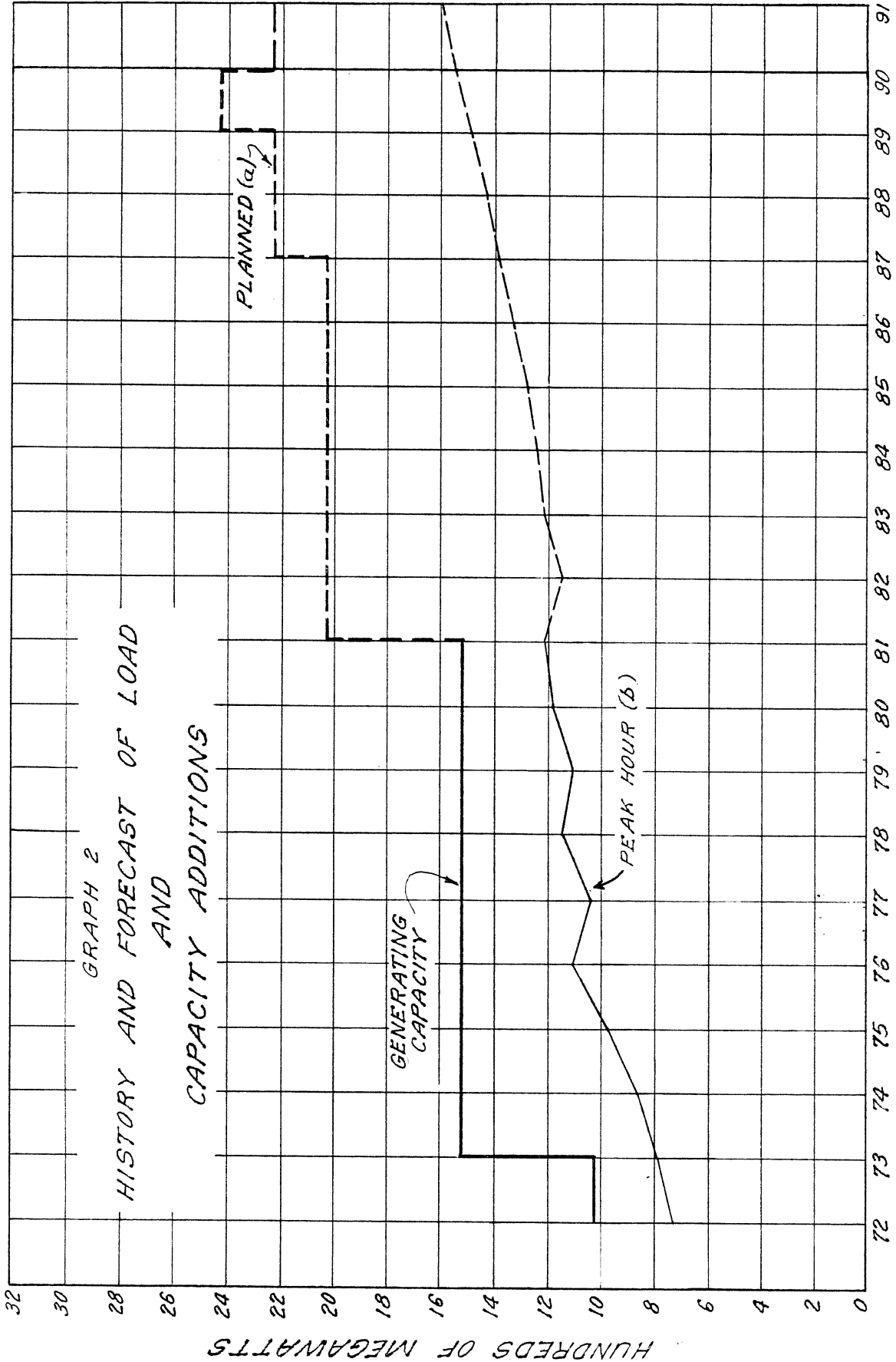
(11)	(12)	(13)	(14)	(15)	(16)
Year	Winter Peak Demand - MW				
	Firm				
	<u>Retail</u>	<u>Wholesale</u>	<u>Total</u>	<u>Interrupt</u>	<u>Total</u>
1972-73					764
1973-74					790
1974-75					826
1975-76					976
1976-77					1,121
1977-78					1,072
1978-79					1,154
1979-80					1,132
1980-81					1,189
1981-82					1,217
1982-83					1,155
1983-84					1,219
1984-85					1,244
1985-86					1,280
1986-87					1,335
1987-88					1,385
1988-89					1,435
1989-90					1,490
1990-91					1,545
1991-92					1,596

Note: Includes Capacity and Energy Allocated to Certain Resale Customers by Southeastern Power Administration (SEPA).

SUMMER



WINTER



NOTE: (a) Shows installed generating capacity only; Refer to form 7B for net available capacity.
(b) Includes capacity allocated to certain resale customers by SEPA.

UTILITY Gulf Power Company

PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH

(1) MONTH	(2)	(3)	(4)	(5)	(6)	(7)				
							ACTUAL		FORECAST	
							1981	1982	1983	1983
PEAK DEMAND MW	NET GWH	PEAK DEMAND MW	NET GWH	PEAK DEMAND MW	NET GWH					
JAN	1,189	548	1,217	525	1,155	545				
FEB	1,140	430	1,009	446	1,046	462				
MAR	791	419	808	407	846	425				
APR	817	417	784	398	802	407				
MAY	971	459	1,071	512	1,106	529				
JUN	1,256	631	1,233	611	1,286	637				
JUL	1,309	676	1,285	655	1,325	686				
AUG	1,226	623	1,214	642	1,242	657				
SEP	1,124	519	1,189	579	1,223	596				
OCT	983	426	874	416	912	435				
NOV	755	384	857	418	862	420				
DEC	1,011	472	1,056	521	1,088	537				
TOTAL		6,004		6,131		6,336				

Note: Includes Capacity and Energy Allocated to Certain Resale Customers by Southeastern Power Administration (SEPA).

FORECASTING

I. Introduction

Gulf Power Company prepares budget forecast projections of customers, kilowatt hours and peak demands annually. These projections are established for two basic purposes. First, as a basis for estimating revenues and the establishment of operating and maintenance budgets. Second, as a basis for long-range decisions related to facility planning, construction and fuel supply. Two methodologies are employed by the Company to develop these projections: a Disaggregated End-Use Model technique and an Econometric End-Use Modeling approach.

The Disaggregated End-Use Modeling methodology produces monthly estimates of customers, kilowatt hours and revenues broken down by customer classification and further by rate schedule. It also results in projections of monthly territorial peak demands for the Company. This method has proven to be extremely accurate over a 3-5 year time frame. It involves gathering local information related to construction activity; customer growth as it applies to area employment projections; trends in the installation of appliance and electrical equipment near term business cycles and conditions developed through on site interviews with customers, major employers and other institutions/agencies. The short-term projections

are extremely sensitive to Company energy conservation programs and are highly dependent upon statistical information collected through Company marketing and load research programs. The Disaggregated-End Use Methodology is expected to produce discrete estimates of monthly customers, kilowatt hours, revenues and peak demands that can be readily reconciled and explained using known local events, business conditions and actual weather conditions when compared to actual results.

The long-term projections (10 years) are prepared using an Econometric/End-Use Model developed for Gulf by the Forecasting Department of Southern Company Services, Inc., in Birmingham, Alabama. This model was created through a joint effort between Gulf Power Company, Southern Company Services, Inc., and Data Resources, Inc., a nationally recognized specialist in the field of economic forecasting. The Econometric/End-Use Model relates the Gulf service area to long-term projections of the national economy to establish estimates of population, employment, military activity, income and a number of other vital economic indicators for the local area. In addition, this model establishes appliance saturations and consumption patterns for the 10-year forecast period. The Econometric/End-Use Model produces quarterly projections of residential customers, kilowatt hours by customer classification and territorial peak demands. The procedure is expected to produce results that when compared

to prior year projections can be explained in terms of changes in the underlying assumptions related to significant economic factors, social trends, competition, new technology, population growth and/or enhancements to the basic modeling techniques.

The official long-term forecast of customers, kilowatt hours and peak demands is established using a combination of both the Disaggregated End-Use and The Econometric/End-Use Models. Both methodologies employ actual data and project out into the future. The Disaggregated End-Use Model is expected to produce the greatest accuracy in the near term, however, it is projected for the full ten year time span, usually with judgmental adjustments related to best estimates of long-term events. The Econometric/End-Use Model employs an extensive series of historical data and is expected to be the most accurate of the two methodologies 10 years into the future. Actual results for the two methodologies have, during recent years, produced comparable rates of growth for customers, kilowatt hours, and peak demands. However, the Disaggregated/End-Use approach has been more consistent with actual current results as would be expected. The procedure has been to reconcile and explain any basic differences between the two projections and to present the consolidated results to management for adoption by the Company.

II. Econometric End-Use Model

(a) An Overview

An econometric model is a mathematical formulation which relates a dependent variable such as KWH sales to expected and reasonable causal socioeconomic variables. Though exact relationships between KWH consumption and socioeconomic variables will in all probability not be discovered due to continuously changing stimuli, approximations of these relationships can be estimated and used to predict future consumption patterns under different socioeconomic scenarios.

The model combines end-use residential appliances and consumption information with certain socioeconomic information. Regression analysis is used to estimate end-use equations for the formulation of residential units and the expected appliance saturation of these residences. The econometric model then determines the expected usage rates of this dynamic stock of end-use items for different socioeconomic conditions over time.

The econometric model, which is continuously being revised and enhanced over time, was jointly developed by Data Resources, Inc. (DRI), the Load Forecasting Section of Southern Company Services, Inc., and Gulf Power Company. Of major importance in any regional forecast is the expected National

Economic Forecast, which begins the forecasting sequence through exogeneous inputs to the service area's regional economic model.

DRI's model of the U.S. economy is one of several nationally accepted models using quarterly equation systems that describe and endogenously produce measurable facets of the national economy. DRI's models produce both short and long term forecasts under several different groups of assumptions and their output (projections) by quarter are used by DRI's clients to test the impact of their own assumptions on the national economic outlook, and by DRI's clients, such as Gulf, as exogeneous inputs into their own regional systems.

The Gulf econometric end-use model begins with inputs from DRI's national forecast which drives certain sectors of the service area economic model to produce input into the energy modules, which in turn produces energy forecasts by customer class. The energy forecasts by class are used in the peak demand model to produce the peak demand forecast. An electric energy price projection, along with other socioeconomic variables unique to the Gulf service area, and a projection of losses from supply to sales, are also incorporated in these models.

The major link between Gulf's service area economic model and the national economy is the

employment sector. The employment sector is used within the model as a surrogate for the creation of disposal income and wealth, with disposal income the true driver of a regional economy.

(b) Energy and Customers

Variables forecast within the economic modules are classified as to how they affect the customer classes: residential, commercial, industrial, wholesale, and street lighting.

The residential portion of the energy model contains sub-models, which are driven by the forecast of customers, appliance saturation, and usage per customer to generate total residential KWH sales.

Customers are forecast as a function of service area population 21 years of age and older (the assumed household forming age group) and a two year weighted average of real per capita income. Average real per capita income is used as a proxy for the financial ability to form residential units and to purchase the stock of residential appliances.

Usage per customer is a function of the stock of appliances owned by the average customer, the price of electricity and other competitive fuels, and real income.

The commercial portion of the energy model is principally a function of population, commercial employment, price of electricity, competitive fuels,

and weather. Here commercial employment tracks the growth of commercial activity while price measures the incentives for conservation.

The industrial portion of the energy model is divided into four sub-models:

1. Chemicals
2. Paper
3. Other Manufacturing
4. Non-Manufacturing

Each of these energy sub-models is a function of local production, price of electricity and competitive fuels, and pollution control equipment.

The wholesale portion is a function of the sales of commercial and residential energy, since the REA Cooperatives are assumed not to have significant industrial loads.

(c) Peak Hour Demand

In the past, the demand forecast has been developed using a constant class load factor model (micro-method) with the factors obtained from the most recent or representative load development/cost of service study. While this method provided reasonable results (particularly in the short-term), effort was also directed towards development of an econometric model for energy and demand in order to improve forecast accuracy.

All economic factors were contained within the energy portion of this model, with the class energies being the major input to the demand portion. The equations within the demand model were developed using regression techniques to correlate historical class energies and weather-normalized peak hour demand. Early production runs of the model produced demand forecasts higher than the micro-method. However, recent re-estimations have produced more reasonable equation coefficients.

This combination of factors and the evolving state-of-the-art in forecasting, led Gulf Power Company to utilize the demand portion of the econometric model as the primary forecasting tool for the demand forecast for the 1982 Budget and Forecast.

The approximate equations forming the basis for the forecast are as follows:

$$\text{RES. \& COM. MW} = 41 + 0.9 \times (\text{RES MWH}/8760/0.54 + \text{COM MWH}/8760/0.52)$$

$$\text{IND MW} = e^{(-9.4 + 1.04 \times \log \text{IND MWH})}$$

$$\text{WHOLESALE MW} = e^{(-10.1 + 1.12 \times \log \text{WHL MWH})}$$

These equation forms have an advantage over the methods used in the past in that they allow for trends in class load factors based upon historical observations. The residential-commercial load factor increases approximately two percentage points over the forecast period due mainly to the increasing mix of residential energy. The industrial

load factor decreases slightly over the forecast period due to a reduction in the forecasted size of new customer additions. The wholesale load factor decreases slightly over the forecast period, probably due to the increasing saturation of air-conditioning among rural customers.

CHAPTER III
FORECAST OF FACILITIES
REQUIREMENTS

UTILITY GULF POWER COMPANY
 PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

(1) Plant	(2) Unit No.	(3) Location	(4) Type	(5) (6) Fuel		(7) Const Start Mo/Yr	(8) Com'l In-Service Mo/Yr	(9) In-Gen Max Nameplate KW	(10) (11) Net Capability		(12) RR	(13) Fuel Transp Pri Alt	(14) Status
				Pri	Alt				Summer MW	Winter MW			
Robert W. Scherer (25%)	3	Monroe CO. GA					2/87		202.0	202.0	RR	-	U
(25%)	4						2/89		202.0	202.0	RR	-	U
Crist	1r	Pensacola, FL					(1990)		(21.9)	(21.9)			
	2r	Pensacola, FL					(1990)		(21.0)	(21.0)			
	3r	Pensacola, FL					(1990)		(37.8)	(37.8)			
Scholz	1-2r	Sneads, FL					(1990)		(92.7)	(92.7)			
Smith	A r	Panama City, FL					(1991)		(31.3)	(34.8)			
									<u>199.3</u>	<u>195.8</u>			

UTILITY Gulf Power Company

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

(1) Year	(2) Total Installed Capacity MW	(3) Firm Capacity Import MW(b)	(4) Total Available Capacity MW	(5) Firm Peak Demand MW	(6) Margin Before Maintenance MW	(7) Margin Before Maintenance % of PK.	(8) Scheduled Maintenance MW	(9) Margin After Maintenance MW	(10) Margin After Maintenance % of PK.
1982	2031	47	2078	1285	793	61.7		793	61.7
1983	2031	(211)	1820	1325	495	37.4		495	37.4
1984	2031	(344)	1687	1357	330	24.3		330	24.3
1985	2031	(385)	1646	1386	260	18.8		260	18.8
1986	2031	(488)	1543	1416	127	9.0		127	9.0
1987	2233	(639)	1594	1462	132	9.0	NONE	132	9.0
1988	2233	(690)	1543	1504	39	2.6		39	2.6
1989	2435	(383)	2052	1547	505	32.6		505	32.6
1990	2261	(383)	1878	1592	286	18.0		286	18.0
1991	2230	(383)	1847	1638	209	12.8		209	12.8

NOTE: a. Capacity allocations and changes must be made by June 30 to be considered in effect at the time of the Summer peak. All values are Summer Net MW.
 b. Includes capacity allocated to certain resale customers by Southeastern Power Administration (SEPA), TVA seasonal exchange, and capacity sold in existing Unit Power Sales contracts and letters of intent.

UTILITY Gulf Power Company

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

(1) Year	(2) Total Installed Capacity MW	(3) Firm Capacity Import MW(b)	(4) Total Available Capacity MW	(5) Firm Peak Demand MW	(6) Margin Before Maintenance MW	(7) Margin Before Maintenance % of PK.	(8) Scheduled Maintenance MW	(9) Margin After Maintenance MW	(10) Margin After Maintenance % of PK.
1982-83	2035	(209)	1826	1155	671	58.1		671	58.1
1983-84	2035	(258)	1777	1219	558	45.8		558	45.8
1984-85	2035	(417)	1618	1244	374	30.1		374	30.1
1985-86	2035	(494)	1541	1280	261	20.4		261	20.4
1986-87	2035	(696)	1339	1335	4	0.3		4	0.3
1987-88	2237	(645)	1592	1385	207	14.9		207	14.9
1988-89	2237	(696)	1541	1435	106	7.4		106	7.4
1989-90	2439	(389)	2050	1490	560	37.6		560	37.6
1990-91	2265	(389)	1876	1545	331	21.4		331	21.4
1991-92	2230	(389)	1841	1596	245	15.4		245	15.4

NOTE: a. Capacity additions and changes must be made by November 30 to be considered in effect at the time of the Winter peak. All values are Winter Net MW.

b. Includes capacity allocated to certain resale customers by Southeastern Power Administration (SEPA), TVA seasonal exchange, and capacity sold in existing Unit Power Sales contracts and letters of intent.

AVAILABILITY OF PURCHASED POWER

Gulf Power Company coordinates its planning and operation with the other operating companies of the Southern electric system: Alabama Power Company, Georgia Power Company, and Mississippi 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 planned generating capacity to its load and reserve responsibility. Each company buys or sells its temporary deficit or surplus capacity from or to the pool. This is done through the mechanism of an Inter-Company Interchange Contract among the companies which is reviewed and updated annually.

OFF SYSTEM SALES

Unit Power Sales

Gulf Power Company, along with the other Southern operating companies, has negotiated the sales of unit capacity and energy to several utilities outside the Southern system. The length of the contracts and letter of intent involves the year 1983 through the remaining years of the Ten Year Site Plan. Gulf's allocated share of the capacity and energy sales vary from year to year and are reflected in the reserves on Forms 7A and 7B and the energy and fuel use on Forms 3A and 3B.

Long Term Sales

Contracts have also been finalized for the sale of non-firm capacity and energy through 1986. Reserves shown in this filing have not been reduced for this capacity; however, the energy sales have been reflected on Forms 3A and 3B.

CHAPTER IV
SITE DESCRIPTION
AND
IMPACT ANALYSIS

UTILITY GULF POWER COMPANY

STATUS REPORT
SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

- (1) Plant Name & Unit Robert W. Scherer Electric Generating Center
- (2) Status This facility is not located in the State of Florida
- (3) Anticipated Construction Timing
- (4) Capacity Summer 404 MW (1)
Winter 404 MW
- (5) Type
- (6) Primary and Alternate Fuel
- (7) Air Pollution Control Strategy
- (8) Cooling Method
- (9) Total Site Area
- (10) Anticipated Capital Investment
- (11) Certification Status
- (12) Status with Federal Agencies

(1) Gulf to acquire 202 MW of Unit 3 in February, 1987, and 202 MW of Unit 4 in February, 1989, for a total of 404 MW.

UTILITY Gulf Power Company

STATUS REPORT AND SPECIFICATIONS OF PROPOSED
DIRECTLY-ASSOCIATED TRANSMISSION LINES

(1) Point of Origin and Termination No new directly-associated transmission lines in Florida are required.

(2) Number of Lines

(3) Right-of-Way

(4) Line Length

(5) Voltage

(6) Anticipated Construction Timing

(7) Anticipated Capital Investment

(8) Substations

(9) Participation