ORIGINAL

City of Tallahassee
Your Own Utilities™

2602 Jackson Bluff Road, Tallahassee, Florida 32304, (850) 891-4YOU (4968), talgov.com

RECEIVED-FPSC
05 APR -4 PM 2:10
COMMISSION
CLERK

April 4, 2005

Ms. Blanca S. Bayó, Director
Division of the Commission Clerk
And Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Dear Ms. Bayó:

Attached are fifteen (15) copies of the City of Tallahassee's 2005 Ten Year Site Plan. If you have any questions, please e-mail me at childsv@talgov.com or call me at 891-3122.

Sincerely,

Venus Childs

Venus Childs
Planning Engineer

Attachments
cc: KGW
GSB

CMP ______
COM ______
CTR ______
ECR ______
GCL ______
OPC ______
MMS ______
RCA ______
SCR ______
SEC 1
OTH Kim P. + 1 copy

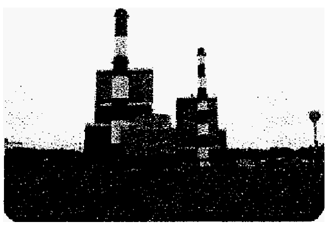
RECEIVED & FILED
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE
03287 APR-4 05
FPSC-COMMISSION CLERK

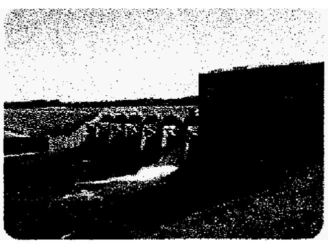
Recycled Paper

Ten Year Site Plan 2005 -2014

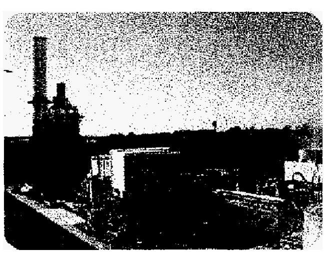
City of Tallahassee Electric Utility



Arvah B. Hopkins
Generating Station



C. H. Corn
Hydroelectric Station



Sam O. Purdom
Generating Station

Report Prepared By:
City of Tallahassee Electric Utility
System Planning

City of Tallahassee
Your Own Utilities℠

CITY OF TALLAHASSEE
TEN YEAR SITE PLAN FOR ELECTRICAL GENERATING FACILITIES AND ASSOCIATED TRANSMISSION LINES
2005-2014
TABLE OF CONTENTS

Chapter I

Description of Existing Facilities

1.0 INTRODUCTION

The City of Tallahassee (City) owns, operates, and maintains an electric generation, transmission, and distribution system that supplies electric power in and around the corporate limits of the City. The City was incorporated in 1825 and has operated since 1919 under the same charter. The City began generating its power requirements in 1902 and the City's Electric Department presently serves approximately 103,000 customers located within a 221 square mile service territory. The Electric Department operates three generating stations with a total summer season net generating capacity of 652 megawatts (MW).

The City has two fossil-fueled generating stations which contain combined cycle (CC), steam and combustion turbine (CT) electric generating facilities. The Sam O. Purdom Generating Station, located in the town of St. Marks, Florida has been in operation since 1952; and the Arvah B. Hopkins Generating Station, located on Geddie Road west of the City, has been in commercial operation since 1970. The City has also been generating electricity at the C.H. Corn Hydroelectric Station, located on Lake Talquin west of Tallahassee, since August of 1985.

1.1 SYSTEM CAPABILITY

The City maintains five points of interconnection with Progress Energy Florida ("Progress", formerly Florida Power Corporation); two at 69 kV, two at 115 kV, and one at 230 kV; and a 230 kV interconnection with Georgia Power Company (a subsidiary of the Southern Company ("Southern")).

As shown in Table 1.1 (Schedule 1), 233 MW (net summer rating) of CC generation, 48 MW (net summer rating) of steam generation and 20 MW (net summer rating) of CT generation facilities are located at the City's Sam O. Purdom Generating Station. The Arvah B. Hopkins Generating Station includes 304 MW (net summer rating) of steam generation and 36 MW (net summer rating) of CT generation facilities.

All of the City's available steam generating units at these sites can be fired with natural gas, residual oil or both. The CC and CT units can be fired on either natural gas or diesel oil but cannot burn these fuels concurrently. The total capacity of the three units at the C.H. Corn Hydroelectric Station is 11 MW.

The City's total net summer installed generating capability is 652 MW. The corresponding winter net peak installed generating capability is 699 MW. Table 1.1 contains the details of the individual generating units.

1.2 PURCHASED POWER AGREEMENTS

The City has a long-term firm capacity and energy purchase agreement with Progress for 11.4 MW. The City also has a short-term capacity and energy purchase agreement with Southern for 25 MW (system firm purchase for June through August 2005).

City Of Tallahassee

Schedule 1
Existing Generating Facilities
As of December 31, 2004

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								Alt.				Net Capability	
	Unit		Unit	Fuel		Fuel Transport		Fuel Days	Commercial In-Service	Expected Retirement	Gen. Max. Nameplate	Summer	Winter
Plant	No.	Location	Type	Pri	Alt	Primary	Alternate	Use	Month/Year	Month/Year	(kW)	(MW)	(MW)
Sam O. Purdom	7	Wakulla	ST	NG	FO6	PL	WA		Jun-66	3/11	50,000	48	50
	8		CC	NG	FO2	PL	TK		Jul-00	12/40	247,743	233	262
	GT-1		GT	NG	FO2	PL	TK		Dec-63	5/10	15,000	10	10
	GT-2		GT	NG	FO2	PL	TK		May-64	5/10	15,000	10	10
											Plant Total	301	332
A. B. Hopkins	1	Leon	ST	NG	FO6	PL	TK		May-71	3/16	75,000	76	78
	2		ST	NG	FO6	PL	TK		Oct-77	3/22	259,250	228	238
	GT-1		GT	NG	FO2	PL	TK		Feb-70	3/15	16,320	12	14
	GT-2		GT	NG	FO2	PL	TK		Sep-72	3/17	27,000	24	26
											Plant Total	340	356
C. H. Corn	1	Leon/	HY	WAT	WAT	WAT	WAT		Sep-85	UNKNOWN	4,440	4	4
Hydro Station	2	Gadsden	HY	WAT	WAT	WAT	WAT		Aug-85	UNKNOWN	4,440	4	4
	3		HY	WAT	WAT	WAT	WAT		Jan-86	UNKNOWN	3,430	3	3
											Plant Total	11	11
									TOTAL SYSTEM CAPACITY AS OF DECEMBER 31, 2004			652	699

Table

CHAPTER II

Forecast of Energy/Demand Requirements and Fuel Utilization

2.0 INTRODUCTION

Chapter II includes the City of Tallahassee's forecasts of (i) demand and energy requirements, (ii) energy sources and (iii) fuel requirements. This chapter explains the City's 2005 Load Forecast and the Demand Side Management plan filed with the Florida Public Service Commission (FPSC) on March 1, 1996. Based on the forecast, the energy sources and the fuel requirements have been projected.

2.1 SYSTEM DEMAND AND ENERGY REQUIREMENTS

Historical and forecast energy consumption and customer information are presented in Tables 2.1, 2.2 and 2.3 (Schedules 2.1, 2.2, and 2.3). Figure B1 shows the historical and forecast trends of energy sales by customer class. Figure B2 shows the percentage of energy sales by customer class for the base year of 2005 and the horizon year of 2014. Tables 2.4 through 2.12 (Schedules 3.1.1 - 3.3.3) contain historical and forecast peak demands and net energy for load for base, high, and low values. Table 2.13 (Schedule 4) compares actual and two-year forecast peak demand and energy values by month for the 2004 - 2006 period.

2.1.1 SYSTEM LOAD AND ENERGY FORECASTS

The peak demand and energy forecasts contained in this plan are the results of the load and energy forecasting study performed by the City. The forecast is developed utilizing a methodology that the City first employed in 1980, and has updated and revised every one or two years. The methodology consists of approximately ten multi-variable linear regression models based on detailed examination of the system's historical growth, usage patterns and population statistics. Several key regression formulas utilize econometric variables.

Table 2.14 lists the econometric-based linear regression forecasting models that are used as predictors. Note that the City uses regression models with the capability of separately predicting commercial customers and consumption by rate sub-class: general service non-demand (GS), general service demand (GSD), and general service large demand (GSLD). These, along with the residential class, represent the major classes of the City's electric customers. In addition to these customer class models, the City's forecasting methodology also incorporates into the demand and energy projections estimated reductions from interruptible and curtailable customers. The key explanatory variables used in each of the models are indicated by an "X" on the table. Table 2.15 documents the City's internal and external sources for historical and forecast economic, weather and demographic data. These tables summarize the details of the models used to generate the system customer, consumption and seasonal peak load forecasts. In addition to those explanatory variables listed, a component is also included in the models that reflect the acquisition of certain Talquin Electric Cooperative (TEC) customers over the study period consistent with the territorial agreement negotiated between the City and TEC and approved by the FPSC.

The customer models are used to predict number of customers by customer class which in turn serve as input into the customer class consumption models. The customer class consumption models are aggregated to form a total base system sales forecast. The effects of demand-side management programs and system losses are incorporated in this base forecast to produce the system net energy for load (NEL) requirements. Since 1992, the City has used two econometric models to separately predict summer and winter peak demand. Table 2.14 also shows the key explanatory variables used in the demand models. Utilizing the five-year average of the actual temperature at the time of seasonal peak demand, routinely updating the forecast model coefficients and making other minor model refinements have improved the accuracy of the forecast so that it is more consistent with the historical trend of growth in seasonal peak demand and energy consumption.

The most significant input assumptions for the 2005 forecast were the reductions in incremental additions for Florida State University (FSU), Florida A&M University (FAMU), Tallahassee Memorial Hospital (TMH) and the State Capitol Center. These four customers represent approximately 15% of the City's energy sales. Their incremental additions are highly dependent upon annual economic and budget constraints, which would cause fluctuations in their demand projections if they were projected using a model. Therefore, each entity submits their proposed incremental additions/reductions to the City and these modifications are included as submitted in the load and energy forecast. Based upon the 2004 submittals of incremental additions of our four large customers, their total incremental demand was projected to be 14 MW for 2005. However, based upon their submittals for the 2005 Load and Energy forecast, the incremental demand is only projected to be 3 MW due to modifications to their construction plan timelines. This results in an 11 MW reduction of projected load for 2005 and subsequent planning years. In addition to these customer class models, the City's forecasting methodology also incorporates into the demand and energy projections estimated reductions from interruptible and curtailable customers. The City believes that the inclusion of these incremental additions/reductions, the routine update of forecast model coefficients and other minor model refinements have improved the accuracy of its forecast so that they are more consistent with the historical trend of growth in seasonal peak demand and energy consumption.

2.1.2 LOAD FORECAST SENSITIVITIES

Uncertainty associated with the forecast input variables and the final forecast are addressed by adjusting selected input variables in the load forecast models, to establish "high load growth" and "low load growth" sensitivity cases. For the sensitivities to the base 2005 load forecast the key explanatory variables that were changed were Leon County population, Florida population, heating degree-days and cooling degree-days for the energy forecast. For the peak demand forecasts, the Leon County population and maximum & minimum temperature on the peak days for the summer and winter, respectively, were changed.

Sensitivities on the peak demand forecasts are useful in planning for future power supply resource needs. The graph shown in Figure B3 compares summer peak demand (multiplied by 117% for reserve margin requirements) for the three cases against the City's existing and planned power supply resources. This graph allows for the review of the effect of load growth variations on the timing of new resource additions. The highest probability weighting, of course, is placed on the base case assumptions, and the low and high cases are given a smaller likelihood of occurrence.

2.1.3 ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT PROGRAMS

The City has a goal to improve the efficiency of customers' end-use of energy resources when such improvements provide a measurable economic and/or environmental benefit to the customers and the City utilities. On March 1, 1996 the City filed its Demand Side Management (DSM) Plan with the FPSC. This plan indicated the demand and energy reductions due to conservation efforts that are expected over the period 1997-2006. The individual program measures that were selected for inclusion in the plan were identified as cost effective in Integrated Resource Planning (IRP) studies conducted by the City. During 2005 the City is planning to prepare a new DSM Plan concurrently with an updated IRP Study .

The following menu of programs is included in the current DSM plan, which was implemented in fiscal year 1997:

Residential Programs	Commercial Programs
HVAC Loan	Customized HVAC Loan
Homebuilder Rebates	Secured Loan
Gas Water Heater Conversion Loan	Demonstrations
Information and Audits	Information and Audits
Ceiling Insulation Loan	Commercial Gas Conversion Rebates
Low Income Ceiling Insulation Rebate	

Energy and demand reductions attributable to the above DSM efforts have been incorporated into the future load and energy forecasts. Table 2.16 displays the estimated energy savings associated with the menu of DSM programs. Table 2.17 shows similar data for demand savings. The figures on these tables reflect the cumulative annual impacts of the DSM plan on system energy and demand requirements.

2.2 ENERGY SOURCES AND FUEL REQUIREMENTS

Tables 2.18 (Schedule 5), 2.19 (Schedule 6.1), and 2.20 (Schedule 6.2) present the projections of fuel requirements, energy sources by resource/fuel type in gigawatt-hours, and energy sources by resource/fuel type in percent, respectively, for the period 2005-2014. Figure B4 displays the percentage of energy by fuel type in 2005 and 2014.

The City's generation portfolio includes combustion turbine/combined cycle, combustion turbine/simple cycle, conventional steam and hydroelectric units. This mix of generation types coupled with opportunities for firm and economy purchases from neighboring systems provides the City with a reasonable amount of resource diversity to satisfy its total energy requirements consistent with our energy policies that seek to balance the cost of power with the environmental quality of our community. The City's combustion turbine/combined cycle and combustion turbine/simple cycle units are capable of generating energy using natural gas or distillate fuel oil. Natural gas and residual fuel oil may be burned concurrently in the City's steam units.

The projections of fuel requirements and energy sources are taken from the results of computer simulations using Global Energy Decisions, Inc.'s PROSYM production simulation model and are based on the resource plan described in Chapter III.

City Of Tallahassee

Schedule 2.1
History and Forecast of Energy Consumption and Number of Customers by Customer Class

Base Load Forecast

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Rural & Residential					Commercial [2]		
Year	Population [3]	Members Per Household	(GWh)	Average No. of Customers [1]	Average kWh Consumption Per Customer	(GWh)	Average No. of Customers [1]	Average kWh Consumption Per Customer
1995	170,796	-	870	71,534	12,162	1,268	14,780	85,792
1996	175,373	-	893	72,998	12,233	1,316	15,142	86,911
1997	177,347	-	850	74,259	11,446	1,324	15,495	85,447
1998	180,725	-	940	75,729	12,413	1,396	15,779	88,472
1999	184,239	-	926	77,357	11,970	1,419	16,183	87,685
2000	186,839	-	971	79,108	12,274	1,457	15,891	91,687
2001	190,575	-	959	80,348	11,936	1,459	16,988	85,884
2002	193,941	-	1,048	81,208	12,905	1,527	16,831	90,661
2003	200,304	-	1,035	82,219	13,030	1,555	17,289	107,870
2004	203,106		1,063	84,496	12,580	1,604	17,553	91,352
2005	205,908	-	1,075	85,797	12,530	1,647	17,512	94,069
2006	208,789	-	1,089	87,106	12,496	1,687	17,756	95,000
2007	211,669	-	1,109	88,416	12,543	1,730	18,001	96,115
2008	214,550	-	1,131	89,726	12,605	1,771	18,246	97,080
2009	217,430	-	1,153	91,036	12,662	1,804	18,490	97,555
2010	220,311	-	1,173	92,335	12,699	1,834	18,734	97,877
2011	223,056	-	1,197	93,618	12,782	1,863	18,975	98,200
2012	225,801	-	1,221	94,901	12,865	1,893	19,216	98,534
2013	228,546	-	1,246	96,184	12,959	1,924	19,457	98,907
2014	231,290	-	1,270	97,467	13,030	1,956	19,699	99,296

[1] Average end-of-month customers for the calendar year.
[2] Includes Traffic Control and Security Lighting use.
[3] Population data represents Leon County population served by City of Tallahassee Electric Utility not the general population of Leon County.

Table 2.1

City Of Tallahassee

Schedule 2.2
History and Forecast of Energy Consumption and Number of Customers by Customer Class

Base Load Forecast

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Industrial						
Year	(GWh)	Average No. of Customers [1]	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)
1995	-	-	-	-	12		2,150
1996	-	-	-	-	12		2,221
1997	-	-	-	-	12		2186
1998	-	-	-	-	12		2348
1999	-	-	-		13		2358
2000	-	-	-	-	13		2,441
2001					13		2,431
2002					13		2,588
2003					13		2,603
2004					14		2,681
2005	-	-	-		14		2,737
2006	-	-	-		14		2,790
2007	-	-	-		14		2,853
2008	-	-	-		14		2,917
2009	-	-	-		14		2,971
2010	-	-	-		15		3,021
2011	-	-	-		15		3,075
2012	-	-	-		15		3,129
2013	-	-	-		15		3,186
2014					15		3,241

[1] Average end-of-month customers for the calendar yeai

City Of Tallahassee

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

Base Load Forecast

(1) Year	(2) Sales for Resale (GWh)	(3) Utility Use & Losses (GWh) [1]	(4) Net Energy for Load (GWh)	(5) Other Customers (Average No.)	(6) Total No. of Customers [1]
1995	0	128	2,278		86,314
1996	0	111	2,332		88,140
1997	0	132	2,318		89,754
1998	0	129	2,477		91,508
1999	0	139	2,497		93,540
2000	0	155	2,596		94,999
2001	0	125	2,556		97,336
2002	0	165	2,753		98,039
2003	0	152	2,755		99,509
2004	0	160	2,840		102,049
2005	0	157	2,894		103,308
2006	0	160	2,950		104,863
2007	0	164	3,017		106,417
2008	0	167	3,084		107,971
2009	0	170	3,142		109,526
2010	0	174	3,194		111,069
2011	0	177	3,251		112,593
2012	0	180	3,309		114,117
2013	0	183	3,369		115,641
2014	0	186	3,427		117,166

[1] Average number of customers for the calendar year.

Figure B1

History and Forecast Energy Consumption By Customer Class

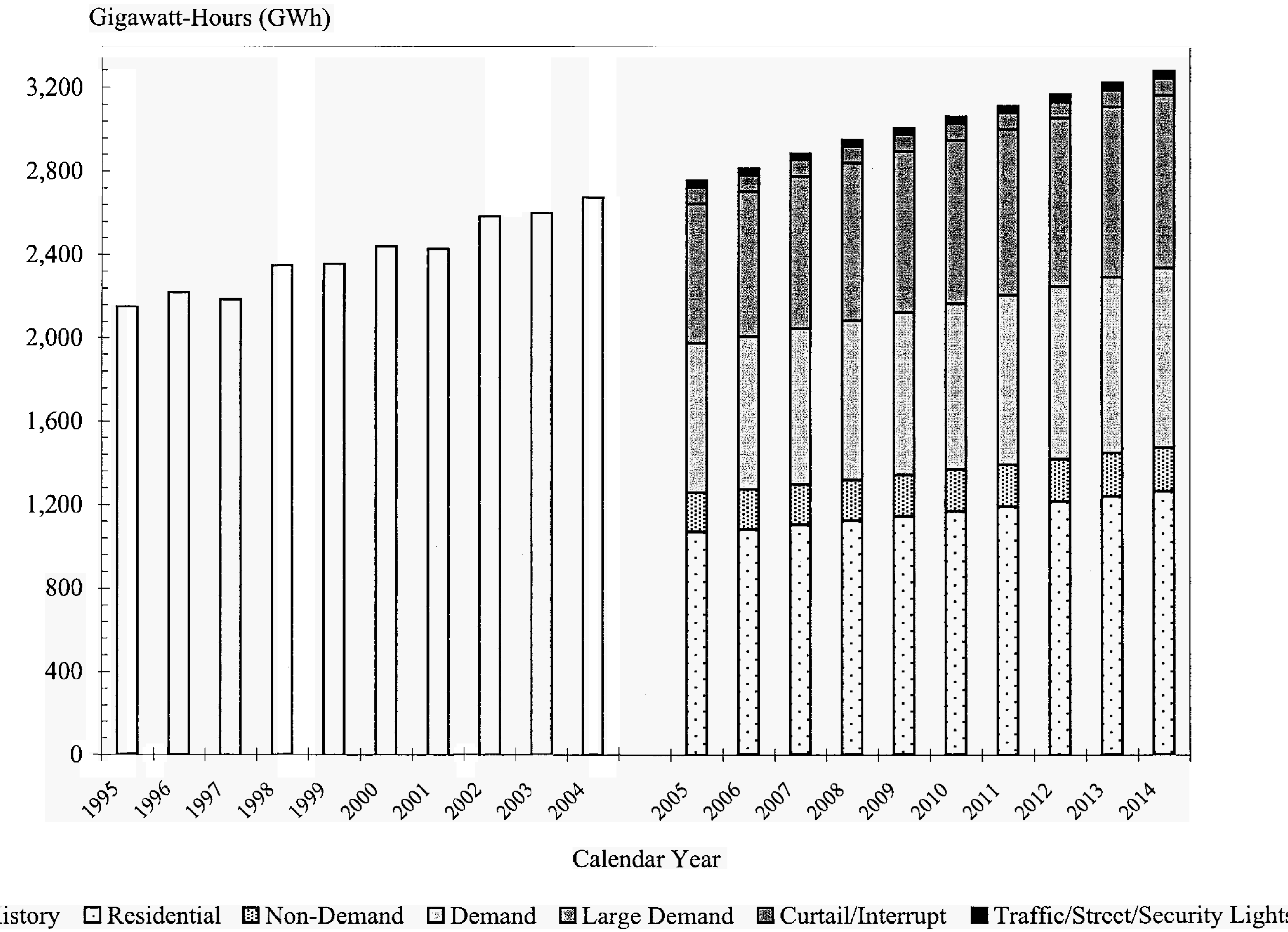
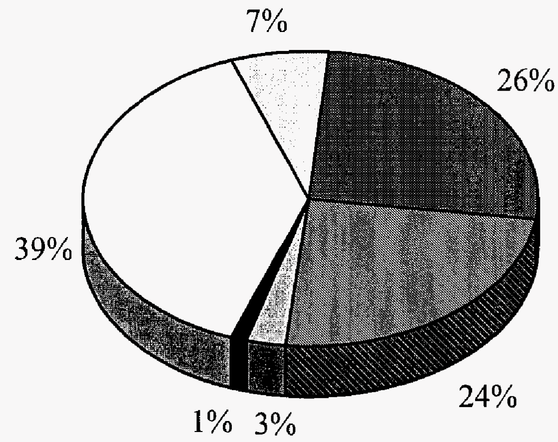


Figure B2

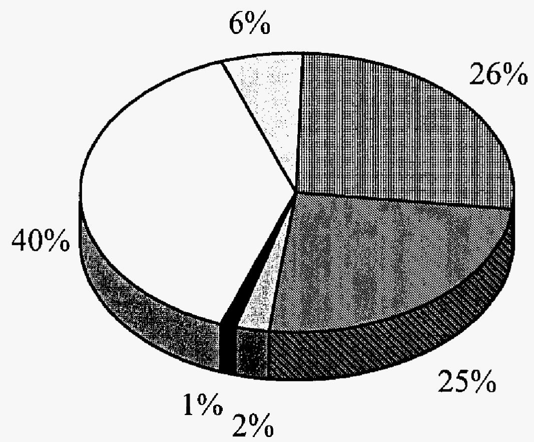
Energy Consumption By Customer Class

Calendar Year 2005



Total 2005 Sales = 2,769 GWh
Values exclude DSM impacts

Calendar Year 2014



Total 2014 Sales = 3,308 GWh
Values exclude DSM impacts

☐ Residential ☐ Non Demand ▦ Demand
▦ Large Demand ☐ Curtail/Interrupt ■ Traffic/Street/Security Lights

City Of Tallahassee

Schedule 3.1.1
History and Forecast of Summer Peak Demand
Base Forecast
(MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation [2]	Comm./Ind Load Management	Comm./Ind Conservation [2]	Net Firm Demand [1]
1995	497		497						497
1996	500		500						500
1997	486		486						486
1998	530		530						530
1999	526		526						526
2000	550		550						550
2001	520		520						520
2002	581		581						581
2003	549		549						549
2004	566		566			1	[3]	0	565
2005	597		597			1		1	595
2006	609		609			3		1	605
2007	622		622			3		1	618
2008	632		632			3		1	628
2009	642		642			3		1	638
2010	652		652			3		1	648
2011	661		661			3		1	657
2012	671		671			3		1	667
2013	681		681			3		1	677
2014	690		690			3		1	686

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar.
[3] 2004 DSM Jan - July accumulation.

City Of Tallahassee

Schedule 3.1.2
History and Forecast of Summer Peak Demand
High Forecast
(MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation [2]	Comm./Ind Load Management	Comm./Ind Conservation [2]	Net Firm Demand [1]
1995	497		497						497
1996	500		500						500
1997	486		486						486
1998	530		530						530
1999	526		526						526
2000	550		550						550
2001	520		520						520
2002	581		581						581
2003	549		549						549
2004	566		566			1	[3]	0	565
2005	624		624			1		1	622
2006	636		636			3		1	632
2007	650		650			3		1	646
2008	660		660			3		1	656
2009	670		670			3		1	666
2010	680		680			3		1	676
2011	690		690			3		1	686
2012	700		700			3		1	696
2013	710		710			3		1	706
2014	720		720			3		1	716

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar.
[3] 2004 DSM Jan - July accumulation.

City Of Tallahassee

Schedule 3.1.3
History and Forecast of Summer Peak Demand
Low Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management	(7) Residential Conservation [2]	(8) Comm./Ind Load Management	(9) Comm./Ind Conservation [2]	(10) Net Firm Demand [1]
1995	497		497						497
1996	500		500						500
1997	486		486						486
1998	530		530						530
1999	526		526						526
2000	550		550						550
2001	520		520						520
2002	581		581						581
2003	549		549						549
2004	566		566			1	[3]	0	565
2005	576		576			1		1	574
2006	587		587			3		1	583
2007	601		601			3		1	597
2008	610		610			3		1	606
2009	620		620			3		1	616
2010	629		629			3		1	625
2011	639		639			3		1	635
2012	648		648			3		1	644
2013	658		658			3		1	654
2014	668		668			3		1	664

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. Reporting year DSM is actual at peak.
[3] 2004 DSM Jan - July accumulation.

City Of Tallahassee

Schedule 3.2.1
History and Forecast of Winter Peak Demand
Base Forecast
(MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Residential Load Management	Residential Conservation [2]	Comm./Ind Load Management	Comm./Ind Conservation [2]	Net Firm Demand [1]
1995 -1996	533		533						533
1996 -1997	431		431						431
1997 -1998	421		421						421
1998 -1999	513		513						513
1999 -2000	497		497						497
2000 -2001	521		521						521
2001 -2002	510		510						510
2002 -2003	590		590						590
2003 -2004	509		509						509
2004 -2005	537		537			6		0	532
2005 -2006	588		588			5		0	583
2006 -2007	606		606			5		0	601
2007 -2008	618		618			5		0	613
2008 -2009	631		631			5		0	626
2009 -2010	643		643			5		0	638
2010 -2011	655		655			5		0	650
2011 -2012	667		667			5		0	662
2012 -2013	679		679			5		0	674
2013 -2014	691		691			5		0	686
2014 -2015	703		703			5		0	698

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. Reporting year DSM is actual at peak.

City Of Tallahassee

Schedule 3.2.2
History and Forecast of Winter Peak Demand
High Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management	(7) Residential Conservation [2]	(8) Comm./Ind Load Management	(9) Comm./Ind Conservation [2]	(10) Net Firm Demand [1]
1995 -1996	533		533						533
1996 -1997	431		431						431
1997 -1998	421		421						421
1998 -1999	513		513						513
1999 -2000	497		497						497
2000 -2001	521		521						521
2001 -2002	510		510						510
2002 -2003	590		590						590
2003 -2004	509		509						509
2004 -2005	537		537			6		0	532
2005 -2006	636		636			5			631
2006 -2007	654		654			5			649
2007 -2008	667		667			5			662
2008 -2009	680		680			5			675
2009 -2010	692		692			5			687
2010 -2011	705		705			5			700
2011 -2012	717		717			5			712
2012 -2013	730		730			5			725
2013 -2014	742		742			5			737
2014 -2015	754		754			5			749

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar.

City Of Tallahassee

Schedule 3.2.3
History and Forecast of Winter Peak Demand
Low Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management	(7) Residential Conservation [2]	(8) Comm./Ind Load Management	(9) Comm./Ind Conservation [2]	(10) Net Firm Demand [1]
1995 -1996	533		533						533
1996 -1997	431		431						431
1997 -1998	421		421						421
1998 -1999	513		513						513
1999 -2000	497		497						497
2000 -2001	521		521						521
2001 -2002	510		510						510
2002 -2003	590		590						590
2003 -2004	509		509						509
2004 -2005	537		537			6		0	532
2005 -2006	540		540			5			535
2006 -2007	558		558			5			553
2007 -2008	570		570			5			565
2008 -2009	582		582			5			577
2009 -2010	594		594			5			589
2010 -2011	605		605			5			600
2011 -2012	617		617			5			612
2012 -2013	629		629			5			624
2013 -2014	641		641			5			636
2014 -2015	652		652			5			647

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. Reporting year DSM is actual at peak.

Table 2.9

City Of Tallahassee

Schedule 3.3.1
History and Forecast of Annual Net Energy for Load
Base Forecast
(GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total Sales	Residential Conservation [2]	Comm./Ind Conservation [2]	Retail Sales [1]	Wholesale	Utility Use & Losses	Net Energy for Load [1]	Load Factor % [1]
1995	2,150			2,150		128	2,278	52
1996	2,221			2,221		111	2,332	53
1997	2,186			2,186		132	2,318	54
1998	2,349			2,349		129	2,478	53
1999	2,358			2,358		139	2,497	54
2000	2,441			2,441		155	2,596	54
2001	2,431			2,431		125	2,556	56
2002	2,588			2,588		165	2,753	54
2003	2,603			2,603		152	2,755	57
2004	2,692	11	0	2,680		160	2,840	57
2005	2,744	6	2	2,737		157	2,894	56
2006	2,805	12	3	2,790		160	2,950	56
2007	2,868	12	3	2,852		164	3,016	56
2008	2,931	12	3	2,916		167	3,083	56
2009	2,986	12	3	2,971		170	3,142	56
2010	3,037	12	3	3,022		174	3,195	56
2011	3,090	12	3	3,075		177	3,251	56
2012	3,144	12	3	3,129		180	3,309	57
2013	3,200	12	3	3,185		183	3,368	57
2014	3,256	12	3	3,241		186	3,427	57

[1] Values include DSM Impacts.
[2] Reduction estimated at customer meter. Previous year DSM is actual at peak.

City Of Tallahassee

Schedule 3.3.2
History and Forecast of Annual Net Energy for Load
High Forecast
(GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total Sales	Residential Conservation [2]*	Comm./Ind Conservation [2]	Retail Sales [1]	Wholesale	Utility Use & Losses	Net Energy for Load [1]	Load Factor % [1]
1995	2,150	0	0	2,150	0	128	2,278	52
1996	2,221	0	0	2,221	0	111	2,332	53
1997	2,186	0	0	2,186	0	132	2,318	54
1998	2,349	0	0	2,349	0	129	2,478	53
1999	2,358	0	0	2,358	0	139	2,497	54
2000	2,441	0	0	2,441	0	155	2,596	54
2001	2,431	0	0	2,431	0	125	2,556	56
2002	2,588	0	0	2,588	0	165	2,753	54
2003	2,603	0	0	2,603	0	152	2,755	57
2004	2,692	11	0	2,680	0	160	2,840	57
2005	2,959	6	2	2,951		169	3,121	57
2006	3,028	12	3	3,013		173	3,186	58
2007	3,102	12	3	3,087		177	3,264	58
2008	3,171	12	3	3,156		181	3,337	58
2009	3,230	12	3	3,215		185	3,400	58
2010	3,288	12	3	3,273		188	3,461	58
2011	3,344	12	3	3,329		191	3,520	59
2012	3,403	12	3	3,388		194	3,583	59
2013	3,461	12	3	3,446		198	3,644	59
2014	3,520	12	3	3,505		201	3,706	59

[1] Values include DSM Impacts.
[2] Reduction estimated at customer meter. Previous year DSM is actual at peak.

Table 2.11

City Of Tallahassee

Schedule 3.3.3
History and Forecast of Annual Net Energy for Load
Low Forecast
(GWh)

(1) Year	(2) Total Sales	(3) Residential Conservation [2]*	(4) Comm./Ind Conservation [2]	(5) Retail Sales [1]	(6) Wholesale	(7) Utility Use & Losses	(8) Net Energy for Load [1]	(9) Load Factor % [1]
1995	2,150	0	0	2,150	0	128	2,278	52
1996	2,221	0	0	2,221	0	111	2,332	53
1997	2,186	0	0	2,186	0	132	2,318	54
1998	2,349	0	0	2,349	0	129	2,478	53
1999	2,358	0	0	2,358	0	139	2,497	54
2000	2,441	0	0	2,441	0	155	2,596	54
2001	2,431	0	0	2,431	0	125	2,556	56
2002	2,588	0	0	2,588	0	165	2,753	54
2003	2,603	0	0	2,603	0	152	2,755	57
2004	2,692	11	0	2,680	0	160	2,840	57
2005	2,625	6	2	2,617		150	2,767	55
2006	2,689	12	3	2,674		154	2,827	55
2007	2,760	12	3	2,745		158	2,903	56
2008	2,825	12	3	2,810		161	2,971	56
2009	2,880	12	3	2,865		164	3,030	56
2010	2,933	12	3	2,918		167	3,085	56
2011	2,985	12	3	2,970		170	3,140	56
2012	3,038	12	3	3,023		174	3,197	57
2013	3,092	12	3	3,076		177	3,253	57
2014	3,146	12	3	3,131		180	3,310	57

[1] Values include DSM Impacts.
[2] Reduction estimated at customer meter. Previous year DSM is actual at peak.

Schedule 4
Previous Year and 2-Year Forecast of Retail Peak Demand and Net Energy for Load by Month

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2004 Actual		**2005 Forecast [1]**		**2006 Forecast [1]**	
Month	Peak Demand (MW)	NEL (GWh)	Peak Demand (MW)	NEL (GWh)	Peak Demand (MW)	NEL (GWh)
January	509	232	532	242	583	247
February	445	214	444	206	487	210
March	362	197	406	205	445	209
April	378	197	416	211	457	215
May	508	245	527	252	536	257
June	518	266	557	263	566	268
July	557	280	595	280	605	286
August	565	284	585	285	595	291
September	534	255	560	265	569	271
October	491	233	503	236	512	241
November	443	202	415	209	455	213
December	480	236	448	239	491	242
TOTAL		2,841		2,893		2,950

[1] Peak Demand and NEL include DSM impacts

City Of Tallahassee

2005 Electric System Load Forecast

Key Explanatory Variables

Model Name	Leon County Population	Residential Customers	Total Customers	Cooling Degree Days	Heating Degree	Tallahassee Per Capita Taxable Sales	Price of Electricity	State of Florida Population	Minimum Winter Peak day Temp.	Maximum Summer Peak day Temp.	Appliance Saturation	R Squared [1]
Residential Customers	X											0.989
Residential Consumption		X		X	X	X	X				X	0.921
Florida State University Consumption				X			X	X				0.930
State Capitol Consumption				X			X	X				0.892
Florida A & M University Consumption				X				X				0.926
Street Lighting Consumption	X											0.961
General Service Non-Demand Customers		X										0.958
General Service Demand Customers		X										0.927
General Service Non-Demand Consumption	X			X	X	X	X					0.961
General Service Demand Consumption	X			X	X							0.990
General Service Large Demand Consumption	X			X	X							0.974
Summer Peak Demand			X							X	X	0.982
Winter Peak demand									X		X	0.965

[1] R Squared, sometimes called the coefficient of determination, is a commonly used measure of goodness od fit of a linear model. If the observations fall on the model regression line, R Squared is 1. If there is no linear relationship between the dependent and independent variable, R Squared is 0. A reasonably good R Squared value could be anywhere from 0.6 to 1.

Table 2.14

2005 Electric Load Forecast

Sources of Forecast Model Input Informatioı

Energy Model Input Data	Source
1. Leon County Population	City Planning Office
2. Talquin Customers Transferred	City Power Engineering
3. Cooling Degree Days	NOAA reports
4. Heating Degree Days	NOAA reports
5. AC Saturation Rate	Residential Utility Customer Trends
6. Heating Saturation Rate	City Utility Research
7. Real Tallahassee Taxable Sales	Department of Revenue
8. Florida Population	Governor's Office of Budget & Planning
9. State Capitol Incremental	Department of Management Services
10. FSU Incremental Additions	FSU Planning Department
11. FAMU Incremental Additions	FAMU Planning Department
12. GSLD Incremental Additions	City Utility Services
13. Other Commercial Customers	Utility Services
14. Tall. Memorial Curtailable	System Planning/ Utilities Accounting.
15. System Peak Historical Data	City System Planning
16. Historical Customer Projections by Class	System Planning & Customer Accounting
17. Historical Customer Class Energy	System Planning & Customer Accounting
18. GDP Forecast	Governor's Planning & Budgeting Office
19. CPI Forecast	Governor's Planning & Budgeting Office
20. Florida Taxable Sales	Governor's Planning & Budgeting Office
21. Interruptible, Traffic Light Sales, & Security Light Additions	System Planning & Customer Accounting
22. Historical Residential Real Price of Electricity	Utility Services
23. Historical Commercial Real Price Of Electricity	Utility Services

Banded Summer Peak Load Forecast Vs. Supply Resources
(Load Includes 17% Reserve Margin)

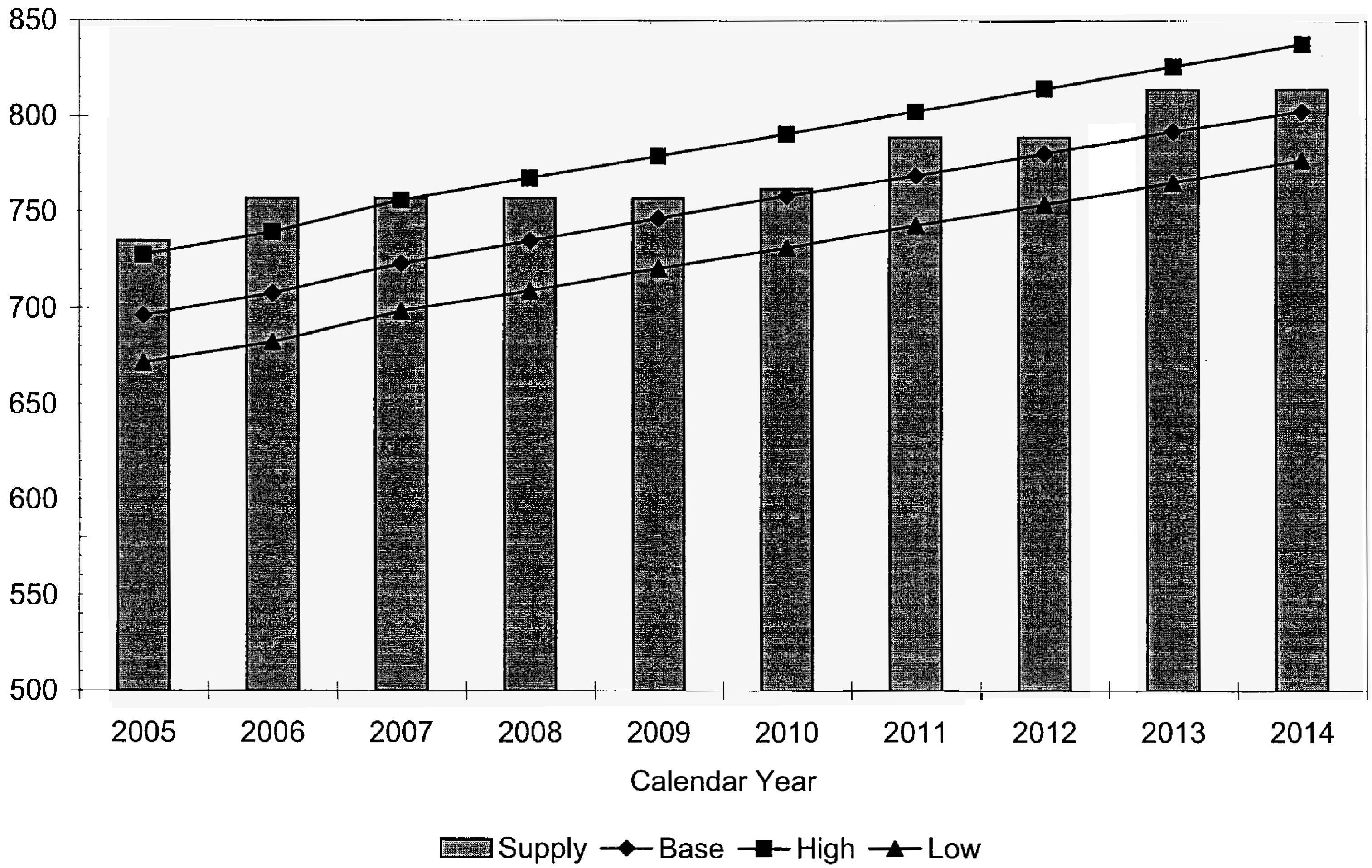


Figure B3

City Of Tallahassee

2005 Electric System Load Forecast

Projected Demand Side Management Energy Reductions [1]

Calendar Year Basis

Year	Residential Impact (MWh)	Commercial Impact (MWh)	Total Impact (MWh)
2005	6,344	1,800	8,144
2006	12,687	3,321	16,008
2007	12,687	3,321	16,008
2008	12,687	3,321	16,008
2009	12,687	3,321	16,008
2010	12,687	3,321	16,008
2011	12,687	3,321	16,008
2012	12,687	3,321	16,008
2013	12,687	3,321	16,008
2014	12,687	3,321	16,008

[1] Reductions estimated at busbar.

City Of Tallahassee

2005 Electric System Load Forecast

Projected Demand Side Management Seasonal Demand Reductions [1]

Year		Residential Energy Efficiency Impact		Commercial Energy Efficiency Impact		Demand Side Management Total	
Summer	Winter	Summer (MW) [2]	Winter (MW) [3]	Summer (MW)	Winter (MW)	Summer (MW)	Winter (MW)
2005	2004-2005	1	5	1	0	2	6
2006	2005-2006	3	5	1	0	4	6
2007	2006-2007	3	5	1	0	4	6
2008	2007-2008	3	5	1	0	4	6
2009	2008-2009	3	5	1	0	4	6
2010	2009-2010	3	5	1	0	4	6
2011	2010-2011	3	5	1	0	4	6
2012	2011-2012	3	5	1	0	4	6
2013	2012-2013	3	5	1	0	4	6
2014	2013-2014	3	5	1	0	4	6

[1] Reductions estimated at busbar.
[2] Summer MW reductions based upon HVAC unit replacements
[3] Winter MW reductions based upon Home Builder Rebates for Electric to Gas Appliance conversions

City Of Tallahassee

Schedule 5
Fuel Requirements

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Fuel Requirements		Units	Actual 2,003	Actual 2,004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
(1)	Nuclear		Billion Btu	0	0	0	0	0	0	0	0	0	0	0	0
(2)	Coal		1000 Ton	0	0	0	0	0	0	0	0	0	0	0	0
	Residual														
(3)		Steam	1000 BBL	555	599	1,005	976	343	127	0	0	0	88	99	0
(4)		CC	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(5)		CT	1000 BBL			0	0	0	0	0	0	0	0	0	0
(6)		Total	1000 BBL	555	599	1,005	976	343	127	0	0	0	88	99	0
	Distillate														
(7)		Steam	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(8)		CC	1000 BBL	5	0	0	0	0	0	0	0	0	0	0	0
(9)		CT	1000 BBL	1	12	0	0	0	0	0	0	0	0	0	0
(10)		Total	1000 BBL	5	12	0	0	0	0	0	0	0	0	0	0
	Natural Gas														
(11)		Steam	1000 MCF	5,163	6,965	2,313	2,642	5,683	7,465	8,100	7,586	5,969	5,032	6,169	5,823
(12)		CC	1000 MCF	11,125	7,499	12,729	12,828	11,726	12,512	12,737	13,289	16,180	17,330	16,317	18,170
(13)		CT	1000 MCF	84	145	489	1,622	2,632	2,610	2,879	3,056	1,925	1,842	2,038	1,989
(14)		Total	1000 MCF	16,371	14,609	15,531	17,092	20,041	22,587	23,716	23,931	24,074	24,204	24,524	25,982
(15)	Other (Specify)		Trillion Btu	0	0	0	0	0	0	0	0	0	0	0	0

City Of Tallahassee

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 2003	Actual 2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
(1)	Annual Firm Interchange		GWh	182	205	1	0	0	0	0	0	0	0	0	0
(2)	Nuclear		GWh	0	0	0	0	0	0	0	0	0	0	0	0
	Residual														
(3)		Steam	GWh	323	355	578	569	190	70	0	0	0	49	56	0
(4)		CC	GWh	0		0	0	0	0	0	0	0	0	0	0
(5)		CT	GWh	0		0	0	0	0	0	0	0	0	0	0
(6)		Total	GWh	323	355	578	569	190	70	0	0	0	49	56	0
	Distillate														
(7)		Steam	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(8)		CC	GWh	4	0	0	0	0	0	0	0	0	0	0	0
(9)		CT	GWh	0	3	0	0	0	0	0	0	0	0	0	0
(10)		Total	GWh	4	3	0	0	0	0	0	0	0	0	0	0
	Natural Gas														
(11)		Steam	GWh	451	620	210	241	536	702	755	708	557	471	572	537
(12)		CC	GWh	1,566	1,045	1,774	1,791	1,646	1,742	1,777	1,860	2,247	2,398	2,267	2,523
(13)		CT	GWh	2	6	48	167	272	269	298	317	201	191	213	207
(14)		Total	GWh	2,020	1,671	2,032	2,199	2,454	2,713	2,830	2,885	3,005	3,060	3,052	3,267
(15)	Hydro		GWh	30	24	18	16	18	18	18	18	18	18	18	18
(16)	Others (Specify)(1)		GWH	197	583	264	166	355	282	293	293	229	182	242	142
(17)	Net Energy for Load		GWh	2,755	2,841	2,893	2,950	3,017	3,083	3,141	3,196	3,252	3,309	3,368	3,427

(1) Market and Intra-regiona.

[1] Annual firm intra-region interchange and net annual non-firm inter/intra-region interchange.

City Of Tallahassee

Schedule 6.2
Energy Sources

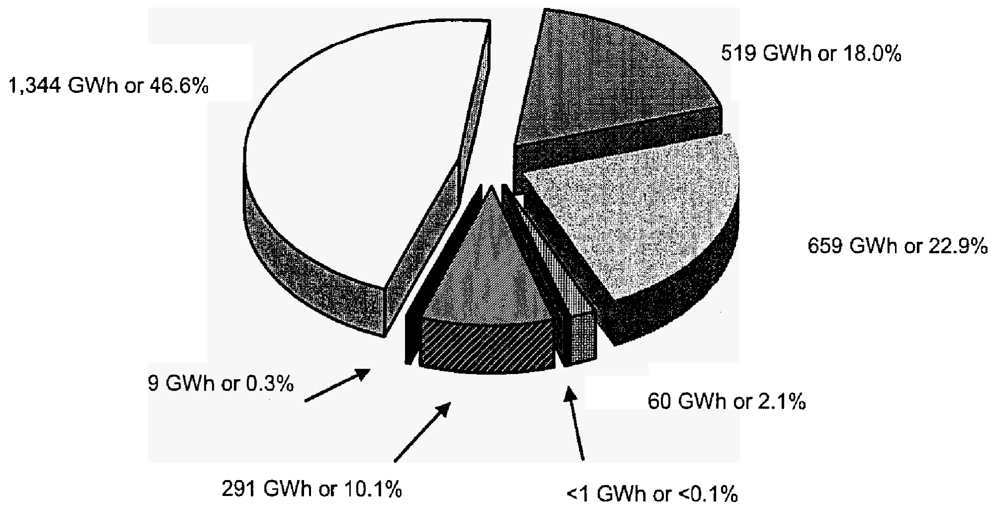
(1)	(2)	(3)	(4)	5	6	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources		Units	Actual 2003	Actual 2004	2005	2006	2007	2008	2009		2011	2012	2013	2014
(1)	Annual Firm Interchange		%	6.60	7.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(2)	Nuclear		%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Residual														
(3)		Steam	%	11.71	12.50	20.00	19.30	6.30	2.30	0.00	0.00	0.00	1.50	1.70	0.00
(4)		CC	%	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)		CT	%	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)		Total	%	11.71	12.50	20.00	19.30	6.30	2.30	0.00	0.00	0.00	1.50	1.70	0.00
	Distillate														
(7)		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
(8)		CC	%	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(9)		CT	%	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(10)		Total	%	0.13	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Natural Gas														
(11)		Steam	%	16.37	21.83	7.30	8.20	17.80	22.80	24.00	22.10	17.10	14.20	17.00	15.70
(12)		CC	%	56.86	36.79	61.30	60.70	54.60	56.50	56.60	58.20	69.10	72.50	67.30	73.60
(13)		CT	%	0.09	0.21	1.70	5.70	9.00	8.70	9.50	9.90	6.20	5.80	6.30	6.00
(14)		Total	%	73.32	58.82	70.30	74.60	81.30	88.00	90.10	90.20	92.40	92.50	90.60	95.30
(15)	(Hydro		%	1.09	0.83	0.60	0.50	0.60	0.60	0.60	0.60	0.60	0.50	0.50	0.50
(16)	Others (Specify)[1]		%	7.15	20.51	9.10	5.60	11.80	9.10	9.30	9.20	7.00	5.50	7.20	4.20
(17)	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

[1] Annual firm intra-region interchange and net annual non-firm inter/intra-region interchange.

Figure B4

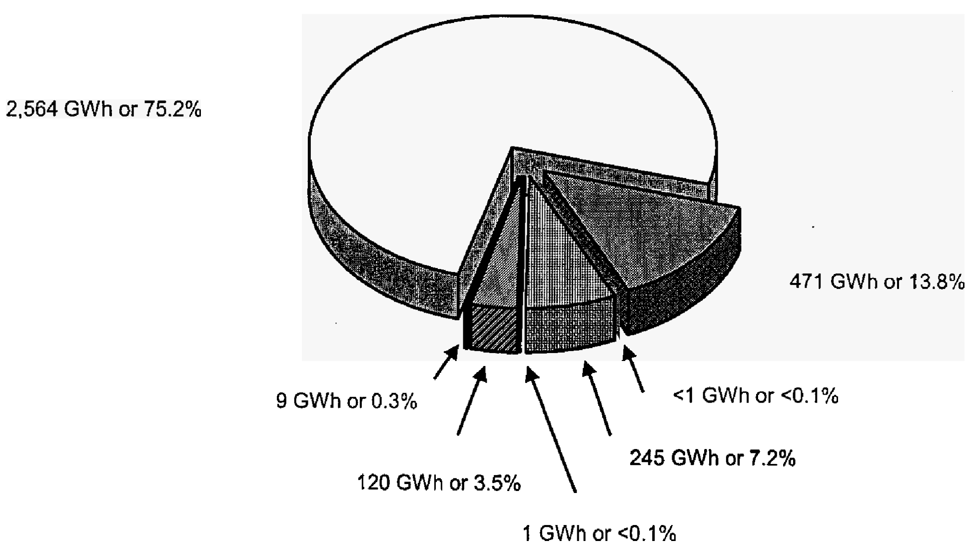
Generation By Resource/Fuel Type

Calendar Year 2005



Total 2005 NEL = 2,893 GWh

Calendar Year 2014



Total 2014 NEL = 3,427

□ CC - Gas ■ Steam - Gas ■ Steam - Oil ■ CT/Diesel - Gas ■ CT/Deisel - Oil ■ Purch ■ Hydro

Chapter III

Projected Facility Requirements

3.0 INTRODUCTION

The review and approval by the City Commission of the electric utility's recommended resource plan is guided by the objectives in the City's Energy Policy:

> *It is the policy of the City of Tallahassee to provide a reliable, economically-competitive energy system which meets citizens' energy needs and reduces total energy requirements. These requirements will be reduced through energy conservation, public education, and appropriate technologies. The energy system will protect and improve the quality of life and the environment.*

3.1 PLANNING PROCESS

In August 2004 the City issued a task order to Black & Veatch Consultants to conduct a comprehensive integrated resource planning (IRP) study. The purpose of this study is to review future demand-side management (DSM) and power supply options that are consistent with the objectives of the City's Energy Policy stated above in Section 3.0. As of the time of this TYSP filing, the City and Black & Veatch have completed Phase I of the IRP study which included data collection, assumption and methodology development and a screening analysis to identify those DSM and power supply alternatives that will be subject to detailed analysis in the final Phase II. The City's proposed generation expansion plan described in Section 3.2 is based in part on the results of the 2002 IRP study, the preliminary results of the ongoing IRP study and the results of internal studies.

Electric utility planning staff will continue to review the progress and results of the current IRP Study as directed by the City Commission. This review process will include but not necessarily be limited to updating information with regard to expected conditions (existing system performance, load and energy requirements, fuel price forecasts, economic variables), DSM alternatives, power supply alternatives (electric generating equipment and new power purchase opportunities), transmission issues and any other information that would support enhancements to the IRP study assumptions or methodology. As part of this review staff will investigate options available to the City to achieve some supply resource portfolio diversity. In addition, staff will continue to review and develop means to mitigate the potential impacts of significant events in the electric utility industry including but not necessarily limited to the collapse of Enron, other former energy trading companies and merchant generators and the subsequent impact on energy sector investment and financial markets, the ongoing initiatives for the formation of regional transmission organizations (RTO) and possible federal legislation related to electric utility industry restructuring.

3.2 PROJECTED RESOURCE REQUIREMENTS

3.2.1 TRANSMISSION LIMITATIONS

The City has projected that additional resources will be required during the 2005-2014 Ten Year Site Plan time frame to maintain a reliable electric system. The City's projected transmission import capability is a major determinant of the type and timing of future power resource additions. The City has worked with its neighboring utilities, Progress and Southern, to plan and maintain sufficient transmission import capability to allow the City to make emergency power purchases in the event of the most severe single contingency, the loss of the system's largest generating unit. As has been seen in other parts of the country since the passage of the Energy Policy Act of 1992, there has been little investment in the regional transmission system around Tallahassee. Consequently, the City's internal transmission studies have reflected a gradual deterioration of the system's transmission import (and export) capability into the future, due in part to this lack of investment in facilities as well as the impact of an increasing level of unscheduled power flow-through on the City's transmission system. The prospects for significant expansion of the regional transmission system around Tallahassee hinges on (i) the City's ongoing discussions with Progress and Southern, (ii) the RTO development activities of GridFlorida, and (iii) the alternative mechanisms envisioned by proposed federal legislation on electric industry restructuring. Unfortunately, none of these efforts is expected to produce substantive improvements to the City's transmission import/export capability in the time frame of the system's short-term resource needs. The City continues to discuss the limitations of the existing transmission grid in the panhandle region with Progress, and preliminary results from a joint study of possible alternatives to address these limitations and constraints were shared with FPSC staff in March 2005. In consideration of the City's projected transmission import capability reductions and the associated grid limitations, the results of the 2004 IRP Study and recent analysis of options tend to favor local generation alternatives as the means to satisfy future power supply requirements.

3.2.2 RESERVE REQUIREMENTS

Historically, the City has planned to maintain a load reserve margin of 17%. However, in previous Ten Year Site Plan reports, the City has discussed the possibility of increasing its reserve margin criterion. The perceived need to evaluate alternative reliability criteria/levels arose primarily from three considerations: (i) the projected deterioration of the City's transmission import capability discussed in the previous section, (ii) the stipulation made by the state's three investor-owned utilities (Florida Power & Light, Progress Energy Florida and Tampa Electric Company) to increase their respective reserve margins to 20% by 2004 in response to the FPSC's reserve margin docket of 1998, and (iii) the size of the City's individual generating units as a percent of its total supply resource capability. However, as mentioned in the previous year's Ten Year Site Plan reports, the City evaluated various reliability measures and determined that the 17% reserve margin continues to be appropriate for planning purposes. The City is currently reviewing the scheduled retirement dates for the 20 MW of gas turbines at the Purdom Plant (currently scheduled for retirement in 2008 and 2009 as shown in Schedule 1) and, if economic, may elect to postpone the retirement of those units. Assuming the base case load forecast, recognizing the peaking capacity under construction and assuming that the retirement of the Purdom CTs is delayed until 2010, additional power supply need to maintain a 17% planning reserve margin first occurs in the summer of 2010; assuming the high load forecast, additional power supply would be needed two years earlier, in the summer of 2008.

3.2.3 NEAR TERM RESOURCE ADDITIONS

In order to meet the year 2005 capacity shortfalls identified in the 2002 IRP, the City is moving forward with the addition of 94 MW (summer net) of new peaking capacity. This new capacity will utilize two (2) dual fuel simple cycle combustion turbines. Details of this project are below.

The combustion turbines that are being added are General Electric LM-6000 Sprint combustion turbines with a summer rating of 47 MW (94° F, firing natural gas with chiller in service) each. The combustion turbines will be equipped with inlet chilling, and selective catalytic reduction and oxidation catalyst to reduce the emissions of oxides of nitrogen and carbon monoxide respectively.. These new generation units will be dual fuel with the ability to utilize natural gas or clean low sulfur diesel as their primary fuel and are designed to be on line and at full load withing ten (10) minutes of initiation of the start sequence. The combustion turbines are slated to be installed at the A. B. Hopkins Generation Station.

The City has purchased the prime mover equipment, main power transformers and certain other material and equipment required for the installation. All permitting has been completed. The City has awarded the installation; commissioning and start-up contract to TIC – The Industrial Company. TIC has mobilized and construction activities commenced in early February 2005. The current project schedule calls for the first of the LM-6000's to be in commercial operation in early July.

3.2.4 PURCHASED POWER ALTERNATIVES

Purchase contracts could provide some of the diversity desired in the City's power supply resource portfolio. Resource diversity, particularly with regard to fuels, has long been sought after by the City because of the system's heavy reliance on natural gas as its primary fuel source and has received even greater emphasis in light of the volatility in natural gas prices seen over recent years. The City has also attempted to address this concern by implementing an Energy Risk Management (ERM) program in an effort to limit the City's exposure to energy price fluctuations. The ERM program established a new organizational structure of interdepartmental committees and working groups and included the adoption of an Energy Risk Management Policy that, among other things, identifies acceptable risk mitigation products to prevent asset value losses, ensure price stability and provide protection against market volatility for fuels and energy to the City's electric and gas utilities and their customers.

As an additional strategy to address the City's lack of power supply diversity, planning staff continues to investigate options for joint ownership of a solid-fuel unit. Recent changes in the natural gas market and in cost and performance parameters for coal units indicate favorable economics for adding some amount of coal capacity to the City's resource portfolio. The ongoing 2004 IRP Study will assess the benefits and risks associated with including a coal-fueled unit in the City's long-range power supply plan. That analysis will focus primarily on participation in a remotely sited resource in recognition of the constraints placed on the City as a result of a 1991 charter amendment relating to pursuit of any locally sited coal plant.

3.2.5 Renewable Resources

As part of its continuing commitment to explore clean energy alternatives, the City has continued to invest in opportunities to develop viable solar photovoltaic (PV) projects as part of our efforts to offer "green power" to our customers. The City believes that offering a green power alternative to its customers is a sound business strategy: it will provide for a measure of supply diversification, reduce dependence on fossil fuels, promote cleaner energy sources, and enhance the City's already strong commitment to protecting the environment and the quality of life in Tallahassee. Currently we have a portfolio of 40kW of solar PV dedicated to supporting our *Green For You* program, a retail offering which uses tradable renewable certificates (green tags) to promote development of green power projects.

The City's existing solar power resources consist of both solar PV and solar thermal installations: a 10 kW PV system on the Trousdell Aquatics Center bathhouse; an 18 kW PV system located behind the Florida Public Service Commission conference center; a 6 kW PV system at the FAMU/FSU Engineering School; a 6 kW PV system at the Center for Advanced Power Systems (CAPS); and several solar domestic hot water systems at various City facilities. The City is also developing some integrated solar energy systems at the Jack McLean Park, including a solar pool heating system, a 6 kW PV system, and a solar domestic hot water system. In addition to these solar energy resources, the City also operates an 11 MW hydroelectric generating station at Lake Talquin, which represents the largest component of our renewable energy portfolio.

3.2.6 Future Power Supply Resources

The City's currently proposed resource addition to meet system needs in the summer of 2010 and beyond is represented in this report as an increasing ownership/purchase of capacity and energy from the equivalent of a new 1-on-1 combined cycle (CC) unit. Possible CC alternatives include a self -built unit; an asset modification (repowering of an existing conventional oil and gas-fired steam unit to combined cycle operation); an alliance purchase by wire (if transmission is available) or a combination thereof. The City will be continuing its evaluation of the different CC alternatives and update the FPSC in future TYSP reports.

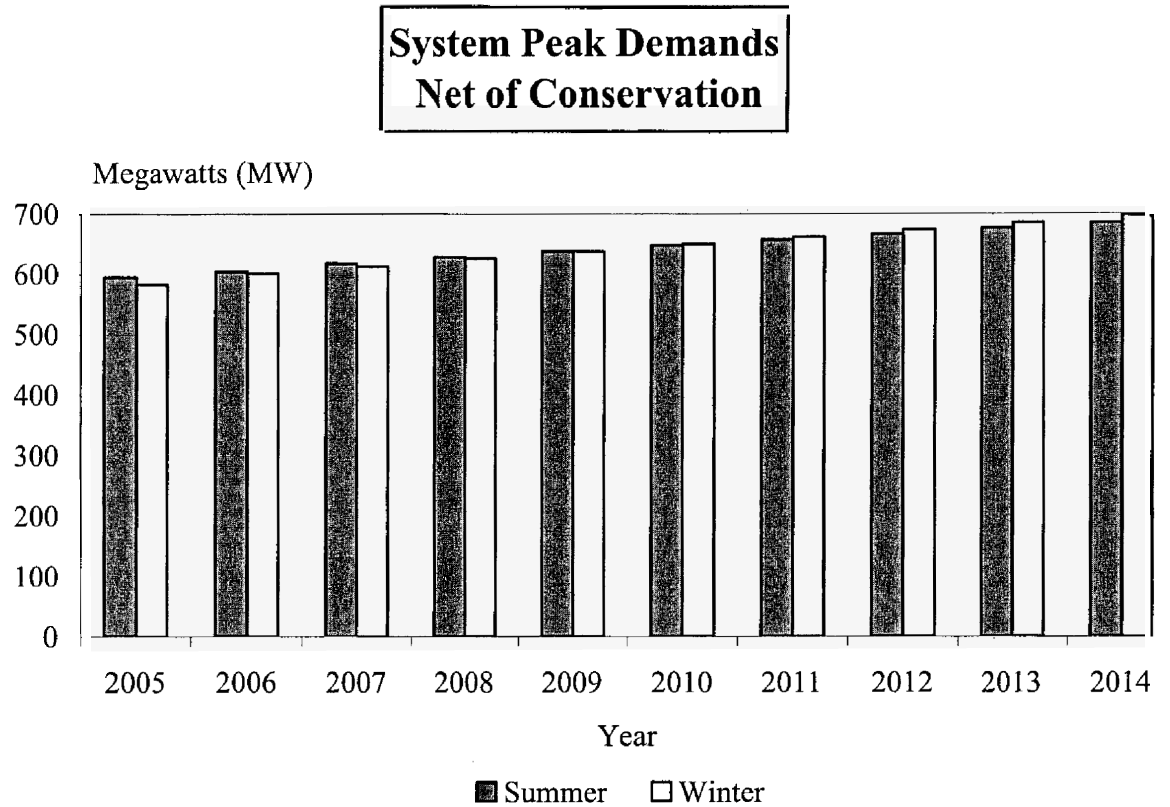
The CC ownership/purchase reflected in this report begins with 25 MW in 2010. The CC ownership/purchase increases to 100 MW by the summer of 2011, to 125 MW by the summer of 2013 to meet the balance of needs throughout the 2005-2014 study period.

Tables 3.1 and 3.2 (Schedules 7.1 and 7.2) provide information on the resources and reserve margins during the next ten years for the City's system. The City has specified its planned capacity additions, retirements and changes on Table 3.3 (Schedule 8). These capacity resources have been incorporated into the City's dispatch simulation model in order to provide information related to fuel consumption and energy mix (see Tables 2.18, 2.19 and 2.20). Figure C compares seasonal net peak load and the system reserve margin based on summer peak load requirements. Table 3.4 provides the City's generation expansion plan. The additional supply capacity required to maintain the City's 17% reserve margin criterion is included in the "Resource Additions" column.

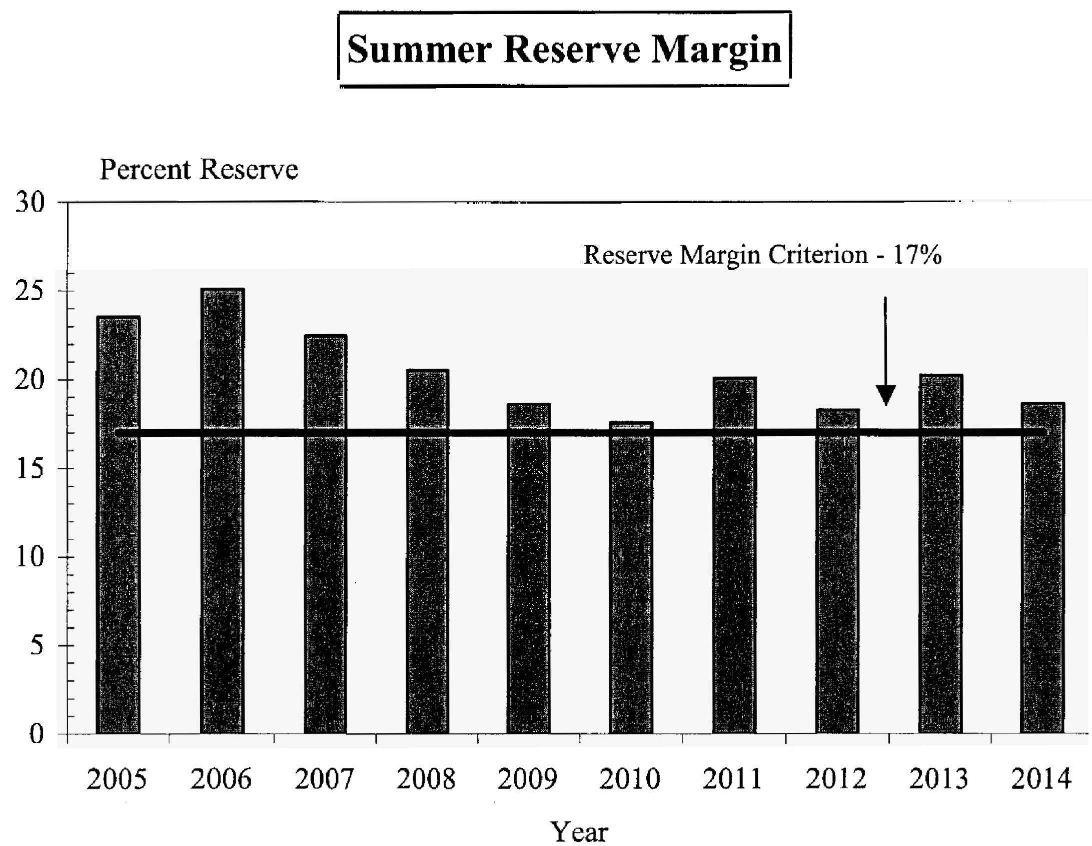
In addition to this future combined cycle unit addition, as a part of the 2004 IRP study the City is evaluating some other alternatives that would increase the effective capacity of our existing power supply resources and thereby defer the need for new resource additions, such as inlet chilling on Purdom Unit 8 or steam turbine upgrades at Hopkins Unit 2. These alternatives could provide a very cost-effective increase in system capacity with relatively short lead times, and would give the City more flexibility in meeting its future power supply requirements.

The City is also reviewing the scheduled retirement dates for the gas turbines at the Purdom Plant and may elect to extend the life of those units. Currently these units are projected to retire in 2008 and 2009 (see Schedule 1). Postponing these planned retirements may give the City additional flexibility in future power supply plans. For example, if delaying the retirement of this 20 MW of peaking capacity proves economic, absent any other changes on the system the first year in which resources would need to be added to maintain a 17% reserve margin (using the base case load forecast) is 2010, a deferral of two years compared to the generation expansion that would be required if their retirement was not delayed. The assessment of this retirement deferral should be completed during the IRP study.

Figure C



System Peak Demands
Net of Conservation
Megawatts (MW)
700
600
500
400
300
200
100
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Year
Summer
Winter



Summer Reserve Margin
Percent Reserve
30
25
20
15
10
5
0
Reserve Margin Criterion - 17%
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Year

City Of Tallahassee

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)
	Total Installed Capacity (MW)	Firm Capacity Import (MW)	Firm Capacity Export (MW)	QF (MW)	Total Capacity Available (MW)	System Firm Summer Peak Demand (MW)	Reserve Margin Before Maintenance (MW)	Reserve Margin Before Maintenance % of Peak	Scheduled Maintenance (MW)	Reserve Margin After Maintenance (MW)	Reserve Margin After Maintenance % of Peak
2005	699	36			735	595	140	24		140	24
2006	746 [1]	11			757	605	152	25		152	25
2007	746 [1]	11			757	618	139	22		139	22
2008	746 [1]	11			757	628	129	21		129	21
2009	746 [1]	11			757	638	119	19		119	19
2010	751 [1]	11			762	648	114	18		114	18
2011	778 [1]	11			789	657	132	20		132	20
2012	778 [1]	11			789	667	122	18		122	18
2013	803 [1]	11			814	677	137	20		137	20
2014	803 [1]	11			814	686	128	19		128	19

[1] All installed and firm import capacity changes are included in the proposed generation expansion plan.

City Of Tallahassee

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)
	Total Installed Capacity	Firm Capacity Import	Firm Capacity Export	QF	Total Capacity Available	System Firm Winter Peak Demand	Reserve Margin Before Maintenance		Scheduled Maintenance	Reserve Margin After Maintenance	
Year	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	(MW)	% of Peak	(MW)	(MW)	% of Peak
2004/05	699	11			710	532	178.5	34		178.5	34
2005/06	799	11			810	583	227	39		227	39
2006/07	799 [1]	11			810	601	209	35		209	35
2007/08	799	11			810	613	197	32		197	32
2008/09	799	11			810	626	184	29		184	29
2009/10	789 [1]	11			800	638	162	25		162	25
2010/11	804 [1]	11			815	650	165	25		165	25
2011/12	829 [1]	11			840	662	178	27		178	27
2012/13	829 [1]	11			840	674	166	25		166	25
2013/14	854 [1]	11			865	686	179	26		179	26
2014/15	854 [1]	11			865	698	167	24		167	24

[1] All installed capacity changes are included in the proposed generation expansion plan. (see Section 3.1 for details).
[2] 2004/05 winter is actual peak

City Of Tallahassee

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)
								Const.	Commercial	Expected	Gen. Max.	Net Capability		
	Unit		Unit	Fuel		Fuel Transportation		Start	In-Service	Retirement	Nameplate	Summer	Winter	
Plant Name	No.	Location	Type	Pri	Alt	Pri	Alt	Mo/Yr	Mo/Yr	Mo/Yr	(kW)	(MW)	(MW)	Status
Hopkins [1]	3	Hopkins	GT	NG	DFO	PL	TK	Unknown	Jul-05			47	50	U
Hopkins [1]	4	Hopkins	GT	NG	DFO	PL	TK	Unknown	Sep-05			47	50	U
Hopkins [2]	A	Undetermined	CC	NG	DFO	PL	TK	Unknown	May-10			25	25	P
									May-11			75	75	P
									May-13			25	25	P

[1] The generating unit Combustion Turbines 3 and 4 are located at the Hopkins plant.
[2] This combined cycle capability is reflected as an alliance ownership/purchase beginning with 25 MW in May 2010, increasing to 100 MW in May 2011, and 125 MW in May 2013. This capacity could take the form of a new, self-build unit; an asset modification (repowering of an existing conventional oil and gas-fired steam unit to combined cycle operation); an alliance purchase "by wire" (if transmission is available) and/or joint generation project; or a combination thereof. The City's back up plan for this capacity would be to self-build a combined cycle unit.

Acronym	Definition
IC	Internal Combustion
GT	Gas Turbine
PRI	Primary Fuel
ALT	Alternate Fuel
NG	Natural Gas
DFO	Diesel Fuel Oil
PL	Pipeline
TK	Truck
P	Planned
kW	Kilowatts
MW	Megawatts

City Of Tallahassee

Generation Expansion Plan

Year	Load Forecast & Adjustments Fcst Peak Demand (MW)	DSM [1] (MW)	Net Peak Demand (MW)	Existing Capacity Net (MW)		Firm Imports (MW)	Southern Purchase (MW) (MW)		Firm Exports (MW)	Resource Additions Cumulative) (MW)		Total Capacity (MW)	Res %	New Resources
2005	597	2	595	652		11	25	[2]		47	[3]	735	24	
2006	609	4	605	652		11				94		757	25	[3]
2007	622	4	618	652		11				94		757	22	
2008	632	4	628	652		11				94		757	21	
2009	642	4	638	652		11				94		757	19	
2010	652	4	648	632	[4]	11				119		762	18	[7]
2011	661	4	657	584	[5]	11				194		789	20	[7]
2012	671	4	667	584		11				194		789	18	
2013	681	4	677	584	[6]	11				219		814	20	[7]
2014	690	4	686	584		11				219		814	19	

[1] DSM = Demand Side Management
[2] Purchase in summer 2005 for 25 MW from Southern Company June 1 - Aug 30..
[3] New resources are to be (2) 47 MW (Summer Net) GE LM6000 aeroderivative ct's
[4] Purdom CT 1 official retirement currently scheduled for 5/1/2010.
[5] Purdom CT 2 official retirement currently scheduled for 5/1/2010
[6] Purdom 7 official retirement currently scheduled for March 2011.
[7] This combined cycle capability is reflected as an alliance ownership/purchase beginning with 25 MW in May 2010, increasing to 100 MW in May 2011, and 125 MW in May 2013. This capacity could take the form of a new, self-build unit; an asset modification (repowering of an existing conventional oil and gas-fired steam unit to combined cycle operation); an alliance purchase "by wire" (if transmission is available) and/or joint generation project; or a combination thereof. The City's back up plan for this capacity would be to self-build a combined cycle unit.

Chapter IV

Proposed Plant Sites and Transmission Lines

4.1 Proposed Plant Site

The City's proposed resource addition to meet system needs in the summer 2010 and beyond is an increasing ownership/purchase of capacity and energy from a new 1-on-1 combined cycle unit beginning with 50 MW in 2010. The ownership increases to 100 MW by the summer of 2011 and to 125 MW by the summer of 2013 to meet the balance of needs throughout the 2005-2014 study period. This is a proposed resource addition as previously mentioned and is not final. Other possible combined cycle opportunities include a self-built unit, an asset modification (repowering of an existing conventional oil and gas-fired steam unit to combined cycle operation) and an alliance purchase by wire (if transmission is available) or a combination thereof. In addition to the CT units previously discussed, any of the contemplated combined cycle unit options could be accommodated at the City's existing Hopkins Plant Site. It is also possible that a new "green field" site might be identified if the self–build option is pursued (see Tables 4.1 - 4.3: Schedule 9).

4.2 Transmission Line Additions/Upgrades

Internal studies of the transmission system have identified a number of system improvements and additions that will be required to reliably serve future load. The attached transmission system map (Figure D1) shows the planned transmission additions covered by this Ten Year Site Plan.

Over the last decade, the City has experienced significant growth and development, and a corresponding increase in the demand for electricity. This has been especially true in the fast growing eastern portion of the City and adjacent Leon County where development has outpaced the construction of electric transmission lines and substations. The only acceptable and permanent way of providing a reliable source of electricity and providing for continuing growth to the eastern part of Tallahassee is to reinforce this area with the proper substation and transmission infrastructure. The City is currently planning and is in some cases in the process of constructing several new substations on the east side of its system. These are intended to serve future load in this rapidly growing area. The new substations (14, 15, 17, and 18) will be connected to the City's 115 kV transmission system, which is the standard voltage throughout the City's service territory. When complete, the area will be served by two reliable "loops" between substations 7 and 9 and between substations 9 and 5. The anticipated in-service dates for these new substations and lines are shown on Figure D1.

In the mid 1990's, the Electric Utility determined which areas would be the most beneficial to locate substation facilities to support this load growth and, after several years of negotiation with the landowner, the City obtained property for two proposed substations and selected a tentative transmission line route. Concern about environmental issues and public acceptance prompted further investigation and an effort to obtain more community input to the process.

To provide information and involve the residents of the area in the transmission line route selection process, Electric Utility staff conducted numerous public workshops. In addition, an independent route study was conducted from June 2002 to June 2003. The Final Report from the route consultant was submitted to the City in late September 2003. On December 10, 2003 the City Commission considered the issue and requested staff to conduct a another public workshop, which was held on January 6, 2004. On February 11, 2004 the City Commission held a public hearing on the route selection and requested staff to consider a further route option and return with a recommendation.

During the spring and summer of 2004, staff participated in several meetings and discussions with citizens representing a broad spectrum of the community concerned with the locations of the transmission line. Staff worked simultaneously with representatives of Powerhouse, Inc., to develop routes and design alternatives on the Welaunee Plantations property that would address the needs of the Electric Utility and be acceptable to Powerhouse, including the acquisition of a portion of Welaunee property by the City. Following determination of a potential route and conceptual approval of Welaunee property acquisition by the City Commission, staff conducted further public information initiatives to get feedback from residents and stakeholders near the newest route option, through Welaunee property.

The final route recommendation that addressed citizen concerns to the extent possible and best met the City's siting criteria was approved by the City Commission on February 9, 2005. The transmission line and substation design is proceeding and construction is expected to be complete by early 2007.

As discussed in Section 3.2, the City has been working with its neighboring utilities, Progress and Southern, to identify improvements to assure the continued reliability and commercial viability of the transmission systems in and around Tallahassee. At a minimum, the City attempts to plan for and maintain sufficient transmission import capability to allow for emergency power purchases in the event of the most severe single contingency, the loss of the system's largest generating unit. The City's internal transmission studies have reflected a gradual deterioration of the system's transmission import (and export) capability into the future. This reduction in capability is driven by lack of investment in facilities in the panhandle region as well as the impact of an increasing level of unscheduled power flow-through on the City's transmission system. The City is committed to continue to work with Progress and Southern and the developing GridFlorida RTO as well as existing and prospective regulatory bodies in an effort to pursue improvements to the regional transmission systems that will allow the City to continue to provide reliable and affordable electric service to the citizens of Tallahassee in the future. The City will provide the FPSC with information regarding any such improvements as it becomes available.

In addition to the transmission improvements described above and shown in Figure D1, the City is currently conducting additional studies of its transmission system to identify further improvements and expansions to provide increased reliability and respond more effectively to certain critical contingencies both on the system and in the surrounding grid in the panhandle. While these evaluations are not yet complete, preliminary results indicate that additional infrastructure projects may be included in subsequent Ten Year Site Plan filings; these projects generally address either (i) improvements in capability to deliver power from the Hopkins Plant (on the west side of the City's service territory) to the load center, or (ii) the strengthening of the system on the east side of the City's service territory to improve the voltage profile in that area and enhance response to contingencies.

City Of Tallahassee

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	Hopkins	3
(2)	Capacity		
	a.) Summer:	47	
	b.) Winter:	50	
(3)	Technology Type:	CT	
(4)	Anticipated Construction Timing		
	a.) Field Construction start - date:	Feb-05	
	b.) Commercial in-service date:	Jul-05	
(5)	Fuel		
	a.) Primary fuel:	NG	
	b.) Alternate fuel:	DFO	
(6)	Air Pollution Control Strategy:	NO_x - Selective Catalytic Reduction (SCR) CO - Oxidation catalyst SO_2 - Low sulfur fuel oil	
(7)	Cooling Status:	Closed loop radiators/fin fan coolers	
(8)	Total Site Area:	7.13 acres	
(9)	Construction Status:	Under construction, less than 50% completed	
(10)	Certification Status:	Florida Site Certification issued	
(11)	Status with Federal Agencies:	All permits issued except for Title V	
(12)	Projected Unit Performance Data		
	Planned Outage Factor (POF):	5.78	%
	Forced Outage Factor:	2.24	%
	Equivalent Availability Factor (EAF):	88.20	%
	Resulting Capacity Factor (%):	5 - 45	%
	Average Net Operating Heat Rate (ANOHR):	10.166	MMBtu/MWh - Summer @ full load
(13)	Projected Unit Financial Data		
	Book Life (Years)		
	Total Installed Cost (In-Service Year $/kW)		
	Direct Construction Cost ($/kW):	678	
	AFUDC Amount ($/kW):	Included in construction cost	
	Escalation ($/kW):	Included in construction cost	
	Fixed O & M ($kW-Yr):	Note 1	
	Variable O & M ($/MWH):	Note 1	
	K Factor:	No calculation	

[1] TAL does not typically calculate fixed vs. variable O&M. TAL's FY 2006 O&M budget for this unit is $600,000 and $1 million has been included in FY 2010 of TAL's 5-year operating budget for the replacement of the SCR catalvst.

City Of Tallahassee

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	Hopkins 4	
(2)	Capacity		
	a.) Summer:	47	
	b.) Winter:	50	
(3)	Technology Type:	CT	
(4)	Anticipated Construction Timing		
	a.) Field Construction start - date:	Feb-05	
	b.) Commercial in-service date:	Sep-05	
(5)	Fuel		
	a.) Primary fuel:	NG	
	b.) Alternate fuel:	DFO	
(6)	Air Pollution Control Strategy:	NO_x - Selective Catalytic Reduction (SCR) CO - Oxidation catalyst SO_2 - Low sulfur fuel oil	
(7)	Cooling Status:	Closed loop radiators/fin fan coolers	
(8)	Total Site Area:	7.13 acres	
(9)	Construction Status:	Under construction, less than 50% completed	
(10)	Certification Status:	Florida Site Certification issued	
(11)	Status with Federal Agencies:	All permits issued except for Title V	
(12)	Projected Unit Performance Data		
	Planned Outage Factor (POF):	5.78	%
	Forced Outage Factor:	2.24	%
	Equivalent Availability Factor (EA	88.20	%
	Resulting Capacity Factor (%):	5 - 45	%
	Average Net Operating Heat Rate (	10.166	MMBtu/MWh - Summer @ full load
(13)	Projected Unit Financial Data		
	Book Life (Years)		
	Total Installed Cost (In-Service Year $/kW)		
	Direct Construction Cost ($/kW):	678	
	AFUDC Amount ($/kW):	Included in construction cost	
	Escalation ($/kW):	Included in construction cost	
	Fixed O & M ($kW-Yr):	Note 1	
	Variable O & M ($/MWH):	Note 1	
	K Factor:	No calculation	

[1] TAL does not typically calculate fixed vs. variable O&M. TAL's FY 2006 O&M budget for this unit is $600,000 and $1 million has been included in FY 2010 of TAL's 5-year operating budget for the replacement of the SCR catalyst.

Table 4.3

City Of Tallahassee

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	Combined Cycle A
(2)	Capacity a.) Summer: b.) Winter:	Note [1]
(3)	Technology Type:	Combined Cycle
(4)	Anticipated Construction Timing a.) Field Construction start - date: [1] b.) Commercial in-service date:	 Unknown Unknown
(5)	Fuel a.) Primary fuel: b.) Alternate fuel:	 Natural Gas No. 2 Diesel Fuel
(6)	Air Pollution Control Strategy:	Unknown
(7)	Cooling Status:	Unknown
(8)	Total Site Area:	Unknown
(9)	Construction Status:	Planned
(10)	Certification Status:	
(11)	Status with Federal Agencies:	N/A
(12)	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor: Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	Data dependent on selected unit manufacturer, nature of contracts, etc. To be determined.
(13)	Projected Unit Financial Data Book Life (Years) Total Installed Cost (In-Service Year $/kW) Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O & M ($kW-Yr): Variable O & M ($/MWH): K Factor:	

[1] This combined cycle capability is reflected as an alliance ownership/purchase beginning with 25 MW in May 2010, increasing to 100 MW in May 2011, and 125 MW in May 2013. This capacity could take the form of a new, self-build unit; an asset modification (repowering of an existing conventional oil and gas-fired steam unit to combined cycle operation); an alliance purchase "by wire" (if transmission is available) and/or joint generation project; or a combination thereof. The City's back up plan for this capacity would be to self-build a combined cycle unit.

City Of Tallahassee

Schedule 10
Status Report and Specifications of Proposed Directly Associated Transmission Lines

(1)	Point of Origin and Termination:	No facility additions or improvements to report at this time.
(2)	Number of Lines:	
(3)	Right-of -Way:	
(4)	Line Length:	
(5)	Voltage:	
(6)	Anticipated Capital Timing:	
(7)	Anticipated Capital Investment:	
(8)	Substations:	
(9)	Participation with Other Utilities:	

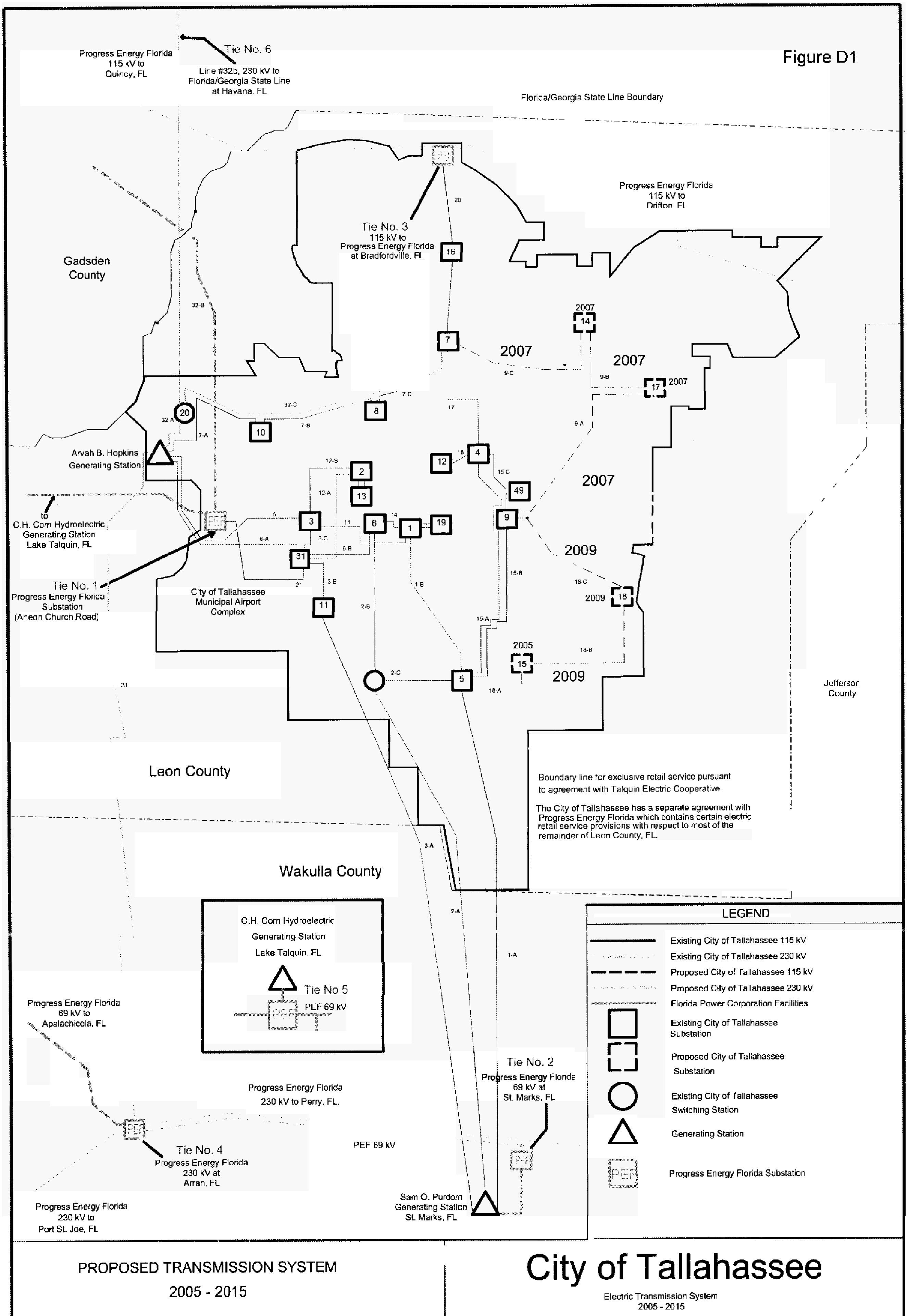


Figure D1
Progress Energy Florida 115 kV to Quincy, FL
Tie No. 6
Line #32b, 230 kV to Florida/Georgia State Line at Havana, FL
Florida/Georgia State Line Boundary
Progress Energy Florida 115 kV to Drifton, FL
Tie No. 3 115 kV to Progress Energy Florida at Bradfordville, FL
Gadsden County
2007
2009
2005
Arvah B. Hopkins Generating Station
to C.H. Corn Hydroelectric Generating Station Lake Talquin, FL
Tie No. 1 Progress Energy Florida Substation (Aneon Church Road)
City of Tallahassee Municipal Airport Complex
Jefferson County
Leon County
Boundary line for exclusive retail service pursuant to agreement with Talquin Electric Cooperative.
The City of Tallahassee has a separate agreement with Progress Energy Florida which contains certain electric retail service provisions with respect to most of the remainder of Leon County, FL.
Wakulla County
C.H. Corn Hydroelectric Generating Station Lake Talquin, FL
Tie No 5
PEF 69 kV
Progress Energy Florida 69 kV to Apalachicola, FL
Progress Energy Florida 230 kV to Perry, FL.
PEF 69 kV
Tie No. 4 Progress Energy Florida 230 kV at Arran, FL
Progress Energy Florida 230 kV to Port St. Joe, FL
Tie No. 2 Progress Energy Florida 69 kV at St. Marks, FL
Sam O. Purdom Generating Station St. Marks, FL
LEGEND
Existing City of Tallahassee 115 kV
Existing City of Tallahassee 230 kV
Proposed City of Tallahassee 115 kV
Proposed City of Tallahassee 230 kV
Florida Power Corporation Facilities
Existing City of Tallahassee Substation
Proposed City of Tallahassee Substation
Existing City of Tallahassee Switching Station
Generating Station
Progress Energy Florida Substation
PROPOSED TRANSMISSION SYSTEM
2005 - 2015
City of Tallahassee
Electric Transmission System
2005 - 2015

APPENDIX A
Supplemental Data

The following Appendix represents supplemental data typically requested by the Florida Public Service Commission.

Existing Generating Unit Operating Performance

(1)	(2)	(3)		(4)		(5)		(6)	
		Planned Outage Factor (POF)		Forced Outage Factor (FOF)		Equivalent Availability Factor (EAF)		Average Net Operating Heat Rate (ANOHR)	
Plant Name	Unit No.	Historical	Projected	Historical	Projected	Historical	Projected	Historical	Projected
Existing Units									
Corn	1 (1)	NA	0.076	NA	0.036	NA	0.882	NA	NA
Corn	2 (1)	NA	0.076	NA	0.036	NA	0.882	NA	NA
Corn	3 (1)	NA	0.076	NA	0.036	NA	0.882	NA	NA
Hopkins	1	0.070	0.066	0.002	0.023	0.907	0.901	12,870	12,406
Hopkins	2	0.010	0.119	0.002	0.031	0.981	0.830	10,937	10,838
Hopkins	GT-1 (2)	0.165	0.052	0.002	0.028	0.831	0.890	NA	15,991
Hopkins	GT-2 (2)	0.107	0.046	0.002	0.022	0.890	0.881	NA	14,903
Purdom	7	0.000	0.066	0.018	0.023	0.940	0.901	14,777	13,342
Purdom	8	0.039	0.086	0.143	0.024	0.802	0.847	7,414	7,506
Purdom	GT-1 (2)	0.076	0.052	0.154	0.028	0.770	0.890	NA	21,272
Purdom	GT-2 (2)	0.117	0.052	0.018	0.028	0.865	0.890	NA	20,797
Future Units									
Hopkins	GT-3	NA	0.058	NA	0.022	NA	0.882	NA	9,921
Hopkins	GT-4	NA	0.058	NA	0.022	NA	0.882	NA	9,967
Unsited	CC A	NA	0.086	NA	0.024	NA	0.847	NA	7,304

NOTES: Historical - average of past three fiscal years
Projected - average of next ten fiscal years

(1) The City does not track the planned outage, forced outage or equivalent availability factors for the Corn Hydro units.
(2) The projected values for these units reflect their respective full load average net heat rates based on the City's internal tests and measurements. Because these units are typically operated at full load the projected values provide a reasonable estimate of historical operating experience.

Nominal, Delivered Residual Oil Prices
Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Residual Oil (By Sulfur Content)								
	Less Than 0.7%		Escalation	0.7 - 2.0%		Escalation	Greater Than 2.0%		Escalation
Year	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%
2002 (1)	NA	NA	NA	34.77	552	-	NA	NA	NA
2003	NA	NA	NA	32.39	514	-6.8%	NA	NA	NA
2004	NA	NA	NA	31.76	504	-1.9%	NA	NA	NA
2005 (2)	NA	NA	NA	37.06	588	16.7%	NA	NA	NA
2006	NA	NA	NA	40.76	647	10.0%	NA	NA	NA
2007	NA	NA	NA	41.51	659	1.8%	NA	NA	NA
2008	NA	NA	NA	43.24	686	4.2%	NA	NA	NA
2009	NA	NA	NA	43.97	698	1.7%	NA	NA	NA
2010	NA	NA	NA	44.22	702	0.6%	NA	NA	NA
2011	NA	NA	NA	43.98	698	-0.6%	NA	NA	NA
2012	NA	NA	NA	43.73	694	-0.6%	NA	NA	NA
2013	NA	NA	NA	44.47	706	1.7%	NA	NA	NA
2014	NA	NA	NA	43.97	698	-1.1%	NA	NA	NA

ASSUMPTIONS: heat content - 6.3 MMBtu/BBL, ash content - Not Available

(1) Actual fiscal year average cost of oil burned.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.

Nominal, Delivered Residual Oil Prices
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Residual Oil (By Sulfur Content)								
	Less Than 0.7%		Escalation	0.7 - 2.0%		Escalation	Greater Than 2.0%		Escalation
Year	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%
2002 (1)	NA	NA	NA	34.77	552	-	NA	NA	NA
2003	NA	NA	NA	32.39	514	-6.8%	NA	NA	NA
2004	NA	NA	NA	31.76	504	-1.9%	NA	NA	NA
2005 (2)	NA	NA	NA	37.06	588	16.7%	NA	NA	NA
2006	NA	NA	NA	41.69	662	12.5%	NA	NA	NA
2007	NA	NA	NA	43.49	690	4.3%	NA	NA	NA
2008	NA	NA	NA	46.39	736	6.7%	NA	NA	NA
2009	NA	NA	NA	48.34	767	4.2%	NA	NA	NA
2010	NA	NA	NA	49.83	791	3.1%	NA	NA	NA
2011	NA	NA	NA	50.79	806	1.9%	NA	NA	NA
2012	NA	NA	NA	51.78	822	1.9%	NA	NA	NA
2013	NA	NA	NA	53.95	856	4.2%	NA	NA	NA
2014	NA	NA	NA	54.70	868	1.4%	NA	NA	NA

ASSUMPTIONS: heat content - 6.3 MMBtu/BBL, ash content - Not Available

(1) Actual fiscal year average cost of oil burned.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.

Nominal, Delivered Residual Oil Prices
Low Case

1)	(2)	(3)	(4)	(5)	(6)	(7)	)	(9)	(10)
	Residual Oil (By Sulfur Content)								
	Less Than 0.7%		Escalation	0.7 - 2.0%		Escalation	Greater Than 2.0%		Escalation
Year	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%	$/BBL	c/MBTU	%
2002 (1)	NA	NA	NA	34.77	552	-	NA	NA	NA
2003	NA	NA	NA	32.39	514	-6.8%	NA	NA	NA
2004	NA	NA	NA	31.76	504	-1.9%	NA	NA	NA
2005 (2)	NA	NA	NA	37.06	588	16.7%	NA	NA	NA
2006	NA	NA	NA	39.84	632	7.5%	NA	NA	NA
2007	NA	NA	NA	39.57	628	-0.7%	NA	NA	NA
2008	NA	NA	NA	40.23	639	1.7%	NA	NA	NA
2009	NA	NA	NA	39.91	633	-0.8%	NA	NA	NA
2010	NA	NA	NA	39.14	621	-1.9%	NA	NA	NA
2011	NA	NA	NA	37.94	602	-3.1%	NA	NA	NA
2012	NA	NA	NA	36.78	584	-3.1%	NA	NA	NA
2013	NA	NA	NA	36.48	579	-0.8%	NA	NA	NA
2014	NA	NA	NA	35.16	558	-3.6%	NA	NA	NA

ASSUMPTIONS: heat content - 6.3 MMBtu/BBL, ash content - Not Available

(1) Actual fiscal year average cost of oil burned.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.

Nominal, Delivered Distillate Oil and Natural Gas Prices
Base Case

(1)		(2)	(3)	(4)	(5)	(6)	(7)
		Distillate Oil			Natural Gas (3)		
Year		$/BBL	c/MBTU	Escalation %	c/MBTU	$/MCF	Escalation %
2002	(1)	35.20	607	-	393	4.09	-
2003		36.44	628	3.5%	555	5.77	41.2%
2004		39.08	674	7.2%	644	6.70	16.0%
2005	(2)	51.85	894	32.7%	733	7.62	13.8%
2006		50.05	863	-3.5%	717	7.46	-2.2%
2007		62.60	1079	25.1%	681	7.08	-5.0%
2008		62.76	1082	0.3%	646	6.72	-5.2%
2009		61.93	1068	-1.3%	616	6.41	-4.6%
2010		56.03	966	-9.5%	591	6.15	-4.0%
2011		58.63	1011	4.6%	634	6.59	7.2%
2012		61.93	1068	5.6%	686	7.13	8.2%
2013		64.53	1113	4.2%	693	7.21	1.0%
2014		64.82	1118	0.5%	616	6.41	-11.0%

ASSUMPTIONS FOR DISTILLATE OIL: heat content - 5.8 MMBtu/BBL;
ash content, sulfur content - Not Available

(1) Actual average cost of distillate oil and gas burned.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.
(3) Delivered gas price reflects 3/3/04 supply cost at Henry Hub increased by 3.25% for compression losses, $0.0364 usage fee and seasonal interruptible transportation fees.

Nominal, Delivered Distillate Oil and Natural Gas Prices
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Distillate Oil			Natural Gas (3)		
Year	$/BBL	c/MBTU	Escalation %	c/MBTU	$/MCF	Escalation %
2002 (1)	35.20	607	-	465	4.84	-
2003	36.44	628	3.5%	372	3.87	-20.0%
2004	39.08	674	7.2%	530	5.52	42.6%
2005 (2)	51.85	894	32.7%	733	7.62	38.2%
2006	51.35	885	-1.0%	735	7.65	0.3%
2007	65.51	1129	27.6%	717	7.46	-2.5%
2008	67.31	1160	2.8%	698	7.26	-2.7%
2009	68.10	1174	1.2%	683	7.10	-2.1%
2010	63.31	1092	-7.0%	673	7.00	-1.5%
2011	67.84	1170	7.1%	738	7.67	9.7%
2012	73.35	1265	8.1%	817	8.49	10.7%
2013	78.26	1349	6.7%	845	8.79	3.5%
2014	80.58	1389	3.0%	773	8.04	-8.5%

ASSUMPTIONS FOR DISTILLATE OIL: heat content - 5.8 MMBtu/BBL;
ash content, sulfur content - Not Available

(1) Actual average cost of distillate oil and gas burned.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.
(3) Delivered gas price reflects 3/3/04 supply cost at Henry Hub increased by 3.25% for compression losses, $0.0364 usage fee and seasonal interruptible transportation fees.

Nominal, Delivered Distillate Oil and Natural Gas Prices
Low Case

(1)		(2)	(3)	(4)	(5)	(6)	(7)
		Distillate Oil			Natural Gas (3)		
Year		$/BBL	c/MBTU	Escalation %	c/MBTU	$/MCF	Escalation %
2002	(1)	35.20	607	-	465	4.84	-
2003		36.44	628	3.5%	372	3.87	-20.0%
2004		39.08	674	7.2%	530	5.52	42.6%
2005	(2)	51.85	894	32.7%	733	7.62	38.2%
2006		48.76	841	-6.0%	699	7.27	-4.7%
2007		59.76	1030	22.6%	646	6.72	-7.5%
2008		58.42	1007	-2.2%	597	6.20	-7.7%
2009		56.19	969	-3.8%	554	5.77	-7.1%
2010		49.43	852	-12.0%	518	5.39	-6.5%
2011		50.49	870	2.1%	542	5.64	4.7%
2012		52.07	898	3.1%	573	5.96	5.7%
2013		52.95	913	1.7%	565	5.87	-1.5%
2014		51.87	894	-2.0%	488	5.08	-13.5%

ASSUMPTIONS FOR DISTILLATE OIL: heat content - 5.8 MMBtu/BBL;
ash content, sulfur content - Not Available

(1) Actual average cost of distillate oil and gas burned.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.
(3) Delivered gas price reflects 3/3/04 supply cost at Henry Hub increased by 3.25% for compression losses, $0.0364 usage fee and seasonal interruptible transportation fees.

Nominal, Delivered Coal Prices (1)
Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Low Sulfur Coal (< 1.0%)				Medium Sulfur Coal (1.0 - 2.0%)				High Sulfur Coal (> 2.0%)			
Year	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase
2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005 (2)	73.43	306		NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	65.54	273	-10.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	58.71	245	-10.4%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	51.55	215	-12.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	52.21	218	1.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2010	52.90	220	1.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2011	53.59	223	1.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2012	54.78	228	2.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2013	55.98	233	2.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2014	57.19	238	2.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA

ASSUMPTIONS:
Low Sulfur Coal - Central Appalachian 0.7% sulfur coal delivered by rail to Ga. Power Co. Scherer Plant, heat content - 24 MMBtu/ton, ash content unknown

(1) Coal is not currently a part of the City's generation fuel mix. However, it's forecast price is important to the City's resource planning efforts as it will allow for the evaluation of coal-based purchase options.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.

Nominal, Delivered Coal Prices (1)
High Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Low Sulfur Coal (< 1.0%)				Medium Sulfur Coal (1.0 - 2.0%)				High Sulfur Coal (> 2.0%)			
Year	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase
2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	45.39	306		NA	NA	NA	NA	NA	NA	NA	NA	NA
2005 (2)	45.74	306	0.0%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	46.09	281	-8.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	46.48	258	-7.9%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	46.68	233	-9.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	47.66	242	3.8%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2010	48.68	252	3.8%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2011	49.72	261	3.8%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2012	50.80	273	4.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2013	51.92	286	4.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2014	52.92	300	4.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA

ASSUMPTIONS:
Low Sulfur Coal - Central Appalachian 0.7% sulfur coal delivered by rail to Ga. Power Co. Scherer Plant, heat content - 24 MMBtu/ton, ash content unknown

(1) Coal is not currently a part of the City's generation fuel mix. However, it's forecast price is important to the City's resource planning efforts as it will allow for the evaluation of coal-based purchase options.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.

Nominal, Delivered Coal Prices (1)
Low Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Low Sulfur Coal (< 1.0%)				Medium Sulfur Coal (1.0 - 2.0%)				High Sulfur Coal (> 2.0%)			
Year	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase	$/Ton	c/MBTU	Escalation %	% Spot Purchase
2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2005 (2)	45.74	306		NA	NA	NA	NA	NA	NA	NA	NA	NA
2006	46.09	265	-13.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	46.48	231	-12.9%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	46.68	197	-14.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2009	47.66	195	-1.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2010	48.68	192	-1.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2011	49.72	190	-1.2%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2012	50.80	190	-0.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2013	51.92	189	-0.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA
2014	52.92	188	-0.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA

ASSUMPTIONS:
Low Sulfur Coal - Central Appalachian 0.7% sulfur coal delivered by rail to Ga. Power Co. Scherer Plant, heat content - 24 MMBtu/ton, ash content unknown

(1) Coal is not currently a part of the City's generation fuel mix. However, it's forecast price is important to the City's resource planning efforts as it will allow for the evaluation of coal-based purchase options.
(2) Consensus forecast of City's Wholesale Energy Services and System Planning Divisions.

Nominal, Delivered Nuclear Fuel and Firm Purchases

(1)	(2)	(3)	(4)	(5)
	Nuclear		Firm Purchases(1)	
Year	c/MBTU	Escalation %	$/MWh	Escalation %
2002	NA	NA	38.77	-
2003	NA	NA	42.22	8.9%
2004	NA	NA	45.74	8.3%
2005	NA	NA	52.26	14.3%
2006	NA	NA	42.00	-19.6%
2007	NA	NA	42.00	0.0%
2008	NA	NA	42.00	0.0%
2009	NA	NA	43.26	3.0%
2010	NA	NA	44.56	3.0%
2011	NA	NA	45.89	3.0%
2012	NA	NA	47.27	3.0%
2013	NA	NA	48.69	3.0%
2014	NA	NA	50.15	3.0%

(1) Historical data is for all purchases, firm and non-firm

Financial Assumptions
Base Case

AFUDC RATE		5.25%	
CAPITALIZATION RATIOS:			
	DEBT	173.06%	(1)
	PREFERRED	N/A	(2)
	ASSETS	63.44%	(3)
	EQUITY	120.37%	
RATE OF RETURN (6)			
	DEBT	-5.54%	(4)
	PREFERRED	N/A	(2)
	ASSETS	-2.03%	(5)
	EQUITY	-3.86%	(5)
INCOME TAX RATE:			
	STATE	N/A	(7)
	FEDERAL	N/A	(7)
	EFFECTIVE	N/A	(7)
OTHER TAX RATE:			
Sales Tax (< $5,000)		7.00%	(8)
Sales Tax (> $5,000)		6.00%	(8)
DISCOUNT RATE:		2.75% - 5.25%	
TAX DEPRECIATION RATE:		N/A	(7)

(1) Plant-in-service compared to total debt
(2) No preferred "stock" in municipal utilities
(3) Net plant-in-service compared to total assets / net plant-in-service compared to total fund equity
(4) Net income compared to total debt
(5) Net income compared to total assets / net income compared to total fund equity
(6) The Electric Utility had a net loss for fiscal 2004 which generated negative Rates of Return.
(7) Municipal utilities are exempt from income tax
(8) Municipal utilities are exempt from other taxes except Florida sales tax on expansion of electric transmission and distribution (T&D) tangible personal property used in the T&D system (7% on first $5,000 and 6% thereafter). Sales tax is no longer charged for T&D system maintenance.

Financial Escalation Assumptions

(1) Year	(2) General Inflation %	(3) Plant Construction Cost %	(4) Fixed O&M Cost %	(5) Variable O&M Cost %
2005	2.5	2.5	2.5	2.5
2006	2.5	2.5	2.5	2.5
2007	2.5	2.5	2.5	2.5
2008	2.5	2.5	2.5	2.5
2009	2.5	2.5	2.5	2.5
2010	2.5	2.5	2.5	2.5
2011	2.5	2.5	2.5	2.5
2012	2.5	2.5	2.5	2.5
2013	2.5	2.5	2.5	2.5
2014	2.5	2.5	2.5	2.5

Monthly Peak Demands and Date of Occurrence for 2001 - 2003

Calendar Year 2002

Month	Date	Hour Ending	Daily Temp. (°F) Min.	Daily Temp. (°F) Max.	Peak Demand (MW)
January	4-Jan	9:00 A.M.	21	51	510
February	28-Feb	8:00 A.M.	18	53	489
March	5-Mar	8:00 A.M.	21	61	500
April	25-Apr	6:00 P.M.	62	89	453
May	8-May	5:00 P.M.	70	94	490
June	3-Jun	4:00 P.M.	70	97	535
July	19-Jul	4:00 P.M.	75	101	580
August	23-Aug	5:00 P.M.	72	96	535
September	4-Sep	6:00 P.M.	70	95	524
October	7-Oct	5:00 P.M.	69	91	498
November	11-Nov	7:00 P.M.	75	86	391
December	2-Dec	8:00 A.M.	29	62	422

Calendar Year 2003

Month	Date	Hour Ending	Daily Temp. (°F) Min.	Daily Temp. (°F) Max.	Peak Demand (MW)
January	24-Jan	8:00 A.M.	18	43	590
February	12-Feb	8:00 A.M.	31	70	408
March	20-Mar	8:00 P.M.	66	83	365
April	30-Apr	6:00 P.M.	64	86	429
May	7-May	4:00 P.M.	70	90	487
June	16-Jun	4:00 P.M.	70	93	515
July	10-Jul	4:00 P.M.	71	93	539
August	26-Aug	4:00 P.M.	74	93	549
September	2-Sep	4:00 P.M.	72	90	517
October	6-Oct	5:00 P.M.	62	86	428
November	6-Nov	4:00 P.M.	70	86	421
December	18-Dec	8:00 A.M.	26	66	452

Calendar Year 2004

Month	Date	Hour Ending	Daily Temp. (°F) Min.	Daily Temp. (°F) Max.	Peak Demand (MW)
January	29-Jan	8:00 A.M.	23	58	509
February	19-Feb	8:00 A.M.	28	66	445
March	11-Mar	8:00 A.M.	30	69	362
April	29-Apr	9:00 P.M.	57	84	378
May	26-May	5:00 P.M.	63	94	508
June	18-Jun	4:00 P.M.	74	95	518
July	12-Jul	4:00 P.M.	74	97	557
August	3-Aug	4:00 P.M.	76	97	565
September	9-Sep	5:00 P.M.	69	93	534
October	1-Oct	3:00 P.M.	65	88	491
November	3-Nov	4:00 P.M.	63	85	443
December	15-Dec	8:00 A.M.	29	51	480

Historical and Projected Heating and Cooling Degree Days

	Year	Heating Degree Days (HDD)	Cooling Degree Days (CDD)
History	1995	1,614	2,807
	1996	1,807	2,470
	1997	1,427	2,515
	1998	1,272	3,148
	1999	1,461	2,768
	2000	1,640	2,757
	2001	1,429	2,451
	2002	1,418	2,813
	2003	1,642	2,551
	2004	1,613	2,722
Forecast	2005	1,450	2,667
	2006	1,450	2,667
	2007	1,450	2,667
	2008	1,450	2,667
	2009	1,450	2,667
	2010	1,450	2,667
	2011	1,450	2,667
	2012	1,450	2,667
	2013	1,450	2,667
	2014	1,450	2,667

Average Real Retail Price of Electricity

Year		Residential Real Price of Electricity ($/MWh)	Commercial Real Price of Electricity ($/MWh)	System-Wide Real Price of Electricity ($/MWh)	Deflator (1)
1995		53.66	48.78	50.30	1.524
1996		55.24	46.92	47.66	1.569
1997		55.14	46.75	47.80	1.605
1998		52.98	45.96	45.06	1.630
1999		51.32	42.87	43.67	1.666
2000		52.47	45.63	43.62	1.722
2001		52.48	44.04	43.17	1.771
2002		45.22	37.08	42.50	1.799
2003		50.55	41.94	43.29	1.840
2004		56.25	47.70	48.01	1.889
2005	(2)	56.25	47.70	48.01	
2006		56.25	47.70	48.01	
2007		56.25	47.70	48.01	
2008		56.25	47.70	48.01	
2009		56.25	47.70	48.01	
2010		56.25	47.70	48.01	
2011		56.25	47.70	48.01	
2012		56.25	47.70	48.01	
2013		56.25	47.70	48.01	
2014		56.25	47.70	48.01	

(1) Deflator is CPI Index per U. S. Dept. of Labor Bureau of Labor Stats. ('82 Dollar

(2) For the City's 2005 Load Forecast, it was assumed that the future real price of e would remain constant at the FY 2004 level. While fuel prices are projected to i in real terms, as in past load forecasts, it was assumed that these price increase would be offset by more efficient generation, reduced operation and maintenanc and the effects of competition.

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Annual Isolated			Annual Assisted		
Year	Loss of Load Probability (Days/Yr)	Reserve Margin % (Including Firm Purch.)	Expected Unserved Energy (MWh)	Loss of Load Probability (Days/Yr)	Reserve Margin % (Including Firm Purch.)	Expected Unserved Energy (MWh)
2003						
2004						
2005						
2006						
2007						
2008						
2009						
2010						
2011						
2012						

See note (1) below

(1) The City provides its projection of reserve margin with and without supply resource additions in Tables 3.1 and 3.2 (Schedules 7.1 and 7.2, respectively) on pages 40 and 41 and in Table 3.4 (Generation Expansion Plan) on page 43 of the City's 2004 Ten Year Site Plan. The City does not currently evaluate isolated and assisted LOLP and EUE reliability indices.