

ORIGINAL

BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 07 0098 -EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S
PETITION TO DETERMINE NEED FOR
FPL GLADES POWER PARK UNITS 1 AND 2
ELECTRICAL POWER PLANT

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DIRECT TESTIMONY & EXHIBIT OF:

LEONARDO E. GREEN

DOCUMENT NUMBER DATE

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FPSC-COMMISSION CLERK

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **FLORIDA POWER & LIGHT COMPANY**

3 **TESTIMONY OF LEONARDO E. GREEN**

4 **DOCKET NO. 07____-EI**

5 **JANUARY 29, 2007**

6

7 **Q. Please state your name and business address.**

8 A. My name is Leonardo E. Green, and my business address is 9250 West Flagler
9 Street, Miami, Florida 33174.

10 **Q. By whom are you employed and what is your position?**

11 A. I am employed by Florida Power & Light Company (FPL) as the Manager of
12 Load Forecasting within the Resource Assessment and Planning Business Unit.

13 **Q. Please describe your duties and responsibilities in that position.**

14 A. I am responsible for the development of FPL's peak demand, energy, economic,
15 and customer forecasts.

16 **Q. Please describe your educational background and professional experience.**

17 A. I earned a Doctor of Philosophy Degree in Economics from the University of
18 Missouri-Columbia in 1983. Prior to joining FPL, I was employed by Seminole
19 Electric Cooperative as the Load Forecasting Supervisor in the Rates and
20 Corporate Planning Department. In April of 1986, I joined FPL's Research,
21 Economics and Forecasting Department, as a Senior Forecasting Analyst. My
22 responsibilities included preparation, review, and presentation of the economic,
23 customer, and load forecasts for FPL. In August of 1986, I was promoted to

1 Supervisor of Economics and Forecasting within the Research, Economics and
2 Forecasting Department. In 1991, I became Manager of Load Forecasting within
3 the Resource Assessment and Planning Business Unit. I am responsible for
4 coordinating the entire economic and load forecasting effort at FPL.

5
6 In addition, I have held several Assistant Professorships of Economics and
7 Statistics as well as research and teaching positions with the University of
8 Missouri, Florida International University, and the University of South Florida.

9 **Q. Are you sponsoring an exhibit in this case?**

10 A. Yes. I am sponsoring an exhibit consisting of fourteen documents, Document
11 Nos. LEG-1 through LEG-14, which is attached to my direct testimony.

12 **Q. Are you sponsoring any sections in the Need Study?**

13 A. Yes. I am sponsoring the load forecast portion of Section V and Appendix D
14 "Load Forecast" of the Need Study. I also co-sponsor Appendix C "Computer
15 Models Used in Resource Planning."

16 **Q. What is the purpose of your testimony?**

17 A. The purpose of my testimony is to describe FPL's load forecasting process,
18 identify the underlying methodologies and assumptions, and present the forecasts
19 used in the Need Study submitted by FPL in this proceeding. I will also explain
20 how these forecasts were developed and why they are reasonable.

1 **DESCRIPTION OF FPL'S EXISTING CUSTOMER BASE**

2

3 **Q. Please describe FPL's service territory.**

4 A. FPL's service territory covers approximately 27,650 square miles within
5 peninsular Florida, which ranges from St. Johns County in the north to Miami-
6 Dade County in the south, and westward to Manatee County. FPL serves
7 customers in 35 counties within this region.

8 **Q. How many customers receive their electric service from FPL?**

9 A. FPL currently serves more than 4.4 million customers, as shown on Document
10 No. LEG-1, and a population of more than 8 million people.

11

12 **FPL'S LOAD FORECASTING PROCESS AND RESULTS**

13

14 **Q. Please describe FPL's forecasting process.**

15 A. FPL relies on econometrics as the primary tool for projecting future levels of
16 customer growth, energy sales, and peak demand. An econometric model is a
17 numerical representation, obtained through statistical estimation techniques, of the
18 degree of relationship between a dependent variable, e.g., the level of energy
19 sales, and the independent (explanatory) variables, which I describe in the
20 following paragraph. A change in any of the independent variables will result in a
21 corresponding change in the dependent variable. On a historical basis,
22 econometric models have proven to be highly effective in explaining changes in
23 the level of customer or load growth. These models have consistently been used

1 by FPL for various planning purposes and the modeling results have been
2 reviewed and accepted by this Commission in past regulatory proceedings.

3
4 Predicting the level of the dependent variable in future years requires assumptions
5 regarding the levels of the explanatory variables. Explanatory variables include
6 assumptions on the future number of customers, projected economic conditions,
7 weather, and the price of electricity, each of which is obtained from various
8 sources. For example, the future number of customers is based on population
9 projections produced by the University of Florida's Bureau of Economic and
10 Business Research (BEER). The projected economic conditions are secured from
11 reputable economic forecasting firms such as Global Insight (formerly known as
12 DRI-WEFA). The weather factors are obtained from the National Oceanographic
13 and Atmospheric Administration (NOAA). The price of electricity reflects the
14 Commission-approved base rates and adjustment clauses.

15 **Q. Does FPL assess the reasonableness of the explanatory variables?**

16 A. Yes. FPL has reviewed and assessed the assumptions regarding the explanatory
17 variables and has concluded they are reasonable. This ensures that the forecast of
18 customers, energy sales, and peak demand are both realistic and rational. A
19 comparison of the historical growth in Real Personal Income for Florida
20 corresponding to different periods with Global Insight's projected Real Personal
21 Income is shown on Document No. LEG-8. The comparison clearly indicates that
22 the forecast may not be in line with history. Based on this analysis, FPL
23 concluded that the projected growth in Real Personal Income for Florida produced

1 by Global Insight was overly optimistic and would lead to incremental needs in
2 capacity that may not be realistic. To account for this fact, in preparing this load
3 forecast FPL used an annual growth in real personal income for Florida identical
4 to the growth observed during the last five years, which averaged 3.2% per year.

5
6 **FPL'S CUSTOMER GROWTH FORECAST**

7
8 **Q. Please explain the development of FPL's customer growth forecast.**

9 A. The growth in customers in FPL's service territory is the primary driver of the
10 growth in the level of energy sales and peak demand. In order to project the
11 growth in the number of customers, FPL relies on population projections
12 produced by BEBR. Once a year, BEBR updates its population projections for
13 the state of Florida on a county-by-county basis. FPL's customer growth forecast
14 is based on BEBR's population projections for counties in FPL's service area,
15 released in April of 2006. BEBR includes the potential effects of depressed
16 customer growth as a result of the 2004 and 2005 hurricane seasons.

17 **Q. What is FPL's customer growth forecast?**

18 A. FPL is projecting an annual average increase of 88,217 new customers for the
19 next ten years as shown on Document No. LEG-1. The annual average projected
20 growth of 88,217 in new customers is slightly higher than the historical annual
21 average of 85,683 for the years 1996-2005. These historical customer growth
22 numbers reflect the effect of the 2004 and 2005 hurricanes.

1 **Q. In addition to population changes, what other factors are considered in**
2 **projecting FPL's customer growth?**

3 A. Factors such as the performance of Florida's economy, affordability index, job
4 opportunities, and international conflicts are also important determinants of
5 growth in FPL's service territory. Florida is experiencing a period of robust
6 growth in population and this expansion has resulted in a surge of construction of
7 new homes to house this population. Anecdotally, it is also mentioned that baby
8 boomers are taking advantage of the low mortgage rates to secure housing for
9 their upcoming retirement. In addition, the value of the dollar vis-à-vis the Euro
10 suggests that Florida's real estate market is attractive for foreign investors. This
11 expanded demand for housing and the jobs created are responsible in part for the
12 recent growth in the number of FPL customers. This increased demand, coupled
13 with low mortgage rates, has driven up the price of housing in Florida, raising
14 drastically the cost of living and affordability index for Florida. This increase in
15 the affordability index and higher inflation, primarily as a result of higher fuel
16 prices, are limiting the potential growth in customers to a certain extent. This
17 explains why projected customer growth is only slightly higher than the customer
18 growth experienced in recent years in the face of a more favorable state economy.

19 **Q. What is FPL's most current customer forecast?**

20 A. FPL's most current customer forecast is shown in Documents LEG-1 and LEG-7.
21 For the years 2013 and 2014, the customer forecast is higher by 119,088 and
22 125,477, respectively, than the 2006 West County Energy Center 1 and 2 Need
23 Determination forecast for the years 2009 and 2010, respectively. This is a result

1 of an updated projection of population from BEBR as well as observed recent
2 history of customer growth in FPL service territory.

3 **Q. Is FPL's customer growth forecast reasonable?**

4 A. Yes. The forecast incorporates the most recent available projections made by the
5 University of Florida at the time the forecast was developed.

6

7 **FPL'S PEAK DEMAND FORECAST**

8

9 **Q. What is FPL's process to forecast summer peak demand?**

10 A. The rate of absolute growth in FPL system load has been a function of a larger
11 customer base, weather conditions, continued economic growth, changing
12 patterns of customer behavior (including an increasing stock of electricity-
13 consuming appliances) and more efficient heating and cooling appliances. FPL
14 developed the peak demand models to capture these behavioral relationships.

15

16 The summer peak forecast is developed using an econometric model. The model
17 is a per-customer model that includes: the real price of electricity, Florida real
18 personal income as an economic driver, average temperature on peak day and a
19 heat buildup weather consisting of the sum of the cooling degree hours during the
20 peak day and three prior days. The forecasted summer peak usage per customer is
21 shown on Document No. LEG-3. The forecasted summer peak usage per
22 customer is multiplied by the projected total customers to derive FPL's system
23 summer peak as shown on Document No. LEG-2.

1 **Q. What is FPL's process to forecast winter peak demand?**

2 A. Like the system summer peak model, the winter peak model is also an
3 econometric model. The winter peak model is a per-customer model that includes
4 two weather-related variables: the square of the minimum temperature on the
5 peak day and Heating Degree Hours from the prior day until 9:00 a.m. of the peak
6 day. In addition, the model also has an economic term, Florida real personal
7 income. The winter peak usage per customer is shown on Document No. LEG-5.
8 The projected winter peak load per customer value is multiplied by the total
9 customers to derive FPL's system winter peak as shown on Document No. LEG-
10 4.

11 **Q. What is FPL's process to forecast monthly peak demands?**

12 A. The forecasting process consists of the following:

- 13 - Development of the historical seasonal factor for each month by using
14 ratios of historical monthly peaks to seasonal peak (Summer = April-
15 October; Winter = November-March).
- 16 - Application of the monthly ratios to their respective seasonal peak forecast
17 (summer and winter peaks) to derive the peak forecast by month. This
18 process assumes that the seasonal factors remain unchanged over the
19 forecasting period.

20 Monthly peak forecasts are used in generation planning and also provide
21 information for the scheduling of maintenance for power plants and fuel
22 budgeting.

1 **Q. What were FPL's actual peaks during 2006?**

2 A. FPL experienced a summer peak of 21,819 MW in 2006, which is 457 MW lower
3 than the all time record peak for FPL's service territory of 22,276 MW
4 experienced in 2005. This equates to a decrease of 2.1 percent from the 2005
5 summer peak, and is shown on Document No. LEG-2. The winter peak for
6 2005/2006 was only 19,682 MW, well below the all time high winter peak of
7 2002/2003, which was 20,190 MW, as shown on Document No. LEG-4.

8 **Q. Please summarize the peak demand forecasts.**

9 A. The ten year summer peak demand is projected to grow from 21,819 MW in 2006
10 to 26,772 MW by the year 2015 or 4,953 MW in absolute terms as shown in
11 Document No. LEG-2. By the years 2013 and 2014, the projected summer peak
12 should reach 25,590 MW and 26,100 MW, respectively, a growth of 3,771 MW
13 and 4,281 MW relative to 2006. The winter peak grows from 19,682 MW in the
14 winter of 2005/2006 to 26,048 MW in the winter of 2014/15 or 6,366 MW in
15 absolute terms as shown in Document No. LEG-4. For the winter of 2012/2013
16 the winter peak demand is estimated to reach 24,952 MW and for the winter of
17 2013/2014 it is projected to be 25,416 MW, or a growth of 5,270 MW and 5,734
18 MW, respectively. The apparent accelerated growth in the winter peak forecast is
19 a reflection of the fact that in the 2005/2006 winter season, FPL's service territory
20 did not experience a "normal" winter peak, which diminishes the base value
21 against which these projected peaks are compared.

1 **Q. What estimated impact did the 2005 Energy Policy Act have on FPL summer**
2 **peak demand forecast?**

3 A. In 2005, Congress passed the Energy Policy Act mandating certain appliance
4 efficiency standards and insulation for new construction, which is expected to
5 reduce energy demand in the future. FPL estimated the 2005 Energy Policy Act
6 would reduce the projected peak demand from approximately 133 MW in 2006 to
7 as much as 1,256 MW in the year 2014. The annual estimated impact of the 2005
8 Energy Policy Act is shown on Document No. LEG-13. To arrive at FPL's
9 projected peak demand values used in the Need Determination, the estimated
10 impacts were deducted as line item adjustments from the originally projected
11 peaks for the corresponding years.

12 **Q. What weather assumptions does FPL assume for the summer peak**
13 **projections?**

14 A. In putting together the summer peak demand forecast, FPL relies on a normal
15 weather outlook. Normal weather is defined as an average of the hourly
16 temperatures for summer peak days over the years 1948 through 2005. The actual
17 temperature values for 1985 to 2006 and those projected from 2007 onward are
18 shown on Document No. LEG-6.

1 **Q. How does FPL’s projected rate of growth in summer peak demand in the**
2 **current Need Study compare to the projected rate of growth used in the 2006**
3 **proceeding to Determine Need for West County Energy Center Units 1 and 2**
4 **Electrical Power Plant?**

5 A. The comparisons of the forecasts from the current Need Study and the 2006
6 Determination of Need are shown in Document No. LEG-7. In terms of summer
7 peak, the current forecast for the year 2013 is higher by 531 MW (2.1 percent)
8 than what was projected in 2006 Petition to Determine Need for West County
9 Energy Center Units 1 and 2 for the same year. The primary reason for this
10 difference between the two forecasts of summer peak is that the customer forecast
11 is higher as shown in Document No. LEG-7, resulting from BEBR updating its
12 population forecast upwards. The full impact of the increased number of
13 customers is somewhat dampened as a result of the higher price of electricity as
14 shown in Document No. LEG-12.

15 **Q. Is FPL’s need for power driven by the demand forecast, the sales forecast, or**
16 **both?**

17 A. FPL’s need for power, i.e., the amount of resources needed, is driven by the peak
18 demand forecast because FPL’s needs are currently determined by a reserve
19 margin criterion of 20%. While FPL uses both a reserve margin and Loss of Load
20 Probability reliability criteria, the reserve margin criterion driven by the peak load
21 forecast has established the magnitude of the resource need for many years. This
22 fact is addressed in the Need Study.

1 **Q. How does FPL's growth in Energy Sales compare to Peaks?**

2 A. FPL's Energy Sales and Peaks are growing at the same pace. This is best
3 reflected by the changes in the load factor. A load factor is defined as a ratio of
4 average load in kilowatts supplied during a designated period to the peak or
5 maximum load in kilowatts occurring in that period. FPL's load factor has
6 remained relatively steady over the last few years as shown on Document No.
7 LEG-14. The relatively steady load factor reflects that the growth in energy sales
8 and peaks are of similar magnitude.

9 **Q. Is FPL's load forecast reasonable for planning purposes?**

10 A. Yes. FPL's load forecast is based on reasonable assumptions, is consistent with
11 historical experience, and is consistent with methodologies previously approved
12 by the Commission.

13

14 **FPL'S ENERGY SALES FORECAST**

15

16 **Q. Please describe the process FPL used to forecast energy sales.**

17 A. The forecast of energy sales consists of three steps. First, an econometric model
18 is developed for total Net Energy for Load (NEL), which is energy generated net
19 of plant use. An econometric model for NEL is more reliable than models for
20 billed energy sales because the explanatory variables can be better matched to
21 usage. This is so because the NEL data does not have to be attuned to account for
22 billing cycle adjustments, which might distort the real time match between the
23 production and consumption of electricity.

1 Next, a line loss factor and a billing cycle adjustment are applied to the NEL to
2 arrive at total use of electricity by the customer. Finally, revenue class models are
3 developed to distribute the forecast of total end-use sales of electricity to the
4 different revenue classes, i.e., residential, commercial, and industrial.

5
6 To project energy sales by revenue class, separate models for the residential,
7 commercial, and industrial revenue classes are developed. These revenue class
8 models are developed to obtain an objective allocation of the total energy sales
9 among FPL's different revenue classes. The sum of the sales for all revenue
10 classes will result in total energy sales. The energy sales for each revenue class
11 are then adjusted to reflect the total energy sales derived from the NEL model.

12 **Q. What are the primary inputs to determine the growth in energy sales?**

13 A. The growth in energy sales comes from the overall growth in the number of new
14 customers as shown on Document No. LEG-1 and use per customer as shown on
15 Document No. LEG-9. The product of per capita use and the number of
16 customers yields the NEL for a given period as shown in Document No. LEG-10.
17 The per capita use of electricity and the increased number of new customers are
18 both linked directly to the performance of the local and national economies.
19 When the economy is booming, the use of electricity increases in all sectors. A
20 strong economy creates new jobs that attract new customers. Under these
21 conditions, new households develop, including those of retirees from other states.
22 However, the reverse also holds true. If the economy is performing poorly,
23 customers with reduced incomes are more apprehensive as to expenditures and

1 tend to restrict their consumption of goods and services. Electricity demand and
2 sales slacken when incomes fall. Job contractions reduce the number of new
3 customers coming to Florida seeking employment opportunities, and new
4 household formations are postponed. FPL relies on the outlook for the state and
5 national economy produced by Global Insight.

6 **Q. What were the basic economic assumptions included in the forecast?**

7 A. Florida's economy has continued to grow at a strong pace and is expected to
8 continue this trend into the foreseeable future. The strong population growth is
9 largely due to baby boomers approaching retirement and the availability of jobs.
10 Florida has been outperforming the national economy, as shown in Document No.
11 LEG-11, and that pattern is projected to continue. The strong population growth
12 will result in increased demand for various services and new homes; thus, these
13 two sectors are leading the growth for Florida's economy. This forecast also
14 reflects that, as a consequence of the hurricanes in 2004 and 2005, there will still
15 be substantial reconstruction activity and infusion of insurance funds into the
16 local economy. Furthermore, the reconstruction activity fuels the manufacturing
17 sector to service this reconstruction with construction material, furniture and
18 transportation equipment.

19 **Q. What is the price of electricity assumed in the forecast?**

20 A. The real price of electricity assumed is shown in Document No. LEG-12. The
21 forecast is higher than the forecast used in the 2006 West County Units 1 and 2
22 Need Determination. The real price of electricity is substantially higher in the
23 early part of the projected period, but the difference steadily declines thereafter

1 reflecting the projected fuel prices in both the West County and current Need
2 Determination proceedings.

3 **Q. What is the vintage of the Price of Electricity used in the Need Determination**
4 **Load Forecast?**

5 A. The price of electricity forecast used in the Peak and Energy forecast is based on a
6 fuel forecast produced by FPL in August of 2006. The recent downward
7 adjustment in the fuel component of the price of electricity, which was approved
8 by the FPSC in November of 2006, occurred after this load forecast was prepared.

9 **Q. What was FPL's actual net energy for load usage during 2005?**

10 A. Net Energy for Load (NEL) in 2005 was 111,301 GWH, an increase of 3.0
11 percent from the 2004 NEL, as shown on Document No. LEG-10. The 3.0
12 percent growth in NEL is comprised of a 2.3 percent increase in customers and a
13 0.7 percent increase in use per customer.

14 **Q. What is FPL's energy sales forecast?**

15 A. In 2006, FPL's energy use per customer was projected to be 0.4% above 2005,
16 with an increase of 1.1% in 2007, and 1.7% in 2008, as shown in Document No.
17 LEG-9. The longer term compound annual average growth in use per customer is
18 projected to be 1.2% annually after 2007. Customer growth was projected at
19 2.0% for 2006, 2.0% for 2007 and 2.1% for 2008 and then an average of 1.8% for
20 the next seven years. Combining the energy use per customer and the growth in
21 customers, yields a growth in energy sales estimated at 2.5% in 2006, 3.1% in
22 2007, and 3.8% in 2008, and then an average of 3.0% for the next seven years, as
23 shown in Document No. LEG-10.

1 **Q. Is FPL's forecast of energy sales reasonable?**

2 A. Yes. A forecast is considered reasonable if good judgment is used in estimating
3 (availing oneself of the appropriate and most credible assumptions on hand) and
4 testing the model and if the results or outputs make sense when compared to prior
5 similar situations. FPL followed this approach in preparing the forecast.

6

7 The models employed by FPL have good descriptive statistics with high degrees
8 of statistical significance. FPL is confident that the relationship that exists
9 between the level of energy sales and the economy, weather, customers, price of
10 electricity, and other variables have been properly assessed and numerically
11 quantified.

12 **Q. Please summarize your testimony.**

13 A. My testimony addresses FPL's summer and winter peak demand forecasts, the
14 energy sales forecast and the customer forecast. I have explained how these
15 forecasts are developed and why they are reasonable. My testimony also
16 demonstrates that peak demand will continue to show strong growth in both
17 summer and winter peaks. FPL is expected to add approximately 4,953 MW of
18 summer peak demand and 6,366 MW of winter peak demand between 2006 and
19 2015. My testimony also shows that FPL is projecting continued strong customer
20 growth in the next ten years, and for energy sales to increase by 2.5% in 2006,
21 3.1% in 2007, and 3.8% in 2008. Over the longer-term, 2009 to 2015, the annual
22 average growth rate in sales is estimated to be approximately 3.0%.

1 Q. Does this conclude your direct testimony?

2 A. Yes.

TOTAL AVERAGE CUSTOMERS

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2005)	85,683	2.2%
FORECAST (2006 to 2015)	88,217	1.9%

HISTORY

		ABSOLUTE	GROWTH %
1996	3,550,747	61,951	1.8%
1997	3,615,485	64,738	1.8%
1998	3,680,470	64,985	1.8%
1999	3,756,009	75,539	2.1%
2000	3,848,350	92,341	2.5%
2001	3,935,281	86,931	2.3%
2002	4,019,805	84,523	2.1%
2003	4,117,221	97,416	2.4%
2004	4,224,509	107,289	2.6%
2005	4,321,895	97,386	2.3%

FORECAST

		ABSOLUTE	GROWTH %
2006	4,409,921	88,026	2.0%
2007	4,498,169	88,248	2.0%
2008	4,590,561	92,393	2.1%
2009	4,683,749	93,188	2.0%
2010	4,775,460	91,710	2.0%
2011	4,864,826	89,366	1.9%
2012	4,951,954	87,128	1.8%
2013	5,037,424	85,470	1.7%
2014	5,121,197	83,772	1.7%
2015	5,203,875	82,678	1.6%

SUMMER PEAK LOAD (MW)

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2006)	576	3.1%
FORECAST (2007 to 2015)	564	2.3%

HISTORY

			GROWTH	
		ABSOLUTE		%
1996	16,064	-108		-0.7%
1997	16,613	549		3.4%
1998	17,897	1,284		7.7%
1999	18,040	143		0.8%
2000	18,086	46		0.3%
2001	18,754	668		3.7%
2002	19,219	465		2.5%
2003	19,668	449		2.3%
2004	20,545	877		4.5%
2005	22,276	1,731		8.4%
2006	21,819	-457		-2.1%

FORECAST

			GROWTH	
		ABSOLUTE		%
2007	22,259	440		2.0%
2008	22,770	511		2.3%
2009	23,435	664		2.9%
2010	24,003	568		2.4%
2011	24,612	609		2.5%
2012	25,115	503		2.0%
2013	25,590	475		1.9%
2014	26,100	510		2.0%
2015	26,772	672		2.6%

SUMMER PEAK LOAD PER CUSTOMER (KW)

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2006)	0.04	0.9%
FORECAST (2007 to 2015)	0.02	0.5%

HISTORY

		GROWTH	
		ABSOLUTE	%
1996	4.54	(0.10)	-2.1%
1997	4.60	0.06	1.4%
1998	4.88	0.27	5.9%
1999	4.80	-0.07	-1.5%
2000	4.70	-0.11	-2.2%
2001	4.76	0.06	1.4%
2002	4.77	0.01	0.3%
2003	4.78	0.01	0.1%
2004	4.85	0.07	1.5%
2005	5.15	0.30	6.2%
2006	4.95	-0.21	-4.0%

FORECAST

		GROWTH	
		ABSOLUTE	%
2007	4.95	0.00	0.0%
2008	4.96	0.01	0.2%
2009	5.00	0.04	0.9%
2010	5.03	0.02	0.5%
2011	5.06	0.03	0.7%
2012	5.07	0.01	0.2%
2013	5.08	0.01	0.2%
2014	5.10	0.02	0.3%
2015	5.14	0.05	0.9%

WINTER PEAK LOAD (MW)

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2006)	143	0.8%
FORECAST (2007 to 2015)	475	2.0%

HISTORY

		GROWTH ABSOLUTE	%
1996	18,252	1,689	10.2%
1997	16,490	-1,762	-9.7%
1998	13,060	-3,430	-20.8%
1999	16,802	3,742	28.7%
2000	17,057	255	1.5%
2001	18,199	1,142	6.7%
2002	17,597	-602	-3.3%
2003	20,190	2,593	14.7%
2004	14,752	-5,438	-26.9%
2005	18,108	3,356	22.7%
2006	19,682	1,574	8.7%

FORECAST

		GROWTH ABSOLUTE	%
2007	22,247	2,565	13.0%
2008	22,627	381	1.7%
2009	23,115	488	2.2%
2010	23,587	472	2.0%
2011	24,047	460	1.9%
2012	24,498	451	1.9%
2013	24,952	454	1.9%
2014	25,416	464	1.9%
2015	26,048	632	2.5%

WINTER PEAK LOAD PER CUSTOMER (KW)

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2006)	-0.07	-1.4%
FORECAST (2007 to 2015)	0.01	0.2%

HISTORY

		GROWTH	
		ABSOLUTE	%
1996	5.14	0.39	8.3%
1997	4.78	-0.36	-6.9%
1998	3.55	-1.24	-25.8%
1999	4.47	0.92	26.1%
2000	4.43	-0.04	-0.9%
2001	4.62	0.19	4.3%
2002	4.38	-0.25	-5.3%
2003	4.90	0.53	12.0%
2004	3.49	-1.41	-28.8%
2005	4.26	0.76	21.9%
2006	4.46	0.21	4.8%

FORECAST

		GROWTH	
		ABSOLUTE	%
2007	4.95	0.48	10.8%
2008	4.93	-0.02	-0.3%
2009	4.94	0.01	0.1%
2010	4.94	0.00	0.1%
2011	4.94	0.00	0.1%
2012	4.95	0.00	0.1%
2013	4.95	0.01	0.1%
2014	4.96	0.01	0.2%
2015	5.01	0.04	0.9%

Summer Peak Weather

<u>Year</u>	<u>Average Temperature</u>	<u>Sum of Cooling Degree Hours</u>
1985	84.5	1,020
1986	83.1	1,053
1987	85.7	1,228
1988	83.9	1,065
1989	85.0	1,164
1990	84.5	1,176
1991	84.7	1,129
1992	84.9	1,135
1993	86.2	1,279
1994	84.9	987
1995	84.5	1,013
1996	84.4	1,147
1997	84.8	1,136
1998	86.0	1,227
1999	83.1	1,196
2000	83.0	1,122
2001	84.5	1,141
2002	83.3	1,115
2003	84.1	1,133
2004	84.4	1,065
2005	86.9	1,257
2006	85.0	1,208
2007	84.7	1,143
2008	84.7	1,143
2009	84.7	1,143
2010	84.7	1,143
2011	84.7	1,143
2012	84.7	1,143
2013	84.7	1,143
2014	84.7	1,143
2015	84.7	1,143

**COMPARISON OF WEST CO. UNITS 1 AND 2 and 2006 COAL NEED
DETERMINATION FORECAST
Summer Peak Forecast**

	MW			
	West Co. Unit 1 and 2 Need	2006 Coal Need	Absolute Difference	Percent Difference
	Determination Forecast	Determination Forecast		
2006	21,819	21,819	0	0.0%
2007	21,769	22,259	490	2.3%
2008	22,306	22,770	464	2.1%
2009	22,884	23,435	551	2.4%
2010	23,424	24,003	578	2.5%
2011	23,964	24,612	648	2.7%
2012	24,516	25,115	599	2.4%
2013	25,059	25,590	531	2.1%
2014	25,633	26,100	467	1.8%

Winter Peak Forecast

	MW			
	West Co. Unit 1 and 2 Need	2006 Coal Need	Absolute Difference	Percent Difference
	Determination Forecast	Determination Forecast		
2006	19,682	19,682	0	0.0%
2007	21,898	22,247	348	1.6%
2008	22,369	22,627	258	1.2%
2009	22,916	23,115	199	0.9%
2010	23,466	23,587	121	0.5%
2011	24,035	24,047	12	0.0%
2012	24,608	24,498	-110	-0.4%
2013	25,197	24,952	-244	-1.0%
2014	25,798	25,416	-381	-1.5%

Net Energy For Load Forecast

	GWH			
	West Co. Unit 1 and 2 Need	2006 Coal Need	Absolute Difference	Percent Difference
	Determination Forecast	Determination Forecast		
2006	115,463	114,041	-1,421	-1.2%
2007	119,477	117,551	-1,926	-1.6%
2008	123,459	122,024	-1,435	-1.2%
2009	127,521	126,270	-1,251	-1.0%
2010	130,980	130,499	-481	-0.4%
2011	133,674	134,766	1,091	0.8%
2012	136,387	139,038	2,651	1.9%
2013	139,429	142,379	2,950	2.1%
2014	142,692	146,257	3,565	2.5%

Total Customer Forecast

	West Co. Unit 1 and 2 Need	2006 Coal Need	Absolute Difference	Percent Difference
	Determination Forecast	Determination Forecast		
2006	4,371,957	4,409,921	37,964	0.9%
2007	4,451,957	4,498,169	46,211	1.0%
2008	4,530,979	4,590,561	59,582	1.3%
2009	4,609,035	4,683,749	74,714	1.6%
2010	4,686,707	4,775,460	88,752	1.9%
2011	4,764,184	4,864,826	100,642	2.1%
2012	4,841,299	4,951,954	110,655	2.3%
2013	4,918,337	5,037,424	119,088	2.4%
2014	4,995,720	5,121,197	125,477	2.5%

Florida Real Personal Income

Historical Growth Rates	Annual Average Growth (Millions)	CAAGR (%)
1985 - 2005	14,081	3.9
1995 - 2005	16,979	3.9
2001 - 2005	15,507	3.2
Global Insight's Forecast Growth Rates		
2006 - 2015	28,777	4.4
Assumed Growth Rates		
2006 - 2015	19,962	3.2

NET ENERGY FOR LOAD USE PER CUSTOMER (KWH)

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2005)	203	0.8%
FORECAST (2006 to 2015)	336	1.2%

HISTORY

		GROWTH		
		ABSOLUTE		%
1996	23,937		-129	-0.5%
1997	24,022	86	86	0.4%
1998	25,177	1,155	1,155	4.8%
1999	24,350	-827	-827	-3.3%
2000	24,943	593	593	2.4%
2001	25,006	63	63	0.3%
2002	25,907	901	901	3.6%
2003	26,326	418	418	1.6%
2004	25,587	-738	-738	-2.8%
2005	25,759	172	172	0.7%

FORECAST

		GROWTH		
		ABSOLUTE		%
2006	25,860	101		0.4%
2007	26,133	273		1.1%
2008	26,582	448		1.7%
2009	26,959	378		1.4%
2010	27,327	368		1.4%
2011	27,702	375		1.4%
2012	28,077	375		1.4%
2013	28,264	187		0.7%
2014	28,559	295		1.0%
2015	28,881	322		1.1%

NET ENERGY FOR LOAD (GWH)

AVERAGE ANNUAL GROWTH

HISTORY (1996 to 2005)	2,923	3.0%
FORECAST (2006 to 2015)	4,028	3.1%

HISTORY

		GROWTH	
		ABSOLUTE	%
1996	84,993	1,032	1.2%
1997	86,852	1,859	2.2%
1998	92,663	5,811	6.7%
1999	91,460	-1,203	-1.3%
2000	95,989	4,529	5.0%
2001	98,404	2,415	2.5%
2002	104,141	5,737	5.8%
2003	108,388	4,247	4.1%
2004	108,093	-294	-0.3%
2005	111,301	3,207	3.0%

FORECAST

		GROWTH	
		ABSOLUTE	%
2006	114,041	2,740	2.5%
2007	117,551	3,510	3.1%
2008	122,024	4,473	3.8%
2009	126,270	4,246	3.5%
2010	130,499	4,229	3.3%
2011	134,766	4,267	3.3%
2012	139,038	4,273	3.2%
2013	142,379	3,341	2.4%
2014	146,257	3,878	2.7%
2015	150,291	4,035	2.8%

NON-AGRICULTURAL EMPLOYMENT

(Seasonally Adjusted)

	<u>2000</u>		<u>2001</u>		<u>2002</u>		<u>2003</u>		<u>2004</u>		<u>2005</u>	
Annual Absolute Growth	131,791		131,833		130,345		129,999		131,435		133,456	
Annual Percent Growth	2,798		41		-1,487		-347		1,436		2,023	
	2.2%		0.0%		-1.1%		-0.3%		1.1%		1.5%	
	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
2005	132,471	132,736	132,876	133,104	133,210	133,376	133,617	133,792	133,840	133,877	134,231	134,371
Annual Absolute Growth	2,099	2,270	2,090	1,981	1,837	1,897	2,055	2,042	1,960	1,715	1,937	1,922
Annual Percent Growth	1.6%	1.7%	1.6%	1.5%	1.4%	1.4%	1.6%	1.5%	1.5%	1.3%	1.5%	1.5%
2006(1)	134,530	134,730	134,905	135,017	135,117	135,251	135,374	135,604	135,807	135,893	136,047	136,214
Annual Absolute Growth	2,059	1,994	2,029	1,913	1,907	1,875	1,757	1,812	1,967	2,016	1,816	1,843
Annual Percent Growth	1.6%	1.5%	1.5%	1.4%	1.4%	1.4%	1.3%	1.4%	1.5%	1.5%	1.4%	1.4%

	<u>2000</u>		<u>2001</u>		<u>2002</u>		<u>2003</u>		<u>2004</u>		<u>2005</u>	
Annual Absolute Growth	7,080		7,171		7,180		7,261		7,510		7,805	
Annual Percent Growth	254		91		9		81		249		295	
	3.7%		1.3%		0.1%		1.1%		3.4%		3.9%	
	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
2005(1)	7,672	7,695	7,698	7,753	7,774	7,779	7,821	7,851	7,874	7,890	7,915	7,944
Annual Absolute Growth	288.2	296.0	278.5	282.5	299.9	276.7	277.0	304.2	351.3	304.2	290.7	290.5
Annual Percent Growth	3.9%	4.0%	3.8%	3.8%	4.0%	3.7%	3.7%	4.0%	4.7%	4.0%	3.9%	3.8%
2006(1)	7,967	7,980	7,999	8,019	8,044	8,058	8,070	8,090	8,103	8,107	8,126	
Annual Absolute Growth	294.9	285.2	300.9	266.2	269.5	278.8	249.6	239.5	229.4	216.5	211.4	
Annual Percent Growth	3.8%	3.7%	3.9%	3.4%	3.5%	3.6%	3.2%	3.1%	2.9%	2.7%	2.7%	

(1) Revised as of December 2006

**COMPARISON OF WEST CO. UNITS 1 AND 2 and 2006 COAL
 NEED DETERMINATION FORECAST
 REAL PRICE OF ELECTRICITY (Cents/KWH)**

	(Cents/KWH)			
	West Co. Unit 1 and 2 Need Determination Forecast	2006 Coal Need Determination Forecast	Absolute Difference	Percent Difference
2006	4.50	5.97	1.47	32.6%
2007	4.34	5.25	0.91	21.1%
2008	4.12	4.89	0.76	18.5%
2009	3.98	4.40	0.42	10.6%
2010	3.90	4.22	0.32	8.2%
2011	3.84	3.86	0.02	0.6%
2012	3.77	3.84	0.07	1.8%
2013	3.73	3.94	0.21	5.6%
2014	3.66	3.97	0.31	8.4%

**IMPACT OF THE 2005 ENERGY POLICY ACT
ADJUSTMENT**

	MW
2006	133
2007	259
2008	387
2009	518
2010	660
2011	806
2012	953
2013	1103
2014	1256
2015	1256

FPL Load Factor Based on Summer Peak

History

1996	60.2%
1997	59.7%
1998	59.1%
1999	57.9%
2000	60.4%
2001	59.9%
2002	61.9%
2003	62.9%
2004	60.5%
2005	57.8%
2006	59.2%