**BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION**

080203

**DOCKET NO. 08_____-EI
FLORIDA POWER & LIGHT COMPANY**

**IN RE: FLORIDA POWER & LIGHT COMPANY'S
PETITION TO DETERMINE NEED FOR
WEST COUNTY ENERGY CENTER UNIT 3
ELECTRICAL POWER PLANT**

DIRECT TESTIMONY & EXHIBITS OF:

DR. ROSEMARY MORLEY

1   BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2   FLORIDA POWER & LIGHT COMPANY

3   TESTIMONY OF DR. ROSEMARY MORLEY

4   DOCKET NO. 08____-EI

5   APRIL 8, 2008

6

7 Q. Please state your name and business address.

8 A. My name is Dr. Rosemary Morley, and my business address is 9250 West Flagler,

9   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 Director of Load

12   Forecasting and Analysis.

13 Q. Please describe your duties and responsibilities as FPL's Director of Load

14   Forecasting and Analysis.

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

16   and economic forecasts.

17 Q. Please describe your educational background and professional experience.

18 A. I hold a bachelor's degree (B.A.) with honors in economics from the University of

19   Maryland and a master's degree (M.A.) in economics from Northwestern

20   University. In 2005, I earned a Doctorate in Business Administration (D.B.A.)

21   from Nova Southeastern University. I began my career with FPL in 1983 as an

22   Assistant Economist. I have since held a variety of positions in the forecasting,

23   planning, and regulatory areas. Between 1996 and 2007 I was the Rate

1   Development Manager for FPL. During that time I testified on a number of

2   issues, including the forecast of billing determinants by rate class and the

3   Company's load research studies. I am a member of the National Association of

4   Business Economists and the Institute of Business Forecasting and Planning.

5   **Q. Are you sponsoring any exhibits in this case?**

6   A.   Yes. I am sponsoring Exhibits RM-1 through RM-13, which are attached to my

7   direct testimony.

8   Exhibit RM-1   Total Average Customers

9   Exhibit RM-2   Summer Peak Load Per Customer (KW)

10   Exhibit RM-3   Summer Peak Weather

11   Exhibit RM-4   Florida Real Personal Income

12   Exhibit RM-5   Real Price of Electricity

13   Exhibit RM-6   Impact of the 2005 Energy Policy Act

14   Exhibit RM-7   Lee County Electric Cooperative - Summer Peak

15   Exhibit RM-8   Summer Peak Load (MW)

16   Exhibit RM-9   Winter Peak Load Per Customer (KW)

17   Exhibit RM-10   Winter Peak Load (MW)

18   Exhibit RM-11   Net Energy for Load Use Per Customer (KWH)

19   Exhibit RM-12   Lee County Electric Cooperative – Net Energy for

20   Load

21   Exhibit RM-13   Net Energy for Load (GWh)

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

2 A. The purpose of my testimony is to describe FPL's load forecasting process,

3   identify the underlying methodologies and assumptions, and present the two load

4   forecasts used in the overall RFP process. I describe the load forecast used in the

5   initial resource need projection (Initial Load Forecast) and the revised load

6   forecast developed in early 2008 (Revised Load Forecast). FPL witness Sim will

7   explain how FPL utilized both forecasts.

8 Q. **Please summarize your testimony.**

9 A. My testimony addresses FPL's customer forecast, summer and winter peak

10   demand forecasts, and the net energy for load forecast. My testimony explains

11   how these forecasts are developed and why they are reasonable. My testimony

12   shows that FPL is expected to experience continued growth in its customer base

13   between 2008 and 2017. My testimony shows that summer peak demand under

14   the Revised Load Forecast will continue to grow albeit at a somewhat slower rate

15   than that experienced historically. By 2017 the cumulative increase over last

16   year's summer peak demand is projected to be 6,659 MW. Finally, my testimony

17   explains that FPL's net energy for load under the Revised Load Forecast is

18   expected to grow at an annual rate of 3.4% between 2008 and 2017.

3

1   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 about 4.5 million customers, as shown on Exhibit RM-1.

10   This amounts to a population of almost 9 million people.

11

12   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, net energy for load, and peak demand. An econometric model

17   is a numerical representation, obtained through statistical estimation techniques,

18   of the degree of relationship between a dependent variable, e.g., the level of net

19   energy for load, and the independent (explanatory) variables. A change in any of

20   the independent variables will result in a corresponding change in the dependent

21   variable. On a historical basis, econometric models have proven to be highly

22   effective in explaining changes in the level of customer or load growth. FPL has

23   consistently relied on econometric models for various planning purposes and the

                                             4

1		modeling results have been reviewed and accepted by this Commission in past
2		proceedings.
3	Q.	**How does FPL determine the independent variables that should be used to**
4		**forecast customer growth, net energy for load, and peak demand?**
5	A.	FPL has found that population growth, the economy, weather and the price of
6		electricity are the primary drivers of future electricity needs. Accordingly, the
7		models used to forecast customer growth, net energy for load, and peak demand
8		rely on independent variables representing these various drivers. As discussed
9		later in my testimony, the models used to forecast customer growth, net energy
10		for load and demand vary in terms of the specific independent variables used.
11		However, the assumptions regarding population growth, the economy, weather
12		and the price of electricity are the basic building blocks of the load forecast.
13	Q.	**What sources does FPL rely on for projections of these independent**
14		**variables?**
15	A.	FPL relies on population projections produced by the University of Florida's
16		Bureau of Economic and Business Research (BEBR). The projected economic
17		conditions are secured from reputable economic forecasting firms such as Global
18		Insight (formerly known as DRI-WEFA). The weather factors are obtained from
19		the National Oceanic and Atmospheric Administration (NOAA). The price of
20		electricity reflects the Commission-approved base rates and adjustment clauses.
21	Q.	**What vintage of data did the Initial Load Forecast rely on?**
22	A.	For the Initial Load Forecast FPL relied on the load forecast described by FPL
23		witness Green in the Turkey Point Units 6 & 7 Need Determination (Docket No.

1   070650-EI) with an adjustment for the expected load increases from Lee County

2   Electric Cooperative (Lee County), which I describe later in my testimony. The

3   load forecast described by FPL witness Green in Docket No. 070650-EI was

4   based on BEBR's population projections released in July 2006 and other similarly

5   timed inputs.

6   Q.   **What vintage of data did FPL rely on for the Revised Load Forecast?**

7   A.   For the Revised Load Forecast, FPL relied on the most recent forecasts of

8   independent variables available at the time the forecast was developed. The

9   BEBR's population projections produced in November 2007 were utilized.

10   Forecasted economic conditions as of November 2007 were obtained from Global

11   Insight. The weather factors reflect actuals as of December 2007. The price of

12   electricity forecast used in the peak and energy forecast is based on the fuel

13   forecast supporting FPL's currently approved clause factors.

14 Q.   **Other than the vintage of data and the addition of the expected load**

15   **increases from Lee County, are there any other differences between the**

16   **models described by FPL witness Green in Docket No. 070650-EI and those**

17   **used to develop the Revised Load Forecast?**

18 A.   No. The models used in the Revised Load Forecast are consistent with those

19   described by FPL witness Green in Docket No. 070650-EI. In its

20   recommendation in that docket, the Commission Staff stated the following:

21   Staff reviewed FPL's forecast assumptions, regression models, and
22   the projected system peak demands and believes they are
23   appropriate for the use in this docket. The forecast assumptions
24   were drawn from independent sources which the Commission has
25   relied upon in prior case. The regression models used to calculate
26   the projected peak demands conform to accepted economic and

1		statistical practices. Finally, staff believes that the projected peak
2		demands produced by the models appear to be a reasonable
3		extension of historical trends.
4		

5   The Revised Load Forecast relies on the same forecasting process used in Docket

6   No. 070650-EI.

7

8   **CUSTOMER GROWTH FORECAST**

9

10 Q.   **Please explain the development of FPL's customer growth forecast in the**

11   **Revised Load Forecast.**

12 A.   The growth in customers in FPL's service territory is a primary driver of the

13   growth in the level of net energy for load and peak demand. In order to project

14   the growth in the number of customers, FPL relies on population projections

15   produced by BEBR. BEBR typically updates its population projections for the

16   state of Florida on a county-by-county basis once a year. FPL's customer growth

17   forecast in the Revised Load Forecast is based on BEBR's population projections

18   released in November of 2007, the most recent BEBR projections available at the

19   time the forecast was developed.

20 Q.   **How do BEBR's November 2007 population projections compare with prior**

21   **projections?**

22 A.   While somewhat lower than prior projections, BEBR's November 2007

23   population projections continue to show substantial long-term population growth

24   in Florida. Specifically, BEBR's November 2007 projections show a 1.7% annual

25   growth rate in Florida's population between 2008 and 2017. Although the

1		percentage increase in population is lower than that experienced during the 1980's
2		and 1990's, the absolute numbers remain very large. BEBR's projections show
3		an average annual population increase of 345,223 residents between 2008 and
4		2017. By contrast, the annual population increase in the last twenty years was
5		338,096. By 2017 the cumulative increase in the state's population is projected to
6		be 3.4 million above last year's level.
7	Q.	**What is FPL's projected customer growth in the Revised Load Forecast?**
8	A.	The projected customer growth in the Revised Load Forecast is consistent with
9		BEBR's November 2007 population projections. As shown on Exhibit RM-1, the
10		number of FPL customers is expected to increase at an annual rate of 1.7%
11		between 2008 and 2017. An annual growth rate of 1.7% is predicted for Florida's
12		population during the same time period. Consistent with BEBR's population
13		projections, the absolute increase in the number of FPL customers remains very
14		large. In fact, the annual average customer growth of 80,689 projected for 2008
15		thru 2017 is higher than the annual average customer growth of 78,692
16		experienced since 1990.
17	Q.	**How does the projected customer growth in the Revised Load Forecast**
18		**compare with that in the Initial Load Forecast?**
19	A.	The customer forecast in the Initial Load Forecast is also shown in Exhibit RM-1.
20		Consistent with the higher population projections assumed at that time, customer
21		growth rates in the Initial Load Forecast are higher than those in the Revised Load
22		Forecast during the 2008-2010 period. After 2010, the annual percentage growth
23		rates in both forecasts are similar. However, due to slower growth rates in the

1   earlier years, the absolute level of customers remains lower in the Revised Load

2   Forecast.

3 **Q.** **Is FPL's projected customer growth in the Revised Load Forecast**

4   **reasonable?**

5 **A.** Yes. The forecast incorporates the most recent BEBR population projections

6   available at the time the forecast was developed and relies on the forecasting

7   methods previously reviewed and accepted by the Commission.

8

9   **SUMMER PEAK DEMAND FORECAST**

10

11 **Q.** **Is FPL's need for power driven by the demand forecast, the energy forecast,**

12   **or both?**

13 **A.** FPL's need for power, i.e., the amount of resources needed, is driven by the peak

14   demand forecast because FPL's needs are currently determined by the summer

15   reserve margin criterion. While FPL uses both a reserve margin and Loss of Load

16   Probability reliability criteria, the reserve margin criterion driven by the peak load

17   forecast has established the magnitude of the resource need for many years. This

18   is addressed in FPL witness Sim's testimony.

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

20 **A.** Growth in FPL's peak demand has been a function of a larger customer base,

21   weather conditions, economic growth, changing patterns of customer behavior

22   (including an increasing stock of electricity-consuming appliances) and more

1	efficient heating and cooling appliances. FPL has developed peak demand
2	models to capture these behavioral relationships.
3	
4	The summer peak forecast is developed using an econometric model. The model
5	is a per-customer model that includes: the real price of electricity, Florida real
6	personal income as an economic driver, average temperature on the day of the
7	peak and a heat buildup weather variable consisting of the sum of the cooling
8	degree hours during the peak day and three prior days. The forecasted summer
9	peak usage per customer is shown on Exhibit RM-2. The forecasted summer peak
10	usage per customer is multiplied by the projected total customers to derive an
11	initial estimate of FPL's system summer peak. Adjustments are then made for the
12	2005 Energy Policy Act and the addition of Lee County's load. The final
13	estimate of FPL's system summer peak is shown on Exhibit RM-8.

14 **Q.** **What weather assumptions did FPL assume for the summer peak projections**
15 **in the Revised Load Forecast?**

16 A. FPL uses the average temperature on the day of the peak and the sum of the
17 cooling degree hours during the day of the peak and three prior days in its
18 summer peak projections. In forecasting these weather variables, FPL relies on a
19 normal weather outlook. Normal weather is based on historical averages since
20 1980. Exhibit RM-3 shows the actual and forecasted values for the two weather
21 variables included in the summer peak per customer model.

22 **Q.** **What assumptions regarding the economy were assumed for the summer**
23 **peak projections in the Revised Load Forecast?**

1   Florida's real personal income provided by Global Insight is used as the economic

2   driver in the summer peak projections. Global Insight's forecast shows that real

3   personal income will grow at a somewhat slower rate than that experienced in

4   recent years. Real personal income grew by 4.4% annually between 1982 and

5   2006 and by 4.3% in the last five years. By comparison, real personal income is

6   forecasted to grow at an annual rate of 4.0% between 2007 and 2017. Exhibit

7   RM-4 shows the actual and forecasted values for Florida's real personal income.

8   Q.   **How does the forecast of real personal income utilized in the Revised Load**

9   **Forecast compare with that utilized in the Initial Load Forecast?**

10   A.   For the Initial Load Forecast, FPL relied on economic data available as of July

11   2006. As described by FPL witness Green in Docket 070650-EI, for its Initial

12   Load Forecast FPL reduced Global Insight's July 2006 forecast of real personal

13   income to more closely reflect its historical rates growth rate. Specifically, FPL

14   assumed an annual growth of 3.0% in real personal income between 2007 and

15   2017 based on the data available at that time.

16   Q.   **Why isn't FPL proposing a similar adjustment to Global Insight's forecast of**

17   **real personal income in the Revised Load Forecast?**

18   A.   The Revised Load Forecast utilizes Global Insight's November 2007 forecast of

19   real personal income. Global Insight's November 2007 forecast is significantly

20   lower than its July 2006 forecast and the more recent forecast is not high relative

21   to historical growth rates. In its July 2006 forecast, Global Insight was projecting

22   increases in real personal income of 4.9% and 5.3% for 2008 and 2009

23   respectively. By contrast, in the Revised Load Forecast Global Insight is

11

1		projecting growth of 3.8% and 4.3% in 2008 and 2009. Over the longer term,
2		Global Insight's forecast in the Revised Load Forecast shows a 4.0% growth rate
3		between 2007 and 2017, which is less that the 4.3% growth rate experienced in
4		the last five years. In addition, the actual 2006 real personal income has been
5		revised upward and is higher than that assumed in the Initial Load Forecast. On
6		balance, Global Insight's November 2007 forecast of real personal income
7		appears reasonable so no adjustment to that forecast is needed.
8	Q.	**What assumptions regarding the price of electricity were assumed for the**
9		**summer peak projections in the Revised Load Forecast?**
10		The real price of electricity assumed is shown in Exhibit RM-5. The forecast
11		shows that the real price of electricity is projected to decline by 0.9% annually
12		between 2008 and 2017. This forecast reflects fuel factors approved by the
13		Commission in November 2007.
14	Q.	**What impact did the 2005 Energy Policy Act have on the summer peak**
15		**projections in the Revised Load Forecast?**
16	A.	In 2005, Congress passed the Energy Policy Act mandating certain appliance
17		efficiency standards and insulation for new construction, which is expected to
18		reduce electricity demand in the future. FPL estimated the 2005 Energy Policy
19		Act would reduce the projected peak demand by approximately 387 MW in 2008
20		to as much as 1,256 MW in the year 2014. The annual estimated impact of the
21		2005 Energy Policy Act is shown on Exhibit RM-6. To arrive at FPL's projected
22		peak demand values in the Revised Load Forecast the estimated impact from the

1		2005 Energy Policy Act was deducted as line item adjustments from the originally
2		projected peaks for the corresponding years.
3	Q.	**Why is FPL adjusting its summer peak projections for Lee County?**
4	A.	FPL is projected to begin providing electric service to Lee County in 2010. Lee
5		County is a not-for-profit electric distribution cooperative serving a five-county
6		area in Southwest Florida. In August 2007, the parties came to an agreement by
7		which FPL will become Lee County's power supplier in two phases. In the short-
8		term phase, FPL will provide partial requirements service to two of the three Lee
9		County delivery points, which serve approximately 25 percent of Lee County's
10		load, for the term January 1, 2010 through December 31, 2013. Lee County's
11		peak load requirement will be approximately 200 MW during this first phase. In
12		the long-term phase, which commences in January 2014, FPL will serve Lee
13		County's full retail load. During this second phase, Lee County's peak load
14		requirement will initially be about 900 MW, growing annually thereafter.
15		Because Lee County's load is not reflected in FPL's historical loads, a line item
16		adjustment was made to the summer peak forecast to account for this load.
17		Exhibit RM-7 shows the amount of Lee County's annual summer peak load
18		projected to be served by FPL.
19	Q.	**How will the power sales to Lee County affect FPL's retail customers?**
20	A.	FPL expects costs to retail customers to be lower over the term of the contract as
21		result of the Lee County power sales than they would otherwise be. This is
22		because, among other reasons, service under the Lee County contract will result in
23		the allocation of a smaller share of total system costs to serving FPL's retail

1	customers. On balance, FPL's retail customers would not be disadvantaged and,
2	in fact, are expected to be better off as a result of the Lee County power sales.
3	**Q.**	**Were the same adjustments for the 2005 Energy Policy Act and Lee County**
4		**made in the Revised Load Forecast also made in the Initial Load Forecast?**
5	A.	Yes.
6	**Q.**	**What is FPL's projected summer peak demand in the Revised Load**
7		**Forecast?**
8	A.	As shown on Exhibit RM-8, FPL is projecting an annual increase of 2.8% in the
9		summer peak demand between 2008 and 2017. This growth rate reflects the
10		projected increases in the number of customers and in use per customer, as well as
11		the adjustments for the 2005 Energy Policy Act and Lee County discussed above.
12		While the projected percentage growth is slower than that experienced
13		historically, the absolute level of growth remains very large. An annual increase
14		of 696 MW is projected between 2008 and 2017. By 2017, the cumulative
15		increase over last year's summer peak demand is projected to be 6,659 MW.
16	**Q.**	**How does FPL's summer peak demand forecast in its Revised Load Forecast**
17		**compare with that developed in the Initial Load Forecast?**
18	A.	The summer peak demand forecasts developed in both the Initial Load Forecast
19		and the Revised Load Forecast are shown in Exhibit RM-8. Both forecasts have
20		similar percentage growth rates between 2008 and 2017. In the Initial Load
21		Forecast, FPL's summer peak demand was projected to grow at an annual rate of
22		2.7% between 2008 and 2017 while the Revised Load Forecast shows an annual
23		growth rate of 2.8% during the same period. Nevertheless, the absolute level of

14

1		the summer peak demand is consistently lower in the Revised Load Forecast
2		because the peak demands in the first years of the forecast are projected to be
3		lower in the Revised Load Forecast than in the Initial Load Forecast.
4	Q.	**Is FPL's projected summer peak demand in the Revised Load Forecast**
5		**reasonable?**
6	A.	Yes. FPL's projected summer peak demand is based on reasonable assumptions,
7		is consistent with historical experience, and relies on the forecasting methods
8		previously reviewed and accepted by the Commission.
9		

WINTER AND MONTHLY PEAK DEMAND FORECASTS

11

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

13 A. Like the system summer peak model, the winter peak model is also an

14 econometric model. The winter peak model is a per-customer model that includes

15 two weather-related variables: the square of the minimum temperature on the

16 peak day and heating degree hours from the prior day until 9:00 a.m. of the peak

17 day. In addition, the model also has an economic term, Florida real personal

18 income. The winter peak usage per customer is shown on Exhibit RM-9. The

19 projected winter peak load per customer value is multiplied by the total customers

20 to derive FPL's system winter peak as shown on Exhibit RM-10.

21 Q. **What is FPL's projected winter peak demand in the Revised Load Forecast?**

22 A. The winter peak grows from 16,815 MW in 2007 to 28,418 MW in 2017 or

23 11,603 MW in absolute terms as shown in Exhibit RM-10. The apparent

1   accelerated growth in the winter peak forecast is a reflection of the fact that in the

2   2007 winter season, FPL's service territory did not experience a "normal" winter

3   peak.

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

5 A.   The forecasting process consists of the following:

6   -   Development of the historical seasonal factor for each month by using

7   ratios of historical monthly peaks to seasonal peak (Summer is April-

8   October; Winter is November-March).

9   -   Application of the monthly ratios to their respective seasonal peak forecast

10   (summer and winter peaks) to derive the peak forecast by month. This

11   process assumes that the seasonal factors remain unchanged over the

12   forecasting period.

13   Monthly peak forecasts are used in planning and also provide information for the

14   scheduling of maintenance for power plants and fuel budgeting.

15 Q.   **Are FPL's winter peak demand and monthly peak demand forecasts**

16   **reasonable for planning purposes?**

17 A.   Yes. FPL's winter peak demand and monthly peak demand forecasts are based on

18   reasonable assumptions, are consistent with historical experience, and rely on the

19   forecasting methods previously reviewed and accepted by the Commission.

1   NET ENERGY FOR LOAD FORECAST

2

3   Q.   How does FPL forecast energy sales?

4   A.   FPL forecasts energy sales using an econometric model for total net energy for

5   load, which is energy generated net of plant use. An econometric model for net

6   energy for load is more reliable than models for billed energy sales because the

7   explanatory variables can be better matched to usage. This is so because the net

8   energy for load data does not have to be attuned to account for billing cycle

9   adjustments, which might distort the real time match between the production and

10   consumption of electricity.

11   Q.   What inputs does the econometric model used to forecast net energy for load

12   rely on?

13   A.   The model used to forecast net energy for load is a per-customer model that

14   includes: the real price of electricity, Florida real personal income as an

15   economic driver, cooling degree hours and heating degree hours.

16   Q.   What has been FPL's recent net energy per customer?

17   A.   Net energy per customer declined by 0.4% in 2006 and by another 0.9% in 2007.

18   Mild weather and a substantial increase in the price of electricity contributed to

19   these declines.   In addition, the current housing slump may be depressing

20   consumer spending for many goods, including electricity.   The downturn in

21   housing is a cyclical phenomenon and most experts predict the state's housing

22   sector will begin to rebound within the next twelve months.

1   Q.   **What is FPL's projected net energy per customer in the Revised Load**

2   **Forecast?**

3   A.   FPL's net energy per customer model shows an annual growth rate of 1.4%

4   between 2008 and 2017. This projected rate of growth is a function of long-run

5   economic growth and projected declines in the real price of electricity, in addition

6   to an assumption of normal weather.

7   Q.   **How does FPL's projected net energy per customer in the Revised Load**

8   **Forecast compare historically?**

9   A.   FPL's projected growth in net energy per customer in the Revised Load Forecast

10   is higher than the 0.5% annual growth rate in net energy per customer experienced

11   between 1980 and 2007. However, historical growth rates in net energy per

12   customer ending in 2007 or 2006 are heavily influenced by the substantial

13   increase in electricity prices experienced in 2006. By contrast, periods of

14   declining electricity prices have typically been accompanied by faster increases in

15   net energy per customer. For example, net energy per customer grew at 1.5%

16   annually during the mid-1990's and early 2000's, the most recent period of

17   generally declining electricity prices. The projected growth in net energy per

18   customer in the Revised Load Forecast is consistent with the growth in net energy

19   per customer experienced during this historical period of declining prices.

20   Q.   **How is FPL's projected net energy per customer converted into a forecast of**

21   **net energy for load?**

22   A.   A preliminary estimate of net energy for load is developed by multiplying FPL's

23   projected net energy for load per customer by the customer forecast. An

1		adjustment is then made to reflect the additional net energy for load resulting
2		from sales to Lee County. Exhibit RM-12 shows the contribution to net energy
3		for load attributed to Lee County.
4	**Q.**	**What is FPL's projected net energy for load in the Revised Load Forecast?**
5	A.	FPL's projected net energy for load is expected to grow at rates similar to those
6		experienced historically. As shown in Exhibit RM-13, FPL is projecting a 3.4%
7		annual growth rate in net energy for load between 2008 and 2017. This projected
8		annual growth in net energy for load reflects a somewhat slower rate of customer
9		growth combined with additional load from Lee County. As a result, the
10		projected growth rate is only slightly higher than the 3.2% annual growth rate
11		experienced between 1980 and 2007. Owing to a larger customer base, the
12		absolute level of increase in gigawatt-hours (GWh) is expected to be higher than
13		that experienced historically. The forecast shows an annual increase in net energy
14		for load of 4,654 GWh between 2008 and 2017 versus an annual increase of 2,439
15		GWh experienced between 1980 and 2007.
16	**Q.**	**How does FPL's projected net energy for load in the Revised Load Forecast**
17		**compare with that in the Initial Load Forecast?**
18	A.	The projected long-run percentage growth rates are very similar in both the
19		Revised Load Forecast and the Initial Load Forecast. The Revised Load Forecast
20		shows a 3.4% annual growth rate in net energy for load between 2008 and 2017
21		while the Initial Load Forecast shows a 3.3% annual growth rate during the same
22		period. Nevertheless, the absolute level of net energy for load is somewhat lower

19

1   in the Revised Load Forecast due to a lower forecasted net energy for load in

2   2008.

3 **Q.**   **Are FPL's projected net energy for load in the Revised Load Forecast**

4   **reasonable?**

5 **A.**   Yes. FPL's projected net energy for load are based on reasonable assumptions,

6   are consistent with historical experience, and rely on the forecasting methods

7   previously reviewed and accepted by the Commission. A forecast is considered

8   reasonable if good judgment is used in estimating (availing oneself of the

9   appropriate and most credible assumptions on hand) and testing the model and if

10   the results or outputs make sense when compared to prior similar situations. FPL

11   followed this approach in preparing the forecast.

12

13   The models employed by FPL have good descriptive statistics with high degrees

14   of statistical significance. FPL is confident that the relationship that exists

15   between the level of net energy for load and the economy, weather, customers,

16   price of electricity, and other variables have been properly assessed and

17   numerically quantified.

18 **Q.**   **Does this conclude your direct testimony?**

19 **A.**   Yes.

TOTAL AVERAGE CUSTOMERS

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	85,615	2.7%
HISTORY (1990 to 2007)	78,692	2.1%
INITIAL FORECAST (2008 to 2017)	86,247	1.8%
REVISED FORECAST (2008 to 2017)	80,689	1.7%

HISTORY

		Growth Absolute	%
1980	2,184,974	110,647	5.3%
1981	2,285,187	100,214	4.6%
1982	2,358,167	72,980	3.2%
1983	2,429,688	71,521	3.0%
1984	2,520,523	90,835	3.7%
1985	2,617,556	97,033	3.8%
1986	2,723,555	105,999	4.0%
1987	2,840,207	116,651	4.3%
1988	2,953,663	113,457	4.0%
1989	3,064,436	110,773	3.8%
1990	3,158,817	94,381	3.1%
1991	3,226,455	67,638	2.1%
1992	3,281,238	54,783	1.7%
1993	3,355,794	74,556	2.3%
1994	3,422,187	66,393	2.0%
1995	3,488,796	66,609	1.9%
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%
2006	4,409,563	87,667	2.0%
2007	4,496,589	87,027	2.0%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2008	4,590,561	93,972	2.1%	4,555,880	59,291	1.3%	-34,681	-0.8%
2009	4,683,749	93,188	2.0%	4,628,744	72,863	1.6%	-55,006	-1.2%
2010	4,775,460	91,710	2.0%	4,708,603	79,859	1.7%	-66,857	-1.4%
2011	4,864,831	89,371	1.9%	4,796,344	87,741	1.9%	-68,487	-1.4%
2012	4,951,957	87,126	1.8%	4,880,891	84,547	1.8%	-71,065	-1.4%
2013	5,037,427	85,471	1.7%	4,960,871	79,980	1.6%	-76,556	-1.5%
2014	5,121,200	83,772	1.7%	5,039,871	79,000	1.6%	-81,329	-1.6%
2015	5,203,878	82,678	1.6%	5,119,700	79,829	1.6%	-84,178	-1.6%
2016	5,285,732	81,854	1.6%	5,200,465	80,765	1.6%	-85,268	-1.6%
2017	5,366,787	81,055	1.5%	5,282,082	81,618	1.6%	-84,705	-1.6%

SUMMER PEAK LOAD PER CUSTOMER (KW)

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	0.02	0.4%
INITIAL FORECAST (2008 to 2017)	0.05	0.9%
REVISED FORECAST (2008 to 2017)	0.05	1.0%

HISTORY

		Growth Absolute	Growth %
1980	4.40	0.23	5.6%
1981	4.26	-0.14	-3.2%
1982	4.18	-0.08	-1.9%
1983	4.39	0.21	5.1%
1984	4.07	-0.32	-7.3%
1985	4.07	0.00	-0.1%
1986	4.05	-0.02	-0.6%
1987	4.36	0.32	7.8%
1988	4.19	-0.17	-3.9%
1989	4.38	0.19	4.5%
1990	4.35	-0.03	-0.6%
1991	4.38	0.02	0.5%
1992	4.47	0.09	2.1%
1993	4.55	0.08	1.8%
1994	4.44	-0.11	-2.5%
1995	4.53	0.10	2.2%
1996	4.52	-0.01	-0.2%
1997	4.59	0.07	1.6%
1998	4.86	0.27	5.8%
1999	4.69	-0.17	-3.6%
2000	4.63	-0.06	-1.3%
2001	4.77	0.14	3.0%
2002	4.78	0.02	0.3%
2003	4.78	0.00	-0.1%
2004	4.86	0.09	1.8%
2005	5.15	0.29	6.0%
2006	4.95	-0.21	-4.0%
2007	4.88	-0.06	-1.3%

FORECAST

	Initial Forecast	Growth Absolute	Growth %	Revised Forecast	Growth Absolute	Growth %	Delta Absolute	Delta %
2008	5.04	0.16	3.3%	4.99	0.11	2.2%	-0.05	-1.0%
2009	5.11	0.07	1.4%	5.04	0.04	0.9%	-0.08	-1.5%
2010	5.16	0.05	1.0%	5.10	0.06	1.3%	-0.06	-1.2%
2011	5.22	0.06	1.2%	5.17	0.07	1.4%	-0.05	-1.0%
2012	5.26	0.04	0.8%	5.24	0.07	1.4%	-0.02	-0.4%
2013	5.30	0.03	0.7%	5.30	0.06	1.2%	0.00	0.1%
2014	5.34	0.04	0.8%	5.34	0.04	0.8%	0.00	0.0%
2015	5.39	0.04	0.8%	5.38	0.04	0.8%	0.00	0.0%
2016	5.42	0.04	0.7%	5.43	0.04	0.8%	0.01	0.1%
2017	5.47	0.04	0.8%	5.47	0.04	0.8%	0.00	0.1%

SUMMER PEAK WEATHER

Year	Average Temperature	Sum of Cooling Degree Hours
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	85.8	1,254
2008	84.7	1,148
2009	84.7	1,148
2010	84.7	1,148
2011	84.7	1,148
2012	84.7	1,148
2013	84.7	1,148
2014	84.7	1,148
2015	84.7	1,148
2016	84.7	1,148
2017	84.7	1,148

FLORIDA REAL PERSONAL INCOME

AVERAGE ANNUAL GROWTH

HISTORY (1982 to 2006)	15,560	4.4%
INITIAL FORECAST (2007 to 2017)	20,191	3.0%
REVISED FORECAST (2007 to 2017)	29,255	4.0%

HISTORY

		Growth	
		Absolute	%
1982	204,906		
1983	217,848	12,942	6.3%
1984	234,777	16,929	7.8%
1985	249,229	14,452	6.2%
1986	262,675	13,446	5.4%
1987	274,790	12,115	4.6%
1988	289,863	15,072	5.5%
1989	309,241	19,378	6.7%
1990	316,752	7,511	2.4%
1991	317,009	258	0.1%
1992	324,698	7,689	2.4%
1993	333,870	9,172	2.8%
1994	344,074	10,205	3.1%
1995	360,213	16,139	4.7%
1996	375,571	15,358	4.3%
1997	391,151	15,580	4.1%
1998	419,300	28,149	7.2%
1999	434,346	15,046	3.6%
2000	457,517	23,171	5.3%
2001	468,813	11,297	2.5%
2002	478,533	9,720	2.1%
2003	487,088	8,555	1.8%
2004	521,380	34,292	7.0%
2005	552,645	31,265	6.0%
2006	578,356	25,711	4.7%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2007	581,191	2,835	0.5%	602,067	23,711	4.1%	20,876	3.6%
2008	597,021	15,830	2.7%	625,083	23,016	3.8%	28,063	4.7%
2009	616,128	19,108	3.2%	652,204	27,120	4.3%	36,076	5.9%
2010	634,839	18,711	3.0%	680,950	28,746	4.4%	46,111	7.3%
2011	653,289	18,451	2.9%	710,329	29,380	4.3%	57,040	8.7%
2012	671,517	18,228	2.8%	740,927	30,598	4.3%	69,410	10.3%
2013	690,856	19,339	2.9%	770,345	29,417	4.0%	79,489	11.5%
2014	712,038	21,182	3.1%	800,072	29,727	3.9%	88,033	12.4%
2015	734,840	22,802	3.2%	830,709	30,638	3.8%	95,869	13.0%
2016	758,820	23,980	3.3%	862,403	31,694	3.8%	103,583	13.7%
2017	783,097	24,278	3.2%	894,618	32,215	3.7%	111,520	14.2%

REAL PRICE OF ELECTRICITY

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	-0.04	-0.8%
INITIAL FORECAST (2008 to 2017)	-0.06	-1.2%
REVISED FORECAST (2008 to 2017)	-0.04	-0.9%

HISTORY

		Growth Absolute	Growth %
1980	6.30	0.05	0.8%
1981	7.18	0.88	13.9%
1982	6.71	-0.47	-6.5%
1983	6.65	-0.06	-1.0%
1984	7.63	0.98	14.8%
1985	7.67	0.04	0.5%
1986	6.84	-0.83	-10.8%
1987	6.55	-0.29	-4.2%
1988	6.48	-0.07	-1.1%
1989	5.94	-0.53	-8.2%
1990	5.63	-0.31	-5.2%
1991	5.56	-0.08	-1.3%
1992	5.22	-0.34	-6.1%
1993	5.11	-0.11	-2.1%
1994	4.62	-0.49	-9.6%
1995	4.57	-0.05	-1.0%
1996	4.71	0.14	3.0%
1997	4.59	-0.12	-2.5%
1998	4.37	-0.22	-4.9%
1999	4.10	-0.27	-6.1%
2000	3.98	-0.12	-2.9%
2001	4.55	0.56	14.1%
2002	4.07	-0.48	-10.5%
2003	4.32	0.25	6.2%
2004	4.43	0.11	2.4%
2005	4.55	0.12	2.7%
2006	5.53	0.98	21.6%
2007	5.13	-0.40	-7.3%

FORECAST

	Initial Forecast	Growth Absolute	Growth %	Revised Forecast	Growth Absolute	Growth %	Delta Absolute	Delta %
2008	4.89	-0.24	-4.6%	5.01	-0.12	-2.3%	0.12	2.4%
2009	4.40	-0.48	-9.9%	5.01	0.01	0.1%	0.61	13.8%
2010	4.22	-0.18	-4.2%	4.82	-0.19	-3.8%	0.61	14.4%
2011	3.86	-0.36	-8.5%	4.60	-0.22	-4.6%	0.74	19.2%
2012	3.84	-0.02	-0.5%	4.37	-0.23	-5.0%	0.53	13.8%
2013	3.94	0.10	2.5%	4.23	-0.14	-3.2%	0.29	7.4%
2014	3.97	0.03	0.7%	4.32	0.09	2.1%	0.35	8.9%
2015	4.03	0.06	1.5%	4.42	0.09	2.2%	0.39	9.6%
2016	4.25	0.22	5.4%	4.50	0.08	1.9%	0.26	6.0%
2017	4.38	0.14	3.2%	4.62	0.12	2.7%	0.24	5.5%

IMPACT OF THE 2005 ENERGY POLICY ACT

	MW
2008	387
2009	518
2010	660
2011	806
2012	953
2013	1103
2014	1256
2015	1256
2016	1256
2017	1256

LEE COUNTY ELECTRIC COOPERATIVE - SUMMER PEAK

	MW
2010	196
2011	200
2012	204
2013	208
2014	901
2015	928
2016	955
2017	982
2018	1009
2019	1036
2020	1063

SUMMER PEAK LOAD (MW)

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	457	3.1%
INITIAL FORECAST (2008 to 2017)	699	2.7%
REVISED FORECAST (2008 to 2017)	696	2.8%

HISTORY

		Growth	
		Absolute	%
1980	9,623	973	11.2%
1981	9,738	115	1.2%
1982	9,862	124	1.3%
1983	10,676	814	8.3%
1984	10,270	-406	-3.8%
1985	10,654	384	3.7%
1986	11,022	368	3.5%
1987	12,394	1,372	12.4%
1988	12,382	-12	-0.1%
1989	13,425	1,043	8.4%
1990	13,754	329	2.5%
1991	14,123	369	2.7%
1992	14,661	538	3.8%
1993	15,266	605	4.1%
1994	15,179	-87	-0.6%
1995	15,813	634	4.2%
1996	16,064	251	1.6%
1997	16,613	549	3.4%
1998	17,897	1,284	7.7%
1999	17,615	-282	-1.6%
2000	17,808	193	1.1%
2001	18,754	946	5.3%
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%
2007	21,962	143	0.7%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2008	22,770	808	3.7%	22,356	394	1.8%	-414	-1.8%
2009	23,435	665	2.9%	22,792	436	1.9%	-643	-2.7%
2010	24,199	764	3.3%	23,554	762	3.3%	-645	-2.7%
2011	24,812	613	2.5%	24,191	637	2.7%	-621	-2.5%
2012	25,319	507	2.0%	24,837	646	2.7%	-482	-1.9%
2013	25,798	479	1.9%	25,414	578	2.3%	-384	-1.5%
2014	27,001	1,203	4.7%	26,576	1,162	4.6%	-425	-1.6%
2015	27,700	699	2.6%	27,241	665	2.5%	-459	-1.7%
2016	28,365	665	2.4%	27,932	691	2.5%	-433	-1.5%
2017	29,061	696	2.5%	28,621	689	2.5%	-440	-1.5%

WINTER PEAK LOAD PER CUSTOMER (KW)

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	-0.03	-0.6%
INITIAL FORECAST (2008 to 2017)	0.04	0.8%
REVISED FORECAST (2008 to 2017)	0.05	1.0%

HISTORY

		Growth	
		Absolute	%
1980	4.45	0.22	5.1%
1981	4.97	0.52	11.6%
1982	4.81	-0.16	-3.2%
1983	3.82	-0.99	-20.6%
1984	4.38	0.56	14.8%
1985	4.79	0.40	9.2%
1986	4.46	-0.33	-6.9%
1987	3.80	-0.66	-14.9%
1988	4.19	0.39	10.4%
1989	4.20	0.01	0.3%
1990	5.08	0.88	20.9%
1991	3.68	-1.40	-27.6%
1992	4.06	0.38	10.4%
1993	3.85	-0.21	-5.1%
1994	3.68	-0.17	-4.5%
1995	4.75	1.07	29.0%
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	4.19	0.70	20.0%
2006	4.46	0.27	6.5%
2007	3.74	-0.72	-16.2%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2008	4.93	1.19	31.8%	4.90	1.16	31.1%	-0.03	-0.6%
2009	4.94	0.01	0.1%	4.92	0.01	0.3%	-0.02	-0.4%
2010	4.99	0.05	1.1%	4.98	0.07	1.3%	-0.01	-0.1%
2011	4.99	0.00	0.1%	5.00	0.02	0.3%	0.01	0.1%
2012	5.00	0.00	0.1%	5.02	0.02	0.4%	0.02	0.4%
2013	5.00	0.01	0.1%	5.03	0.02	0.4%	0.03	0.6%
2014	5.17	0.17	3.4%	5.22	0.18	3.6%	0.04	0.8%
2015	5.22	0.05	0.9%	5.27	0.05	1.0%	0.05	1.0%
2016	5.27	0.05	0.9%	5.32	0.05	1.0%	0.06	1.1%
2017	5.31	0.05	0.9%	5.38	0.06	1.0%	0.07	1.2%

WINTER PEAK LOAD (MW)

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	262	2.0%
INITIAL FORECAST (2008 to 2017)	655	2.6%
REVISED FORECAST (2008 to 2017)	676	2.7%

HISTORY

		Growth	
		Absolute	%
1980	9,732	941	10.7%
1981	11,360	1,628	16.7%
1982	11,345	-15	-0.1%
1983	9,280	-2,065	-18.2%
1984	11,050	1,770	19.1%
1985	12,533	1,483	13.4%
1986	12,139	-394	-3.1%
1987	10,779	-1,360	-11.2%
1988	12,372	1,593	14.8%
1989	12,876	504	4.1%
1990	16,046	3,170	24.6%
1991	11,868	-4,178	-26.0%
1992	13,319	1,451	12.2%
1993	12,932	-387	-2.9%
1994	12,594	-338	-2.6%
1995	16,563	3,969	31.5%
1996	18,252	1,689	10.2%
1997	17,298	-954	-5.2%
1998	13,060	-4,238	-24.5%
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	19,683	1,575	8.7%
2007	16,815	-2,868	-14.6%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2008	22,627	5,812	34.6%	22,332	5,517	32.8%	-295	-1.3%
2009	23,115	488	2.2%	22,755	422	1.9%	-361	-1.6%
2010	23,822	707	3.1%	23,454	699	3.1%	-368	-1.5%
2011	24,287	465	2.0%	23,971	517	2.2%	-315	-1.3%
2012	24,742	455	1.9%	24,487	516	2.2%	-255	-1.0%
2013	25,201	459	1.9%	24,976	489	2.0%	-225	-0.9%
2014	26,494	1,293	5.1%	26,290	1,314	5.3%	-204	-0.8%
2015	27,158	664	2.5%	26,979	689	2.6%	-179	-0.7%
2016	27,836	678	2.5%	27,690	711	2.6%	-146	-0.5%
2017	28,520	684	2.5%	28,418	728	2.6%	-102	-0.4%

NET ENERGY FOR LOAD USE PER CUSTOMER (KWH)

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	120	0.5%
INITIAL FORECAST (2008 to 2017)	321	1.2%
REVISED FORECAST (2008 to 2017)	372	1.4%

HISTORY

		Growth Absolute	%
1980	22,174	315	1.4%
1981	21,890	-284	-1.3%
1982	21,429	-461	-2.1%
1983	21,608	179	0.8%
1984	21,086	-522	-2.4%
1985	21,393	307	1.5%
1986	21,394	0	0.0%
1987	21,694	300	1.4%
1988	21,910	216	1.0%
1989	22,828	918	4.2%
1990	22,486	-342	-1.5%
1991	22,675	189	0.8%
1992	22,277	-398	-1.8%
1993	22,580	303	1.4%
1994	23,487	907	4.0%
1995	24,066	579	2.5%
1996	23,937	-129	-0.5%
1997	24,022	86	0.4%
1998	25,177	1,155	4.8%
1999	24,350	-827	-3.3%
2000	24,943	593	2.4%
2001	25,006	63	0.3%
2002	25,921	916	3.7%
2003	26,327	405	1.6%
2004	25,587	-740	-2.8%
2005	25,753	166	0.6%
2006	25,657	-96	-0.4%
2007	25,423	-235	-0.9%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2008	26,582	1,159	4.6%	26,005	582	2.3%	-577	-2.2%
2009	26,959	378	1.4%	26,320	315	1.2%	-639	-2.4%
2010	27,327	368	1.4%	26,750	430	1.6%	-577	-2.1%
2011	27,702	375	1.4%	27,270	520	1.9%	-432	-1.6%
2012	28,077	375	1.4%	27,816	546	2.0%	-261	-0.9%
2013	28,264	187	0.7%	28,278	461	1.7%	14	0.0%
2014	28,559	295	1.0%	28,574	296	1.0%	15	0.1%
2015	28,881	322	1.1%	28,828	254	0.9%	-53	-0.2%
2016	29,240	359	1.2%	29,097	269	0.9%	-143	-0.5%
2017	29,474	233	0.8%	29,351	254	0.9%	-123	-0.4%

LEE COUNTY ELECTRIC COOPERATIVE - NET ENERGY FOR LOAD

	GWh
2010	1,033
2011	1,056
2012	1,076
2013	1,094
2014	4,740
2015	4,883
2016	5,038
2017	5,167
2018	5,309
2019	5,451
2020	5,608

NET ENERGY FOR LOAD (GWh)

AVERAGE ANNUAL GROWTH

HISTORY (1980 to 2007)	2,439	3.2%
INITIAL FORECAST (2008 to 2017)	4,591	3.3%
REVISED FORECAST (2008 to 2017)	4,654	3.4%

HISTORY

			Growth	
			Absolute	%
1980	48,449		3,107	6.9%
1981	50,022		1,573	3.2%
1982	50,532		510	1.0%
1983	52,500		1,968	3.9%
1984	53,148		648	1.2%
1985	55,998		2,850	5.4%
1986	58,267		2,269	4.1%
1987	61,616		3,349	5.7%
1988	64,716		3,100	5.0%
1989	69,956		5,240	8.1%
1990	71,029		1,073	1.5%
1991	73,160		2,132	3.0%
1992	73,097		-63	-0.1%
1993	75,774		2,677	3.7%
1994	80,376		4,601	6.1%
1995	83,961		3,585	4.5%
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	104,199		5,795	5.9%
2003	108,393		4,194	4.0%
2004	108,093		-300	-0.3%
2005	111,301		3,207	3.0%
2006	113,137		1,837	1.7%
2007	114,315		1,177	1.0%

FORECAST

	Initial Forecast	Growth Absolute	%	Revised Forecast	Growth Absolute	%	Delta Absolute	%
2008	122,024	7,710	6.7%	118,357	4,042	3.5%	-3,667	-3.0%
2009	126,270	4,246	3.5%	121,852	3,495	3.0%	-4,418	-3.5%
2010	131,532	5,262	4.2%	127,004	5,152	4.2%	-4,528	-3.4%
2011	135,819	4,287	3.3%	131,862	4,859	3.8%	-3,957	-2.9%
2012	140,114	4,295	3.2%	136,871	5,009	3.8%	-3,243	-2.3%
2013	143,473	3,359	2.4%	141,374	4,503	3.3%	-2,099	-1.5%
2014	150,997	7,524	5.2%	148,752	7,378	5.2%	-2,245	-1.5%
2015	155,174	4,177	2.8%	152,495	3,743	2.5%	-2,679	-1.7%
2016	159,594	4,420	2.8%	156,384	3,888	2.5%	-3,211	-2.0%
2017	163,346	3,751	2.4%	160,246	3,862	2.5%	-3,100	-1.9%