

**BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION**

**DOCKET NO. 120015-EI
FLORIDA POWER & LIGHT COMPANY**

**IN RE: PETITION FOR RATE INCREASE BY
FLORIDA POWER & LIGHT COMPANY**

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ECB 10
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TESTIMONY & EXHIBITS OF:

DR. ROSEMARY MORLEY

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FLORIDA POWER & LIGHT COMPANY
DIRECT TESTIMONY OF DR. ROSEMARY MORLEY
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1 **I. INTRODUCTION**

2

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

4 A. My name is Dr. Rosemary Morley, and my business address is Florida Power
5 & Light Company, 700 Universe Blvd., Juno Beach, Florida 33408.

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

7 A. I am employed by Florida Power & Light Company (“FPL” or the
8 “Company”) as the Director of Load Forecasting and Analysis.

9 **Q. Please describe your duties and responsibilities as FPL’s Director of Load
10 Forecasting and Analysis.**

11 A. I am responsible for the development of FPL’s peak demand, energy,
12 customer and economic forecasts.

13 **Q. Please describe your educational background and professional
14 experience.**

15 A. I hold a Bachelor of Arts (“B.A.”) degree with honors in economics from the
16 University of Maryland and a Master of Arts (“M.A.”) degree in economics
17 from Northwestern University. In 2005 I received a Doctorate in Business
18 Administration (“D.B.A.”) from Nova Southeastern University. I began my
19 career with FPL in 1983 as an Assistant Economist. I have since held a
20 variety of positions in the forecasting, planning, and regulatory areas. I
21 assumed my current position in 2007. I have received designation as a
22 certified professional forecaster (“CPF”) from the Institute of Business

1 Forecasting and Planning and am a member of the National Association of
2 Business Economists.

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

4 A. Yes. I am sponsoring the following exhibits:

- 5 • RM-1 Minimum Filing Requirements Sponsored and Co-sponsored by
6 Dr. Rosemary Morley
- 7 • RM-2 Weather-normalized Calendar Net Energy for Load

8 **Q. Are you sponsoring or co-sponsoring any Minimum Filing Requirements**
9 **(“MFRs”) filed in this case?**

10 A. Yes. Exhibit RM-1 shows my sponsorship and co-sponsorship of MFRs.

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

12 A. The purpose of my testimony is to describe FPL’s load forecasting process,
13 identify the underlying methodologies and assumptions, and review the results
14 of FPL’s forecasts. These forecasts include forecasts of net energy for load,
15 retail delivered sales, peak demands and customers and sales by revenue class.

16 **Q. Please summarize your testimony.**

17 A. My testimony begins by providing an overview of FPL’s load forecast. The
18 load forecast presented in this case is FPL’s official company forecast for all
19 planning purposes, including the Need Determination for the Modernization
20 of Port Everglades (Docket No. 110309-EI). FPL’s load forecasting process
21 relies on statistically sound methods and inputs from leading industry experts.
22 Moreover, FPL has a proven record of developing accurate, reliable forecasts.
23 The fact that actual weather-normalized 2010 net energy for load was within

1 0.3% of FPL's forecasted net energy for load projected in the last rate case is
2 evidence of FPL's proven track record in this area.

3
4 My testimony then addresses the specifics of FPL's forecast of customers and
5 sales. Overall, FPL's forecast represents a balanced view based on the
6 assumption of moderate, but positive customer and sales growth. Although
7 below the record-setting pace reached during the housing boom, the
8 forecasted customer growth in 2013 is projected to be the company's highest
9 since 2007. By 2013, a cumulative increase of almost 105,000 customers
10 since 2010 is projected. Likewise, the forecasted growth rates in weather-
11 normalized net energy for load in 2012 and 2013 are the highest growth rates
12 since 2006. Retail delivered sales are expected to follow a similar pattern
13 with weather-normalized retail delivered sales in 2013 also increasing at its
14 fastest rate since 2006.

15
16 My testimony next discusses the methodologies supporting FPL's forecast of
17 customers and sales by revenue class, along with FPL's forecast of peak
18 demands. These forecasts are consistent with the forecasts of total company
19 sales and customers presented in this testimony. In addition, the forecasts of
20 customers and sales by revenue class are based on sound statistical methods
21 and inputs provided by industry experts. The same reliance on sound
22 statistical methods and inputs provided by industry experts holds true for
23 FPL's forecast of peak demands. FPL's forecast of customers, sales, and peak

1 demands all rely on a consistent set of assumptions regarding weather, the
2 economy, and other critical drivers.

3

4 My testimony concludes by presenting FPL's inflation forecast. FPL relies on
5 industry expert, IHS Global Insight, as the source for its inflation forecast.

6 This forecast calls for a 1.9% increase in the consumer price index in 2012
7 and a 2.0% increase in 2013. These forecasted increases are consistent with
8 the consensus view that while inflation is likely to remain low, we can
9 continue to expect some increases in the overall level of prices over the next
10 few years.

11

12

II. GENERAL OVERVIEW

13

14 **Q. Please describe the objective of FPL's load forecasting process.**

15 **A.** The objective of FPL's load forecast is to project future levels of customer
16 growth, net energy for load, and peak demands. Net energy for load is a
17 measure of electric sales which takes into account the Megawatt Hours
18 ("MWh") FPL generates and the net flow of interchange sales into and out of
19 the FPL system. Peak demands refer to the highest hourly integrated net
20 energy for load in a given period, for example, a year or month.

21

1 **Q. Historically, what criteria has the FPSC used in evaluating utilities' load**
2 **forecasts?**

3 A. Historically, the FPSC has evaluated utilities' load forecasts based on the use
4 of statistically sound forecasting methods and reasonable input assumptions
5 (Docket Nos. 110018-EU, 080317-EI, 080148-EI, 040817-EI and 020262-EI).
6 The FPSC has also considered whether a load forecast is applied consistently,
7 that is, whether a load forecast used for one purpose, such as a rate filing, is
8 the same forecast used for other purposes, such as generation planning
9 (Docket No. 080317-EI). A consistently used forecast suggests a solid and
10 unbiased set of forecasting assumptions and methodologies which can be
11 relied upon for multiple purposes. Additionally, the FPSC has considered
12 whether a load forecast appears reasonable given historical trends (Docket
13 Nos. 080317-EI, 080148-EI, 040817-EI, and 020262-EI). Finally, the FPSC
14 has considered whether the utility has a record of providing accurate, reliable
15 forecasts (Dockets Nos. 920324-EI and 910890-EI).

16 **Q. Does the load forecast supported by FPL in this proceeding meet these**
17 **criteria?**

18 A. Yes, the load forecast FPL is supporting in this case meets the criteria the
19 FPSC has historically used in evaluating utilities' load forecasts. The load
20 forecast supported by FPL should be approved in this proceeding.

21

1 **Q. Does the load forecast supported by FPL in this proceeding rely on**
2 **statistically sound methods?**

3 A. Yes, the load forecast supported by FPL in this proceeding relies on
4 statistically sound methods. FPL relies on econometrics as the primary tool
5 for forecasting customer growth, net energy for load, and peak demands. An
6 econometric model is a numerical representation, obtained through statistical
7 estimation techniques, of the degree of relationship between a dependent
8 variable, e.g., the level of net energy for load, and the independent
9 (explanatory) variables. A change in any of the independent variables will
10 result in a corresponding change in the dependent variable. On an historical
11 basis, econometric models have proven to be highly effective in explaining
12 changes in the level of customer or load growth. FPL has consistently relied
13 on econometric models for various forecasting purposes, and the modeling
14 results have been reviewed and accepted by this Commission in past
15 proceedings.

16 **Q. Does the load forecast supported by FPL in this proceeding incorporate**
17 **reasonable input assumptions?**

18 A. Yes, the load forecast supported by FPL in this proceeding incorporates
19 reasonable input assumptions. FPL has found that population growth,
20 weather, the economy, and changes in the appliance stock and efficiency
21 standards are the primary drivers of future electricity needs. Accordingly, the
22 models used to forecast customer growth, net energy for load, and peak
23 demand rely on independent variables representing these various drivers.

1 Moreover, FPL relies on leading industry experts for projections of these
2 independent variables. Population projections are produced by the University
3 of Florida’s Bureau of Economic and Business Research (“BEBR”) in
4 conjunction with the Office of Economic and Demographic Research
5 (“EDR”) of the state legislature. The projected economic conditions are from
6 IHS Global Insight, a reputable economic forecasting firm. Estimates of
7 changes in the appliance stock and efficiency standards are provided by
8 ITRON, one of the leading consultants on energy issues. Independent
9 variables based on inputs from each of these respected industry experts have
10 proven to be statistically significant factors influencing FPL’s net energy for
11 load and peak demands.

12 **Q. Is the load forecast supported in this proceeding FPL’s official load**
13 **forecast for all business purposes?**

14 A. Yes. The load forecast supported in this proceeding is the company’s official
15 forecast for all planning and budgeting purposes. Consequently, it is the same
16 forecast utilized for generation planning purposes, including the Need
17 Determination for the Modernization of Port Everglades (Docket No. 110309-
18 EI). It is also the same forecast utilized in the mid-course correction to FPL’s
19 2012 fuel adjustment factors in Docket No. 110001-EI.

20 **Q. Is the load forecast that FPL supports in this proceeding reasonable given**
21 **historical trends?**

22 A. Yes. FPL’s load forecast is reasonable given historical trends. The projected
23 levels of net energy for load in 2012 and 2013 are well within the range

1 recently experienced. Overall, FPL's load forecast represents a balanced view
2 showing modest, but positive increases in customers and sales.

3 **Q. Does FPL have a proven record of providing accurate, reliable forecasts?**

4 A. Yes. For example, FPL forecasted net energy for load of 110,207 Gigawatt
5 Hours ("GWh") for the fiscal year 2010 in the last rate case. This projection
6 was within 0.3% of actual weather-normalized net energy for load for the
7 year. This represents an excellent degree of forecasting accuracy and supports
8 FPL's forecasting methodology.

9 **Q. Are actual weather-normalized sales the appropriate gauge of forecasting
10 accuracy?**

11 A. Yes. Actual weather-normalized sales are a better reflection of trends in
12 electric usage than the unadjusted level of actual sales, which may be
13 influenced by erratic and unpredictable weather fluctuations. Quite simply,
14 actual weather-normalized sales are based on long-term or "normal" weather
15 conditions for a given month. Likewise, forecasted electric sales are based on
16 the assumption of normal weather conditions, that is, the weather conditions
17 which have occurred on average over the long-term. A variance analysis
18 comparing actual weather-normalized sales with forecasted sales creates an
19 "apples to apples" comparison. Unlike other inputs, the sales forecast is
20 developed with the understanding that actual weather conditions will likely
21 deviate from the normal conditions assumed in the forecast. This makes the
22 assumption of normal weather conditions unique relative to other inputs into
23 the sales forecast, such as economic conditions, customer growth, and so

1 forth. As a result, it is standard industry practice to use actual weather-
2 normalized sales in determining forecasting accuracy. For example, electric
3 utilities in Florida have routinely relied on weather-normalized sales variances
4 in their rate filings consistent with the FPSC's policy that rates be based on
5 weather-normalized sales (Docket No. 100410-EI). However, the use of
6 weather-normalized sales variances is not limited to rate proceedings. The
7 Florida Reliability Coordinating Council states that utilities should use
8 weather-normalized variance as the appropriate measure of forecasting
9 accuracy.

10 **Q. Is FPL's method of computing actual weather-normalized sales consistent**
11 **with standard business practices?**

12 A. Yes. FPL relies on a twenty year history in order to determine normal
13 weather patterns. This is the same time period utilized by Gulf Power and
14 Tampa Electric Company in their most recent rate proceedings. It should also
15 be noted that the twenty year horizon is also the same period utilized to
16 determine weather conditions in FPL's load forecast. Thus, the method of
17 computing actual weather-normalized sales is consistent with the weather
18 outlook assumed in the load forecast utilized for all planning purposes,
19 including long-term generation planning.

20 **Q. Did the Commission adopt FPL's 2010 forecast of net energy for load in**
21 **the last rate case?**

22 A. No. The FPSC in the last rate case approved one of the alternative forecasts
23 offered by the Office of Public Counsel. The FPSC approved forecast also

1 included the assumption of normal weather, but projected a higher level of net
2 energy for load in 2010 relative to FPL's forecast. Specifically, the FPSC
3 approved forecast for 2010 was 111,300 GWh, 1.0% higher than the forecast
4 filed by FPL. The FPSC approved forecast exceeded actual weather-
5 normalized net energy for load for the fiscal year by 1.3%. As a result, the
6 FPSC approved forecast was a less accurate prediction of actual weather-
7 normalized sales than was FPL's forecast.

8 **Q. Was the load forecast approved by the FPSC in the last rate case**
9 **approved for use in any other docket or for any other purpose?**

10 A. No. The load forecast approved by the FPSC in the last rate case was not
11 approved for use in any other docket or for any other purpose. Consequently,
12 the load forecast approved by the FPSC for rate making purposes was not
13 consistent with the load forecast used for other planning purposes, including
14 long-term generation planning.

15 **Q. If the FPSC approves a load forecast other than the one supported by**
16 **FPL in this proceeding, should the approved load forecast's impact on**
17 **generation planning be considered?**

18 A. Yes. Maintaining consistency and integrity in the load forecasting process
19 would suggest that the same load forecast used for rate making purposes
20 should be used for other purposes, including generation planning. This is the
21 case with the load forecast FPL is supporting in this case. If the FPSC
22 approves a load forecast other than the one supported by FPL in this

1 proceeding, it would be appropriate to consider what impact the approved
2 forecast might have on generation planning.

3

4

III. CUSTOMER GROWTH FORECAST

5

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

7 A. FPL currently serves over 4.5 million customers. This represents a population
8 of almost nine million people and includes customers in thirty-five Florida
9 counties. FPL's long-term customer growth has been substantial. The
10 number of customers has doubled since 1981. Even with the economic
11 slowdown over the last decade the number of customers has increased by
12 more than 20% since 1999.

13 **Q. Based on projections for 2012 what is FPL's cumulative customer growth
14 since 1985?**

15 A. FPL is projecting to serve approximately 4.6 million customers in 2012, an
16 increase of 75% from the 2.6 million customers served in 1985. This
17 represents a cumulative gain of approximately two million customers since
18 1985.

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

20 A. The growth of customers in FPL's service territory is a primary driver of the
21 growth in the level of net energy for load and peak demand. In order to
22 project the growth in the number of customers, FPL utilized the August 2011

1 Florida population projections from EDR, the most current projections
2 available at the time the forecast was developed.

3 **Q. What rate of population growth is EDR projecting in its August 2011**
4 **forecast?**

5 A. In the near term, EDR is forecasting a continuation of the low rates of
6 population growth Florida has experienced in recent years. Specifically, a
7 consistent 0.6% annual rate of population growth is projected between 2010
8 and 2012. By 2013, EDR is projecting a higher 0.9% rate of population
9 growth. Indeed, EDR is projecting that 2013 will have the state's highest
10 population growth in six years with an annual increase of about 171,000.
11 Cumulatively, EDR is projecting a population increase of more than 390,000
12 between 2010 and 2013.

13 **Q. How does EDR's August 2011 population forecast compare with their**
14 **prior projections?**

15 A. In the short-run, EDR's August 2011 population forecast is somewhat lower
16 than the projections that had been developed in February 2011 and November
17 2010. Nevertheless, long-term percentage growth rates are comparable under
18 the November 2010, February 2011 and August 2011 population forecasts.

19 **Q. Has EDR revised its projected population growth since August 2011?**

20 A. No. Although EDR held a population conference on November 30, 2011, it
21 elected not to make any changes to the rates of population growth projected
22 for 2012 or 2013. EDR did revise its population estimate for the year 2011,

1 but this change resulted in a trivial increase of 230 Floridians or around
2 0.001% of the state's population base.

3 **Q. What is FPL's forecasted customer growth?**

4 A. The number of customers is expected to grow by 32,124 or 0.7% in 2012.
5 With higher population growth, the number of customers is then projected to
6 increase by 45,975 or 1.0% in 2013. In 2013, the number of customers is
7 projected to reach 4,625,149, resulting in a cumulative increase of almost
8 105,000 customers since 2010.

9 **Q. How do FPL's projected customer growth rates compare with the growth
10 rates experienced in recent years?**

11 A. FPL's projected customer growth rates are significantly higher than the
12 depressed levels of customer growth experienced during the recent economic
13 downturn. FPL's customer growth averaged less than 8,000 per year between
14 2007 and 2010 versus the growth of 32,124 projected for 2012 and 45,975
15 projected for 2013. In fact, the forecasted customer growth in 2013 is
16 projected to be the company's highest since 2007.

17 **Q. Is FPL's projected customer growth reasonable?**

18 A. Yes. The forecast incorporates the most recent EDR population projections
19 available at the time the forecast was developed, relies on the forecasting
20 methods previously reviewed and accepted by the Commission, and is
21 consistent with historical trends in customer growth.

22

1 **Q. What is FPL's forecast of new service accounts?**

2 A. FPL is projecting 32,582 new service accounts ("NSAs") in 2012 and 41,187
3 NSAs in 2013. While somewhat low by historical standards, this represents
4 an increase from the 24,101 NSAs recorded in 2011. The cumulative number
5 of NSAs for the years 2011 through 2013 is projected to be 97,870. FPL's
6 forecast of NSAs takes into account projected trends in construction activity
7 and recent actuals. It is also consistent with the pattern of gradual
8 improvement indicated by FPL's customer forecast.

9

10 **IV. FORECAST OF NET ENERGY FOR LOAD**

11

12 **Q. What are the primary determinants of net energy for load?**

13 A. In addition to customer growth, the primary determinants of net energy for
14 load include the economy, weather, changes in appliance stock and efficiency
15 standards and the addition of new wholesale contracts. Accordingly, FPL
16 forecasts energy use per customer, defined as net energy for load divided by
17 the number of customers, using an econometric model with explanatory
18 variables representing these factors.

19 **Q. How are weather conditions incorporated into the energy use per
20 customer model?**

21 A. The weather variables included in the energy use per customer model are
22 cooling degree hours using a base of 72 degrees and winter heating degree
23 days using a base of 66 degrees. In addition, a second measure of heating

1 degree days is included using a base of 45 degrees in order to capture the
2 additional heating load resulting from sustained periods of unusually cold
3 weather. As previously discussed, the forecast assumes normal weather
4 conditions based on twenty year historical averages.

5 **Q. Please describe economic conditions in Florida in recent years.**

6 A. The most recent recession, often referred to as the Great Recession, took an
7 especially heavy toll on the Florida economy. Although the Great Recession
8 officially started in December 2007 and ended in June 2009 according to the
9 National Bureau of Economic Research, the recession's impact on Florida
10 extended well beyond this time period. Beginning in July 2007 and extending
11 until September 2010, Florida experienced a persistent pattern of year-over-
12 year declines in employment. While job losses were initially concentrated in
13 the construction sector, ultimately almost every industry was affected.
14 Cumulatively, almost 900,000 jobs were lost in Florida during this downturn,
15 equivalent to more than 10% of the workforce.

16 **Q. What economic outlook is assumed in FPL's energy use per customer
17 model?**

18 A. FPL's economic assumptions are provided by IHS Global Insight, one of the
19 leading economic forecasting firms. While acknowledging the recovery has a
20 long way to go, IHS Global Insight's outlook on the Florida economy is one
21 of "cautious optimism." Florida added more than 50,000 jobs in the first eight
22 months of 2011, leading IHS Global Insight to conclude that the state's labor
23 market is on the mend. Indeed, by year-end 2011 Florida was adding jobs at

1 an estimated annual rate of more than 100,000, more than in any year since
2 2006. While significant problems persist in the housing market, IHS Global
3 Insight's forecast indicates a positive, if somewhat modest, economic growth
4 for the state. IHS Global Insight's forecast anticipates that the moderately
5 positive increases in Florida's real per capita income experienced in 2011 will
6 continue into 2012 and 2013 while the employment growth will also continue
7 to steadily improve.

8 **Q. Does IHS Global Insight's forecast assume a double-dip recession?**

9 A. No. The base case forecast from IHS Global Insight incorporated into the
10 sales forecast does not assume a double-dip recession. A double-dip recession
11 refers to two recessions occurring in close proximity to each other. As noted
12 earlier, the Great Recession officially occurred between December 2007 and
13 June 2009. While the effects of the Great Recession continued to linger for
14 months, particularly in Florida, national output, as measured by the real gross
15 domestic product ("GDP"), has registered positive growth since the third
16 quarter of 2009. IHS Global Insight estimates real GDP growth of 1.8% in
17 2011 followed by growth of 1.6% in 2012 and 2.5% in 2013. These positive
18 growth rates in real GDP, although modest by historical standards, assume
19 that the economy will not lapse into another recession. Nevertheless, IHS
20 Global Insight does acknowledge that there is a risk of an outright contraction
21 in the economy. As of November 2011, IHS placed the risks of a double-dip
22 recession at 40%. Thus, there is a risk that the economic assumptions
23 incorporated into the sales forecast are too optimistic. If economic

1 assumptions prove to be too optimistic, then the actual level of weather-
2 normalized sales is likely to be below the level presented in FPL's forecast.

3 **Q. How are economic conditions incorporated into the energy use per**
4 **customer model?**

5 A. The impact of the economy is captured through a composite variable based on
6 Florida real per capita income and the percent of the state's population that is
7 employed. Thus, this composite economic variable encompasses two of the
8 primary drivers of the economy: employment and income levels. Florida's
9 real personal income and employment levels are provided by IHS Global
10 Insight. The population forecast is provided by EDR. Due to heavy
11 employment losses during the recession, this composite variable declined
12 between 2007 and 2010. With a modest improvement in the economy, a 1.6%
13 increase in this variable is estimated for 2011, followed by 2.2% growth in
14 2012. By 2013, a 2.4% increase in the Florida real per capita income
15 weighted by the percent of the population employed is projected. This would
16 be the strongest increase in this variable since 2006.

17 **Q. Does FPL use any other measures of the economy in forecasting energy**
18 **use per customer?**

19 A. Yes. FPL uses two additional measures of the economy in forecasting energy
20 use per customer. The first measure is designed to capture the influence the
21 housing market has on the economy and ultimately on energy use per
22 customer. The second is designed to capture the impact that variations in
23 energy prices have on electricity usage.

1 **Q. Why does FPL use a measure of the housing market in forecasting energy**
2 **use per customer?**

3 A. The increase in empty homes resulting from the housing crisis was a
4 significant factor in the Great Recession recently impacting our state. As the
5 housing market slowly recovers and these empty homes are gradually re-
6 occupied, a positive impact on the economy is expected. To capture this
7 trend, a proxy for empty homes was developed based on the ratio of inactive
8 meters to total customers. The use of this proxy is supported by FPL's
9 econometric model which shows that the ratio of inactive meters to total
10 customers is a statistically significant factor in the determination of energy use
11 per customer. FPL's forecast of the ratio of inactive meters to total customers
12 is based on its forecast of total customers and inactive meters. The forecast of
13 total customers is based on the econometric model previously discussed. The
14 forecast of inactive meters is based on the historical relationship between
15 customers, NSAs and inactive meters.

16 **Q. What does FPL's forecast of the ratio of inactive meters to total**
17 **customers show?**

18 A. FPL's forecast shows a continued decline in the ratio of inactive meters to
19 total customers. This ratio peaked at 7.1% in September 2009 during the
20 height of the housing crisis. With small but steady decreases in the number of
21 empty homes, the ratio of inactive meters to total customers dropped to 6.1%
22 by the end of 2011. This steady improvement in the housing market is
23 projected to continue with the ratio of inactive meters to total customers

1 falling to 5.7% by the end of 2012 and 5.1% by the end of 2013. As empty
2 homes are re-occupied, consumer confidence is likely to increase as should
3 customers' willingness to spend on all goods and services, including
4 electricity. As a proxy for empty homes, the decline in the ratio of inactive
5 meters to total customers is projected to have a positive impact on use per
6 customer.

7 **Q. How does FPL measure the impact that rising energy prices have on**
8 **electric consumption?**

9 A. FPL uses IHS Global Insight's forecast of the consumer price index for energy
10 to measure the impact rising energy prices have on electric consumption. IHS
11 Global Insight shows a sharp 15% increase in the consumer price index for
12 energy in 2011. However, price increases are expected to moderate and IHS
13 Global Insight is projecting a 1.2% increase in the consumer price index for
14 energy in 2012 followed by a 3.7% increase in 2013.

15 **Q. How does FPL capture the influence of changes in the appliance stock**
16 **and efficiency standards in its forecast?**

17 A. FPL includes a variable on energy efficiency standards in its energy use per
18 customer model based on end-use estimates developed by ITRON, a leading
19 energy consulting firm. ITRON's estimates quantify the reduction in energy
20 use resulting from federal efficiency standards, such as those codified in the
21 Energy Policy Act of 2005 ("EPAAct") and the Energy Independence and
22 Security Act of 2007 ("EISA"). The variable in the energy use per customer
23 model is based on weather-sensitive end-use efficiency estimates from

1 ITRON. As is the case for all variables in the energy use per customer model,
2 the net impact on sales is based on the value of the independent variable (in
3 this case weather-sensitive end-use efficiency estimates) and the model
4 coefficient. In the case of energy efficiency standards, the input from ITRON
5 represents the savings from specific weather-sensitive appliance standards
6 based strictly on an engineering analysis of the equipment at issue. The net
7 impact on usage, including any behavioral changes, is captured by applying
8 the model coefficient to the input from ITRON. It should be noted that the
9 impact from energy efficiency standards as discussed here do not include the
10 impact from utility-sponsored demand-side management (“DSM”) programs.
11 The impact of incremental DSM is discussed later in my testimony.

12 **Q. How is the output from the energy use per customer model incorporated**
13 **into the net energy for load forecast?**

14 A. The output from the energy use per customer model is multiplied by the
15 forecasted number of customers. The result is a preliminary estimate of net
16 energy for load. Incremental wholesale loads are then added to this
17 preliminary estimate of the forecasted net energy for load.

18 **Q. Why is the forecast adjusted to include incremental wholesale loads?**

19 A. The forecast is adjusted for incremental wholesale loads in order to reflect
20 additional load not otherwise reflected in FPL’s historical load levels resulting
21 from new or modified wholesale contracts. The largest of these contracts is
22 the power sales contract to Lee County, a not-for-profit electric distribution
23 cooperative serving a five-county area in Southwest Florida. In August 2007,

1 the parties came to an agreement by which FPL became Lee County's power
2 supplier beginning in 2010. Based on information provided by the customer,
3 Lee County's contribution to FPL's net energy for load is forecasted to grow
4 from an estimated 1,198 GWh in 2011 to 1,224 GWh in 2012 and 1,243 GWh
5 in 2013. Projections of Lee County's contribution to net energy for load are
6 included as a line item adjustment increasing FPL's forecasted net energy for
7 load.

8 **Q. Are adjustments made for any other new or expanded wholesale**
9 **contracts?**

10 A. Yes. FPL has been serving the Florida Keys Electric Cooperative under a
11 partial requirements service agreement since January 1992. Effective May
12 2011, FPL began serving the Florida Keys Electric Cooperative as a full
13 requirements customer. FPL is expected to serve approximately 35 MW of
14 additional load as a result of the Florida Keys Electric Cooperative's change
15 from a partial requirements customer to a full requirements customer. This
16 additional load from the Florida Keys Electric Cooperative is expected to
17 result in an additional 213 GWh of sales which is also included as a line item
18 adjustment increasing the net energy for load forecast. Lastly, FPL began
19 providing full requirements service to the City of Wauchula effective October
20 2011. Service to the City of Wauchula is expected to add an additional 66
21 GWh to FPL's net energy for load.

22

1 **Q. Are adjustments also made to reflect the expected termination of any**
2 **existing wholesale contracts?**

3 A. Yes. Existing contracts with the City of Key West and Metro-Dade County
4 are scheduled to terminate in 2013. The termination of these contracts is
5 expected to reduce the 2013 forecast of net energy for load by 144 GWh. On
6 balance, the combination of new, expanded and terminated wholesale
7 contracts is expected to add 1,379 GWh to the 2013 forecast of energy for
8 load, an increase of about 1.2%.

9 **Q. Are there any other adjustments to the net energy for load forecast in**
10 **addition to those for incremental wholesale load?**

11 A. Yes. FPL includes adjustments for the incremental load resulting from plug-
12 in electric vehicles and from the Economic Development Rider and Existing
13 Facility Economic Development Rider. In addition, FPL reduces net energy
14 for load based on the incremental impact of DSM programs.

15 **Q. Why is an adjustment being made for plug-in electric vehicles?**

16 A. The forecast is adjusted for plug-in electric vehicles in order to reflect
17 additional load not otherwise captured in FPL's historical load levels. The
18 load from plug-in electric vehicles in 2011 is estimated to be only about 6
19 GWh. By 2013, the load from plug-in electric vehicles is projected to
20 increase to almost 38 GWh, an increase of about 500%.

21 **Q. How is the load from plug-in electric vehicles projected?**

22 A. Projections on the number of plug-in electric vehicles in FPL's service
23 territory were developed by the company's Customer Service Business Unit.

1 Projections of the U.S. market for plug-in electric vehicles were first
2 developed based on a review of multiple forecasts from leading experts and
3 discussions with knowledgeable professionals in the automotive industry.
4 FPL's share of the U.S. market for plug-in electric vehicles was then
5 estimated based on the share of U.S. hybrid electric vehicles (excluding plug-
6 in electric vehicles) that is currently located in FPL's service area. The
7 contribution to net energy for load from plug-in electric vehicles was then
8 derived from the vehicle forecast using an estimate of kWh per vehicle.

9 **Q. Why are adjustments being made for the Economic Development Rider**
10 **and Existing Facility Economic Development Rider?**

11 A. Under both the Economic Development Rider and Existing Facility Economic
12 Development Rider, customers are provided discounts for adding new or
13 incremental load. To qualify for either rider, customers are required to verify
14 that the availability of the rider was a significant factor in their location or
15 expansion decision. The Economic Development Rider was modified in July
16 2011 to allow customers with new or incremental load of at least 350 kW to
17 qualify for the rider. Customers had previously been required to have at least
18 5,000 kW of new or incremental load to qualify for the rider and there was
19 very limited customer participation. The lower threshold is expected to result
20 in a significant increase in customer participation on the rider. Effective July
21 2011, a new rider specifically for customers adding at least 350 kW of new
22 load by occupying a currently vacant premise was also approved. The
23 Economic Development Rider and Existing Facilities Economic Development

1 Rider are expected to add incremental load to net energy for load between
2 2013 and 2016. Based on estimates developed by FPL's Economic
3 Development group, in conjunction with the Customer Service and Regulatory
4 Business Units, the Economic Development Rider and Existing Facilities
5 Economic Development Rider are projected to add about 93 GWh to net
6 energy for load in 2013.

7 **Q. Why are adjustments being made for the impact of incremental DSM?**

8 A. Adjustments are being made for the impact of incremental DSM in order to
9 reflect reductions in load not otherwise reflected in history. The effects of
10 DSM energy efficiency programs occurring through 2011 are assumed to be
11 embedded in actual usage data for forecasting purposes. The impact of
12 incremental DSM that FPL plans to implement in the future is treated as a line
13 item reduction to the forecast. The impact of incremental DSM is consistent
14 with Commission Order No. PSC-11-0346-PAA-EG issued in Docket No.
15 100155-EG.

16 **Q. Have adjustments to the net energy for load forecast been incorporated
17 into prior forecasts?**

18 A. Yes. The 2011 Ten Year Site Plan forecast incorporated adjustments for
19 incremental wholesale load and new load resulting from plug-in electric
20 vehicles. In fact, these adjustments have been incorporated into FPL's long
21 term forecast since the 2009 Ten Year Site Plan. In addition, the resource
22 planning process has treated incremental DSM as a line item reduction to the
23 sales forecast for several years. Because the changes to the Economic

1 Development Rider and the addition of the Existing Facilities Economic
2 Development Rider were only recently approved, their impact was not
3 incorporated into prior forecasts.

4 **Q. What is FPL's forecasted net energy for load?**

5 A. FPL is forecasting net energy for load of 111,021 GWh in 2012 or an increase
6 of about 1.4% over actual weather-normalized 2011. Moderate growth is
7 expected to continue in 2013, with net energy for load increasing by 1.1% to
8 reach 112,201 GWh.

9 **Q. How does the level of FPL's forecasted net energy for load compare with**
10 **recent actuals?**

11 A. The level of forecasted net energy for load for 2012 and 2013 is projected to
12 remain below the historical high point in sales attained prior to the Great
13 Recession, but above the low point in sales reached in 2009. As Exhibit RM-
14 2 shows, actual weather-normalized net energy for load reached its high point
15 in 2007 before falling to its recent lowest point two years later during the
16 height of the Great Recession. The forecasted net energy for load for 2012 is
17 projected to be almost 2,000 GWh higher than the low point in sales reached
18 in 2009. By 2013, the forecasted net energy for load is projected to be 3,169
19 GWh above 2009 sales. However, even with this growth, the forecasted net
20 energy for load in 2013 is more than 2,000 GWh below the historical high
21 point in sales reached in 2007.

22

1 **Q. How do FPL's forecasted growth rates in net energy for load compare**
2 **with recent actuals?**

3 A. The forecasted growth rates in net energy for load in 2012 and 2013 are the
4 highest growth rates since 2006. Weather-normalized net energy for load is
5 forecasted to grow by 1.4% in 2012 and 1.1% in 2013. By contrast, actual
6 weather-normalized net energy for load declined in 2008, 2009 and 2011, and
7 the 0.8% increase in actual weather-normalized sales in 2010 was due largely
8 to the sales to the Lee County Cooperative.

9 **Q. Is FPL's methodology for forecasting net energy for load the same**
10 **methodology utilized by the company in its last rate case?**

11 A. Fundamentally, yes. Both forecasts rely on econometric models and inputs
12 representing the major factors influencing electric sales, including weather,
13 the economy, energy efficiency standards and so forth. Some refinements
14 have been made. For example, the impact of empty homes and energy
15 efficiency standards were addressed in the last rate case through out-of-model
16 adjustments. In the current forecast, empty homes and energy efficiency
17 standards are incorporated as specific variables in the model. Thus, the
18 impact of empty homes and energy efficiency standards in the current forecast
19 is statistically supported and determined by the econometric model used to
20 forecast sales.

21

1 **Q. Is FPL's net energy for load forecast based on an econometric model with**
2 **a strong goodness of fit and a high degree of statistical significance?**

3 A. Yes. Goodness of fit refers to how closely the predicted values of a model
4 match the actual observed values. The energy use per customer model used to
5 forecast FPL's net energy for load has a strong goodness of fit as
6 demonstrated by the model's adjusted R square of 99.4%. This means that
7 99.4% of the variability in energy use per customer is explained by the model.
8 In addition, the coefficients for all of the variables have the expected sign (+/-)
9 and are statistically significant. This indicates that the variables influencing
10 net energy for load have been properly identified and their predicted impact is
11 statistically sound. Finally, the model has a Durbin-Watson statistic of 2.062,
12 indicating the absence of significant autocorrelation. The absence of
13 significant autocorrelation is a desirable quality in a well-constructed model.
14 Overall, the model has excellent diagnostic statistics.

15 **Q. Is FPL's net energy for load forecast reasonable?**

16 A. Yes. FPL's net energy for load forecast is based on assumptions developed by
17 industry experts, is consistent with historical patterns, and relies on
18 methodologies which have proven to be accurate based on actual weather-
19 normalized net energy for load. FPL's net energy for load forecast is based on
20 an econometric model with a strong goodness of fit and a high degree of
21 statistical significance. FPL is confident that the relationship that exists
22 between the level of net energy for load and the economy, weather, customers,

1 energy efficiency standards, and other variables have been properly assessed
2 and numerically quantified.

3

4

V. DELIVERED AND BILLED SALES

5

6 **Q. How do delivered sales differ from billed sales?**

7 A. Because meters are read throughout the month, billed sales in any given
8 month reflect a mix of usage from the current and prior month. Delivered
9 sales, on the other hand, are based on customer usage in the current month.
10 Delivered sales are derived from net energy for load less line losses and
11 company use. Delivered sales are a component of billed sales, but billed sales
12 also reflect the changes in unbilled sales (i.e. sales delivered in one month, but
13 not billed until the following month).

14 **Q. How is FPL's forecast of delivered sales developed?**

15 A. Historical patterns in monthly losses, including line losses and company use,
16 are first examined. Based on recent actuals, monthly loss factors are then
17 projected. A preliminary estimate of delivered sales was then developed by
18 applying these projected monthly loss factors to the forecast of net energy for
19 load. An adjustment was then made for the decrease in line losses expected as
20 a result of the deployment of smart meters.

21

1 **Q. Why is the deployment of smart meters expected to result in a reduction in**
2 **line losses?**

3 A. The deployment of smart meters is expected to result in a number of
4 efficiency improvements, including better theft detection. As a result of these
5 efficiency improvements, line losses, which include theft and unaccounted for
6 usage, are expected to be lower.

7 **Q. What impact is this reduction in line losses expected to have on delivered**
8 **sales?**

9 A. A 0.29% increase in delivered sales is expected in 2013 as a result of the
10 reduction in line losses associated with the deployment of smart meters. A
11 very small 0.02% decline in net energy for load is also expected due to a
12 reduction in usage by non-paying customers.

13 **Q. How is FPL's forecast of billed sales developed?**

14 A. Billed sales are based on delivered sales plus the unbilled sales for the prior
15 month minus the unbilled sales for the current month. Unbilled sales are
16 estimated based on the historical pattern between unbilled sales and net
17 energy for load by month.

18 **Q. Is the reduction in line losses associated with the deployment of smart**
19 **meters also expected to have an impact on billed sales?**

20 A. Yes. Allowing for lags in the billing cycle, there is ultimately a one-for-one
21 relationship between delivered sales and billed sales. Hence, the decrease in
22 line losses resulting from the deployment of smart meters is also expected to
23 result in an increase in billed sales. As a result of the reduction in line losses

1 associated with the deployment of smart meters any rate relief approved in
2 this proceeding will be spread over more kWh resulting in a smaller
3 cents/kWh increase.

4 **Q. What is FPL's forecast of retail delivered sales?**

5 A. Retail delivered sales are expected to reach 101,757 GWh in 2012, a 1.1%
6 increase from the weather-normalized level estimated for 2011. In 2013,
7 retail delivered sales are expected to reach 103,315 GWh, a 1.5% increase
8 from 2012.

9 **Q. How does FPL's forecast of retail delivered sales compare with recent
10 actuals?**

11 A. The 1.5% increase in retail delivered sales forecasted for 2013 would be the
12 largest increase in weather-normalized retail delivered sales since 2006, a
13 span of seven years. Relative to recent actuals, the growth in retail weather-
14 normalized sales in 2013 reflects moderately higher increases in customer
15 growth and moderate improvements in the economy.

16

17 **VI. CUSTOMERS AND SALES BY REVENUE CLASS**

18

19 **Q. How does FPL forecast customers by revenue class?**

20 A. Econometric models are developed to forecast customers in the residential,
21 commercial, industrial, and street & highway revenue classes. Customer
22 forecasts for the wholesale, railroads, and other revenue classes are based on
23 class-specific information. The residential customer forecast is adjusted for

1 the difference between the sum of the revenue classes and the overall number
2 of customers derived from the total customer model. This adjustment is made
3 to the residential customer forecast because residential customers account for
4 the vast majority of FPL's customer base. By making this adjustment,
5 consistency between the total customer forecast and customer by revenue
6 class forecast is assured. In addition, using the total customer model to
7 project the total customers is preferable to using the summation of the
8 individual revenue class models because the statistical fit of the total customer
9 models equals or exceeds all of the individual revenue class models.

10 **Q. How does FPL forecast billed sales by revenue class?**

11 A. Separate econometric models are developed for the residential, commercial,
12 and industrial revenue classes. Sales forecasts for the wholesale, street &
13 highway lighting, railroads and other revenue classes are based on class-
14 specific information. The residential and commercial sales forecasts are then
15 proportionately adjusted for the difference between the sum of the revenue
16 classes and the overall billed sales derived from the total net energy for load
17 forecast. This adjustment is made to the residential and commercial forecast
18 because residential and commercial customers account for the vast majority of
19 FPL's sales. This adjustment assures consistency within the forecast.

20 **Q. Instead of adjusting residential and commercial sales, would it be**
21 **appropriate to adjust total FPL sales to match the sum of the individual**
22 **revenue class forecasts?**

23 A. No. Total sales is based on an econometric model with a superior statistical

1 fit relative to the individual revenue class models. Therefore, it is reasonable
2 to assume that the forecast of total FPL sales provides a more accurate
3 forecast relative to the sum of the individual revenue class forecasts.

4 **Q. Has FPL previously used this method of assuring consistency by**
5 **adjusting residential and commercial sales so that the sum of the**
6 **individual revenue classes matches total billed sales?**

7 A. Yes. Adjusting residential and commercial sales so that the sum of the
8 individual revenue classes matches total billed sales has been used for a
9 number of years. This method of assuring consistency has been reviewed and
10 accepted by the Commission in multiple proceedings, including Docket No.
11 080677-EI.

12 **Q. Are the assumptions incorporated into the individual sales and customer**
13 **forecasts by revenue class consistent with those used in the total customer**
14 **and total billed sales forecast?**

15 A. Yes. The specific assumptions regarding the weather, population growth and
16 the economy used in the individual sales and customer forecasts by revenue
17 class are consistent with those used in the total customer and total billed sales
18 forecast. As previously discussed, these assumptions are provided by leading
19 industry experts.

20 **Q. Is additional detail available on how the customer and sales forecasts by**
21 **revenue class are developed?**

22 A. Yes. MFR F-5 provides additional detail on the forecasting models
23 supporting the customer and sales forecasts by revenue class.

24

1 **Q. What is FPL's forecast of billed jurisdictional sales?**

2 A. Billed jurisdictional sales or billed retail sales are defined as total billed sales
3 less wholesale billed sales. FPL is forecasting billed jurisdictional sales of
4 101,686 GWh in 2012 and 103,200 GWh in 2013.

5 **Q. Is FPL's forecast of billed jurisdictional sales reasonable?**

6 A. Yes. The forecast is consistent with the forecasts of net energy for load and
7 billed sales previously discussed. The forecast is based on sound statistical
8 methods and inputs provided by industry experts. The forecast is reasonable
9 given historical trends in sales and relies on proven forecasting methods.

10

11

VII. MONTHLY PEAK FORECAST

12

13 **Q. How does FPL forecast monthly peaks?**

14 A. Econometric models are developed to forecast the annual summer and winter
15 peaks. The annual summer peak is assumed to occur in August since that
16 month has historically accounted for the highest percentage of annual summer
17 peak days. The annual winter peak is assumed to occur in January since that
18 month has historically accounted for the highest percentage of annual winter
19 peak days. The monthly peaks for April, May, June, July, September, and
20 October are projected based on each month's historical relationship to the
21 annual summer peak. The monthly peaks for February, March, November,
22 and December are projected based on each month's historical relationship to
23 the annual winter peak.

1 **Q. How does FPL forecast the annual summer peak?**

2 A. FPL uses an econometric model to forecast summer peak per customer. This
3 econometric model includes variables for the weather, the real price of
4 electricity, the economy, and energy efficiency standards. Consistent with the
5 model used to forecast net energy for load, the impact of the economy is
6 captured through a composite variable based on Florida real per capita income
7 and the percent of the state's population that is employed. Likewise, the
8 impact of energy efficiency standards is based on inputs provided by ITRON.
9 The summer peak per customer model also incorporates two weather series:
10 the maximum temperature on the day of the summer peak and the sum of the
11 cooling degree hours during the day prior to the peak day. A preliminary
12 forecast of the annual summer peak is obtained by multiplying the forecasted
13 summer peak per customer from this model by the total number of customers.

14 **Q. Are any adjustments made to the annual summer peak forecast?**

15 A. Yes. The annual summer peak forecast is adjusted for incremental wholesale
16 loads, new load resulting from plug-in electric vehicles and incremental load
17 resulting from the Economic Development Rider and Existing Facilities
18 Economic Development Rider.

19 **Q. Is FPL's summer peak demand forecast based on an econometric model
20 with a strong goodness of fit and a high degree of statistical significance?**

21 A. Yes. Goodness of fit refers to how closely the predicted values of a model
22 match the actual observed values. FPL's summer peak model has a strong
23 goodness of fit as demonstrated by the model's adjusted R square of 92.6%.

1 This means that 92.6% of the variability in the summer peak per customer is
2 explained by the model. In addition, the coefficients for all of the variables
3 have the expected sign (+/-) and are statistically significant. This indicates
4 that the variables influencing the summer peak demand have been properly
5 identified and their predicted impact is statistically sound. Finally, the model
6 has a Durbin-Watson statistic of 2.045 indicating the absence of significant
7 autocorrelation. The absence of significant autocorrelation is a desirable
8 quality in a well-constructed model. Overall, the summer peak model has
9 excellent diagnostic statistics.

10 **Q. How does FPL forecast the annual winter peak?**

11 A. Like the system summer peak model, the winter peak model is also an
12 econometric model. The winter peak model is a per-customer model that
13 includes two weather-related variables: the minimum temperature on the peak
14 day and the square of heating degree hours from the prior day until 9:00 a.m.
15 of the peak day. In addition, the model also includes a term for peaks
16 occurring during the weekends as these tend to be lower than weekday peaks.
17 The projected winter peak load per customer value is multiplied by the total
18 number of customers to derive a preliminary estimate of the forecasted winter
19 peak.

20 **Q. Are the same line item adjustments made to the summer peak forecast**
21 **also made to the winter peak forecast?**

22 A. Yes. The winter peak forecast is adjusted for incremental wholesale loads,
23 new load resulting from plug-in electric vehicles, and incremental load

1 resulting from the Economic Development Rider and Existing Facilities
2 Economic Development Rider.

3 **Q. How are energy efficiency standards treated in the winter peak forecast?**

4 A. ITRON developed estimates of the impact that energy efficiency standards are
5 likely to have on the winter peak, similar to the estimates developed for the
6 summer peak. The historical levels of the winter peak are first increased to
7 remove the historical impact of energy efficiency standards. The winter peak
8 per customer model is based on these adjusted historical levels. The future
9 impact from energy efficiency standards is then treated as a line item
10 adjustment reducing the level of the winter peak forecast.

11 **Q. Is FPL's winter peak demand forecast based on an econometric model
12 with a strong goodness of fit and a high degree of statistical significance?**

13 A. Yes. Goodness of fit refers to how closely the predicted values of a model
14 match the actual observed values. FPL's winter peak model has an adjusted R
15 square of 80.2%, meaning that 80.2% of the variability in the winter peak per
16 customer is explained by the model. This suggests a strong goodness of fit,
17 particularly given that the winter peak tends to be highly volatile from year to
18 year. In addition, the coefficients for all of the variables have the expected
19 sign (+/-) and are statistically significant. This indicates that the variables
20 influencing the winter peak demand have been properly identified and their
21 predicted impact is statistically sound. Finally, the model has a Durbin-
22 Watson statistic of 1.904 indicating the absence of significant autocorrelation.
23 The absence of significant autocorrelation is a desirable quality in a well-

1 constructed model. Overall, the winter peak model has excellent diagnostic
2 statistics.

3 **Q. Are the assumptions incorporated into the annual summer and winter**
4 **peak forecasts consistent with those used in the total customer and total**
5 **billed sales forecast?**

6 A. Yes. The specific assumptions regarding the weather, population growth, and
7 the economy used in the annual summer and winter peak forecasts are
8 consistent with those used in the total customer and total billed sales forecasts.
9 As previously discussed, these assumptions are provided by leading industry
10 experts.

11 **Q. What are FPL's forecasted annual summer and winter peaks?**

12 A. The annual winter peak is projected to reach 20,889 MW in 2012 and 21,101
13 MW in 2013 while the annual summer peak is projected to reach 21,623 MW
14 in 2012 and 21,931 MW by 2013.

15 **Q. Are FPL's forecasted annual winter and summer peaks reasonable?**

16 A. Yes. FPL's forecasted annual summer and winter peaks are based on
17 assumptions developed by industry experts, are consistent with historical
18 experience and rely on the forecasting methods previously reviewed and
19 accepted by the Commission. The models employed by FPL have a strong
20 goodness of fit and a high degree of statistical significance. FPL is confident
21 that the relationships that exist between the levels of peak demand, the
22 weather, customers, energy efficiency standards, and other variables have
23 been properly assessed and numerically quantified.

1 **VIII. INFLATION FORECAST**

2

3 **Q. What measures of inflation does FPL utilize in its budgeting process?**

4 A. FPL utilizes a forecast of the consumer price index (“CPI”) as part of the
5 budgeting process. The same CPI forecast is also used in computing the
6 Commission’s O&M Benchmark.

7 **Q. Based on the CPI what escalation in prices has been experienced in recent
8 years?**

9 A. Although the annual rate of inflation as measured by the CPI has been
10 relatively low by historical standards in recent years, the cumulative
11 escalation in prices has been significant. While the CPI increased at an annual
12 rate of 2.2% between 2006 and 2011, the cumulative increase in the index
13 between January 2006 and January 2012 was 14.2%. Of course, some
14 categories of goods and services have experienced substantially higher price
15 increases. For example, the cumulative increase in gasoline prices between
16 January 2006 and January 2012 was 41.4%. Likewise, the prices for food and
17 medical care experienced cumulative increases of 19.9% and 23.8%
18 respectively between January 2006 and January 2012.

19 **Q. What is the basis for FPL’s CPI forecast?**

20 A. FPL relies on industry expert, IHS Global Insight, as the source for its CPI
21 forecast. In addition, FPL reviews the forecasts developed by other sources
22 and considers historical trends in order to ensure the reasonableness of IHS
23 Global Insight’s forecast.

24

1 **Q. What is FPL's forecast of CPI?**

2 A. FPL is forecasting a 1.9% increase in the CPI in 2012 and a 2.0% increase in
3 2013. With compounding, the cumulative CPI growth from 2010 through
4 2013 is projected to be 7.2%. The forecasted increases in CPI are consistent
5 with the consensus view that while inflation is likely to remain moderately
6 low by historical standards, we can continue to expect some increases in the
7 overall level of prices over the next few years. In addition, the forecasted
8 increases in CPI in 2012 and 2013 indicate some deceleration in the rate of
9 inflation following the 3.1% increase in CPI in 2011. A sharp rise in
10 commodity prices contributed to the overall increase in CPI in 2011. The CPI
11 forecast assumes that any volatility in commodity prices will have less of an
12 impact on the overall rate of inflation in 2012 and 2013.

13 **Q. How does FPL's CPI forecast compare with the historical rate of**
14 **inflation?**

15 A. The forecast for 2012 and 2013 is below the long-term average rate of
16 inflation. The CPI has averaged a 2.4% annual increase in the last ten years
17 and a 2.9% annual increase since 1985. An inflation forecast below the long-
18 run average rate of inflation is to be expected given the relatively moderate
19 pace of the economic recovery. A moderately low rate of inflation is also
20 consistent with the assumption of relatively stable commodity prices.

21

1 **Q. How does FPL's CPI forecast compare with inflation projections**
2 **developed by other experts?**

3 A. FPL's CPI forecast is consistent with the inflation projections developed by
4 other experts, including the Philadelphia Reserve's survey of professional
5 forecasters and the National Association of Business Economists.

6 **Q. Is FPL's CPI forecast reasonable?**

7 A. Yes. FPL's forecast is consistent with the consensus view that inflation will
8 be relatively low by historical standards given the moderate pace of the
9 recovery and the assumption of generally stable commodity prices. It is also a
10 balanced view indicating that while the rate of inflation is likely to remain low
11 by historical standards, there will be some positive escalation in prices.

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

13 A. Yes.

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MFR	Period	Title
SPONSOR		
C-34	Historical	Statistical Information
C-40	Historical / Prior / Test	O & M Compound Multiplier Calculation
E-18	Historical / Prior / Test	Monthly Peaks
F-6	Test	Forecasting Models - Sensitivity of Output to Changes in Input Data
F-7	Test	Forecasting Models - Historical Data

MFR	Period	Title
CO-SPONSOR		
C-12	Historical / Test	Administrative Expenses
C-14	Historical	Advertising Expenses
C-14	Test	Advertising Expenses
C-15	Test	Industry Association Dues
C-15	Historical	Industry Association Dues
C-33	Historical / Prior / Test	Performance Indices
C-36	Historical / Prior / Test	Non-Fuel Operation and Maintenance Expense Compared to CPI

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MFR	Period	Title
C-37	Test	O & M Benchmark Comparison By Function
E-9	Test	Cost of Service - Load Data
E-11	Test	Development of Coincident and Non-Coincident Demands for Cost Study
E-12	Test	Adjustment to Test Year Revenue
E-15	Test	Projection of Billing Determinants - Derivation
E-16	Test	Customers by Voltage Level
E-16	Prior	Customers by Voltage Level
E-19a	Test	Demand and Energy Losses
E-19b	Test	Energy Losses
E-19c	Test	Demand Losses
F-5	Test	Forecasting Models
F-8	Test	Assumptions

Weather-normalized Calendar Net Energy for Load

