BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NOS. 050045-EI AND 050188-EI
FLORIDA POWER & LIGHT COMPANY

JULY 28, 2005

IN RE: PETITION FOR RATE INCREASE BY FLORIDA POWER & LIGHT COMPANY
AND
IN RE: 2005 COMPREHENSIVE DEPRECIATION STUDY BY FLORIDA POWER & LIGHT COMPANY

REBUTTAL TESTIMONY & EXHIBIT OF:

LEONARDO E. GREEN

BEFORE THE FLORIDA PUB LIC SERVICE COMMISSION

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REBUTTAL TESTIMONY OF LEONARDO E. GREEN

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Q. Please state your name and business address.

A. My name is Leonardo E. Green. My business address is Florida Power & Light Company, 9250 West Flagler Street, Miami, Florida 33174.

Q. Did you previously submit direct testimony in this proceeding?

A. Yes.

Q. Are you sponsoring an exhibit?

A. Yes. I am sponsoring an exhibit consisting of four documents, LEG-8 through LEG-11, which is attached to my rebuttal testimony.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to refute claims made in the direct testimonies of Office of Public Counsel (OPC) witness, Dr. David Dismukes and Florida Retail Federation (FRF) witness, Ms. Sheree L. Brown relating to the FPL forecasts that I support in my direct testimony. Specifically, I will show that the bases for the calculations performed by Dr. Dismukes and Ms. Brown to obtain additional projected revenues of $38,550,538 and $33,972,000, respectively, are inappropriate and should not be considered by the Florida Public Service Commission (FPSC). In addition, I am providing testimony in support of Dr. Morley's rebuttal testimony, which addresses issues raised by Federal Executive Agency

(FEA) witness, Dr. Goins, and South Florida Hospital and Healthcare Association (SFHHA) witness, Mr. Baron. My testimony explains why Dr. Goins' support for an adjustment to the energy charge for certain interruptible customers is inappropriate and why Mr. Baron's suggestion that equal weighting should be given to the seasonal summer and winter peak demands is incorrect from a resource planning perspective.

Q. Before addressing each of these points, do you have a general comment regarding making changes to FPL's revenue forecast based on piecemeal changes to forecast assumptions?

A. Yes, I do. This Commission should reject recommendations to change revenue requirements based on piecemeal changes to forecast assumptions for two reasons: First, such recommendations fail to take into account changes to other assumptions that mitigate or offset the revenue impact of the assumption proposed to be changed. Second, allowing such piecemeal changes invites near constant revision of forecasts and revenue and cost items based on the forecasts, which is unreasonable, unsuitable, and impractical for a rate case proceeding.

It takes several months and numerous man hours to prepare forecasts for the MFRs and develop MFRs based on those forecasts. The value of the input assumptions that are used to produce forecasts of customers, peak demand, and energy sales change on an ongoing basis. As assumptions change, so do the forecasts. Thus, the number of potential forecasts is infinite unless a cut-off date is defined. A forecast that is the best outlook at a given moment in time should not be changed every time a variable changes, but should be examined on the basis of the validity of the assumptions and the quality of the model as of the time it was prepared. Otherwise, the constant changing nature of the forecast assumptions would not lend themselves to any usable forecast at any given time. Further, it is not reasonable to update one input in the forecast to the exclusion of other known changes that would likely mitigate or even more than fully offset other changes. Dr. Dismukes and Ms. Brown both propose to alter just one input that works in favor of reducing revenue requirements.

FPL's input assumptions are reasonable and appropriate, and the forecasting models suitable. Therefore, the forecasts utilized in FPL's filing are reasonable for use in this rate review.

REBUTTAL TO TESTIMONY OF DR. DAVID DISMUKES

Q. Please summarize the issues addressed in Dr. Dismukes' testimony.

A. In the forecast component of his direct testimony, Dr. Dismukes makes four recommendations:

1. Removal of FPL's proposed customer forecast adjustment associated with the hurricanes of 2004;
2. Updating of Florida's population forecasts to reflect more recently published information;
3. Removal of the proposed storm damage surcharge from the price of electricity used to estimate the Net Energy for Load (NEL) model; and
4. Utilization of a different specification of industrial customer model.

Dr. Dismukes testifies that the overall revenue impact of his recommendations increases FPL's projections of base revenues by $38,550,538.

Q. Turning to Dr. Dismukes' first point regarding adjustments to the customer forecast, why should the adjustment for the impact of the 2004 hurricane season remain a part of the forecast?

A. Preliminary data suggesting a slow down in customer growth and FPL's prior experience with major storms, determined that an adjustment was necessary. The University of Florida's Bureau of Economic and Business Research (BEBR) produces the official population forecast for the state of Florida in April of each year. BEBR's next population projection, which would incorporate the impact that the 2004 hurricane season would have on population growth would not be issued until April of 2005, months after FPL's forecast was completed. Because of this, at the time the forecast was prepared in the fall of 2004, FPL appropriately applied FPL's prior experience with major hurricanes and preliminary data depicting a slow down in customer growth to develop the best customer growth forecast in the wake of such an abnormal hurricane season.

This out-of-model adjustment is necessary and appropriate considering that at the time the forecast was prepared, customer growth dropped from an annual rate of 120,000 new customers in August 2004 over August 2003 to fewer than 94,000 by October 2004 over October 2003. In addition, the last time a major hurricane impacted FPL's service territory, Hurricane Andrew, customer growth dropped to under 60,000 in the year of the hurricane and then averaged around 65,000 for next 5 or 6 years. Furthermore, FPL has had years in which customer growth dropped by a considerable amount in two successive years. Exhibit LEG-8 shows a reduction of 46,334 in new customer growth in 1975 compared to customer growth in 1974. In 1982 the reduction in customer growth was 27,234 less than the growth in 1981. In 1991, customer growth was 26,743 less than the prior year's growth. Exhibit LEG-8 also shows other years with significant reductions in the growth of customers between successive years.

Q. Why are out-of-model adjustments an appropriate forecasting technique?

A. A statistical or econometric model quantifies a-priori expectation between a variable of interest and acknowledged explanatory variables. If the models are properly specified and estimated correctly then the results are deemed to be unbiased. Oftentimes impacts from unexpected events with a potential impact on the forecast such as hurricanes, September 11th, etc., cannot be captured by statistical models. Therefore, their impact needs to be accounted for outside the statistical framework. Considering the major events that occurred in 2004 when four major hurricanes impacted Florida, it would be incorrect to disregard the potential influence of these storms on population growth. A better approach is to recognize that the event has occurred and try to quantify its impact relying on an objective technique rather than the traditional model. FPL chose to rely in part on prior history in the aftermath of Hurricane Andrew which would be the closest in magnitude to the hurricane experience of 2004.

Q. Please explain why it is not necessary to update the population forecasts to reflect the BEBR's April 2005 data.

A. As discussed earlier, Dr. Dismukes proposes to update just one input, namely population, which will result in a higher number of customers and, all else being equal, energy sales. However, it is not practical or reasonable to measure the impact on the forecast from changes in an individual assumption without examining changes in all other assumptions and their total impact on the forecast. For example, due to price elasticity effects on consumption, increased fuel prices will negatively impact the forecast of energy sales.

Q. How would the rise in fuel prices affect the forecast?

A. The price of fuel is a key component of the total price of electricity; therefore, any changes in the price of fuel will have a direct impact on the total price of electricity. The fuel forecast that was used to develop the fuel clauses and the projected price of electricity is now one year old. This intervening year has seen record breaking increases in prices for fuels. If this component of the overall forecast were updated to reflect the significant change in the price of fuel, the resulting price of electricity will be significantly higher than what was assumed when preparing the forecast used in this rate case. The higher price of electricity would reduce the demand for electricity because it affects all customers, not only the new customers. Dr. Dismukes suggests by adjusting customer growth, the forecast of energy and peak demand would be higher than the current projections. However, in my opinion, even with the higher growth in new customers, the overall net effect of a higher price of electricity would be to lower the energy and peak demand forecasts.

Q. What other assumptions have changed since the forecast was prepared that could also be examined?

A. In addition to the price of fuels, there have been changes to other important factors that would need to be revised if the forecast assumptions were revisited. For example, the inflation assumption used in this forecast is below the actual inflation that has unfolded in 2005. Higher inflation values reduce the purchasing power of FPL customers by reducing their real personal income. With customers' income reduced, the demand for electricity would also be lower than it would otherwise be, thus reducing the overall energy forecast. Another consideration is that as customer growth increases, FPL incurs additional costs to serve these customers. More meters, transformers, wires and staff, among other things, are needed to serve these customers. These additional FPL costs would also have to be taken in consideration.

Q. Please explain why the Commission should not entertain Dr. Dismukes' proposal to remove the Company's price adjustment for its proposed storm damage surcharge used to estimate the NEL model.

A. Dr. Dismukes recommends the removal of the storm surcharge from the projected price of electricity in order to create a higher forecast of energy sales and peak demand. This implies that FPL revenues would be larger because of these increases in sales and demand. Removing the storm surcharge is incorrect because it is a part of the cost of electricity to the customer. Ignoring this component of the cost would only result in an arbitrarily biased forecast, and would not be appropriate for this proceeding. In addition, by making this change in isolation, Dr. Dismukes fails to take into account changes to other factors that might be affecting the forecasts in a negative manner (e.g., price of fuel, price of electricity, inflation, and reduced personal income) which result in lower sales and peak demand forecasts.

Q. What is the year to date variance of the current projections for energy sales?

A. As of June 2005, the current level of FPL sales for this year is 2.3% below the forecast. Use per customer for all FPL customers is 2.8% below the projected usage through June.

Q. Please comment on Dr. Dismukes' alternative model to project industrial revenue class customers.

A. Dr. Dismukes suggests that a different model be used to project the number of industrial revenue class customers. He claims that his model is superior to FPL's model based on his contention that the coefficient of determination (R^2) of the model he proposes is 0.9998 versus FPL's which is 0.55. Given that an R^2 of 1 indicates the model is a perfect fit to the historical data, he must assume that his model is a virtually perfect fit. Achieving a perfect fit is unrealistic, and in fact, Dr. Dismukes' contention is based on an incorrect application of the R^2 concept. It is commonly understood that when an economic model is estimated without an intercept using most standard statistical programs, such as the program used by Dr. Dismukes, the R^2 has no meaning (*Basic Econometrics*, by Damodar Gujarati, pages 134-138). The computer will compute an erroneous R^2, and to obtain the correct R^2, it needs to be calculated directly without the use of a standard statistical program. When the R^2 is estimated manually for the model that Dr. Dismukes developed, it yields an R^2 of only 0.45 which is inferior to FPL's model. Therefore, Dr. Dismukes' point is absolutely incorrect.

Q. Dr. Dismukes also claims that the industrial forecast could be improved because "the empirical results lead to an anomalous negative sign on the parameter estimates for the relationship between industrial customers and population." Do you agree?

A. No. The negative coefficient for the Florida Population, seen here as a trend variable, is intended to capture the negative trend in the purely Industrial Customer base, whereas the positive coefficient on housing starts is intended to capture the increase in Temporary Construction Meters.

FPL's Industrial Customer base is made up of two major classes:1) the typical Industrial Customers that manufacture products, and 2) Temporary Construction Meter accounts are customers only during the construction period for residential, commercial, industrial and general service structures. Florida, like the rest of the nation, has been experiencing a contracting trend in its typical Industrial Customer base for the last few years. On the other hand, construction of new homes is approaching record levels. The current status is that the two major components in the Industrial Customer base are moving in opposite directions. The a-priori expectation is that the typical Industrial Customer base will continue to contract and Temporary Construction Meters will continue to increase with new homes and other permanent structures being built.

Q. What do you conclude regarding the changes suggested by Dr. Dismukes?

A. For the reasons I have explained, the Commission should reject the changes to projected revenues suggested by Dr. Dismukes.

REBUTTAL TO TESTIMONY OF SHEREE L. BROWN

Q. Please summarize the issues addressed in Ms. Sheree L. Brown's testimony.

A. Ms. Brown alleges that the Company has understated its forecast of the number of customers for the Test Year, resulting in an understatement of $33.972 million in Test Year revenues at present rates. The bases for her change to the forecast and the resulting revenue calculation are inappropriate and therefore her claim that the revenues are understated is incorrect.

Q. Why is Ms. Brown's decision to ignore the impacts of the 2004 hurricanes inappropriate?

A. In arriving at her claim that revenue is understated by $33.972 million, Ms. Brown assumes that the growth in customers between 2005 and 2007 will be same as the growth over the last 6 years. Historical data demonstrates that a major hurricane can and does affect customer growth. Customer growth after Hurricane Andrew was depressed for the next six years. This impact must be recognized in the forecast. As I described earlier in my comments to Dr. Dismukes' testimony, FPL has appropriately done this. BEBR's recent population forecast reflects a slower rate of growth in 2005 and 2006 due to the 2004 hurricanes. This is consistent with FPL's view.

Q. How does Ms. Brown attempt to validate her forecast for 2005 and 2006?

A. Ms. Brown claims that she has relied on the customer growth observed so far in 2005 to support her projection of customer growth for the rest of 2005, as well as 2006 and 2007. However, her method is inappropriate because it fails to consider changes in the customer mix that have occurred in 2005.

Q. What information on customer mix is not considered in Ms. Brown's testimony?

A. Ms. Brown fails to consider that much of the growth in customers is attributed directly to temporary construction meter accounts (which are labeled industrial customers) related to the reconstruction of dwellings and commercial establishments due to damage done by the hurricanes in 2004 and a booming new construction activity in Florida. It is erroneous to assume that these construction meter accounts, though classified as "industrial customers" will consume electricity in quantities similar to the amount a regular industrial customer would demand. The revenue class that is seeing above normal growth is the residential class, which has a small usage per customer. The commercial revenue class and the true industrial customers, which consume much more electricity, are experiencing a much lower level of growth which is changing the customer mix in favor of low consumption residential customers.

Q. Why is the customer mix important in projecting the level of sales?

A. In arriving at a final energy sales forecast, FPL assumed an aggressive growth in use per customer for all customer classes. If the revenue classes that are growing the fastest are low consumption consumers, then the use per customer for the entire body of customers will be lower due to the disproportionate growth in these low consumption classes. Therefore, Ms. Brown's exercise, extrapolating the current customer growth data and multiplying it by the use per customer estimated originally based on a different customer mix, has the effect of inappropriately overestimating energy sales.

Q. What other important aspect of the rate of growth in FPL's customers is missing from Ms. Brown's analysis?

A. Ms. Brown ignores the historical cyclical behavior in the growth of FPL customers. In my direct testimony and in Exhibit LEG-8, I clearly demonstrate that customer growth in FPL's service territory is cyclical. There have been years in the past where annual growth decreased by over 46,000 customers between two successive years. It is not uncommon to see large decreases in customer growth between two years. If the cyclical pattern in customer growth is ignored, and a constant growth rate is utilized instead, this would result in a miscalculated customer growth.

Q. Why is it inappropriate to adopt the projections of revenues suggested by Ms. Brown?

A. There are several problems associated with adopting Ms. Brown's projections. First, it ignores the impact of the 2004 hurricane season; second, it negates the existence of a cyclical behavior in customer growth; and third, it does not consider the change in the customer mix due to abnormally high growth in only certain revenue classes. For these reasons stated above, Ms. Brown is incorrect in suggesting that FPL understated revenues from energy sales.

Q. Dr. Green, do you have any other issues you would like to address?

A. Yes. In support of Dr. Morley's rebuttal testimony I would like to address certain aspects of the issues raised by Dr. Goins and Mr. Baron.

Q. What specifically will you be addressing?

A. Regarding Dr. Goins' testimony, I will address how the load and energy requirements of interruptible service, particularly the Commercial/Industrial Load Control (CILC) program, are reflected in FPL's resource planning to serve forecasted system peak demands and NEL. Additionally, regarding Mr. Baron's testimony, I will address the impact of seasonal (i.e., summer and winter) peak demands on FPL's resource planning.

Q. Please describe the CILC Program.

A. This program reduces peak demand by controlling loads of 200 kW or greater during periods of extreme demand or capacity shortage, in exchange for monthly electric bill credits.

Q. Does FPL include the effects of the CILC Program when forecasting system peaks?

A. Yes.

Q. Please describe the effects of the CILC Program on forecasted system peaks.

A. This may best be illustrated by Schedules 3.1 and 3.2 in FPL's 2005 Ten Year Power Plant Site Plan, History and Forecast of Summer Demand: Base Case and History and Forecast of Winter Peak Demand: Base Case (Exhibit LEG-9 & LEG-10 respectively). In these schedules, FPL begins with a

Total Peak Demand in Column (2) and from that total excludes the effects of Demand Side Management (DSM) program capabilities, including CILC in Column (8), to arrive at a total Peak Demand that represents a hypothetical "Net Firm Demand" if the load control values had definitely been exercised on the peak" in Column (10). The resulting peaks, therefore, are inclusive of the MW effects of the total DSM program capabilities, i.e., system peaks are reduced.

Q. Please describe the effects of the CILC Program on forecasted NEL.

A. Again, these effects may best be illustrated by FPL's 2005 Ten Year Power Plant Site Plan, History and Forecast of Annual Net Energy for Load – GWH; Base Case, shown in Schedule 3.3 (Exhibit LEG-11). The NEL begins with a "Total Net Energy For Load w/o DSM" in Column (2) and excluded from that amount is the "forecasted values of the reduction on sales from incremental conservation" in Columns (3) and (4) from "Residential Conservation" and "C/I Conservation," respectively, but not "C/I Load Management" where the effects of the CILC Program are included. The resulting NEL, therefore, does not include the energy MWH effects of the CILC Program.

Q. Are there energy reductions associated with the CILC Program?

A. Yes.

Q. How are these energy reductions associated with the CILC Program considered?

A. The cost-effectiveness analyses for the CILC Program reflect peak period interruptions of six hour durations and, as I discussed previously, these interruptions are reflected in the forecasted peak demands. The cost-effectiveness analyses, however, also include an assumption that the customer will make up approximately 80% of the energy after the peak period interruption, i.e., during non-peak periods. To the extent that there are energy reductions associated with the CILC Program, therefore, they would be minimal (i.e., 20% times six hours or approximately 1.2 hours per peak period interruption) and would have negligible, if any, impact on NEL.

Q **What is your conclusion regarding any equivalence between the demand capability reductions and energy reductions of the CILC Program?**

A. The energy reductions associated with the CILC Program have a much smaller impact on FPL's resource planning for NEL as would the effects of the interruptions on forecasted system peaks.

Q. **Please address the issue raised by Mr. Baron concerning seasonal (i.e., summer and winter) peak demands in FPL's resource planning.**

A. Mr. Baron states that "[i]t is clear that the requirements to meet the summer ***and*** winter peak demand is driving the capacity resource addition on the system." (Direct Testimony, page 29, lines 2 – 4) (emphasis added) Mr. Baron, with this statement, places an equal weighting on the seasonal peak demands in FPL's resource planning.

Q. **Do you agree with Mr. Baron's conclusion?**

A. No. In general, such a conclusion does not reflect the manner in which FPL's generation resources are planned or operated. As Dr. Morley has explained in her rebuttal testimony, peak demands driving the decision to add additional capacity are not based on an average of the Summer Peak and Winter Peak. The need for additional resources has been driven by summer capacity requirements. Further, Mr. Baron's assertion ignores the influence of energy usage on the type of generation added, and the influence of the loss-of-load probability criterion which requires consideration of peak loads throughout the year.

Q. **Is there another factor regarding generating capacity that impacts FPL's generation planning and operation differently in the summer and winter?**

A. Yes. Total Installed Capability of the same generating units is different during the winter months versus the summer months. Ambient air temperature affects the output from generation resources in that the cooler the air temperature the greater the output from the generating unit. The Total Installed Capability during the cooler winter peak month, therefore, is higher than during the corresponding warmer summer peak month. This can be seen in Column (2) on pages 1 and 2 of Exhibit ___ SJB-2. FPL's Total Installed Capability projected for the 2006 summer peak, as shown on page 1, is 21,020 MW. The Total Installed Capability projected for the 2005/2006 winter peak, as shown on page 2 is 22,390 MW. This difference reflects the cooler ambient air temperature during the winter peak. As the winter peak is temperature driven, the cooler the temperature the greater the winter peak, but the increase in the winter peak is somewhat mitigated because there is also an increase in capacity output as a result of the cooler temperature. It does not seem very likely that FPL would have sufficient Total Installed Capability to satisfy the summer reserve margin criteria and that a winter peak of such magnitude would occur that FPL would have to consider capacity additions to meet a deficiency in the winter Reserve Margin criteria.

Q. What is your conclusion regarding the impact of summer and winter seasonal peaks on capacity additions?

A. Mr. Baron's conclusion regarding the equivalence of the summer and winter peak "driving capacity additions" is incorrect.

Q. Does this conclude your rebuttal testimony?

A. Yes.

Total System Customers

		Growth	
Year	Customers	Absolute	Change in Absolute
1965	949,591		
1966	1,000,020	50,428	
1967	1,051,335	51,315	886
1968	1,109,219	57,885	6,570
1969	1,177,347	68,128	10,243
1970	1,253,124	75,777	7,649
1971	1,340,416	87,292	11,515
1972	1,446,114	105,698	18,406
1973	1,567,638	121,524	15,827
1974	1,676,022	108,384	-13,140
1975	1,738,071	62,050	-46,334
1976	1,795,793	57,721	-4,328
1977	1,875,821	80,028	22,307
1978	1,967,352	91,531	11,503
1979	2,074,327	106,975	15,444
1980	2,184,974	110,646	3,672
1981	2,285,187	100,214	-10,433
1982	2,358,167	72,980	-27,234
1983	2,429,688	71,521	-1,459
1984	2,520,523	90,835	19,315
1985	2,617,556	97,033	6,198
1986	2,723,555	105,999	8,966
1987	2,840,207	116,651	10,652
1988	2,953,663	113,457	-3,195
1989	3,064,436	110,773	-2,684
1990	3,158,817	94,381	-16,391
1991	3,226,455	67,638	-26,743
1992	3,281,238	54,783	-12,855
1993	3,355,794	74,556	19,773
1994	3,422,187	66,393	-8,163
1995	3,488,796	66,609	217
1996	3,550,747	61,951	-4,658
1997	3,615,485	64,738	2,786
1998	3,680,470	64,985	247
1999	3,756,009	75,539	10,555
2000	3,848,350	92,341	16,802
2001	3,935,281	86,931	-5,410
2002	4,019,805	84,523	-2,408
2003	4,117,221	97,416	12,893
2004	4,224,509	107,289	9,872

Schedule 3.1
History and Forecast of Summer Peak Demand: Base Case

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Res. Load Management	(7) Residential Conservation	(8) C/I Load Management	(9) C/I Conservation	(10) Net Firm Demand
1995	16,172	435	15,737	0	465	260	406	195	15,301
1996	16,064	364	15,700	0	525	339	422	297	15,117
1997	16,613	380	16,233	0	582	440	435	343	15,596
1998	17,897	426	17,471	0	628	526	458	385	16,811
1999	17,615	169	17,446	0	673	592	452	420	16,490
2000	17,808	161	17,647	0	719	645	467	451	16,622
2001	18,754	169	18,585	0	737	697	488	481	17,529
2002	19,219	261	18,958	0	770	755	489	517	17,960
2003	19,668	253	19,415	0	781	799	577	554	18,310
2004	20,545	258	20,287	0	782	828	580	569	19,183
2005	20,614	264	20,351	0	788	87	592	40	19,108
2006	21,178	266	20,912	0	796	128	603	55	19,596
2007	21,769	269	21,500	0	807	170	615	67	20,111
2008	22,306	197	22,109	0	820	214	627	79	20,566
2009	22,884	197	22,687	0	836	261	639	90	21,058
2010	23,424	197	23,227	0	853	310	650	102	21,510
2011	23,964	197	23,767	0	871	361	662	112	21,958
2012	24,516	197	24,319	0	891	413	674	123	22,416
2013	25,059	197	24,862	0	912	467	686	133	22,861
2014	25,633	197	25,436	0	936	523	698	143	23,333

Historical Values (1995 - 2004):

Col. (2) - Col. (4) are actual values for historical summer peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9), and may incorporate the effects of load control if load control was operated on these peak days. Therefore, Col. (2) represents the actual Net Firm Demand.

Col. (5) - Col. (9) for 1995 through 2003 represent actual DSM capabilities starting from January 1988 and are annual (12-month) values. Note that the values for FPL's former Interruptible Rate are incorporated into Col. (8), which also includes Business On Call (BOC) and Commercial /Industrial Demand Reduction (CDR). Col.(5) - Col.(9) for year 2004 are "estimated actuals" and are August values.

Col. (10) represents a HYPOTHETICAL "Net Firm Demand" if the load control values had definitely been exercised on the peak. Col. (10) is derived by the formula:Col. (10) = Col.(2) - Col.(6) - Col.(8).

Projected Values (2005 - 2014):

Col. (2) - Col.(4) represent FPL's forecasted peak w/o incremental conservation or cumulative load control. The effects of conservation implemented prior to 2004 are incorporated into the load forecast.

Col. (5) - Col. (9) represent all incremental conservation and cumulative load control. These values are projected August values and the conservation values are based on projections with a 1/2004 starting point for use with the 2004 load forecast.

Col. (10) represents a 'Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by using the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

Schedule 3.2
History and Forecast of Winter Peak Demand:Base Case

(1) Year	(2) Total	(3) Firm Wholesale	(4) Retail	(5) Interruptible	(6) Res. Load Management	(7) Residential Conservation	(8) C/I Load Management	(9) C/I Conservation	(10) Net Firm Demand
1995/96	18,096	698	17,398	0	512	266	406	89	17,178
1996/97	16,490	626	15,864	0	578	311	417	139	15,495
1997/98	13,060	239	12,821	0	641	369	426	151	11,993
1998/99	16,802	149	16,653	0	692	404	446	164	15,664
1999/00	17,057	142	16,915	0	741	434	438	176	15,878
2000/01	18,199	150	18,049	0	791	459	448	183	16,960
2001/02	17,597	145	17,452	0	811	500	457	196	16,329
2002/03	20,190	246	19,944	0	847	546	453	206	18,890
2003/04	14,752	211	14,541	0	857	570	532	230	13,363
2004/05	18,108	225	17,884	0	864	38	539	28	16,705
2005/06	21,336	252	21,083	0	871	60	545	35	19,825
2006/07	21,898	255	21,644	0	881	82	552	40	20,344
2007/08	22,369	182	22,187	0	894	105	559	44	20,768
2008/09	22,916	182	22,734	0	910	130	566	48	21,262
2009/10	23,466	182	23,284	0	928	156	573	52	21,758
2010/11	24,035	182	23,853	0	947	183	579	57	22,270
2011/12	24,608	182	24,426	0	968	210	586	61	22,783
2012/13	25,197	182	25,015	0	990	238	593	66	23,309
2013/14	25,798	182	25,616	0	1,014	266	600	72	23,846

Historical Values (1995/96 - 2004/05):

Col. (2) - Col. (4) are actual values for historical winter peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9), and may incorporate the effects of load control if load control was operated on these peak days. Therefore, Col. (2) represents the actual Net Firm Demand.

Col. (5) - Col.(9) for 1995/96 through 2003/04 represent actual DSM capabilities starting from January 1988 and are annual (12-month) values. Note that the values for FPL's former Interruptible Rate are incorporated into Col. (8), which also includes Business On Call (BOC) and Commercial/Industrial Demand Reduction (CDR).Col.(5) - Col.(9) for year 2004/05 are "estimated actuals" and are January values.

Col. (10) represents a HYPOTHETICAL "Net Firm Demand" if the load control values had definitely been exercised on the peak. Col. (10) is derived by the formula: Col. (10) = Col. (2) - Col. (6) - Col. (8).

Projected Values (2005/06- 2013/14):

Col. (2) - Col.(4) represent FPL's forecasted peak w/o incremental conservation or cumulative load control. The effects of conservation implemented prior to 2004 are incorporated into the load forecast.

Col. (5) - Col.(9) represent all incremental conservation and cumulative load control. These values are projected January values and the conservation values are based on projections with a 1/2004 starting point for use with the 2004 load forecast.

Col. (10) represents a 'Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by using the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

Schedule 3.3
History and Forecast of Annual Net Energy for Load - GWH: Base Case

(1) Year	(2) Total	(3) Residential Conservation	(4) C/I Conservation	(5) Retail	(6) Sales for Resale GWH	(7) Utility Use & Losses	(8) Net Energy For Load	(9) Load Factor(%)
1995	85,418	777	680	83,981	1,437	6,276	83,961	59.3%
1996	87,007	971	1,043	85,654	1,353	6,306	84,993	60.2%
1997	89,243	1,213	1,177	88,015	1,228	5,771	86,853	59.7%
1998	95,318	1,374	1,282	93,992	1,326	6,206	92,662	59.1%
1999	94,365	1,542	1,365	93,412	953	5,829	91,458	59.3%
2000	99,097	1,674	1,434	98,127	970	7,059	95,989	61.4%
2001	101,739	1,789	1,545	100,768	970	7,222	98,404	59.9%
2002	107,755	1,917	1,639	106,522	1,233	7,443	104,199	61.9%
2003	112,160	2,008	1,759	110,648	1,511	7,386	108,393	62.9%
2004	112,036	2,109	1,836	110,504	1,531	7,464	108,091	59.9%
2005	111,695	59	17	110,127	1,568	7,700	111,619	61.9%
2006	115,463	148	45	113,876	1,586	7,813	115,270	62.2%
2007	119,477	235	61	117,919	1,558	8,068	119,181	62.7%
2008	123,459	327	70	122,366	1,092	8,331	123,062	63.0%
2009	127,521	425	80	126,429	1,092	8,616	127,016	63.6%
2010	130,980	528	90	129,887	1,092	8,849	130,362	63.8%
2011	133,674	635	101	132,582	1,092	9,031	132,938	63.7%
2012	136,387	745	111	135,295	1,092	9,215	135,531	63.3%
2013	139,429	858	123	138,337	1,092	9,420	138,448	63.5%
2014	142,692	974	134	141,600	1,092	9,641	141,584	63.5%

Historical Values (1995 - 2004):

Col. (2) represents derived "Total Net Energy For Load w/o DSM". The values are calculated using the formula. Col. (2) = Col. (3) + Col. (4) + Col. (8).

Col.(3) & Col.(4) for 1995 through 2003 are DSM values starting in January 1988 and are annual (12-month) values.Col. (3) and Col. (4) for 2004 are "estimated actuals" and are also annual (12-month) values. The values represent the total GWH reductions actually experienced each year .

Col. (5) & Col. (6) are a breakdown of Net Energy For Load in Col (2) into Retail and Wholesale .

Col. (9) is calculated using Col. (8) from this page and Col. (2), "Total", from Schedule 3.1 using the formula: Col. (9) = ((Col. (8)*1000) / ((Col.(2) * 8760)

Projected Values (2005 - 2014):

Col. (2) represents Net Energy for Load w/o DSM values. The values are extracted from Schedule 2.3, Col. (19).

Col. (3) & Col. (4) are forecasted values of the reduction on sales from incremental conservation and are mid-year (6-month) values. The effects of conservation implemented prior to 2004 are incorporated into the load forecast.

Col. (5) & Col. (6) are a breakdown of Net Energy For Load in Col (2) , into Retail and Wholesale.

Col. (8) NEL projected values shown here do include the impact of conservation in Col. (3) and Col. (4). Therefore, these NEL values do not match those shown on schedule 2.3 because those values do not account for incremental conservation.

Col. (9) is calculated using Col. (2) from this page and Col. (2), "Total", from Schedule 3.1. Col. (9) = ((Col. (2)*1000) / ((Col. (2) * 8760)
Adjustments are made for leap years