BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 040206-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S PETITION TO DETERMINE NEED FOR TURKEY POINT UNIT 5 ELECTRICAL POWER PLANT

DIRECT TESTIMONY & EXHIBIT OF:

LEONARDO E. GREEN

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF LEONARDO E. GREEN

DOCKET NO. 04__-EI

MARCH 8, 2004

Q. Please state your name and business address.

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

Q. By whom are you employed and what position do you hold?

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

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

A. I am responsible for the development of FPL's demand, energy, economics and customer forecasts.

Q. Please describe your education and professional experience.

A. I earned a PhD Degree in Economics from the University of Missouri-Columbia, in 1983. I joined FPL in April of 1986, and in July of 1991, I became a Manager of Load Forecasting within the Resource Assessment and Planning Business Unit. I am responsible for coordinating the entire

economics and load forecasting effort for FPL. Before working for FPL, I worked for Seminole Electric Cooperative as the Load Forecasting Supervisor in the Rates and Corporate Planning Department. I have held several Assistant Professorships of Economics and Statistics as well as research and teaching positions with the University of Missouri, Florida International University, NOVA University, and the University of South Florida.

Q. What is the purpose of your testimony?

A. My testimony describes FPL's load forecasting process, identifies the underlying methodologies and assumptions, and presents the forecasts used in the Need Study.

Q. Are you sponsoring an exhibit in this case?

A. Yes. It consists of the following documents:

Document LEG-1: FPL, 2003 MIX OF REVENUE CLASSES

Document LEG-2: NET ENERGY FOR LOAD

Document LEG-3: SUMMER PEAK

Document LEG-4: WINTER PEAK

Document LEG-5: TOTAL CUSTOMERS

Document LEG-6: NET ENERGY FOR LOAD PER CUSTOMER

Document LEG-7: SUMMER PEAK PER CUSTOMER

Document LEG-8: WINTER PEAK PER CUSTOMER

Document LEG-9: COMPARISON OF SUMMER PEAK FORECASTS

Document LEG 10: COMPARISON OF WINTER PEAK FORECASTS

Document LEG 11: COMPARISON OF NEL FORECASTS

Document LEG 12: COMPARISON OF CUSTOMER FORECASTS

Document LEG 13: 2003 FORECAST VARIANCES

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

A. Yes. I am sponsoring the load forecast portion of Section V and Appendix E of the Need Study document. In addition, I co-sponsor Appendix C.

Description of FPL's Existing Customer Base

Q. Please describe FPL's existing service territory.

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

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

A. FPL currently serves more than 4.17 million customers and a population of more than 8 million people.

Q. Of the approximately 4.17 million customers served by FPL, what is the mix of residential, commercial and industrial customers?

A. FPL's customer mix, shown on Document LEG-1, is approximately 89 percent residential, 11 percent commercial, and less than one half of one percent in the industrial and other categories. As a percentage of sales, residential customers represent about 53 percent of sales, commercial customers represent 41 percent, and industrial customers represent approximately 4 percent of total sales. The remainder of sales (2.1 percent) comes from other consumers.

Q. What were FPL's actual peaks and net energy for load during 2003?

A. FPL experienced a record summer peak of 19,668 MW in 2003, an increase of 2.3 percent from the 2002 summer peak, and this is shown on Document LEG-3. The winter peak for 2002/2003 was 21,190 MW, a 14.7 percent increase from the previous year, as shown on Document LEG-4. Net Energy for Load (NEL) in 2003 was 108,391 GWH, an increase of 4.0 percent from the 2002 NEL, as shown on Document LEG-2.

FPL's Load Forecasting Process and Results

Q. Please describe FPL's process to forecast the level of energy sales?

A. The forecast of the level of energy sales consists of three steps. First, total NEL is projected. Next, a line loss factor and a billing cycle adjustment is

applied to the NEL to arrive at a total customer end-use energy demand of electricity. Finally, revenue class models are developed to distribute the total end-use sales of electricity forecast to the different revenue classes such as residential, commercial, industrial, etc.

FPL develops econometric models to explain and predict the level of energy sales. Explanatory variables, such as the weather, the price of electricity, the economic conditions in Florida, the number of customers and seasonal factors are used to develop the forecast of energy sales. An econometric model is a numerical representation, obtained through statistical estimation techniques, of the degree of relationship between the level of energy sales and the explanatory variables. A change in any of the explanatory variables will result in a corresponding change in the level of energy sales. On a historical basis, econometric models have proven to be highly effective in explaining changes in the level of energy sales.

Predicting the level of sales in a future year first requires assumptions regarding the levels of the explanatory variables. These assumptions are obtained from different sources. For example, the future number of customers is based on population projections produced by the University of Florida's Bureau of Economic and Business Research (BEBR). The projected economic conditions are secured from reputable economic forecasting firms such as Global Insight (formerly known as DRI-WEFA). The weather factors

are obtained from the National Oceanographic and Atmospheric Administration (NOAA). The price of electricity is produced internally by FPL and reflects the Commission-approved base rates and adjustment clauses. Seasonal factors in the consumption of electricity come from two sources, the weather seasons and the population seasonal pattern. FPL performs substantial analysis to ensure that the assumptions regarding the explanatory variables are reasonable. This ensures that the forecast of energy sales is both realistic and rational.

The final end-use energy demand of electricity or billed energy sales is NEL-adjusted for line losses and for billing cycle. The billing cycle adjustment takes into account the difference between when a customer consumes electricity and when the meter is read. As a result of this adjustment, a superior econometric forecasting model is obtained if NEL, instead of billed energy sales, is matched to the explanatory variables. This is because the NEL data do not have to be attuned to account for billing cycle adjustments, which might distort the real time match between the production and consumption of electricity.

To project energy sales by revenue class, separate models for the residential, commercial, and industrial revenue classes are developed. These revenue class models are developed to obtain an objective allocation of the total energy sales among FPL's different revenue classes. The sum of all revenue classes

will result in total energy sales, which is adjusted to coincide with the total energy sales derived from the NEL model.

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

A. The growth in use of electricity comes from the overall growth in per capita use of electricity by all customers, shown on Document LEG-6, and the growth in the number of new customers, shown on Document LEG-5. The product of per capita use multiplied by the number of customers yields the NEL for a given period. The per capita use of electricity and the increased numbers of new customers both are linked directly to the performance of the local and national economy. When the economy is booming, use of electricity increases in all sectors: residential, commercial, industrial and others. A strong economy creates new jobs that attract new customers. Under these conditions, new households develop, including those of retirees from other states. However, the reverse also holds. If the economy is performing poorly, customers with reduced incomes are more apprehensive as to expenditures and tend to restrict their consumption of goods and services. Electricity demand and sales slacken when income falls. Job contractions reduce the number of new customers coming to Florida seeking employment opportunities, and new household formations are postponed.

FPL relies on the outlook for the local and national economy produced by Global Insight and the population growth forecast developed by the University

of Florida.

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

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

The Summer peak forecast is developed using an econometric model. The model is a per-customer model that includes: the total number of FPL customers, the price of electricity, real Florida personal income as an economic driver, and maximum temperature as a weather variable. The summer peak use per customer is shown on Document LEG-7. The model is estimated using an auto-regressive term.

Like the system Summer peak model, the Winter peak model is also an econometric model. The Winter Peak model is a per-customer model that includes three weather-related variables: (1) the minimum temperature on the peak day; (2) a weather term, which is a ratio of heating saturation and minimum Winter day temperature; and (3) Heating Degree Hours from the prior day until 9:00 a.m. of the peak day. In addition, the model also has an

economic term, Florida real personal income. The model also includes a dummy variable used to capture the effects of larger homes being built, which is multiplied by the minimum temperature. The winter peak use per customer is shown on Document LEG-8.

Monthly peaks are forecast to provide information for the scheduling of maintenance for power plants and fuel budgeting. The forecasting process consists of the following actions:

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

Q. Is FPL's need for power driven by the demand forecast, the sales forecast, or both?

A. FPL's need for resources, i.e., the amount of resources needed, is driven exclusively by the peak demand forecast, because FPL's needs are currently determined by a reserve margin criterion. The sales forecast may have some influence on the type of resource needed.

Q. Would FPL's peak forecast, and its need for power, be reduced by short-term economic conditions that include recovery from a recession?

A. No, not to any great degree. While an economic downturn may temporarily slow customer growth and result in a permanent loss of some growth, it does not permanently reduce growth rates. Unlike sales, customer usage on the day of the peak is barely influenced by other economic factors such as per capita income or unemployment rates.

For example, Document LEG-6 shows that in the recession between 1990 and 1992, energy use per customer grew at a negative rate of 0.83 percent annually. At the same time, summer peak demand per customer grew at a positive rate of 0.67 percent annually, as shown in Document LEG-7. Further, in 2003 with the economy performing better than in 2002, the summer peak forecast overestimated the peak forecast by 105 MW (0.5 percent) while energy sales were underestimated by 2.5 percent as shown in Document LEG-13.

Q. How does FPL's projected rate of growth in peak demand compare to its historical growth?

A. They are very similar. Using summer peak as the example and as shown in Document LEG-3, FPL's peak demand grew from 15,266 MW in 1993 to 19,668 MW in 2003, a 2.6 percent compound annual growth rate. For the forward-looking period, FPL is projecting a peak demand of 24,784 MW by

the summer of 2013, which is a 2.3 percent compound annual growth rate. In absolute terms, the annual growth in summer peak between 1993 and 2003 was 455 MW while the projected growth between 2003 and 2013 is 512 MW annually. Both periods' growths are similar.

Looking more specifically at the growth in peak demand for the period resources are needed, FPL projects a peak demand unadjusted for incremental conservation or load management of 21,851 MW in 2007, which is an annual average growth rate of 2.7 percent, slightly above the 2.6 percent historical growth rate experienced since 1993. FPL is projecting peak demand growth similar to what it experienced during the past decade.

Q. How does FPL's current projected rate of growth in peak demand compare to the projected rate of growth used in the 2002 Petition for Determination of Need for Electrical Power Plants in Martin and Manatee Counties by FPL?

A. The current projected rate of growth compared to the forecast done for the 2002 Determination of Need is shown in Document LEG-9 for Summer Peak, in Document LEG-10 for Winter Peak, in Document LEG-11 for NEL and in Document LEG-12 for Customers. In terms of Summer Peak, the current forecast for the year 2007 is higher by 295 MW (1.4 percent) and the Winter Peak is higher by 402 MW (1.9 percent) than was projected in 2002. The primary reason for this difference between the current forecast of Summer and

Winter Peaks and the one done in 2002 is that the current outlook for customers in the year 2007 is higher by 20,150 more customers. Furthermore, the current forecast reflects a more optimistic economic scenario, whereas the 2002 Need Determination forecast was prepared shortly after the September 11th attacks.

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

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

Q. Please summarize your testimony.

A. The projected level of demand and energy is in line with the recently observed levels of growth experienced in FPL's system. In developing this forecast, FPL relied on the best information available obtained from dependable sources, and the models employed to generate these forecast met the most stringent statistical tests used to evaluate the suitability of forecasting models. FPL's forecast of demand and energy is well founded and reasonable.

Q. Does this conclude your testimony?

A. Yes, it does.

FPL
2003 MIX OF REVENUE CLASSES

CUSTOMERS

	Customers	% Share of System Total
Residential	3,696,253	88.7%
Commercial	450,059	10.8%
Industrial	17,835	0.4%
Street & Highway	2,665	0.1%
Other	238	0.0%
Railroads & Railways	23	0.0%
Resale	4	0.0%
System Total	4,167,077	100.0%

ENERGY SALES

	MWH	% Share of System Total
Residential	53,484,924	53.0%
Commercial	41,424,867	41.0%
Industrial	4,004,121	4.0%
Street & Highway	424,539	0.4%
Other	63,863	0.1%
Railroads & Railways	93,345	0.1%
Resale	1,511,216	1.5%
System Total	101,006,875	100.0%

NET ENERGY FOR LOAD
(GWH)

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	3,209	3.6%
Forecast (2003 to 2013)	2,488	2.1%

History

Year	GWH	Absolute Growth	% Growth
1990	71,029	1,017	1.5%
1991	73,160	2,131	3.0%
1992	73,097	-63	-0.1%
1993	75,774	2,677	3.7%
1994	80,376	4,601	6.1%
1995	83,961	3,585	4.5%
1996	84,671	710	0.8%
1997	86,850	2,179	2.6%
1998	92,663	5,813	6.7%
1999	91,460	-1,203	-1.3%
2000	95,989	4,529	5.0%
2001	98,404	2,415	2.5%
2002	104,199	5,795	5.9%
2003	108,391	4,192	4.0%

Forecast

Year	GWH	Absolute Growth	% Growth
2004	109,525	1,134	1.0%
2005	112,565	3,040	2.8%
2006	115,942	3,377	3.0%
2007	118,430	2,488	2.1%
2008	120,899	2,470	2.1%
2009	123,115	2,216	1.8%
2010	125,811	2,695	2.2%
2011	128,327	2,516	2.0%
2012	130,724	2,397	1.9%
2013	133,274	2,550	2.0%

SUMMER PEAK
(MW)

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	455	2.6%
Forecast (2003 to 2013)	512	2.3%

History

Year	MW	Absolute Growth	% Growth
1990	13,754	329	2.5%
1991	14,123	369	2.7%
1992	14,661	538	3.8%
1993	15,266	605	4.1%
1994	15,179	-87	-0.6%
1995	16,172	993	6.5%
1996	16,064	-108	-0.7%
1997	16,613	549	3.4%
1998	17,897	1,284	7.7%
1999	17,615	-282	-1.6%
2000	17,808	193	1.1%
2001	18,754	946	5.3%
2002	19,219	465	2.5%
2003	19,668	449	2.3%

Forecast

Year	MW	Absolute Growth	% Growth
2004	20,297	629	3.2%
2005	20,799	502	2.5%
2006	21,331	533	2.6%
2007	21,851	520	2.4%
2008	22,289	438	2.0%
2009	22,784	495	2.2%
2010	23,294	510	2.2%
2011	23,783	489	2.1%
2012	24,279	495	2.1%
2013	24,784	505	2.1%

WINTER PEAK
(MW)

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	625	4.5%
Forecast (2003 to 2013)	435	2.0%

History

Year	MW	Absolute Growth	% Growth
1989-1990	13,988	1112	8.6%
1990-1991	11,868	-2,120	-15.2%
1991-1992	13,319	1,451	12.2%
1992-1993	12,964	-355	-2.7%
1993-1994	12,594	-370	-2.9%
1994-1995	16,563	3,969	31.5%
1995-1996	18,096	1,533	9.3%
1996-1997	16,490	-1,606	-8.9%
1997-1998	13,060	-3,430	-20.8%
1998-1999	16,802	3,742	28.7%
1999-2000	17,057	255	1.5%
2000-2001	18,199	1,142	6.7%
2001-2002	17,597	-602	-3.3%
2002-2003	20,190	2,593	14.7%

Forecast

Year	MW	Absolute Growth	% Growth
2003-2004	20,081	-109	-0.5%
2004-2005	20,583	502	2.5%
2005-2006	21,100	517	2.5%
2006-2007	21,605	505	2.4%
2007-2008	22,046	441	2.0%
2008-2009	22,539	493	2.2%
2009-2010	23,026	487	2.2%
2010-2011	23,522	496	2.2%
2011-2012	24,024	502	2.1%
2012-2013	24,535	511	2.1%

TOTAL CUSTOMERS

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	75,998	2.1%
Forecast (2003 to 2013)	66,553	1.5%

History

Year	Number of Customers	Absolute Growth	% Growth
1990	3,158,817	94381	3.1%
1991	3,226,455	67,638	2.1%
1992	3,281,238	54,783	1.7%
1993	3,355,794	74,556	2.3%
1994	3,422,187	66,393	2.0%
1995	3,488,796	66,609	1.9%
1996	3,550,747	61,951	1.8%
1997	3,615,485	64,738	1.8%
1998	3,680,470	64,985	1.8%
1999	3,756,009	75,539	2.1%
2000	3,848,350	92,341	2.5%
2001	3,935,281	86,931	2.3%
2002	4,019,805	84,523	2.1%
2003	4,117,221	97,416	2.4%

Forecast

Year	Number of Customers	Absolute Growth	% Growth
2004	4,168,421	51,200	1.2%
2005	4,241,326	72,906	1.7%
2006	4,315,007	73,680	1.7%
2007	4,385,245	70,238	1.6%
2008	4,455,713	70,468	1.6%
2009	4,521,322	65,609	1.5%
2010	4,587,137	65,815	1.5%
2011	4,652,864	65,727	1.4%
2012	4,717,877	65,013	1.4%
2013	4,782,747	64,871	1.4%

NET ENERGY FOR LOAD PER CUSTOMER
(GWH)

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	368	1.5%
Forecast (2003 to 2013)	154	0.6%

History

Year	NEL Per Customer	Absolute Growth	% Growth
1990	22,486	-345	-1.5%
1991	22,675	189	0.8%
1992	22,277	-398	-1.8%
1993	22,580	303	1.4%
1994	23,487	907	4.0%
1995	24,066	579	2.5%
1996	23,846	-220	-0.9%
1997	24,022	176	0.7%
1998	25,177	1,155	4.8%
1999	24,350	-827	-3.3%
2000	24,943	593	2.4%
2001	25,006	63	0.3%
2002	25,921	916	3.7%
2003	26,326	405	1.6%

Forecast

Year	Number of Customers	Absolute Growth	% Growth
2004	26,275	-51	-0.2%
2005	26,540	265	1.0%
2006	26,869	329	1.2%
2007	27,006	137	0.5%
2008	27,134	127	0.5%
2009	27,230	96	0.4%
2010	27,427	197	0.7%
2011	27,580	153	0.6%
2012	27,708	128	0.5%
2013	27,865	157	0.6%

SUMMER PEAK PER CUSTOMER

(MW)

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	0.03	0.5%
Forecast (2003 to 2013)	0.04	0.8%

History

Year	Peak Per Customer	Absolute Growth	% Growth
1990	4.35	-0.03	-0.6%
1991	4.38	0.02	0.5%
1992	4.47	0.09	2.1%
1993	4.55	0.08	1.8%
1994	4.44	-0.11	-2.5%
1995	4.64	0.20	4.5%
1996	4.52	-0.11	-2.4%
1997	4.59	0.07	1.6%
1998	4.86	0.27	5.8%
1999	4.69	-0.17	-3.6%
2000	4.63	-0.06	-1.3%
2001	4.77	0.14	3.0%
2002	4.78	0.02	0.3%
2003	4.78	0.00	-0.1%

Forecast

Year	Number of Customers	Absolute Growth	% Growth
2004	4.87	0.09	1.9%
2005	4.90	0.03	0.7%
2006	4.94	0.04	0.8%
2007	4.98	0.04	0.8%
2008	5.00	0.02	0.4%
2009	5.04	0.04	0.7%
2010	5.08	0.04	0.8%
2011	5.11	0.03	0.7%
2012	5.15	0.03	0.7%
2013	5.18	0.04	0.7%

WINTER PEAK PER CUSTOMER

(MW)

Compound Annual Average Growth Rate

	Absolute Growth	% Growth
History (1993 to 2003)	0.08	2.4%
Forecast (2003 to 2013)	0.02	0.5%

History

Year	Peak Per Customer	Absolute Growth	% Growth
1990	4.43	0.22	5.2%
1991	3.68	-0.75	-16.9%
1992	4.06	0.38	10.4%
1993	3.86	-0.20	-4.8%
1994	3.68	-0.18	-4.7%
1995	4.75	1.07	29.0%
1996	5.10	0.35	7.3%
1997	4.56	-0.54	-10.5%
1998	3.55	-1.01	-22.2%
1999	4.47	0.92	26.1%
2000	4.43	-0.04	-0.9%
2001	4.62	0.19	4.3%
2002	4.38	-0.25	-5.3%
2003	4.90	0.53	12.0%

Forecast

Year	Number of Customers	Absolute Growth	% Growth
2004	4.82	-0.09	-1.8%
2005	4.85	0.04	0.7%
2006	4.89	0.04	0.8%
2007	4.93	0.04	0.8%
2008	4.95	0.02	0.4%
2009	4.99	0.04	0.8%
2010	5.02	0.03	0.7%
2011	5.06	0.04	0.7%
2012	5.09	0.04	0.7%
2013	5.13	0.04	0.7%

COMPARISON OF SUMMER PEAK FORECASTS

MW

AVERAGE ANNUAL GROWTH

	Absolute Growth	% Growth
History (1993 to 2003)	455	2.6%
2003 FORECAST (2003 to 2013)	422	2.0%
2004 FORECAST (2003 to 2013)	512	2.3%

HISTORY

	MW	GROWTH Absolute	GROWTH %
1990	13,754	329	2.5%
1991	14,123	369	2.7%
1992	14,661	538	3.8%
1993	15,266	605	4.1%
1994	15,179	-87	-0.6%
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1999	17,615	-282	-1.6%
2000	17,808	193	1.1%
2001	18,754	946	5.3%
2002	19,219	465	2.5%
2003	19,668	449	2.3%

	2003 FORECAST			2004 FORECAST			DIFFERENCE	
		GROWTH			GROWTH			
	MW	Absolute	%	MW	Absolute	%	ABSOLUTE	%
2004	20,226	558	2.8%	20,297	629	3.2%	71	0.3%
2005	20,719	493	2.4%	20,799	502	2.5%	79	0.4%
2006	21,186	467	2.3%	21,331	533	2.6%	145	0.7%
2007	21,556	370	1.7%	21,851	520	2.4%	295	1.4%
2008	21,870	314	1.5%	22,289	438	2.0%	419	1.9%
2009	22,271	401	1.8%	22,784	495	2.2%	513	2.3%
2010	22,687	415	1.9%	23,294	510	2.2%	608	2.7%
2011	23,106	420	1.8%	23,783	489	2.1%	677	2.9%
2012	23,495	389	1.7%	24,279	495	2.1%	784	3.3%
2013	23,887	392	1.7%	24,784	505	2.1%	897	3.8%

COMPARISON OF WINTER PEAK FORECASTS

MW

AVERAGE ANNUAL GROWTH

	Absolute Growth	% Growth
History (1993 to 2003)	625	4.5%
2003 FORECAST (2003 to 2013)	340	1.6%
2004 FORECAST (2003 to 2013)	435	2.0%

HISTORY

	MW	GROWTH Absolute	GROWTH %
1989-1990	13,988	1112	8.6%
1990-1991	11,868	-2,120	-15.2%
1991-1992	13,319	1,451	12.2%
1992-1993	12,964	-355	-2.7%
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1998-1999	16,802	3,742	28.7%
1999-2000	17,057	255	1.5%
2000-2001	18,199	1,142	6.7%
2001-2002	17,597	-602	-3.3%
2002-2003	20,190	2,593	14.7%

	2003 FORECAST			2004 FORECAST			DIFFERENCE	
		GROWTH			GROWTH			
	MW	Absolute	%	MW	Absolute	%	ABSOLUTE	%
2003-2004	19,976	-214	-1.1%	20,081	-109	-0.5%	105	0.5%
2004-2005	20,418	442	2.2%	20,583	502	2.5%	166	0.8%
2005-2006	20,854	436	2.1%	21,100	517	2.5%	246	1.2%
2006-2007	21,204	350	1.7%	21,605	505	2.4%	402	1.9%
2007-2008	21,538	334	1.6%	22,046	441	2.0%	508	2.4%
2008-2009	21,966	427	2.0%	22,539	493	2.2%	573	2.6%
2009-2010	22,366	400	1.8%	23,026	487	2.2%	660	3.0%
2010-2011	22,785	419	1.9%	23,522	496	2.2%	737	3.2%
2011-2012	23,188	403	1.8%	24,024	502	2.1%	836	3.6%
2012-2013	23,592	404	1.7%	24,535	511	2.1%	943	4.0%

COMPARISON OF NET ENERGY FOR LOAD FORECASTS

GWH

AVERAGE ANNUAL GROWTH

	Absolute Growth	% Growth
History (1993 to 2003)	3,209	3.6%
2003 FORECAST (2003 to 2013)	2,204	1.9%
2004 FORECAST (2003 to 2013)	2,488	2.1%

HISTORY

	GWH	GROWTH Absolute	GROWTH %
1990	71029	1017	0.015
1991	73,160	2,131	3.0%
1992	73,097	-63	-0.1%
1993	75,774	2,677	3.7%
1994	80,376	4,601	6.1%
1995	83,961	3,585	4.5%
1996	84,671	710	0 8%
1997	86,850	2,179	2.6%
1998	92,663	5,813	6.7%
1999	91,460	-1,203	-1.3%
2000	95,989	4,529	5.0%
2001	98,404	2,415	2.5%
2002	104,199	5,795	5.9%
2003	108,391	4,192	4.0%

	2003 FORECAST			2004 FORECAST			DIFFERENCE	
		GROWTH			GROWTH			
	GWH	Absolute	%	GWH	Absolute	%	ABSOLUTE	%
2004	108,042	-348	-0.3%	109,525	1,134	1.0%	1,483	1.4%
2005	111,772	3,730	3.5%	112,565	3,040	2.8%	793	0.7%
2006	115,602	3,830	3.4%	115,942	3,377	3.0%	340	0.3%
2007	118,157	2,555	2.2%	118,430	2,488	2.1%	272	0.2%
2008	120,549	2,392	2.0%	120,899	2,470	2.1%	350	0.3%
2009	122,922	2,373	2.0%	123,115	2,216	1.8%	193	0.2%
2010	125,448	2,526	2.1%	125,811	2,695	2.2%	363	0.3%
2011	127,512	2,064	1.6%	128,327	2,516	2.0%	815	0.6%
2012	128,965	1,453	1.1%	130,724	2,397	1.9%	1,759	1.4%
2013	130,434	1,469	1.1%	133,274	2,550	2.0%	2,839	2.2%

COMPARISON OF TOTAL AVERAGE CUSTOMER FORECASTS

AVERAGE ANNUAL GROWTH

	Absolute Growth	% Growth
History (1993 to 2003)	75,998	2.1%
2003 FORECAST (2003 to 2013)	61,123	1.4%
2004 FORECAST (2003 to 2013)	66,553	1.5%

HISTORY

	Number of Customers	GROWTH Absolute	GROWTH %
1990	3,158,817	94381	3.1%
1991	3,226,455	67,638	2.1%
1992	3,281,238	54,783	1.7%
1993	3,355,794	74,556	2.3%
1994	3,422,187	66,393	2.0%
1995	3,488,796	66,609	1.9%
1996	3,550,747	61,951	1.8%
1997	3,615,485	64,738	1.8%
1998	3,680,470	64,985	1.8%
1999	3,756,009	75,539	2.1%
2000	3,848,350	92,341	2.5%
2001	3,935,281	86,931	2.3%
2002	4,019,805	84,523	2.1%
2003	4,117,221	97,416	2.4%

	2003 FORECAST			2004 FORECAST			DIFFERENCE	
		GROWTH			GROWTH			
	Number of Customers	Absolute	%	Number of Customers	Absolute	%	ABSOLUTE	%
2004	4,151,237	34,017	0.8%	4,168,421	51,200	1.2%	17,183	0.4%
2005	4,225,960	74,722	1.8%	4,241,326	72,906	1.7%	15,367	0.4%
2006	4,299,491	73,532	1.7%	4,315,007	73,680	1.7%	15,515	0.4%
2007	4,365,095	65,603	1.5%	4,385,245	70,238	1.6%	20,150	0.5%
2008	4,428,309	63,214	1.4%	4,455,713	70,468	1.6%	27,404	0.6%
2009	4,490,271	61,962	1.4%	4,521,322	65,609	1.5%	31,051	0.7%
2010	4,551,096	60,825	1.4%	4,587,137	65,815	1.5%	36,041	0.8%
2011	4,610,993	59,897	1.3%	4,652,864	65,727	1.4%	41,871	0.9%
2012	4,670,075	59,082	1.3%	4,717,877	65,013	1.4%	47,801	1.0%
2013	4,728,447	58,372	1.2%	4,782,747	64,871	1.4%	54,300	1.1%

2003 FORECAST VARIANCES

Summer Peak (MW)			Winter Peak (MW)			NEL (MWH)			Customers		
Forecast	Actual	% Variance	Forecast	Actual	% Variance	Forecast	Actual	% Variance	Forecast	Actual	% Variance
19,773	19,668	-0.5%	19,490	20,190	3.6%	105,700	108,391	2.5%	4,095,628	4,117,221	0.5%