



New York State Office of the State Comptroller

Office of Budget and Policy Analysis

Alan G. Hevesi
New York State Comptroller

Kim Fine
Deputy Comptroller

June 2006

Long Island Power Authority Summer 2006 LIPA Bills

Introduction

With gasoline prices over \$3 per gallon and mortgage interest rates close to a full percentage point more than last year, higher electric costs this summer on Long Island will place additional pressure on already stressed household budgets. Electric prices rose 21.9 percent over the 12 months ended February 2006 due to two increases in LIPA's Fuel Price Adjustment (originally the Fuel and Purchased Power Cost Adjustment, or FPPCA) implemented on June 8 and October 8, 2005.ⁱ Due to higher prices, as well as a pattern of increasing usage, this year Long Island households can expect to pay an average of \$2,000 for electricity during 2006, including \$830 in the summer, an increase of \$300 over 2005 and \$130 more than last summer.

The Long Island Power Authority (LIPA) made several promises when it took over for the Long Island Lighting Company (LILCO)—the foremost being to lower the exorbitant base electric rates LILCO had charged in the past by 20 percent.ⁱⁱ LIPA did reduce base electric rates by an average of 20 percent in May 1998, and they have not changed since then. However, LIPA has added seven surcharges to customer bills, increasing residential electric costs more than 50 percent since then. As a result, households on Long Island are now paying more for electricity than they did under LILCO in 1998 because of the surcharges.

Contents

- 1 Introduction
- 2 Rising Prices
- 4 Rising Usage
- 6 Rising Prices + Rising Usage =
Rising Bills
- 7 Rising Bills This Summer and
Beyond
- 8 Rising Household Budgets
- 10 Offsetting Prices and Usage

On April 27, 2006, LIPA Chairman Richard Kessel announced that LIPA would hold its rates and fuel surcharges at current levels for the rest of the year, absent a major supply crisis that impacts oil and natural gas prices.ⁱⁱⁱ However, LIPA is stabilizing its rates and fuel surcharges at their highest level since it took over for LILCO in 1998. Long Island's residential electric prices have increased from an average of 12.85 cents per kilowatt hour (kWh) in January 1999 to 19.69 cents per kWh in February 2006—an increase of 53.2 percent.^{iv}

Rising Prices

Long Island's residential electric prices have increased from 12.85 cents per kWh in January 1999 to 19.69 cents per kWh in February 2006—an increase of 53.2 percent.

LIPA's residential electric prices have risen every year since 2000. In March 2001, LIPA instituted its first Fuel Price Adjustment (FPA). As a result, Long Island households paid an average of 13.64 cents per kWh in 2001, an increase of 3.4 percent over 2000 prices. Increases in the FPA in 2003, 2004 and 2005 resulted in price increases of 5.8, 9.1 and 10.4 percent, respectively. Slight FPA decreases in 2002, 2004 and 2006 did not result in overall decreases in the average residential electric price those years because of large FPA increases in the prior year.

**LIPA's Average Residential Electric Price per kWh
1999 through 2005**

Year	Price	Percent Change
1999	\$13.38	N/A
2000	\$13.19	-1.4%
2001	\$13.64	3.4%
2002	\$13.88	1.7%
2003	\$14.69	5.8%
2004	\$16.03	9.1%
2005	\$17.70	10.4%

Source: Energy Information Administration, *Monthly Electric Utility Database (Form EIA-826)*.

LIPA's Rate Structure

Since May 1998, LIPA's residential electric rates have contained a daily service charge of 17.90 cents that does not change throughout the year. Electric rates also contain an energy charge based on usage costs per kWh. This rate is currently 12.49 cents per kWh for the first 250 kWh of electricity used each month and also does not change throughout the year. For usage above this amount, there are two rate periods: June 1 through September 30 and October 1 through May 31. During the summer months—June 1

through September 30—LIPA charges 13.67 cents per kWh for usage beyond 250 kWh.^v The rest of the year, LIPA's charge for electric usage beyond 250 kWh drops to 11.79 cents per kWh. Higher prices during the summer months may reflect higher generation and purchased power costs incurred by LIPA during peak pricing periods and may discourage consumption during peak usage periods.

Residential Electric Rate Structure

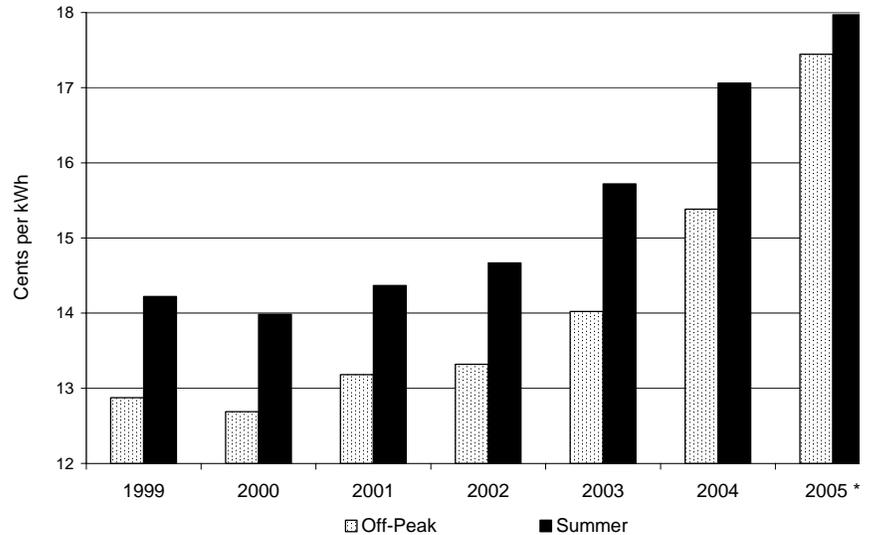
Rate	Summer June - Sept.	Off-Peak Oct. - May
Service Charge	\$17.90	\$17.90
First 250 kWh	\$12.49	\$12.49
Over 250 kWh	\$13.67	\$11.79

Source: Long Island Power Authority, *LIPA's Common Residential Electric Rates* (Rate 180 and 183)

Summer Prices

As a result of this rate structure, a pattern of increased usage and the FPA, average electric prices are higher during the summer months. For example, Long Island households paid an average of 14.22 cents per kWh during the summer of 1999, 10.5 percent more than the 12.87 cents per kWh average they paid during the rest of the year.^{vi} In 2005, Long Island residents paid an average of 17.97 cents per kWh for the summer, only 3.0 percent more than the 17.45 cents per kWh average they paid during the rest of that year. The smaller difference in 2005 occurred because of LIPA's large surcharge increase in October 2005. From October to November 2005, the residential electric price increased from an average of 18.61 cents per kWh to 19.54 cents per kWh—an increase of 5.0 percent in one month alone.

LIPA's Average Summer and Off-Peak Residential Electricity Prices



Source: Energy Information Administration, *Monthly Electric Utility Database (Form EIA-826)*

* The smaller difference in 2005 occurred because of LIPA's large surcharge increase in October 2005.

Rising Usage

From 1999 to 2005, the annual amount of electricity used by the average Long Island household increased 14.5 percent from an average of 8,639 kWh to 9,888 kWh.

From 1999 to 2005, the annual amount of electricity used by the average Long Island household increased 14.5 percent from an average of 8,639 kWh to 9,888 kWh.^{vii} By 2005, annual average household electricity usage on Long Island was the fourth highest in the nation.^{viii} Since 2000, average household usage has increased every year, except from 2002 to 2003. The reason for the decrease that year was an average reduction of 228 kWh, or 5.9 percent, in summer usage due to unusually mild weather.

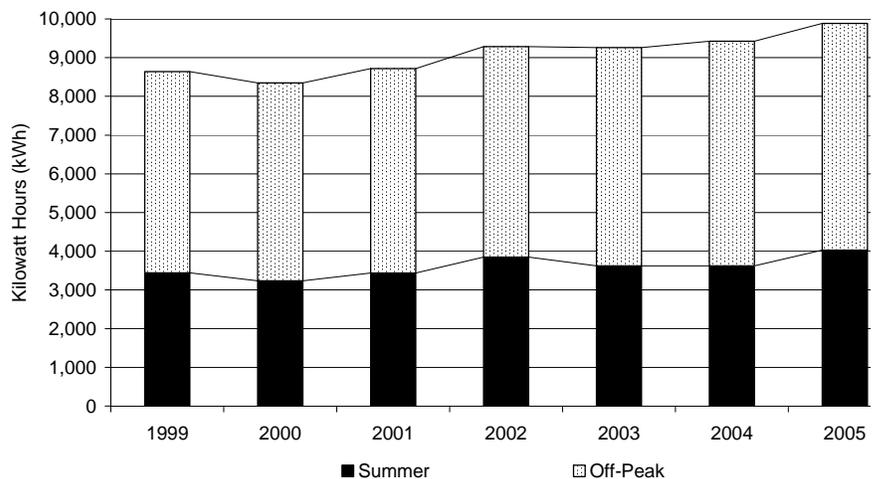
Summer Usage

From 2004 to 2005, annual average household usage increased 4.9 percent, driven primarily by an increase in summer usage of 407 kWh, or 11.2 percent. During the summer—June 1 through September 30—Long Island households typically use 40.0 percent of their annual electricity. Summer electric usage is more sensitive to temperature fluctuations than during the rest of the year. Central air conditioning consumes more electricity than any other aspect of residential demand. In 2001, households across the nation consumed approximately 16.0 percent of their annual electricity to cool their homes, while only 10.0 percent was used for space heating.^{ix} In addition, many towns in the Hamptons report a tenfold increase in their

population between Memorial Day and Labor Day, increasing summer demand significantly in that region.^x

From 1999 to 2005, average household summer electric usage on Long Island increased 589 kWh, or 17.1 percent, from 3,439 kWh to 4,028 kWh.^{xi} In 2005, driven by a number of factors, including above average temperatures, total summer residential electricity usage on Long Island increased 11.2 percent over the prior year.^{xii} LIPA also set three overall electric demand records during July and August 2005. The previous all-time summer demand record set in 2002 was broken on July 19 when Long Island businesses and residents used 5,239 megawatt hours (mWh) of electricity. (Megawatt hours are often used to measure a region's daily usage of electricity.) Less than a month later, new records were set when summer demand surged to 5,267 mWh and weekend demand reached 5,141 mWh.^{xiii}

Long Island Summer and Off-Peak Average Household Electricity Usage - 1999 to 2005



Source: Energy Information Administration, *Monthly Electric Utility Database (Form EIA-826)*.

The Factors Behind Rising Usage

Many factors have contributed to the rising demand for electricity on Long Island, including increasing population and the resulting need for additional housing. According to a March 2006 report, the New York/New Jersey/Long Island area ranked first in the number of building permits issued in 2005 for the construction of multifamily homes. The New York/New Jersey/Long Island area ranked 13th among the same top 50 metropolitan areas for 2005 single family home building permits.^{xiv}

Homes exceeding 3,500 square feet, like many found on Long Island, use about 34 percent more energy than homes between 2,000 and 2,500 square feet.

In addition, recent housing trends are toward bigger and more technologically equipped homes. Nationally, nearly 40.0 percent of new homes exceed 2,400 square feet and 90.0 percent have central air conditioning.^{xv} A national survey of residential energy consumption conducted by the Energy Information Administration (EIA) in 2001 found that homes exceeding 2,500 square feet use nearly 42.0 percent more energy than those with 1,500 square feet or less. Homes exceeding 3,500 square feet, like many found on Long Island, use about 34.0 percent more energy than homes between 2,000 and 2,500 square feet. Heating and air-conditioning require significantly more energy as the size of the home increases. The survey found that a 3,500 square foot home uses 47.0 percent more energy to cool and 28.0 percent more energy to heat than would be required for a 2,500 square foot home.^{xvi}

Energy Consumption (million Btu)*

Floorspace	Total Energy	Air Conditioning	Heating
Small (1,000 to 1,499 square feet)	75.4	7.4	37.6
Medium (2,000 to 2,499 square feet)	106.8	9.5	54.9
Large (3,500 to 3,999 square feet)	143.6	14.0	70.4
Percent Change (Small to Medium)	42%	28%	46%
Percent Change (Medium to Large)	34%	47%	28%

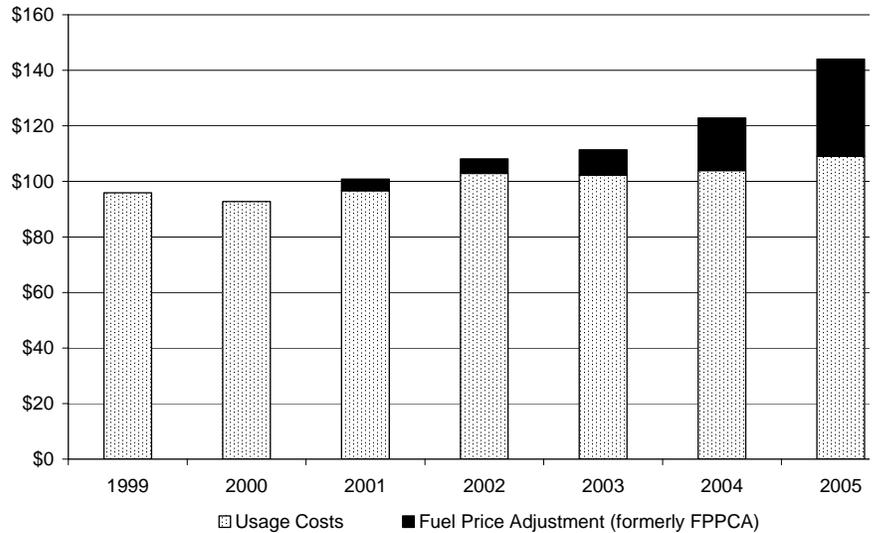
Source: Energy Information Administration, *2001 Residential Energy Consumption Survey*

* A British thermal unit (Btu) is the quantity of heat needed to raise the temperature of one pound of water one degree Fahrenheit.

**Rising Prices +
Rising Usage =
Rising Bills**

As a result of rising prices and rising usage, the average Long Island household paid nearly \$50 more per month in 2005 than it did in 1999.^{xvii} In 1999, the average Long Island household paid \$95.60 per month for electricity.^{xviii} In 2001, when the first FPA was included in customer bills, the average Long Island household paid \$96.64 for electric usage and \$4.18 in surcharges each month. By 2005, the average Long Island household paid \$109.08 for electric usage and \$34.92 in surcharges for an average total monthly electric bill of \$144.00, an increase of 50.6 percent in total costs from 1999.

Average Monthly Residential LIPA Bills - 1999 to 2005



Source: Energy Information Administration, *Monthly Electric Utility Database (Form EIA-826)*

Summer Bills

As discussed above, LIPA’s summer electric prices and usage are higher than during off-peak months. Therefore, it is not surprising that summer electric bills are higher than off-peak bills. In 1999, summer electric bills averaged \$120.05 per month, approximately \$36 more than average monthly off-peak bills of \$83.76. By 2005, average summer electric bills had increased \$56.87 to \$176.92 per month, now nearly \$50 more than off-peak bills. Overall, the average Long Island household paid about \$480 for electricity during the summer of 1999. When temperatures soared above average during the summer of 2005, the average amount paid was over \$700 for electricity, including nearly \$150 in fuel surcharges.

Rising Bills This Summer and Beyond

LIPA officials predict that the economy on Long Island will remain relatively strong and unemployment relatively low, resulting in increased electric usage per customer.^{xi} In June 2004, LIPA forecasted an increase in total sales of 9.9 percent between 2006 and 2013, from 19,482 gigawatt hours (gWh) in 2006 to 21,409 gWh in 2013.^{xx} (One gigawatt hour is equal to 1,000 mWh.) If residential sales continue to make up 51.0 percent of total sales in 2006 as they did in 2005, Long Island households could consume an average of 9,933 kWh of electricity in 2006, including 3,993 kWh of electricity during the summer alone.^{xxi} With demand rising, a recent Federal Energy Regulatory Commission (FERC) report cited

Long Island as one of four areas with potential scarcity issues.^{xxii} The report also noted that recent generation investments in New York City have relieved reliability concerns there, but supply-demand balances on Long Island remain tight. When electricity supply is tight, very high purchased power prices may result, placing additional pressure on LIPA to raise its FPA or temporarily absorb higher costs to be recouped from ratepayers in the future.

Long Island households have paid more for electricity every year since 2000. Without any additional surcharges or rate increases, the average Long Island household can expect to pay \$2,000 for electricity in 2006, including nearly \$680 in fuel surcharges. Under normal weather conditions, the average Long Island household will pay nearly \$830 in electricity costs this summer, including \$270 in fuel surcharges.^{xxiii} In other words, the average household will pay \$130 more for using less electricity than last year. If this summer is as hot as last summer, Long Island households will pay significantly more than \$830 in total electric costs. With gasoline prices over \$3 per gallon and mortgage interest rates close to a percentage higher than last year, this summer's higher electricity costs will place additional pressure on already stressed household budgets.

Under normal weather conditions, the average Long Island household will use less electricity this summer than in 2005, but pay nearly \$830 in total electricity costs this summer, including \$270 in fuel surcharges.

Rising Household Budgets

In a speech to the Huntington Chamber of Commerce on April 27, 2006, LIPA's Chairman Kessel acknowledged that LIPA bills are "too high," but added "with gasoline prices going up through the roof, the surcharge isn't the same issue it was a few months ago, because the LIPA bill is the same month to month as long as you use the same [amount]... you're going to the gas station, and it was \$2.69 earlier this month and now it's \$3.16."^{xxiv}

Despite the Chairman's acknowledgement that bills are already "too high," he fails to recognize that the impact of already higher electric bills on household budgets will be compounded by higher gasoline prices this summer. In addition to high electric bills, Long Island residents face other historically high costs associated with the region, including property taxes, school taxes, gasoline and other housing costs.

Other Household Expenses

A recent report by the Office of the State Comptroller found that Nassau and Suffolk counties have tax burdens per household that are more than twice the statewide average. In addition, between 1995 and 2005, the overall combined tax levy in Nassau and Suffolk counties increased by 74.8 percent and 63.8 percent, respectively.^{xxv}

School taxes, another unavoidable cost for Long Island residents, represent the largest portion of the overall property tax burden. During the last five years, the amount of taxes paid for schools on Long Island has increased by over 50.0 percent.^{xxvi} Last year, school taxes on Long Island increased 7.9 percent.^{xxvii} With several districts asking for double-digit tax increases in 2005, 45 of the 124 school district budgets (36.0 percent) were rejected by taxpayers.^{xxviii} By comparison, only 12.0 percent of school district budgets were rejected in the rest of New York State.^{xxix} This year, while many school districts asked for drastically smaller increases, Long Island residents will still pay 6.2 percent more in school taxes during 2007-08.^{xxx}

Housing costs, such as mortgage payments, are also higher than in much of the State. Nationally, over 40.0 percent of single-family mortgages are adjustable rate mortgages. Given the increase in rates over the last year, monthly mortgage payments could be \$200 higher per month and home equity lines of credit will also be more expensive.^{xxxi}

Gasoline

Long Island residents rely heavily on fossil fuels not only to generate electricity, but to provide fuel for their vehicles. Despite efforts to reduce their reliance on fossil fuels, for many Long Islanders these costs are unavoidable. Gas prices have already reached unprecedented levels and energy experts predict that they will remain high throughout the summer. With more than 2 million registered vehicles, Long Island has one of the highest per capita car ownership rates in the country.^{xxxii} Those vehicles consume 1.3 million gallons of oil each year.^{xxxiii} Gasoline prices are 80 cents higher this May than in May 2005. If this price differential continues, Long Island motorists will pay over \$480 more for gas in 2006 than they did the year before.

Offsetting Rising Prices and Usage

LIPA is working to mitigate increased electricity demand and higher prices for the fuel used to generate electricity through a number of initiatives. In May 1999, LIPA's Board of Trustees introduced a Clean Energy Initiative (CEI). The mission of the program is to fulfill LIPA's promise to conserve energy. To that end, LIPA's Board of Trustees structured the initiative around accomplishing the following eight policy objectives:

1. Further customers' ability to control their energy bills,
2. Provide stimulus to the local economy,
3. Enhance customer retention,
4. Defer or reduce capacity needs,
5. Build customer trust and LIPA brand loyalty,
6. Promote a positive image for LIPA,
7. Reduce power plant emissions, and
8. Contribute to a sustainable energy future.^{xxxiv}

Since its introduction, the CEI has evolved to encompass nine energy efficiency programs related to Lighting and Appliances, Air Conditioner Turn-In Bounties, Heating Ventilation and Air Conditioning, Energy Affordability, Photovoltaics Information/Education, Commercial Construction, Customer Demand Management and Customer-Driven Efficiency. The program also includes a variety of research and development initiatives that address fuel cell, photovoltaic, wind and other technologies.^{xxxv}

The CEI was originally created as a five-year, \$160 million effort targeted at achieving energy capacity savings for LIPA, delivering electric bill savings to customers and providing environmental benefits.^{xxxvi} In May 2003, the initiative was extended for another five years and funding was increased to \$355 million over ten years.

In order to limit its exposure to market price fluctuations of the oil, natural gas and electricity it purchases, LIPA uses derivative financial instruments.^{xxxvii} LIPA's Chairman Kessel stated that LIPA will be able to hold rates and surcharges flat this year, absent a major oil or natural gas supply crisis, because it has hedged 80.0 percent of its current year composite oil and gas needs. This hedging program has saved LIPA and its customers almost \$300 million through 2005. LIPA officials expect the strategy to save \$160 million in 2006.^{xxxviii} Although the hedging program has resulted in savings, using derivative financial instruments to hedge market fluctuations exposes LIPA to risks that are ultimately borne by LIPA's ratepayers.

Using derivative financial instruments to hedge market fluctuations exposes LIPA to risks that are ultimately borne by LIPA's ratepayers.

Despite successful hedging, LIPA has still been faced with substantial fuel and purchased power cost increases. Costs not passed along to ratepayers in the form of surcharges have been absorbed by LIPA.^{xxxix} Household electric bills on Long Island would be higher than they are now if LIPA had not absorbed increased purchased power costs.^{xl} However, absorbed purchased power costs do not disappear. LIPA has been forced to aggressively restructure its enormous debt load in order to absorb increasing fuel and purchased power costs. As a result, Long Islanders will be paying for past increases in fuel and purchased power costs for years to come.

ⁱ Energy Information Administration. *Monthly Electric Utility Database (Form EIA-826)*. As of June 2006, data on LIPA's electricity price is available from January 1999 through February 2006.

ⁱⁱ This is the fourth formal report in a series on LIPA's financial policies by the Office of State Comptroller. Prior reports on LIPA include *Efforts To Measure And Influence Public Opinion* (July 2003), *Review of Budget Procedures* (January 2004) and *Considerations For Rate Setting* (December 2005). In addition to these reports, the Office of the State Comptroller audits the utility; reviews and approves its contracts; monitors, comments and approves the terms and conditions of its debt transactions; and, from time to time, comments on other aspects of LIPA's financial strategies and performance.

ⁱⁱⁱ LIPA Press Release. "Kessel: LIPA Will Maintain Rates & Charges in '06." April 27, 2006.

^{iv} Energy Information Administration. *Monthly Electric Utility Database (Form EIA-826)*.

^v As outlined in LIPA's *Common Residential Electric Rates - Rate 180 and 183*.

^{vi} Energy Information Administration. *Monthly Electric Utility Database (Form EIA-826)*.

^{vii} *Ibid.*

^{viii} LIPA Press Release. "LIPA Projects Sufficient Electricity Supply for Summer 2005." June 22, 2005. Average residential electric use is higher in Florida, Texas and Southern California.

^{ix} Energy Information Administration. *End-Use Consumption of Electricity*. 2001.
<<http://www.eia.doe.gov/emeu/recs/recs2001/enduse2001/enduse2001.html>>.

^x "For Some, It's Homeless in the Hamptons." *The Washington Post*. May 20, 2006: F31.

^{xi} Energy Information Administration. *Monthly Electric Utility Database*.

^{xii} *Ibid.*

^{xiii} LIPA Press Releases: July 19, 2005, August 5, 2005 and August 13, 2005. Kilowatt hours (kWh) are often used in the context of home energy bills. Megawatt hours (MWh) are often used in the context of Long Island's daily electricity usage. Gigawatt hours (GWh) are often used in the context of Long Island's total summer or annual usage. Each measurement goes up in measures of 1,000 (1 MWh = 1,000 kWh and 1 GWh = 1,000 MWh).

^{xiv} National Association of Homebuilders. *Housing Facts, Figures and Trends*. March 2006.

^{xv} *Ibid.*

^{xvi} Energy Information Administration. *Residential Energy Consumption Survey*. 2001.

^{xvii} It is important to note that while all households on Long Island are affected by rising prices, the construction of new and larger homes has an adverse impact on calculation of the average monthly bill.

^{xviii} Energy Information Administration. *Monthly Electric Utility Database (Form EIA-826)*.

^{xix} Long Island Power Authority. *2005 Long Island Population Survey*. December 2005.

^{xx} Long Island Power Authority. *LIPA Energy Plan 2004-2013*. June 23, 2004.

^{xxi} Energy Information Administration. *Monthly Electric Utility Database (Form EIA-826)*.

^{xxii} Federal Energy Regulatory Commission. *Summer Energy Market Assessment*. May 18, 2006. Southwestern Connecticut, Southern California and Southern Ontario were also cited as areas of concern.

^{xxiv} As used in this reference and throughout this report, summer encompasses the months of June, July, August and September—the same months LIPA uses for peak pricing. Electric costs are based on average monthly residential usage on Long Island from 1999 through 2005.

^{xxiv} “LIPA Says It’ll Hold the Line on Bills.” *Newsday*. April 28, 2006.

^{xxv} New York State Office of the State Comptroller. *Property Taxes in New York State*. April 2006.

^{xxvi} Long Island Association. *The Lifestyle You Overturn May be Your Own*. May 2006.

^{xxvii} “LI Schools Propose Budgets With Lower Increases.” *Newsday*. April 30, 2006.

^{xxix} Long Island Association. *The Lifestyle You Overturn May be Your Own*. May 2006.

^{xxix} *Ibid.*

^{xxx} “Returns Show a Strong Majority of Districts Win Voters’ Approval This Time – After Two Years of Widespread Rejections.” *Newsday*. May 17, 2006.

^{xxxi} Mortgage Bankers Association. <<http://www.mbaa.org>>. This assumes a 1 percent increase in rates and a \$300,000 mortgage. The median price of a home sold in 2005 was \$489,000 in Nassau County and \$397,000 in Suffolk County.

^{xxxii} “Youth Seen as Key for LI.” *2006 Long Island Index* and *Newsday*. May 26, 2006.

^{xxxiii} *Long Island Index*, 2006. <www.longislandindex.org>.

^{xxxiv} LIPA Clean Energy Initiative. Biennial Report. June 2003. <www.lipa.org>.

^{xxxv} LIPA Biennial Report on Clean Energy. June 2003. <www.lipa.org>.

^{xxxvi} LIPA Press Release. “LIPA Adopts New Energy Efficiency/Conservation Initiatives Will Also Promote Use of New Energy Technologies.” May 3, 1999.

^{xxxvii} LIPA reimburses KeySpan according to joint agreements for the cost of oil and natural gas used to produce power at generating plants on Long Island and for the cost KeySpan incurs to purchase power from the electric grid.

^{xxxviii} “LIPA Freezes Its Rates.” *Long Island Business News*. April 27, 2006.

^{xxxix} LIPA Press Release. “LIPA Files Petitions with State Public Service Commission.” May 3, 2006. According to LIPA, approximately \$900 million in fuel and purchased power costs has not been passed along to ratepayers since 1999.

^{xl} *Ibid.*

Major contributors include:

Kim Fine
Tom Marks
Kristee Iacobucci
Darren Kempner
Jody Dixon
Kathleen Kerwin

Deputy Comptroller
Assistant Comptroller/Chief Economist
Policy Research Specialist
Policy Research Specialist
Policy Research Specialist
Research Assistant

**New York State
Office of the State Comptroller
Office of Budget and Policy Analysis**

Additional copies may be obtained from:

Office of the State Comptroller
Public Information Office
110 State Street
Albany, New York 12236
(518) 474-4015

Or through the Comptroller's website at www.osc.state.ny.us.