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# PATTERNS AND TRENDS

**NEW YORK STATE ENERGY PROFILES: 1992-2006**

**JANUARY 2008**

**NEW YORK STATE  
ENERGY RESEARCH AND  
DEVELOPMENT AUTHORITY**



**PATTERNS AND TRENDS**  
**NEW YORK STATE ENERGY PROFILES: 1992-2006**

**NEW YORK STATE**  
**ENERGY RESEARCH AND**  
**DEVELOPMENT AUTHORITY**

17 Columbia Circle  
Albany, NY 12203-6399

[www.nyserda.org](http://www.nyserda.org)

January 2008

# MESSAGE FROM THE PRESIDENT

*Patterns and Trends* provides a 15-year overview of New York State energy-related data compiled annually by NYSERDA's Energy Analysis Program. The report provides sector-specific data on energy production and use, sources of energy supply, fuel prices, and energy expenditures. Comparisons with other states and the U.S. average are also provided for selected data sets.

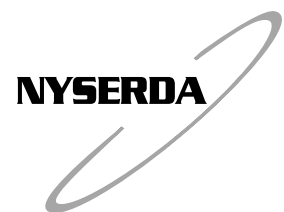
The State continues to face serious energy and environmental challenges, including climate change, aging energy infrastructure, high energy costs, and continued heavy reliance on imported fuels. In addition, New York faces a growing demand for fuels to power cars and trucks, heat homes and businesses, and generate electricity. We are taking on these issues, in part, by working to increase New York's energy efficiency and use of renewable sources of energy through the System Benefits Charge and Renewable Portfolio Standard programs.

To address these challenges, sound and objective data are required to promote effective planning and analyses. *Patterns and Trends* is designed to support such activities and to provide New York's many energy stakeholders with a reliable source of energy information.

In an effort to make the data useful to a broad audience, data are represented in both tabular and graphic form. To allow for direct comparisons across sectors and fuel types, data are presented in fuel-specific physical units, such as barrels, cubic feet, and tons; and also in British thermal units (Btu).

NYSERDA welcomes any feedback that users of this report would like to offer, especially suggestions on how *Patterns and Trends* may better meet the needs of the State's energy stakeholders.

Paul D. Tonko, President and Chief Executive Officer  
New York State Energy Research and Development Authority



**2006  
NEW YORK STATE  
ENERGY FAST FACTS**

**PRIMARY ENERGY CONSUMPTION**

*4.1% lower than 2005*

Primary consumption (4.1% of U.S. total) (trillion Btu) . . . . 4,070.9

By sector:

|   |         |
|---|---------|
| Residential . . . . . (15%) . . . . .         | 606.7   |
| Commercial . . . . . (11%) . . . . .          | 486.0   |
| Industrial . . . . . (4%) . . . . .           | 173.4   |
| Transportation . . . . . (29%) . . . . .      | 1,189.3 |
| Electric Generation . . . . . (41%) . . . . . | 1,671.4 |

By fuel type:

|   |         |
|---|---------|
| Petroleum . . . . . (39%) . . . . .               | 1,584.4 |
| Natural gas . . . . . (27%) . . . . .             | 1,172.1 |
| Nuclear . . . . . (11%) . . . . .                 | 440.3   |
| Coal . . . . . (7%) . . . . .                     | 272.8   |
| Hydro . . . . . (7%) . . . . .                    | 290.0   |
| Biofuels . . . . . (4%) . . . . .                 | 177.7   |
| Net imported electricity . . . . . (5%) . . . . . | 189.4   |

Primary consumption per capita (million Btu) . . . . . 210.0

**NET ENERGY CONSUMPTION AND EXPENDITURES**

|  |   |
|--|---|
| Net Energy Consumption<br>(trillion Btu) | Estimated Expenditures<br>(billion dollars) |
|--|---|

Total: . . . . . 2,910.8 . . . . . \$59.5

By sector:

|  |        |
|--|--------|
| Residential . . . . . (27%) . . . . . 773.5 . . . . . (29%) . . . . .      | \$17.4 |
| Commercial . . . . . (24%) . . . . . 694.2 . . . . . (26%) . . . . .       | \$15.7 |
| Industrial . . . . . (8%) . . . . . 242.0 . . . . . (6%) . . . . .         | \$3.3  |
| Transportation . . . . . (41%) . . . . . 1,201.0 . . . . . (39%) . . . . . | \$23.2 |

By fuel type:

|   |        |
|---|--------|
| Petroleum . . . . . (52%) . . . . . 1,515.2 . . . . . (49%) . . . . . | \$29.0 |
| Natural gas . . . . . (24%) . . . . . 717.0 . . . . . (16%) . . . . . | \$9.6  |
| Electricity . . . . . (18%) . . . . . 511.2 . . . . . (35%) . . . . . | \$20.8 |
| Biofuels . . . . . (4%) . . . . . 125.6 . . . . .                     |        |
| Coal . . . . . (2%) . . . . . 41.7 . . . . . (1%) . . . . .           | \$0.1  |

Estimated energy expenditures leaving the state . . . . \$30.5

**AVERAGE ENERGY PRICES**

|  | <u>2006</u> | <u>2005</u> |
|--|-------------|-------------|
| Gasoline - all grades (gallon) . . . . . | \$2.74      | \$2.24      |
| Heating oil (gallon) . . . . .           | \$2.59      | \$2.19      |
| Natural gas (thousand cubic feet)        |             |             |
| Residential . . . . .                    | \$15.91     | \$14.91     |
| Commercial . . . . .                     | \$12.10     | \$12.88     |
| Industrial . . . . .                     | \$10.71     | \$9.88      |
| Electricity (kilowatthour)               |             |             |
| Residential . . . . .                    | 16.7¢       | 15.7¢       |
| Commercial . . . . .                     | 13.6¢       | 14.4¢       |
| Industrial . . . . .                     | 8.6¢        | 8.2¢        |

**GREENHOUSE GAS EMISSIONS FROM FUEL COMBUSTION**

Total (million tons of CO<sub>2</sub> equivalent) . . . . . 222.0

By sector:

|   |      |
|---|------|
| Residential . . . . . (16%) . . . . .         | 36.6 |
| Commercial . . . . . (13%) . . . . .          | 28.1 |
| Industrial . . . . . (8%) . . . . .           | 17.8 |
| Transportation . . . . . (39%) . . . . .      | 85.7 |
| Electric Generation . . . . . (24%) . . . . . | 53.8 |

By fuel type:

|                             |
|-----------------------------|
| Petroleum . . . . . (57%)   |
| Natural gas . . . . . (30%) |
| Coal . . . . . (13%)        |

Greenhouse gas emissions per capita  
(tons of CO<sub>2</sub> equivalent) . . . . . 11.5

**ELECTRICITY**

*Sales decreased less than 1% from 2005*

Sales to ultimate consumers (gigawatthours) . . . . . 149,838

By sector:

|   |        |
|---|--------|
| Residential . . . . . (33%) . . . . .   | 48,896 |
| Commercial . . . . . (52%) . . . . .    | 77,419 |
| Industrial . . . . . (13%) . . . . .    | 20,102 |
| Transportation . . . . . (2%) . . . . . | 3,421  |

Generation (gigawatthours) . . . . . 162,237

By fuel type:

|  |        |
|--|--------|
| Nuclear . . . . . (26%) . . . . .                  | 42,224 |
| Natural Gas . . . . . (25%) . . . . .              | 41,250 |
| Hydro . . . . . (18%) . . . . .                    | 28,422 |
| Coal . . . . . (13%) . . . . .                     | 21,185 |
| Net Imported Electricity . . . . . (12%) . . . . . | 18,750 |
| Petroleum . . . . . (4%) . . . . .                 | 6,816  |
| Biofuels . . . . . (2%) . . . . .                  | 3,072  |
| Wind . . . . . (0.3%) . . . . .                    | 518    |

**PETROLEUM**

*Consumption decreased 12% from 2005*

Consumption (4% of U.S. total) (million barrels) . . . . . 288.1

By sector:

|  |       |
|--|-------|
| Residential . . . . . (12%) . . . . .        | 33.6  |
| Commercial . . . . . (9%) . . . . .          | 25.1  |
| Industrial . . . . . (3%) . . . . .          | 7.4   |
| Transportation . . . . . (72%) . . . . .     | 211.0 |
| Electric generation . . . . . (4%) . . . . . | 11.0  |

Dependence on foreign oil . . . . . 89%

In-State production (thousand barrels) . . . . . 319.0

**NATURAL GAS**

*Consumption increased 2% from 2005*

Consumption (5% of U.S. total) (billion cubic feet) . . . . . 1,093

By sector:

|   |     |
|---|-----|
| Residential . . . . . (32%) . . . . .         | 356 |
| Commercial . . . . . (24%) . . . . .          | 260 |
| Industrial . . . . . (7%) . . . . .           | 78  |
| Transportation . . . . . (1%) . . . . .       | 11  |
| Electric generation . . . . . (36%) . . . . . | 388 |

In-State production (billion cubic feet) . . . . . 55

**ADDITIONAL STATISTICS**

Population (6.4% of U.S. total) (million) . . . . . 19.3

Number of housing units (million)(2005) . . . . . 7.9

Gross State Product (billion 2000 dollars) . . . . . \$900.0

Motor vehicle registrations (million) (2005) . . . . . 11.9

Vehicle miles of travel (billion miles) (2005) . . . . . 139.6

Heating degree days (decreased 13% from 2005) . . . . . 5,189

Cooling degree days (decreased 22% from 2005) . . . . . 737

**DATA SOURCE**

**NEW YORK STATE  
ENERGY RESEARCH AND  
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Albany, New York 12203-6399

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# Overview

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*Patterns and Trends* is organized in six sections:

**Section 1: Energy Profiles for the United States and New York** compares energy consumption, selected energy prices, sources of petroleum products, and other factors influencing energy demand and expenditures in the United States and New York. National petroleum statistics have been aggregated to represent the same six fuels included in the New York data, specifically gasoline, distillate fuel, kerosene, aviation fuels, residual oil, and liquefied petroleum gases.

**Section 2: New York Energy Consumption** provides historical data for primary and net energy consumption by fuel type and sector, including residential, commercial, industrial, and transportation. “Primary” represents total consumption of fuels by sector, including the electricity generation sector. “Net” is the end-use consumption by sector, including electricity sales but excluding losses incurred during generation and distribution of electricity.

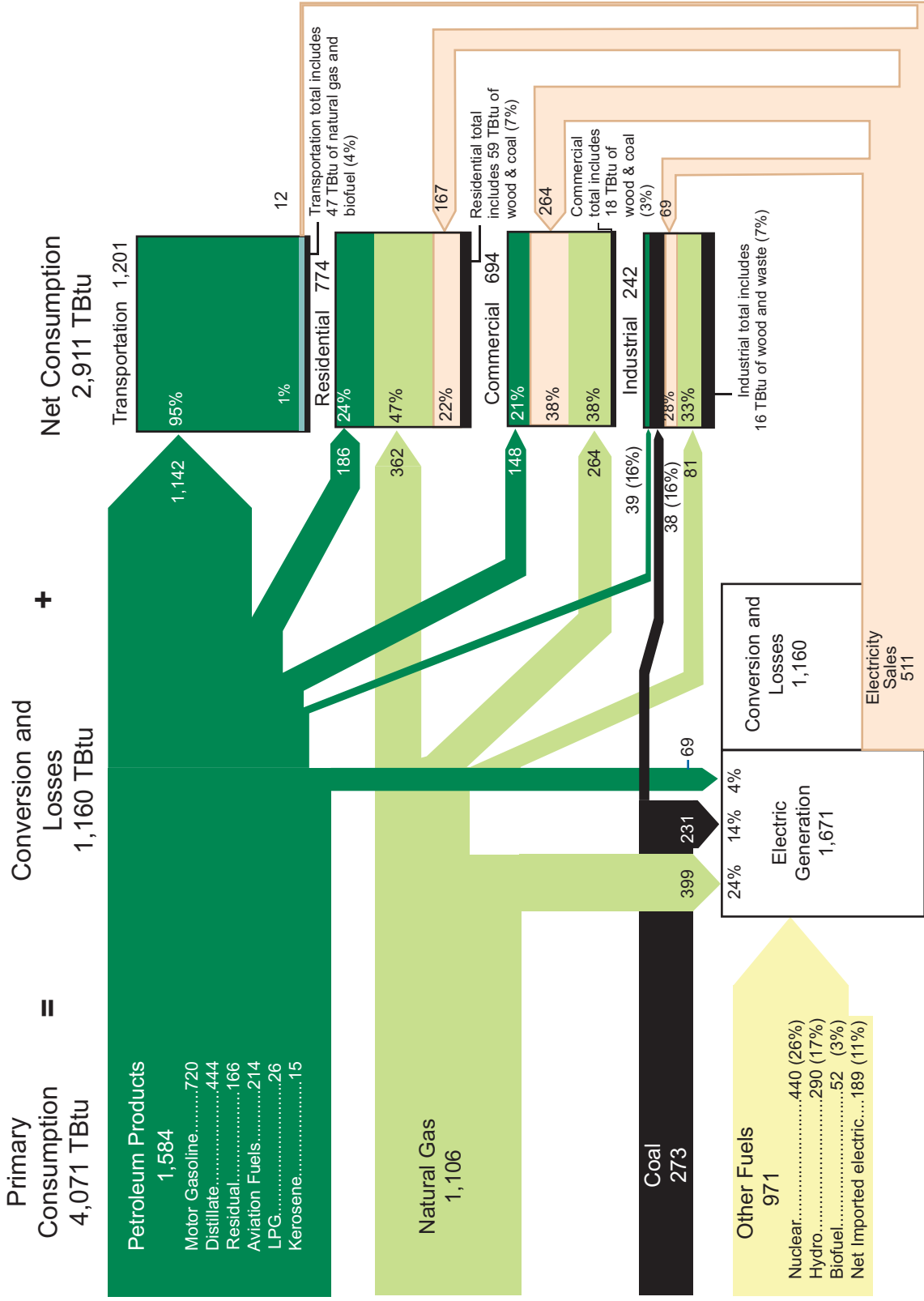
**Section 3: New York Energy Prices** presents retail energy price data. Retail energy prices are provided by fuel type for each sector in nominal dollars per physical unit and per million Btu.

**Section 4: New York Energy Expenditures** presents the estimated net energy expenditures by sector and fuel type in nominal dollars, as well as in 2006 constant (inflation adjusted prices) dollars. Estimated expenditures were derived by multiplying quantities consumed by their respective retail prices.

**Section 5: New York’s Sources of Energy** provides information on sources of New York energy supplies.

**Section 6: Appendices** provides data on greenhouse gas emissions from fuel combustion, household end-use energy consumption and expenditures, gasoline consumption by county, occupied housing units by type of space heating, degree-days, conversion factors, and a glossary of energy terms.

# 2006 NEW YORK STATE ENERGY FLOW (TBtu)



# PATTERNS AND TRENDS

## New York State Energy Profiles: 1992-2006

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**Patterns and Trends - New York State Energy Profiles: 1992-2006** presents a 15-year, historical overview of energy statistics for the State. It is an objective and reliable source of energy-related information for use by the general public, businesses, and government analysts. This report was prepared using the most recent comprehensive data available through the 2006 calendar year. Historical data prior to 1992 is available upon request for most data series.

For more information, contact Christopher Hall, NYSERDA, 17 Columbia Circle, Albany, New York 12203-6399; 518-862-1090 ext. 3383; or visit [www.nyserderda.org](http://www.nyserderda.org).

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## Section 1

# ENERGY PROFILES FOR THE UNITED STATES AND NEW YORK

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This section compares energy consumption, selected energy prices, sources of petroleum, and factors influencing energy demand and expenditures for the United States and New York. Additional statistics compare recent energy consumption and expenditure trends among all states. New York and national data are comparable and exclude petroleum products not used as a form of energy including: propane used in the chemical industry, asphalt, road oil, lubricants, and petrochemical feedstocks.

Selected New York State data is compiled from State sources and may differ from statistics reported for New York in federal energy publications. For example, aviation fuel estimates developed using sales data at major New York City airports, and extrapolated to derive statewide consumption figures, are larger than comparable estimates appearing in federal reports.

Selected state and national energy consumption and expenditure data series are presented to illustrate regional differences in energy demand and expenditures. This data is derived from the U.S. Department of Energy, Energy Information Administration, *State Energy Data Report (SEDR)* and *State Energy Price and Expenditure Report (SEPER)*, and the U.S. Department of Commerce, *Statistical Abstract of the United States*.

## Key Observations about 2006 New York State Energy Data

- ✓ New York is the second most energy-efficient state in the continental United States on a per-capita basis, behind Rhode Island, accounting for 4.1% of the nation's total primary energy consumption. New York accounts for 6.4% of the nation's population.
- ✓ New York is the fourth largest energy consuming state.
- ✓ Net energy demand in New York differs from national demand in several respects (as shown in Tables 1-1 and 1-2):
  - Residential net energy use accounts for 27% of total energy demand in New York, compared to 17% nationally.
  - Commercial net energy use accounts for 24% of total energy demand in New York, compared to 13% nationally.
  - Industrial net energy use accounts for 8% of total energy demand in New York, compared to 25% nationally.
  - Transportation net energy use accounts for 41% of total energy demand in New York, compared to 44% nationally.
- ✓ In 2006, New York's reliance on foreign oil as a proportion of total petroleum was 89% while the United States' reliance on foreign oil was 66%.

# United States Primary Consumption of Energy by Fuel Type and Sector, 2006

Figure 1-1

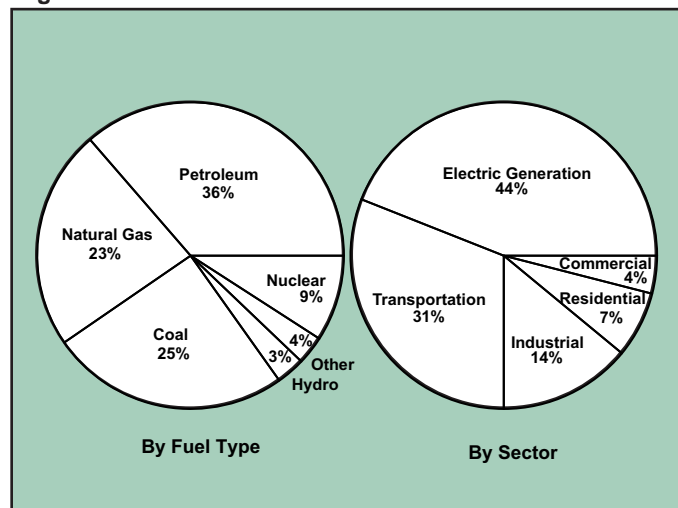


Table 1-1 (in trillion Btu)

|                         | Residential<br>TBtu | Commercial<br>TBtu | Industrial<br>TBtu | Transportation<br>TBtu | Net<br>Consumption<br>TBtu | Electric<br>Generation <sup>1</sup><br>TBtu | Primary<br>Consumption<br>TBtu |        |
|-------------------------|---------------------|--------------------|--------------------|------------------------|----------------------------|---|--------------------------------|--------|
| Coal                    | 8                   | 85                 | 1,938              | 0                      | 2,031                      | 20,480                                      | 22,511                         |        |
| Natural Gas             | 4,481               | 2,948              | 6,812              | 25                     | 14,266                     | 6,372                                       | 20,638                         |        |
| Petroleum Products:     | 1,445               | 675                | 2,120              | 27,493                 | 31,733                     | 646   | 32,379                         |        |
| Distillate              | 867                 | 449                | 1,226              | 6,038                  | 8,580                      | 73  | 8,652                          |        |
| Residual                | 0                   | 117                | 263                | 748                    | 1,128                      | 573   | 1,701                          |        |
| Kerosene                | 79                  | 19                 | 30                 | 0                      | 128                        | 0   | 128                            |        |
| LPG                     | 499                 | 90                 | 601                | 18                     | 1,208                      | 0   | 1,208                          |        |
| Gasoline                | 0                   | 0                  | 0                  | 17,255                 | 17,255                     | 0   | 17,255                         |        |
| Jet Fuel                | 0                   | 0                  | 0                  | 3,434                  | 3,434                      | 0   | 3,434                          |        |
| Renewables <sup>2</sup> | 473                 | 115                | 1,640              | 459                    | 2,687                      | 740   | 3,427                          |        |
| Electric Sales          | 4,621               | 4,439              | 3,419              | 18                     | 12,496                     |   |                                |        |
| Net Consumption         | 11,028              | 8,262              | 15,929             | 27,995                 | 63,213                     |   |                                |        |
|                         |                     |                    |                    |                        |                            |   |                                |        |
|                         |                     |                    |                    |                        |                            | Hydro Electricity                           | 2,858                          | 2,858  |
|                         |                     |                    |                    |                        |                            | Nuclear Electricity                         | 8,208                          | 8,208  |
|                         |                     |                    |                    |                        |                            | Wind Electricity                            | 258                            | 258    |
|                         |                     |                    |                    |                        |                            | Primary Consumption                         | 39,562                         | 90,279 |

<sup>1</sup> Includes utility generators and non-utility generators

<sup>2</sup> Hydro and wind excluded



**United States and New York State  
Selected Energy Prices  
in Nominal Dollars  
1992-2006**

**Table 1-3a - United States**

| <u>Year</u> | <u>Motor<br/>Gasoline<br/>¢/gal</u> | <u>Resident.<br/>Distillate<br/>¢/gal</u> | <u>Resident.<br/>Elec.<br/>¢/kWh</u> | <u>Resident.<br/>Nat. Gas<br/>\$/Mcf</u> | <u>Comm.<br/>Elec.<br/>¢/kWh</u> | <u>Comm.<br/>Nat. Gas<br/>\$/Mcf</u> | <u>Indus.<br/>Elec.<br/>¢/KWh</u> | <u>Indus.<br/>Nat. Gas<br/>\$/Mcf</u> |
|-------------|-------------------------------------|---|--------------------------------------|--|----------------------------------|--------------------------------------|-----------------------------------|---------------------------------------|
| 1992        | 119.0                               | 93.4                                      | 8.2                                  | 5.89                                     | 7.7                              | 4.88                                 | 4.8                               | 2.84                                  |
| 1993        | 117.3                               | 91.1                                      | 8.3                                  | 6.16                                     | 7.7                              | 5.22                                 | 4.9                               | 3.07                                  |
| 1994        | 117.4                               | 88.4                                      | 8.4                                  | 6.41                                     | 7.7                              | 5.44                                 | 4.8                               | 3.05                                  |
| 1995        | 114.7                               | 86.7                                      | 8.4                                  | 6.06                                     | 7.7                              | 5.05                                 | 4.7                               | 2.71                                  |
| 1996        | 123.1                               | 98.9                                      | 8.4                                  | 6.34                                     | 7.6                              | 5.40                                 | 4.6                               | 3.42                                  |
| 1997        | 123.4                               | 98.4                                      | 8.4                                  | 6.94                                     | 7.6                              | 5.80                                 | 4.5                               | 3.59                                  |
| 1998        | 105.9                               | 85.2                                      | 8.3                                  | 6.82                                     | 7.4                              | 5.48                                 | 4.5                               | 3.14                                  |
| 1999        | 116.5                               | 87.6                                      | 8.2                                  | 6.69                                     | 7.3                              | 5.33                                 | 4.4                               | 3.12                                  |
| 2000        | 151.0                               | 131.1                                     | 8.2                                  | 7.76                                     | 7.4                              | 6.59                                 | 4.6                               | 4.45                                  |
| 2001        | 146.1                               | 125.0                                     | 8.6                                  | 9.63                                     | 7.9                              | 8.43                                 | 5.1                               | 5.24                                  |
| 2002        | 135.8                               | 112.9                                     | 8.4                                  | 7.89                                     | 7.9                              | 6.63                                 | 4.9                               | 4.02                                  |
| 2003        | 159.1                               | 135.5                                     | 8.7                                  | 9.63                                     | 8.0                              | 8.40                                 | 5.1                               | 5.89                                  |
| 2004        | 188.0                               | 154.8                                     | 9.0                                  | 10.75                                    | 8.2                              | 9.43                                 | 5.3                               | 6.53                                  |
| 2005        | 229.5                               | 205.2                                     | 9.5                                  | 12.84                                    | 8.7                              | 11.59                                | 5.7                               | 8.56                                  |
| 2006        | 258.9                               | 236.2                                     | 10.4                                 | 13.76                                    | 9.4                              | 11.97                                | 6.1                               | 7.89                                  |

**Table 1-3b - New York State**

| <u>Year</u> | <u>Motor<br/>Gasoline<br/>¢/gal</u> | <u>Resident.<br/>Distillate<br/>¢/gal</u> | <u>Resident.<br/>Elec.<br/>¢/kWh</u> | <u>Resident.<br/>Nat. Gas<br/>\$/Mcf</u> | <u>Comm.<br/>Elec.<br/>¢/kWh</u> | <u>Comm.<br/>Nat. Gas<br/>\$/Mcf</u> | <u>Indus.<br/>Elec.<br/>¢/KWh</u> | <u>Indus.<br/>Nat. Gas<br/>\$/Mcf</u> |
|-------------|-------------------------------------|---|--------------------------------------|--|----------------------------------|--------------------------------------|-----------------------------------|---------------------------------------|
| 1992        | 116.1                               | 106.9                                     | 12.4                                 | 7.59                                     | 10.8                             | 5.76                                 | 6.5                               | 4.94                                  |
| 1993        | 113.1                               | 104.1                                     | 13.2                                 | 8.14                                     | 11.2                             | 6.15                                 | 6.7                               | 5.16                                  |
| 1994        | 114.1                               | 100.5                                     | 13.6                                 | 8.75                                     | 11.3                             | 6.52                                 | 6.8                               | 5.22                                  |
| 1995        | 118.9                               | 99.3                                      | 13.9                                 | 8.39                                     | 11.5                             | 6.07                                 | 5.8                               | 4.67                                  |
| 1996        | 123.4                               | 110.6                                     | 14.0                                 | 8.90                                     | 11.6                             | 6.88                                 | 5.6                               | 5.04                                  |
| 1997        | 124.6                               | 110.8                                     | 14.1                                 | 9.73                                     | 11.7                             | 6.49                                 | 5.2                               | 5.05                                  |
| 1998        | 106.3                               | 98.6                                      | 13.6                                 | 9.62                                     | 11.0                             | 6.10                                 | 4.9                               | 4.03                                  |
| 1999        | 118.8                               | 100.8                                     | 13.3                                 | 9.12                                     | 10.3                             | 5.15                                 | 4.8                               | 3.90                                  |
| 2000        | 159.6                               | 150.0                                     | 14.0                                 | 9.80                                     | 12.1                             | 7.72                                 | 5.4                               | 6.10                                  |
| 2001        | 143.0                               | 141.8                                     | 14.0                                 | 11.70                                    | 12.2                             | 9.57                                 | 5.6                               | 7.69                                  |
| 2002        | 134.3                               | 126.7                                     | 13.5                                 | 10.32                                    | 11.8                             | 6.73                                 | 5.2                               | 5.80                                  |
| 2003        | 156.9                               | 149.6                                     | 14.3                                 | 11.46                                    | 12.9                             | 8.50                                 | 7.1                               | 7.27                                  |
| 2004        | 188.2                               | 169.7                                     | 14.5                                 | 12.63                                    | 13.0                             | 10.21                                | 7.0                               | 8.13                                  |
| 2005        | 224.0                               | 219.1                                     | 15.7                                 | 14.91                                    | 14.4                             | 12.88                                | 8.2                               | 9.88                                  |
| 2006        | 273.5                               | 258.7                                     | 16.7                                 | 15.91                                    | 13.6                             | 12.10                                | 8.6                               | 10.71                                 |

# United States and New York State Sources of Petroleum Products, 1992-2006

Figure 1-4

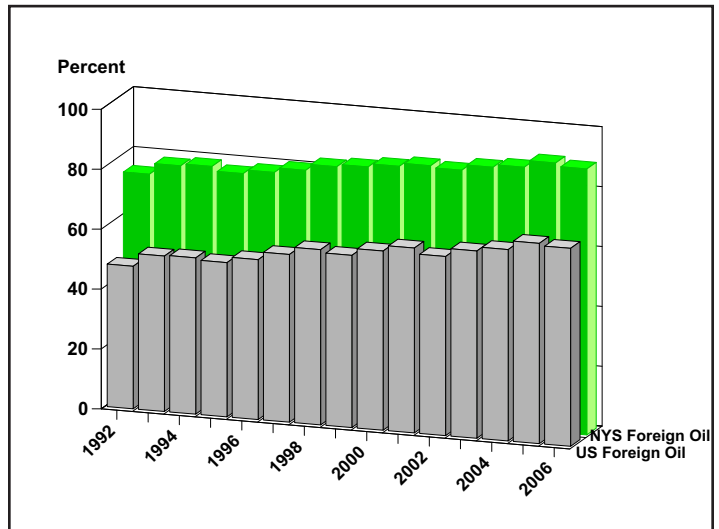


Table 1-4a - United States

| Year | Total Domestic <sup>1</sup><br>% | Total Foreign<br>% | OPEC <sup>2</sup><br>% | Non-OPEC <sup>3</sup><br>% |
|------|----------------------------------|--------------------|------------------------|----------------------------|
| 1992 | 52.4                             | 47.6               | 26.2                   | 21.4                       |
| 1993 | 48.1                             | 51.9               | 27.8                   | 24.1                       |
| 1994 | 47.8                             | 52.2               | 26.3                   | 25.9                       |
| 1995 | 48.5                             | 51.5               | 25.5                   | 26.0                       |
| 1996 | 46.6                             | 53.4               | 24.7                   | 28.7                       |
| 1997 | 44.0                             | 56.0               | 25.9                   | 30.1                       |
| 1998 | 41.5                             | 58.5               | 28.0                   | 30.5                       |
| 1999 | 42.5                             | 57.5               | 27.5                   | 30.0                       |
| 2000 | 40.2                             | 59.8               | 28.8                   | 31.0                       |
| 2001 | 38.3                             | 61.7               | 30.5                   | 31.2                       |
| 2002 | 40.2                             | 59.8               | 25.4                   | 34.4                       |
| 2003 | 37.4                             | 62.6               | 28.1                   | 34.5                       |
| 2004 | 36.1                             | 63.9               | 29.9                   | 34.0                       |
| 2005 | 33.1                             | 66.9               | 29.1                   | 37.8                       |
| 2006 | 33.9                             | 66.1               | 29.3                   | 36.8                       |

Table 1-4b - New York State

| Year | Total Domestic <sup>1</sup><br>% | Total Foreign<br>% | OPEC <sup>2</sup><br>% | Non-OPEC <sup>3</sup><br>% |
|------|----------------------------------|--------------------|------------------------|----------------------------|
| 1992 | 25.5                             | 74.5               | 45.3                   | 29.2                       |
| 1993 | 21.8                             | 78.2               | 46.4                   | 31.8                       |
| 1994 | 21.1                             | 78.9               | 45.0                   | 33.9                       |
| 1995 | 22.6                             | 77.4               | 43.9                   | 33.5                       |
| 1996 | 21.3                             | 78.7               | 40.9                   | 37.8                       |
| 1997 | 19.7                             | 80.3               | 41.7                   | 38.6                       |
| 1998 | 17.6                             | 82.4               | 43.4                   | 39.0                       |
| 1999 | 16.8                             | 83.2               | 42.5                   | 40.7                       |
| 2000 | 15.7                             | 84.3               | 43.4                   | 40.9                       |
| 2001 | 14.6                             | 85.4               | 44.0                   | 41.4                       |
| 2002 | 15.2                             | 84.8               | 37.9                   | 46.9                       |
| 2003 | 13.3                             | 86.7               | 39.9                   | 46.8                       |
| 2004 | 12.4                             | 87.6               | 42.8                   | 44.8                       |
| 2005 | 10.1                             | 89.9               | 44.9                   | 45.0                       |
| 2006 | 11.2                             | 88.8               | 43.9                   | 44.9                       |

<sup>1</sup> Domestic, oil produced in the United States or from its outer continental shelf

<sup>2</sup> OPEC, the largest contributors are Saudi Arabia, Venezuela, Nigeria, Iraq, and Algeria

<sup>3</sup> Non-OPEC, the largest contributors are Canada, Mexico, United Kingdom, Angola, and Russia

# United States and New York State Factors Influencing Energy Demand and Expenditures 1992-2006

**Table 1-5a - United States**

| Year | Population<br>thousands | Housing<br>Units<br>thousands | Non-Mfg. <sup>1</sup><br>Employment<br>thousands | Mfg. <sup>1</sup><br>Employment<br>thousands | GDP <sup>2</sup><br>B/00\$ | Licensed<br>Drivers<br>millions | Vehicle<br>Registrations<br>millions | Vehicle<br>Miles<br>Traveled<br>billions |
|------|-------------------------|-------------------------------|--|--|----------------------------|---------------------------------|--------------------------------------|--|
| 1992 | 255,030                 | 108,316                       | 92,650   | 16,768                                       | 7,336.6                    | 173                             | 190                                  | 2,247                                    |
| 1993 | 257,783                 | 109,611                       | 95,388   | 16,815                                       | 7,532.7                    | 173                             | 194                                  | 2,296                                    |
| 1994 | 260,327                 | 110,952                       | 98,838   | 17,218                                       | 7,835.5                    | 175                             | 198                                  | 2,358                                    |
| 1995 | 262,803                 | 112,655                       | 100,980  | 17,230                                       | 8,031.7                    | 177                             | 202                                  | 2,423                                    |
| 1996 | 265,229                 | 114,139                       | 103,718  | 17,285                                       | 8,328.9                    | 180                             | 206                                  | 2,486                                    |
| 1997 | 267,784                 | 115,621                       | 106,774  | 17,587                                       | 8,703.5                    | 183                             | 208                                  | 2,560                                    |
| 1998 | 270,248                 | 117,282                       | 109,915  | 17,449                                       | 9,066.9                    | 185                             | 211                                  | 2,632                                    |
| 1999 | 272,691                 | 119,044                       | 113,259  | 17,277                                       | 9,470.3                    | 187                             | 216                                  | 2,691                                    |
| 2000 | 282,217                 | 119,628                       | 115,303  | 17,181                                       | 9,817.0                    | 191                             | 221                                  | 2,747                                    |
| 2001 | 285,226                 | 121,480                       | 115,008  | 15,713                                       | 9,890.7                    | 191                             | 230                                  | 2,797                                    |
| 2002 | 288,126                 | 119,297                       | 115,279  | 14,912                                       | 10,048.8                   | 195                             | 230                                  | 2,856                                    |
| 2003 | 290,796                 | 120,834                       | 116,002  | 14,296                                       | 10,301.0                   | 196                             | 231                                  | 2,891                                    |
| 2004 | 293,638                 | 122,187                       | 118,071  | 14,292                                       | 10,703.5                   | 199                             | 237                                  | 2,963                                    |
| 2005 | 296,507                 | 123,925                       | 120,695  | 14,209                                       | 11,048.6                   | 201                             | 241                                  | 3,009                                    |
| 2006 | 299,398                 | 126,012                       | 123,036  | 14,131                                       | 11,415.3                   | n.a.                            | n.a.                                 | n.a.                                     |

**Table 1-5b - New York State**

| Year | Population<br>thousands | Housing<br>Units<br>thousands | Non-Mfg. <sup>1</sup><br>Employment<br>thousands | Mfg. <sup>1</sup><br>Employment<br>thousands | GSP <sup>3</sup><br>MM/00\$ | Licensed<br>Drivers<br>thousands | Vehicle<br>Registrations<br>thousands | Vehicle<br>Miles<br>Traveled<br>billions |
|------|-------------------------|-------------------------------|--|--|-----------------------------|----------------------------------|---------------------------------------|--|
| 1992 | 18,247                  | 6,703                         | 6,854.2  | 855.8  | 614,332                     | 10,360                           | 8,988                                 | 109.89                                   |
| 1993 | 18,375                  | 6,702                         | 6,974.1  | 823.6  | 616,896                     | 10,327                           | 9,110                                 | 112.24                                   |
| 1994 | 18,459                  | 6,684                         | 7,066.0  | 813.5  | 627,133                     | 10,377                           | 9,149                                 | 112.98                                   |
| 1995 | 18,524                  | 6,709                         | 7,094.3  | 804.2  | 640,084                     | 10,474                           | 9,177                                 | 115.17                                   |
| 1996 | 18,588                  | 6,737                         | 7,199.4  | 795.4  | 665,717                     | 10,483                           | 9,235                                 | 118.41                                   |
| 1997 | 18,657                  | 6,742                         | 7,351.3  | 800.8  | 670,980                     | 10,529                           | 10,027                                | 120.79                                   |
| 1998 | 18,756                  | 6,766                         | 7,533.9  | 780.7  | 698,883                     | 10,554                           | 10,173                                | 123.37                                   |
| 1999 | 18,883                  | 6,908                         | 7,700.2  | 769.6  | 736,540                     | 10,627                           | 10,437                                | 126.49                                   |
| 2000 | 18,977                  | 7,679                         | 7,957.7  | 738.6  | 777,157                     | 10,871                           | 10,661                                | 128.70                                   |
| 2001 | 19,096                  | 7,720                         | 7,787.3  | 674.3  | 794,392                     | 11,015                           | 10,707                                | 130.83                                   |
| 2002 | 19,168                  | 7,754                         | 7,811.8  | 635.5  | 791,689                     | 11,022                           | 11,369                                | 133.06                                   |
| 2003 | 19,238                  | 7,789                         | 7,810.3  | 600.3  | 808,396                     | 11,357                           | 10,802                                | 135.47                                   |
| 2004 | 19,292                  | 7,819                         | 7,907.3  | 592.0  | 841,744                     | 11,247                           | 11,099                                | 137.50                                   |
| 2005 | 19,316                  | 7,853                         | 7,991.9  | 573.9  | 870,010                     | 11,072                           | 11,863                                | 139.63                                   |
| 2006 | 19,306                  | n.a.                          | 8,093.0  | 562.1  | 899,993                     | n.a.                             | n.a.                                  | n.a.                                     |

<sup>1</sup> Includes non-farm jobs only

<sup>2</sup> Gross Domestic Product in billions of 2000 dollars

<sup>3</sup> Gross State Product in millions of 2000 dollars

n.a. - data not available

# Energy Consumption & Expenditure Indicators, State Comparisons, 2004

Table 1-6

| States                         | Primary Energy<br>Consumption<br>TBtu | Ranking  | Primary Energy<br>Consumption<br>per Capita<br>MMBtu | Ranking   | Primary Energy<br>Consumption per<br>unit GSP/GDP<br>Btu | Ranking   | Net Energy<br>Expenditure<br>per Capita<br>dollars | Ranking   |
|--------------------------------|---------------------------------------|----------|--|-----------|--|-----------|--|-----------|
| Alabama                        | 2,159.7                               | 16       | 477.2  | 6         | 16,837.5   | 7         | \$3,354.46   | 10        |
| Alaska                         | 779.1                                 | 35       | 1,184.5  | 1         | 26,223.5   | 2         | \$6,330.02   | 1         |
| Arizona                        | 1,436.6                               | 26       | 250.3  | 47        | 7,893.6  | 38        | \$2,400.52   | 49        |
| Arkansas                       | 1,135.9                               | 30       | 413.1  | 13        | 15,147.8   | 11        | \$3,170.22   | 18        |
| California                     | 8,364.6                               | 2        | 233.4  | 49        | 5,935.6  | 47        | \$2,518.28   | 45        |
| Colorado                       | 1,389.9                               | 27       | 300.7  | 39        | 7,482.6  | 40        | \$2,565.18   | 42        |
| Connecticut                    | 923.8                                 | 33       | 264.0  | 43        | 5,536.7  | 48        | \$3,028.04   | 25        |
| Delaware                       | 304.8                                 | 47       | 367.4  | 19        | 6,487.7  | 45        | \$3,061.07   | 23        |
| Dist. of Columbia              | 190.3                                 | 50       | 343.4  | 26        | 2,827.1  | 51        | \$3,120.31   | 20        |
| Florida                        | 4,452.5                               | 3        | 256.1  | 46        | 8,056.4  | 37        | \$2,364.76   | 50        |
| Georgia                        | 3,141.1                               | 9        | 352.2  | 24        | 10,030.8   | 23        | \$2,877.14   | 33        |
| Hawaii                         | 323.5                                 | 46       | 256.3  | 45        | 7,239.9  | 42        | \$3,199.53   | 16        |
| Idaho                          | 499.8                                 | 40       | 358.2  | 23        | 12,338.3   | 16        | \$2,678.08   | 41        |
| Illinois                       | 3,960.5                               | 7        | 311.6  | 34        | 8,098.5  | 36        | \$2,679.94   | 39        |
| Indiana                        | 2,945.7                               | 11       | 473.1  | 7         | 13,911.5   | 14        | \$3,361.77   | 9         |
| Iowa                           | 1,205.8                               | 29       | 408.3  | 15        | 12,084.6   | 18        | \$3,424.09   | 7         |
| Kansas                         | 1,103.5                               | 31       | 403.7  | 16        | 12,386.1   | 15        | \$3,275.34   | 12        |
| Kentucky                       | 1,956.4                               | 18       | 472.4  | 8         | 16,070.6   | 9         | \$3,351.68   | 11        |
| Louisiana                      | 3,816.3                               | 8        | 846.8  | 3         | 27,750.1   | 1         | \$5,414.56   | 3         |
| Maine                          | 480.3                                 | 41       | 365.3  | 20        | 12,257.6   | 17        | \$3,400.04   | 8         |
| Maryland                       | 1,526.6                               | 24       | 274.5  | 41        | 7,320.6  | 41        | \$2,547.48   | 43        |
| Massachusetts                  | 1,542.9                               | 23       | 240.8  | 48        | 5,276.3  | 49        | \$2,786.60   | 36        |
| Michigan                       | 3,119.4                               | 10       | 308.7  | 35        | 9,111.2  | 30        | \$2,678.38   | 40        |
| Minnesota                      | 1,826.3                               | 21       | 358.3  | 22        | 8,814.4  | 31        | \$2,988.04   | 29        |
| Mississippi                    | 1,214.3                               | 28       | 418.6  | 12        | 17,642.0   | 6         | \$3,258.90   | 13        |
| Missouri                       | 1,849.3                               | 19       | 321.1  | 32        | 9,826.6  | 26        | \$2,842.26   | 35        |
| Montana                        | 402.9                                 | 43       | 434.7  | 10        | 16,661.2   | 8         | \$3,433.20   | 6         |
| Nebraska                       | 651.9                                 | 39       | 373.0  | 18        | 10,730.7   | 21        | \$3,092.11   | 22        |
| Nevada                         | 693.7                                 | 37       | 297.4  | 40        | 7,771.3  | 39        | \$2,948.44   | 30        |
| New Hampshire                  | 340.7                                 | 45       | 262.4  | 44        | 7,020.0  | 43        | \$3,023.55   | 26        |
| New Jersey                     | 2,630.2                               | 13       | 302.8  | 38        | 6,966.2  | 44        | \$3,115.66   | 21        |
| New Mexico                     | 682.3                                 | 38       | 358.5  | 21        | 11,922.7   | 19        | \$2,741.40   | 37        |
| <b>New York</b>                | <b>4,254.0</b>                        | <b>4</b> | <b>220.6</b>   | <b>50</b> | <b>5,068.6</b>   | <b>50</b> | <b>\$2,515.68</b>                                  | <b>46</b> |
| North Carolina                 | 2,715.6                               | 12       | 318.0  | 33        | 9,151.9  | 29        | \$2,719.41   | 38        |
| North Dakota                   | 402.3                                 | 44       | 632.2  | 4         | 20,151.3   | 4         | \$4,164.49   | 5         |
| Ohio                           | 4,022.8                               | 6        | 351.3  | 25        | 10,291.6   | 22        | \$3,051.83   | 24        |
| Oklahoma                       | 1,485.9                               | 25       | 421.7  | 11        | 15,176.6   | 10        | \$3,199.73   | 15        |
| Oregon                         | 1,093.6                               | 32       | 304.5  | 37        | 8,538.1  | 34        | \$2,542.04   | 44        |
| Pennsylvania                   | 4,049.4                               | 5        | 326.7  | 30        | 9,608.4  | 28        | \$2,910.10   | 32        |
| Rhode Island                   | 226.4                                 | 49       | 209.6  | 51        | 5,990.7  | 46        | \$2,439.36   | 48        |
| South Carolina                 | 1,717.5                               | 22       | 409.1  | 14        | 14,299.4   | 13        | \$3,191.27   | 17        |
| South Dakota                   | 263.6                                 | 48       | 342.1  | 27        | 9,859.7  | 25        | \$3,006.80   | 27        |
| Tennessee                      | 2,297.7                               | 15       | 389.9  | 17        | 11,499.1   | 20        | \$2,997.56   | 28        |
| Texas                          | 11,971.4                              | 1        | 532.7  | 5         | 14,770.2   | 12        | \$4,233.00   | 4         |
| Utah                           | 740.2                                 | 36       | 305.8  | 36        | 9,893.9  | 24        | \$2,343.36   | 51        |
| Vermont                        | 169.3                                 | 51       | 272.5  | 42        | 8,265.8  | 35        | \$3,167.89   | 19        |
| Virginia                       | 2,558.2                               | 14       | 341.9  | 28        | 8,599.8  | 33        | \$2,846.83   | 34        |
| Washington                     | 2,004.8                               | 17       | 323.0  | 31        | 8,689.2  | 32        | \$2,507.01   | 47        |
| West Virginia                  | 821.3                                 | 34       | 453.1  | 9         | 18,547.9   | 5         | \$3,224.69   | 14        |
| Wisconsin                      | 1,847.7                               | 20       | 335.7  | 29        | 9,694.3  | 27        | \$2,919.74   | 31        |
| Wyoming                        | 454.4                                 | 42       | 898.2  | 2         | 23,071.8   | 3         | \$5,744.96   | 2         |
| United States                  | 278.6                                 |          | 341.48   |           | 9,405.1  |           | \$3,152.09   |           |
| <b>NYS as a % of U.S. Avg.</b> | <b>4.2%</b>                           |          | <b>57%</b>   |           | <b>54%</b>   |           | <b>80%</b>   |           |

Note: Table shows the latest year for which comparable consumption and expenditure data are available for all states.

# Energy Consumption & Expenditure Indicators, State Comparisons for the Residential and Commercial Sectors, 2004

Table 1-7

| States                         | Residential<br>Net Energy<br>Consumption<br>per Household<br>MMBtu | Ranking   | Residential<br>Net Energy<br>Expenditure<br>per Household<br>dollars | Ranking  | Commercial<br>Net Energy<br>Consumption<br>per Employee<br>MMBtu | Ranking  | Commercial<br>Net Energy<br>Expenditure<br>per Employee<br>dollars | Ranking  |
|--------------------------------|--|-----------|--|----------|--|----------|--|----------|
| Alabama                        | 80.2   | 40        | \$1,493.62   | 29       | 67.9   | 36       | \$1,170.92   | 17       |
| Alaska                         | 145.8  | 1         | \$1,751.20   | 11       | 145.0  | 1        | \$1,571.97   | 3        |
| Arizona                        | 60.5   | 49        | \$1,217.10   | 48       | 58.1   | 47       | \$1,018.02   | 35       |
| Arkansas                       | 80.9   | 39        | \$1,366.55   | 38       | 76.7   | 19       | \$969.31   | 41       |
| California                     | 71.1   | 48        | \$1,295.87   | 42       | 51.0   | 50       | \$1,214.19   | 15       |
| Colorado                       | 94.5   | 30        | \$1,265.34   | 45       | 67.8   | 38       | \$923.08   | 47       |
| Connecticut                    | 143.9  | 2         | \$2,461.06   | 1        | 75.0   | 23       | \$1,379.87   | 5        |
| Delaware                       | 99.6   | 25        | \$1,756.71   | 10       | 67.8   | 37       | \$1,084.79   | 30       |
| Dist. of Columbia              | 87.1   | 35        | \$1,375.99   | 37       | 79.0   | 13       | \$1,414.24   | 4        |
| Florida                        | 56.7   | 50        | \$1,351.41   | 39       | 53.8   | 48       | \$1,059.65   | 31       |
| Georgia                        | 90.2   | 32        | \$1,649.50   | 15       | 61.8   | 46       | \$1,058.87   | 32       |
| Hawaii                         | 26.5   | 51        | \$1,212.33   | 48       | 37.4   | 51       | \$1,159.11   | 19       |
| Idaho                          | 93.7   | 31        | \$1,267.70   | 44       | 69.1   | 34       | \$839.36   | 50       |
| Illinois                       | 123.3  | 6         | \$1,587.32   | 17       | 75.7   | 22       | \$1,093.29   | 28       |
| Indiana                        | 109.5  | 16        | \$1,536.19   | 22       | 84.2   | 10       | \$1,002.25   | 38       |
| Iowa                           | 104.1  | 19        | \$1,576.04   | 18       | 81.1   | 11       | \$1,028.38   | 34       |
| Kansas                         | 103.9  | 20        | \$1,495.66   | 27       | 80.1   | 12       | \$1,153.56   | 21       |
| Kentucky                       | 88.1   | 34        | \$1,278.37   | 43       | 74.8   | 24       | \$974.29   | 40       |
| Louisiana                      | 78.2   | 44        | \$1,495.31   | 28       | 64.8   | 41       | \$1,178.22   | 16       |
| Maine                          | 133.7  | 3         | \$2,065.27   | 2        | 88.1   | 7        | \$1,313.00   | 10       |
| Maryland                       | 99.9   | 24        | \$1,662.77   | 13       | 63.1   | 45       | \$887.32   | 49       |
| Massachusetts                  | 118.9  | 8         | \$2,041.72   | 5        | 68.9   | 35       | \$1,371.21   | 6        |
| Michigan                       | 123.6  | 5         | \$1,532.87   | 23       | 90.8   | 5        | \$1,228.74   | 13       |
| Minnesota                      | 111.1  | 15        | \$1,503.18   | 25       | 77.3   | 17       | \$949.03   | 43       |
| Mississippi                    | 79.2   | 43        | \$1,521.94   | 24       | 74.6   | 26       | \$1,324.03   | 9        |
| Missouri                       | 98.0   | 26        | \$1,450.74   | 31       | 73.7   | 30       | \$1,003.99   | 37       |
| Montana                        | 101.6  | 23        | \$1,446.39   | 32       | 84.8   | 9        | \$1,226.78   | 14       |
| Nebraska                       | 102.7  | 22        | \$1,377.38   | 36       | 77.1   | 18       | \$932.01   | 46       |
| Nevada                         | 79.4   | 42        | \$1,486.23   | 30       | 52.3   | 49       | \$909.72   | 48       |
| New Hampshire                  | 116.6  | 10        | \$2,028.94   | 6        | 77.8   | 16       | \$1,364.39   | 7        |
| New Jersey                     | 120.9  | 7         | \$1,976.72   | 7        | 89.6   | 6        | \$1,597.96   | 2        |
| New Mexico                     | 77.3   | 45        | \$1,150.64   | 51       | 77.9   | 15       | \$1,136.33   | 24       |
| <b>New York</b>                | <b>109.4</b>   | <b>17</b> | <b>\$1,915.90</b>  | <b>8</b> | <b>106.3</b>   | <b>3</b> | <b>\$1,906.17</b>  | <b>1</b> |
| North Carolina                 | 80.1   | 41        | \$1,568.48   | 19       | 70.2   | 33       | \$1,124.95   | 26       |
| North Dakota                   | 116.7  | 9         | \$1,561.09   | 21       | 96.3   | 4        | \$1,109.05   | 27       |
| Ohio                           | 112.7  | 13        | \$1,655.46   | 14       | 78.8   | 14       | \$1,157.86   | 20       |
| Oklahoma                       | 88.5   | 33        | \$1,427.97   | 33       | 75.9   | 21       | \$1,145.57   | 22       |
| Oregon                         | 81.2   | 38        | \$1,204.16   | 49       | 63.4   | 44       | \$938.46   | 44       |
| Pennsylvania                   | 113.3  | 12        | \$1,842.28   | 9        | 74.8   | 25       | \$1,167.71   | 18       |
| Rhode Island                   | 126.2  | 4         | \$2,056.89   | 3        | 73.9   | 28       | \$1,332.33   | 8        |
| South Carolina                 | 75.1   | 46        | \$1,499.03   | 26       | 63.6   | 43       | \$1,088.22   | 29       |
| South Dakota                   | 94.9   | 28        | \$1,390.58   | 34       | 73.8   | 29       | \$952.91   | 42       |
| Tennessee                      | 84.4   | 37        | \$1,380.05   | 35       | 71.5   | 32       | \$1,137.14   | 23       |
| Texas                          | 72.5   | 47        | \$1,610.41   | 16       | 65.0   | 40       | \$1,131.17   | 25       |
| Utah                           | 111.5  | 14        | \$1,257.61   | 46       | 74.3   | 27       | \$814.93   | 51       |
| Vermont                        | 116.3  | 11        | \$2,054.30   | 4        | 67.2   | 39       | \$1,258.83   | 11       |
| Virginia                       | 94.5   | 29        | \$1,683.02   | 12       | 76.6   | 20       | \$1,047.94   | 33       |
| Washington                     | 85.4   | 36        | \$1,181.12   | 50       | 64.4   | 42       | \$937.94   | 45       |
| West Virginia                  | 95.6   | 27        | \$1,308.61   | 41       | 86.9   | 8        | \$1,015.89   | 36       |
| Wisconsin                      | 104.9  | 18        | \$1,568.02   | 20       | 72.9   | 31       | \$989.09   | 39       |
| Wyoming                        | 102.8  | 21        | \$1,337.41   | 40       | 109.0  | 2        | \$1,250.13   | 12       |
| United States                  | 97.4   |           | \$1,552.56   |          | 75.1   |          | \$1,138.13   |          |
| <b>NYS as a % of U.S. Avg.</b> | <b>112%</b>  |           | <b>123%</b>  |          | <b>141%</b>  |          | <b>167%</b>  |          |

Note: Table shows the latest year for which comparable consumption and expenditure data are available for all states.

# Energy Consumption & Expenditure Indicators, State Comparisons for the Industrial and Transportation Sectors, 2004

Table 1-8

| States                         | Industrial<br>Net Energy<br>Consumption<br>per GSP<br>Btu | Ranking   | Industrial<br>Net Energy<br>Expenditure<br>per GSP<br>ratio | Ranking   | Transportation<br>Net Consumption<br>per vehicle<br>registration<br>MMBtu | Ranking   | Transportation<br>Net Expenditure<br>per vehicle<br>registration<br>dollars | Ranking   |
|--------------------------------|---|-----------|---|-----------|---|-----------|---|-----------|
| Alabama                        | 5,697.5   | 7         | 0.0304  | 8         | 109.7   | 28        | \$1,042.74  | 36        |
| Alaska                         | 12,931.7  | 2         | 0.0100  | 37        | 403.0   | 1         | \$4,444.52  | 1         |
| Arizona                        | 773.6   | 45        | 0.0074  | 45        | 135.3   | 14        | \$1,907.17  | 9         |
| Arkansas                       | 4,566.1   | 11        | 0.0304  | 7         | 150.7   | 9         | \$1,996.92  | 8         |
| California                     | 1,189.9   | 38        | 0.0095  | 41        | 101.7   | 40        | \$1,418.61  | 35        |
| Colorado                       | 1,539.4   | 35        | 0.0101  | 36        | 206.1   | 2         | \$2,727.88  | 2         |
| Connecticut                    | \$495.1   | 47        | 0.0059  | 48        | 93.3  | 45        | \$1,354.88  | 40        |
| Delaware                       | 1,775.2   | 32        | 0.0114  | 33        | 97.2  | 42        | \$1,315.96  | 43        |
| Dist. of Columbia              | 31.2  | 51        | 0.0004  | 51        | 102.6   | 38        | \$1,560.71  | 20        |
| Florida                        | 734.4   | 46        | 0.0057  | 49        | 102.9   | 37        | \$1,300.37  | 47        |
| Georgia                        | 2,195.2   | 25        | 0.0144  | 24        | 117.5   | 23        | \$1,453.43  | 34        |
| Hawaii                         | 915.3   | 43        | 0.0128  | 30        | 181.2   | 5         | \$2,346.60  | 4         |
| Idaho                          | 2,996.9   | 19        | 0.0207  | 16        | 91.1  | 48        | \$1,280.76  | 48        |
| Illinois                       | 1,815.6   | 29        | 0.0140  | 26        | 108.3   | 31        | \$1,469.84  | 31        |
| Indiana                        | 4,857.7   | 9         | 0.0283  | 11        | 116.0   | 24        | \$1,529.19  | 21        |
| Iowa                           | 3,644.0   | 15        | 0.0289  | 9         | 88.2  | 49        | \$1,164.94  | 50        |
| Kansas                         | 3,653.5   | 14        | 0.0274  | 13        | 119.8   | 20        | \$1,457.05  | 33        |
| Kentucky                       | 4,411.1   | 13        | 0.0305  | 6         | 146.2   | 11        | \$1,904.35  | 10        |
| Louisiana                      | 15,911.4  | 1         | 0.0832  | 1         | 201.2   | 3         | \$2,127.09  | 7         |
| Maine                          | 3,207.9   | 17        | 0.0151  | 23        | 113.9   | 26        | \$1,645.03  | 16        |
| Maryland                       | 992.6   | 41        | 0.0100  | 38        | 106.0   | 33        | \$1,514.74  | 26        |
| Massachusetts                  | 443.2   | 49        | 0.0062  | 46        | 86.5  | 50        | \$1,218.51  | 49        |
| Michigan                       | 1,810.0   | 30        | 0.0140  | 25        | 96.1  | 43        | \$1,303.23  | 46        |
| Minnesota                      | 1,877.9   | 27        | 0.0131  | 28        | 115.3   | 25        | \$1,516.41  | 25        |
| Mississippi                    | 4,833.6   | 10        | 0.0288  | 10        | 185.7   | 4         | \$2,218.08  | 5         |
| Missouri                       | 1,497.4   | 36        | 0.0130  | 29        | 120.2   | 19        | \$1,621.70  | 17        |
| Montana                        | 4,879.7   | 8         | 0.0251  | 14        | 109.2   | 29        | \$1,468.92  | 32        |
| Nebraska                       | 2,306.1   | 23        | 0.0204  | 17        | 103.1   | 35        | \$1,393.90  | 37        |
| Nevada                         | 1,031.8   | 40        | 0.0139  | 27        | 178.2   | 7         | \$2,484.03  | 3         |
| New Hampshire                  | 795.3   | 44        | 0.0095  | 40        | 92.7  | 47        | \$1,317.90  | 42        |
| New Jersey                     | 1,057.0   | 39        | 0.0089  | 43        | 144.7   | 12        | \$1,783.72  | 13        |
| New Mexico                     | 3,187.3   | 18        | 0.0117  | 35        | 146.7   | 10        | \$1,773.34  | 14        |
| <b>New York</b>                | <b>450.1</b>  | <b>48</b> | <b>0.0042</b>   | <b>50</b> | <b>97.7</b>   | <b>41</b> | <b>\$1,357.88</b>   | <b>39</b> |
| North Carolina                 | 1,639.9   | 34        | 0.0124  | 31        | 119.0   | 21        | \$1,585.83  | 19        |
| North Dakota                   | 8,269.9   | 4         | 0.0384  | 5         | 131.4   | 15        | \$1,522.65  | 22        |
| Ohio                           | 2,340.6   | 22        | 0.0193  | 18        | 95.5  | 44        | \$1,303.80  | 45        |
| Oklahoma                       | 4,556.4   | 12        | 0.0277  | 12        | 131.1   | 16        | \$1,521.08  | 24        |
| Oregon                         | 1,642.7   | 33        | 0.0133  | 35        | 107.7   | 32        | \$1,504.48  | 27        |
| Pennsylvania                   | 2,293.1   | 24        | 0.0161  | 21        | 103.1   | 34        | \$1,381.48  | 38        |
| Rhode Island                   | 426.0   | 50        | 0.0062  | 47        | 77.1  | 51        | \$1,121.91  | 51        |
| South Carolina                 | 3,503.5   | 16        | 0.0248  | 15        | 137.8   | 13        | \$1,807.33  | 12        |
| South Dakota                   | 1,832.8   | 28        | 0.0156  | 22        | 103.1   | 36        | \$1,304.14  | 44        |
| Tennessee                      | 2,633.4   | 20        | 0.0171  | 20        | 125.5   | 18        | \$1,602.69  | 18        |
| Texas                          | 6,954.3   | 5         | 0.0482  | 2         | 159.7   | 8         | \$1,896.89  | 11        |
| Utah                           | 2,043.7   | 26        | 0.0098  | 39        | 111.8   | 27        | \$1,471.44  | 30        |
| Vermont                        | 952.1   | 42        | 0.0114  | 34        | 102.3   | 39        | \$1,481.24  | 29        |
| Virginia                       | 1,481.8   | 37        | 0.0091  | 42        | 118.6   | 22        | \$1,522.02  | 23        |
| Washington                     | 1,789.6   | 31        | 0.0085  | 44        | 109.2   | 30        | \$1,487.81  | 28        |
| West Virginia                  | 6,285.0   | 6         | 0.0385  | 4         | 130.1   | 17        | \$1,662.47  | 15        |
| Wisconsin                      | 2,452.3   | 21        | 0.0188  | 19        | 93.1  | 46        | \$1,347.63  | 41        |
| Wyoming                        | 9,418.6   | 3         | 0.0460  | 3         | 179.9   | 6         | \$2,155.20  | 6         |
| United States                  | 3,118.1   |           | 0.0187  |           | 127.5   |           | \$1,656.09  |           |
| <b>NYS as a % of U.S. Avg.</b> | <b>14%</b>  |           | <b>22%</b>  |           | <b>77%</b>  |           | <b>82%</b>  |           |

Note: Table shows the latest years for which comparable consumption and expenditure data are available for all states.

# United States and New York State Selected Comparisons, 2006

Figure 1-9a Primary Consumption by Fuel Type, 2006

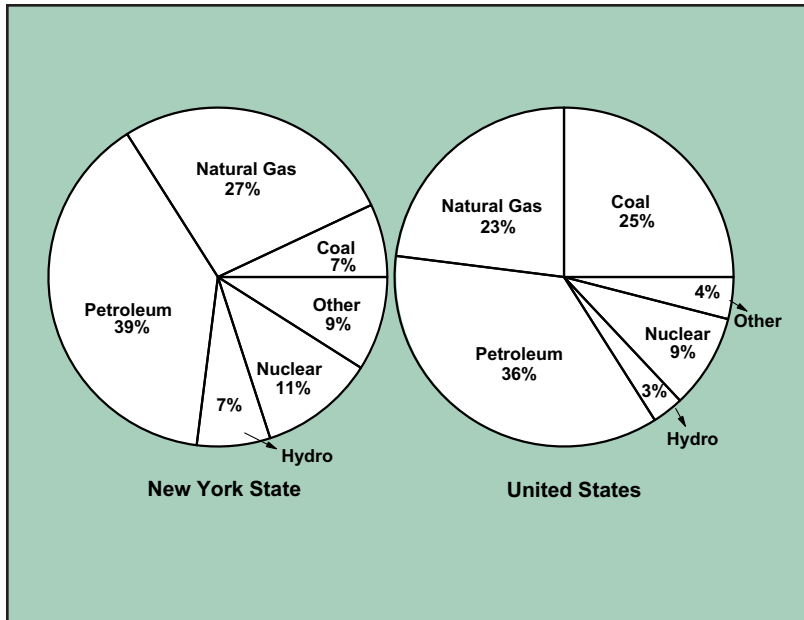
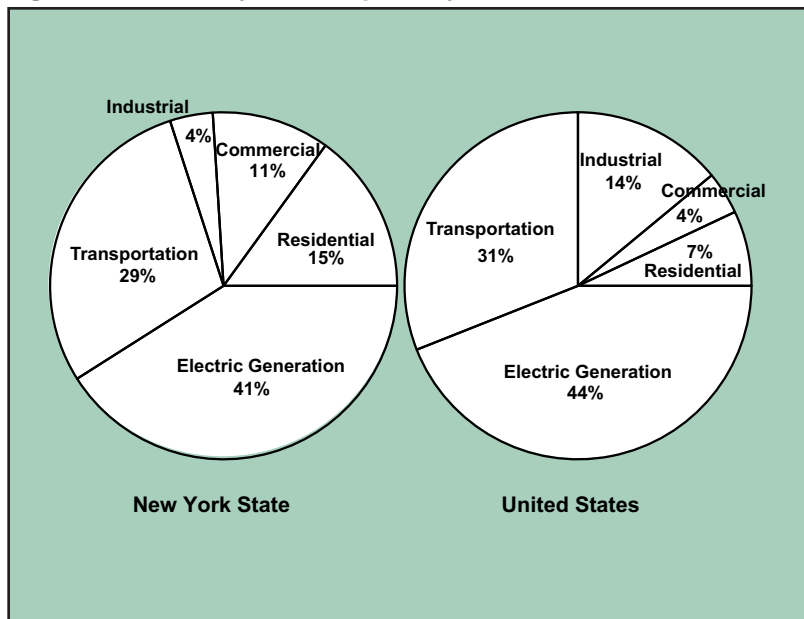


Figure 1-9b Primary Consumption by Sector, 2006



# United States and New York State Selected Comparisons, 2006

Figure 1-10a Primary Consumption for Electric Generation by Fuel Type, 2006

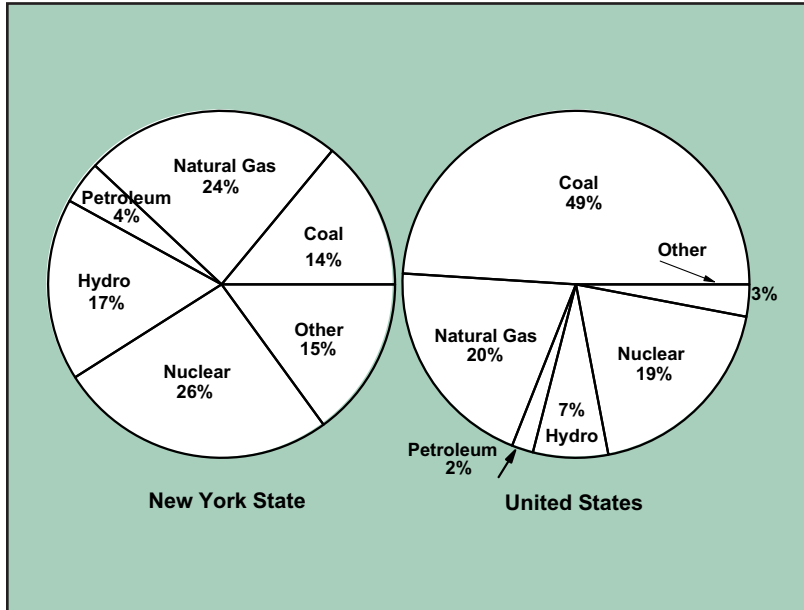
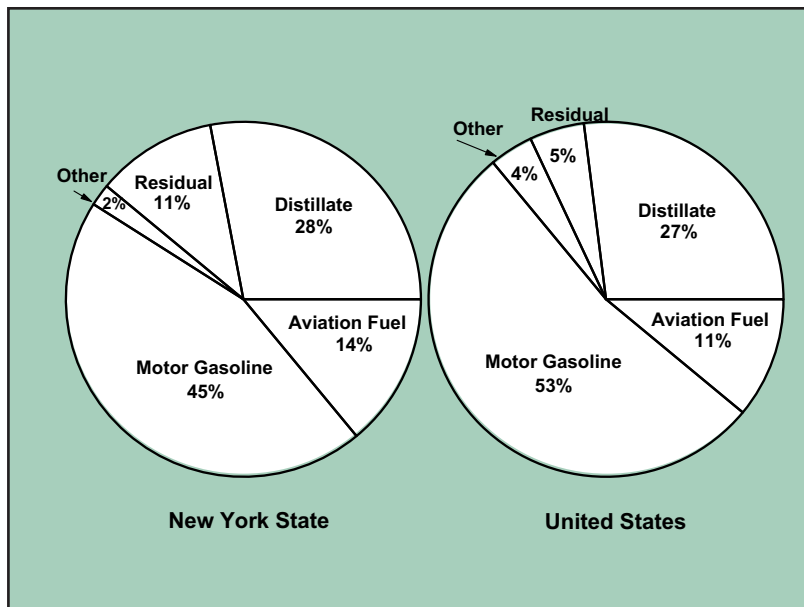


Figure 1-10b Primary Consumption of Petroleum Products, 2006 <sup>1</sup>



<sup>1</sup> Excludes petroleum products not used as a form of energy

# United States and New York State Selected Comparisons, 2006

Figure 1-11a Petroleum Consumption by Sector, 2006 <sup>1</sup>

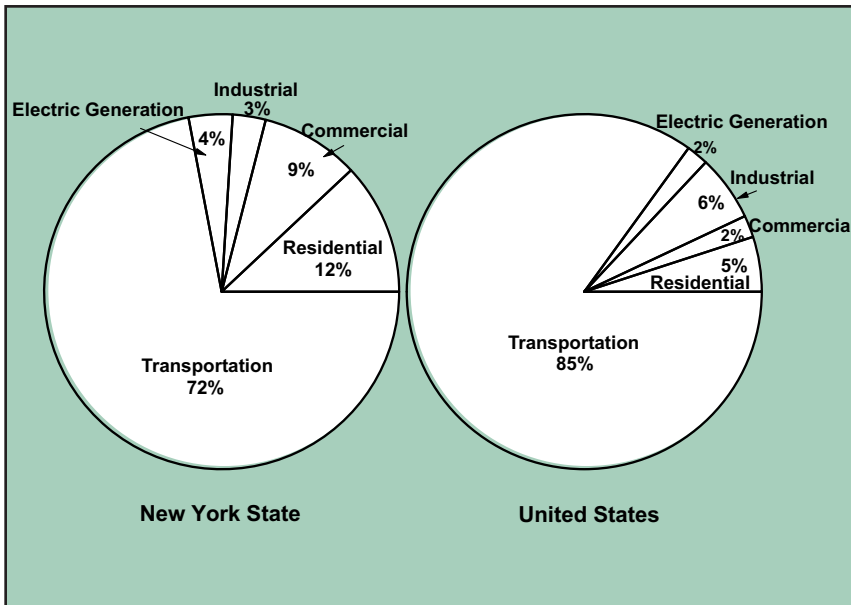
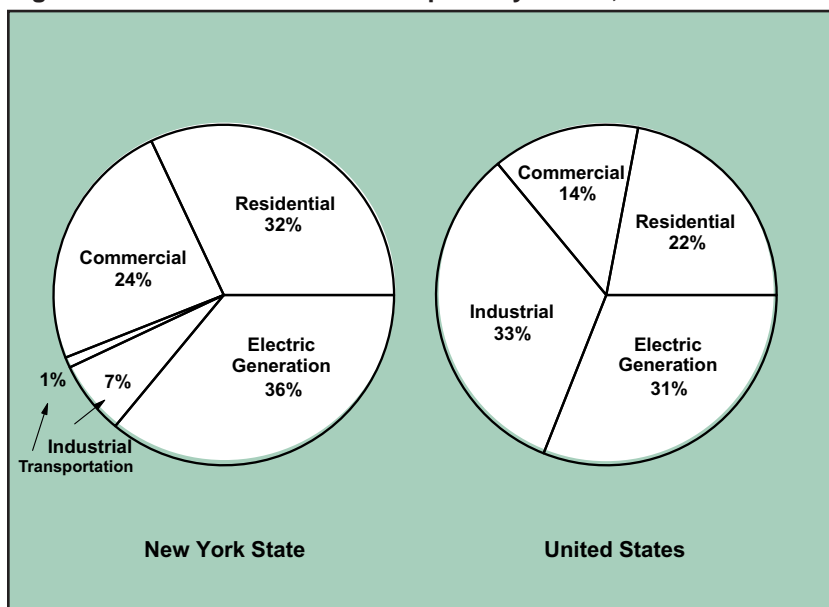


Figure 1-11b Natural Gas Consumption by Sector, 2006



<sup>1</sup> Excludes petroleum products not used as a form of energy

# United States and New York State Selected Comparisons, 2006

Figure 1-12a Coal Consumption by Sector, 2006

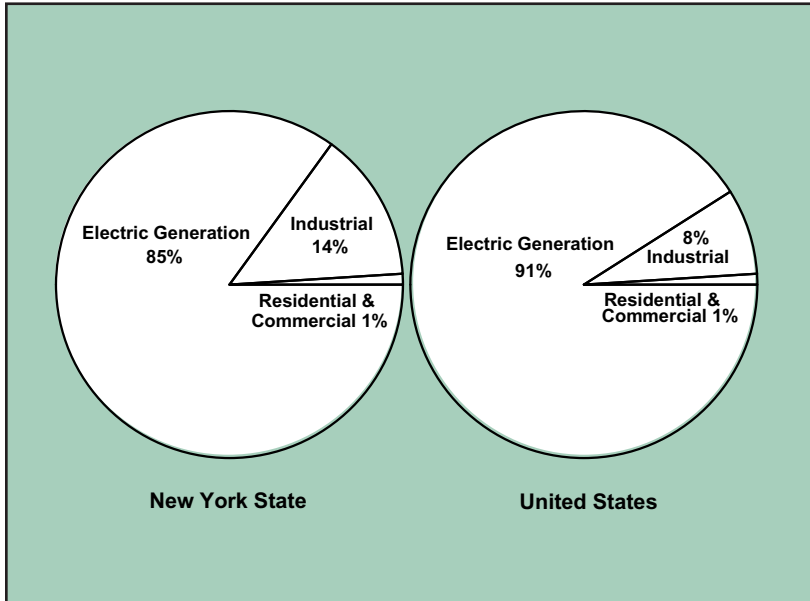
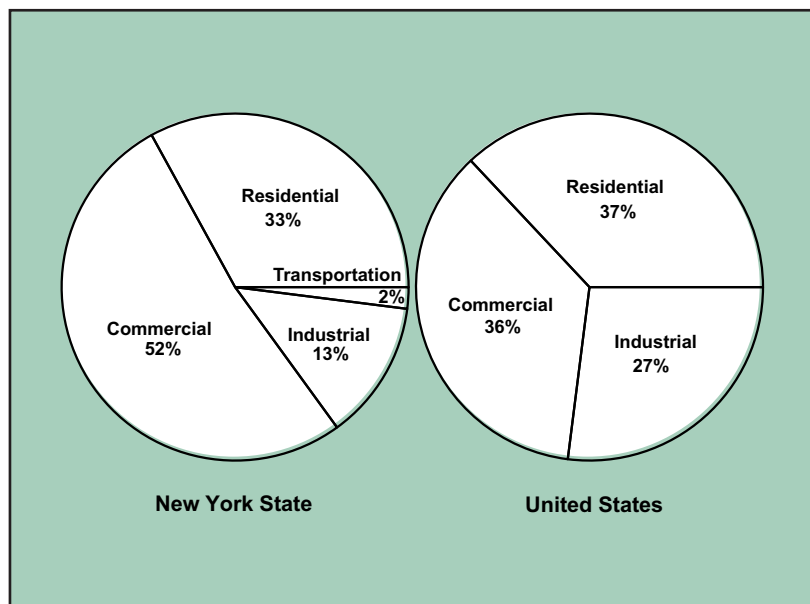


Figure 1-12b Electricity Sales by Sector, 2006



# United States and New York State Selected Energy Indicators, 1992-2006

Figure 1-13a Primary Consumption per Dollar of Gross State Product/Gross Domestic Product

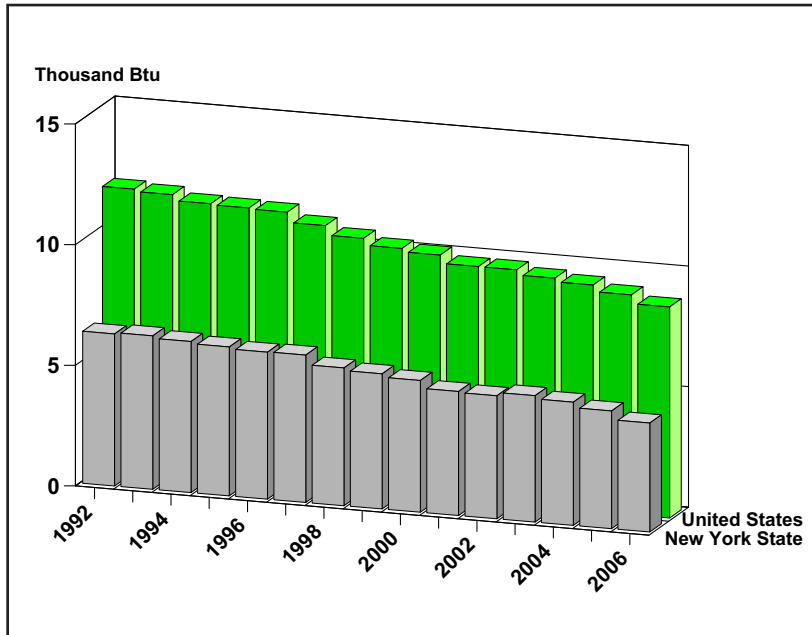
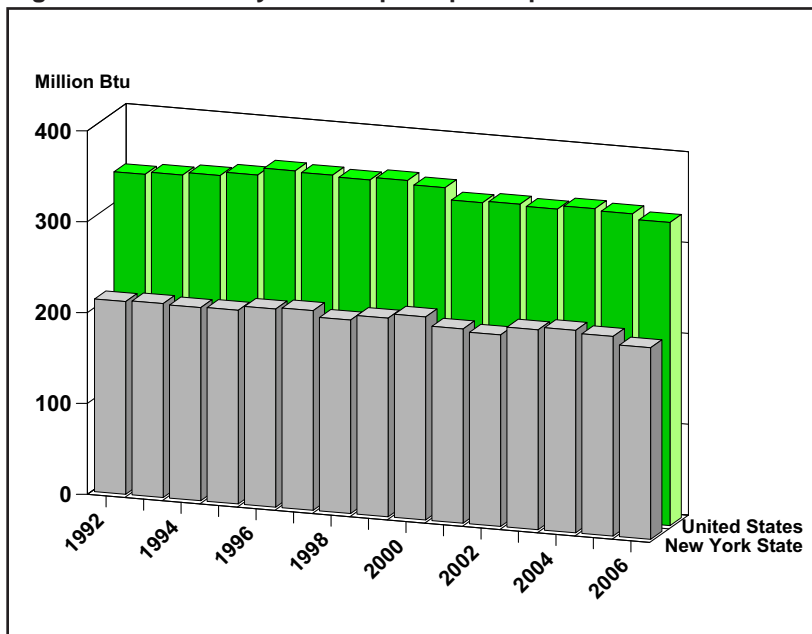


Figure 1-13b Primary Consumption per Capita



# United States and New York State Selected Energy Indicators, 1992-2006

Figure 1-14a Residential Consumption per Housing Unit

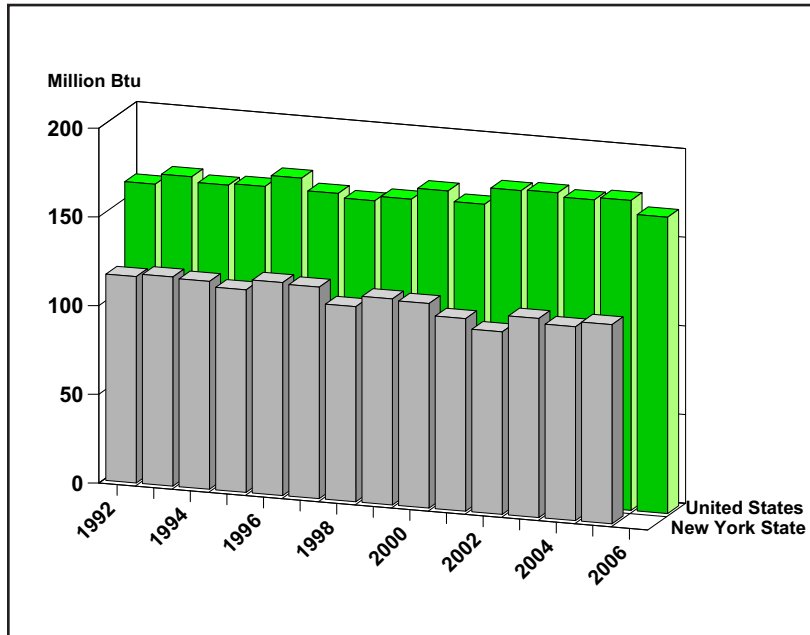
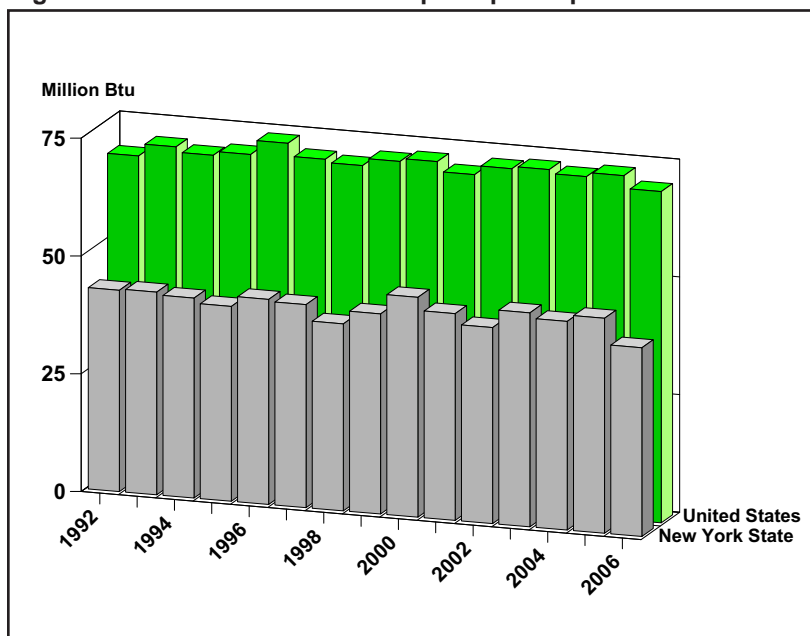


Figure 1-14b Residential Consumption per Capita



# United States and New York State Selected Energy Indicators, 1992-2006

Figure 1-15a Commercial Consumption per Non-Manufacturing Employment

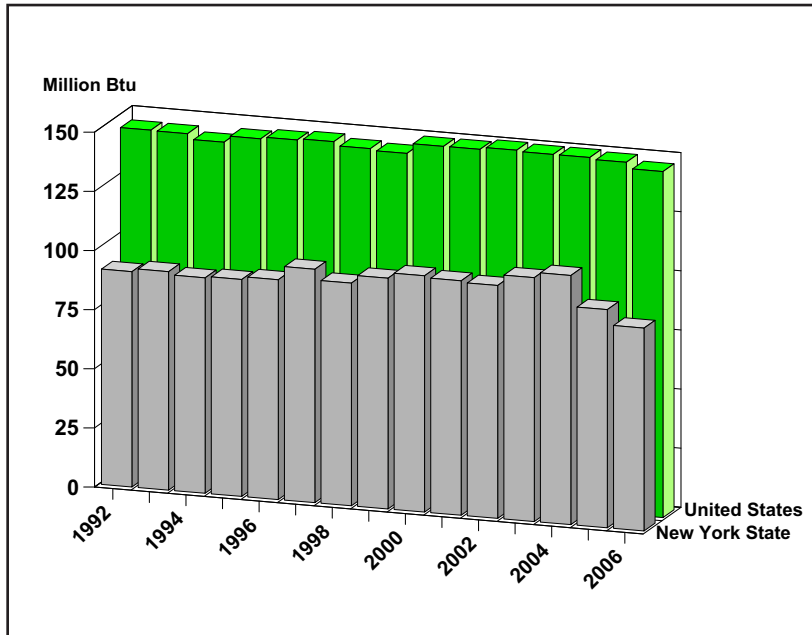
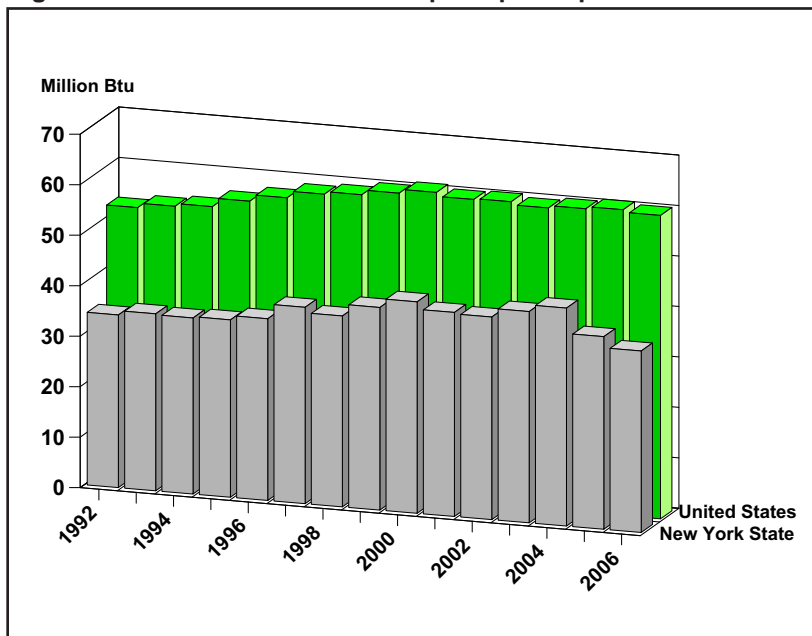


Figure 1-15b Commercial Consumption per Capita



# United States and New York State Selected Energy Indicators, 1992-2006

Figure 1-16a Industrial Consumption per Manufacturing Employee

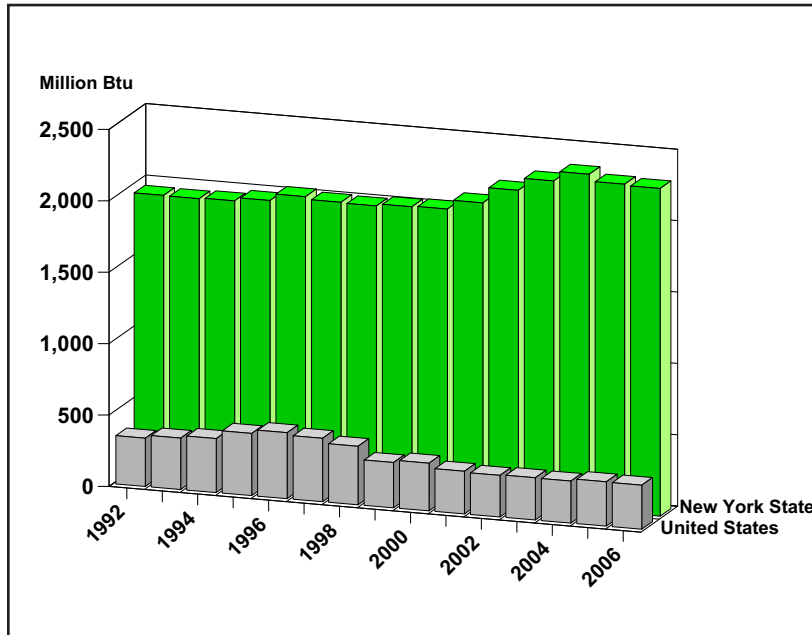
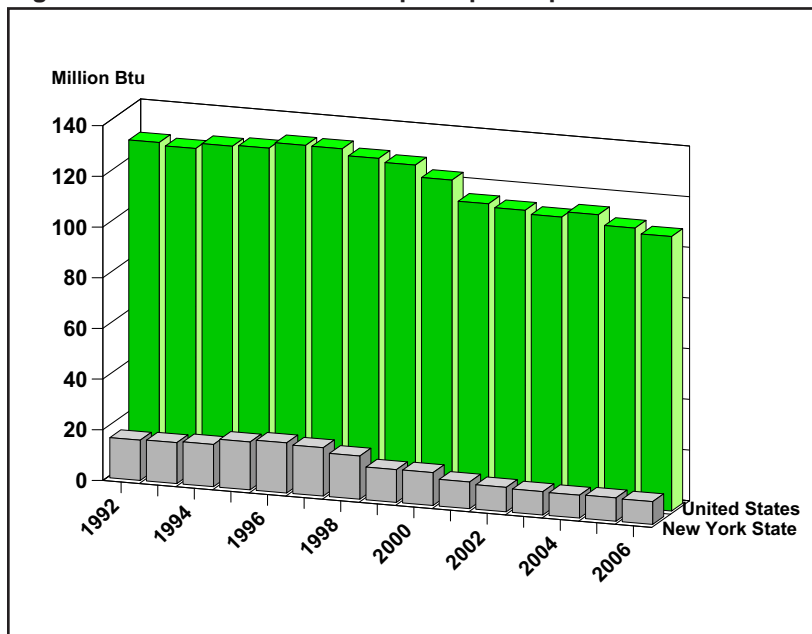


Figure 1-16b Industrial Consumption per Capita



# United States and New York State Selected Energy Indicators, 1992-2006

Figure 1-17a Transportation Consumption per Vehicle Mile Traveled

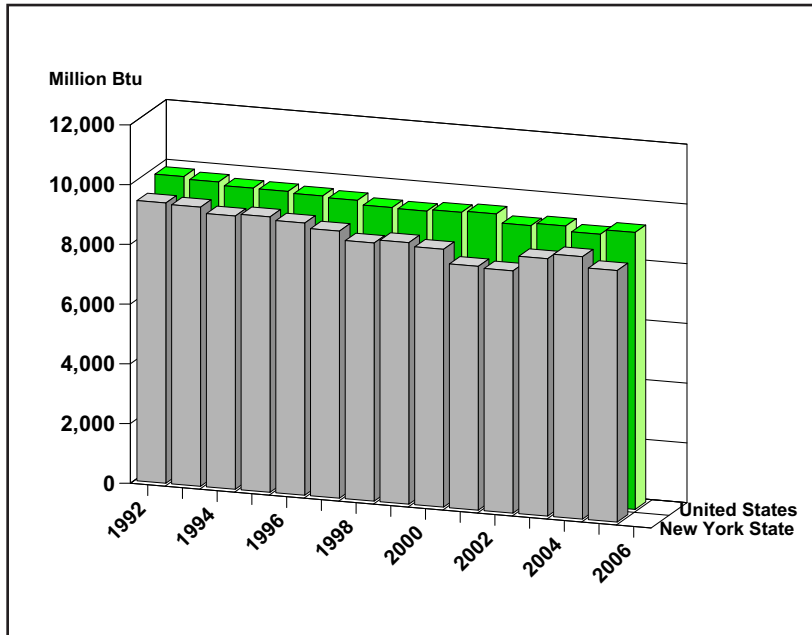
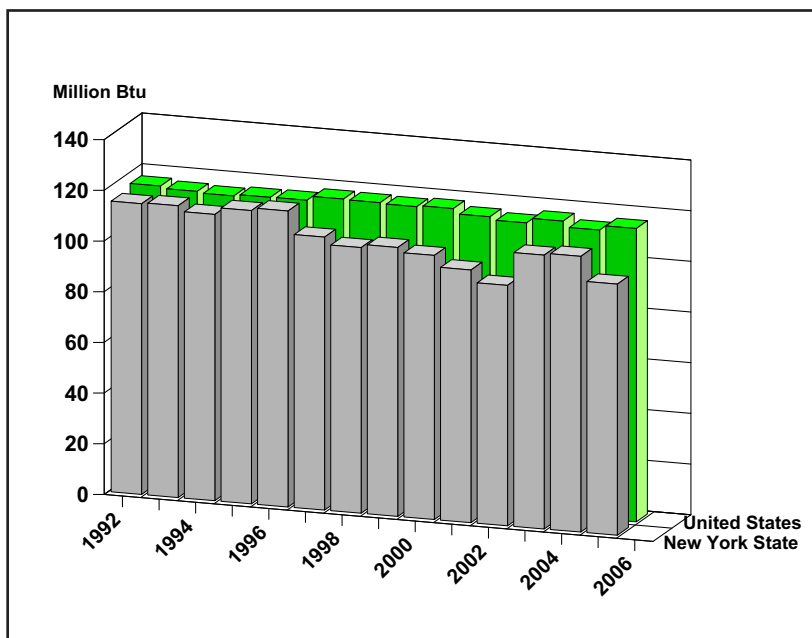


Figure 1-17b Transportation Consumption per Registered Motor Vehicle



## Section 2

# NEW YORK ENERGY CONSUMPTION

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This section presents data on primary and net energy consumption in New York, by sector and fuel type, for the 15-year period from 1992 through 2006.

Primary consumption of energy is shown by fuel type in physical units, such as tons, cubic feet, and barrels, and in trillion Btu (TBtu). Total primary energy consumption by sector, including residential, commercial, industrial, transportation, and electric generation, is presented for the 15-year period.

This section also presents statistics on the State's other fuels, including wood and municipal waste.

Electricity generation is net of generation station use. Electricity from hydro and nuclear power, as well as biofuels, wind, and net electricity imports, has been converted to primary energy by applying a statewide average annual heat rate (Btu per kWh generated) for fossil-fueled power plants.

Electricity sales figures are combined with end-use consumption of coal, petroleum products, natural gas, biofuels, and wind to derive total net energy consumption in the residential, commercial, industrial, and transportation sectors. Net energy consumption is provided in TBtu and physical units.

End-use energy consumption by large multi-family buildings and institutional facilities is included in the commercial sector.

## Key Observations about 2006 New York State Energy Consumption Data

- ✓ Total primary energy consumption was 4,071 TBtu, a 4.1% reduction from 2005.
- ✓ Cumulative heating degree-days decreased 13% from 2005 to 2006.
- ✓ Primary use of coal, hydro power, and natural gas increased 5%, 3%, and 2% respectively, while use of petroleum decreased 13%. Nuclear power was virtually unchanged from 2005 to 2006.
- ✓ Total demand for petroleum products was 1,584 TBtu, or 288 million barrels, representing 38% of total primary energy consumption.
- ✓ In 2006, motor gasoline consumption rose over 2005 levels, while distillate oil, residual oil, kerosene, and propane consumption declined.
- ✓ Consumption of residual fuel and distillate fuel were 49% and 12% lower, respectively, in 2006 versus 2005.
- ✓ Sales of natural gas totaled 1,093 billion cubic feet, 2% above the 1,077 billion cubic feet sold in 2005.
- ✓ Nuclear power and natural gas accounted for 26% and 25% of New York's electricity generation in 2006.
- ✓ Energy for electricity generation accounted for 41% of primary energy use.
- ✓ Sales of electricity to ultimate customers decreased by less than 1% between 2005 and 2006.
- ✓ Total residential energy demand was 774 TBtu, 12% lower than 2005 levels. The residential sector accounted for 27% of total net energy consumption.
- ✓ Total consumption in the commercial sector was 694 TBtu, or 24% of total net energy consumption. The sector's total energy demand fell 6% below the 2005 level, while sales of electricity in the sector rose 1%.
- ✓ Industrial energy demand was 242 TBtu, or 8% of total net consumption.
- ✓ Transportation energy demand was 1,201 TBtu, up 1% from 2005. The sector accounted for 41% of total net energy consumption in 2006.

# New York State Primary Consumption of Energy by Fuel Type, 1992-2006

Figure 2-1

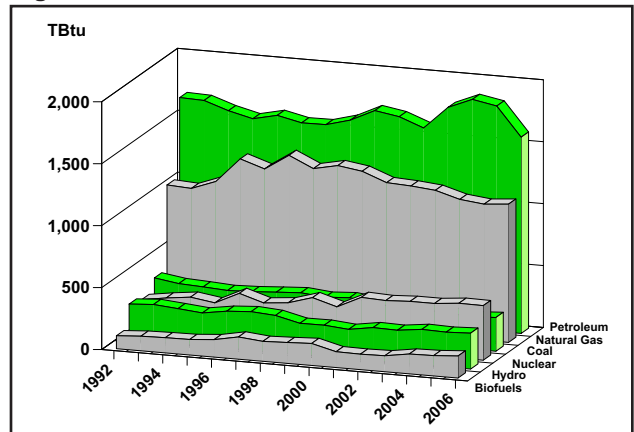


Table 2-1a (in physical units)

| Year | Coal<br>MTons | Natural<br>Gas<br>Bcf | Petroleum<br>Products<br>Mbbbl | Hydro<br>GWh | Nuclear<br>GWh | Net<br>Imported<br>Electricity<br>GWh |
|------|---------------|-----------------------|--------------------------------|--------------|----------------|---------------------------------------|
| 1992 | 13,761        | 1,004                 | 298,633                        | 27,920       | 24,155         | 16,587                                |
| 1993 | 12,651        | 994                   | 297,647                        | 29,304       | 26,889         | 21,692                                |
| 1994 | 12,230        | 1,065                 | 287,262                        | 27,656       | 29,231         | 20,737                                |
| 1995 | 11,785        | 1,260                 | 280,623                        | 25,895       | 26,336         | 13,952                                |
| 1996 | 12,074        | 1,200                 | 287,810                        | 28,830       | 35,226         | 11,770                                |
| 1997 | 12,522        | 1,325                 | 280,835                        | 30,498       | 29,570         | 7,091                                 |
| 1998 | 12,953        | 1,233                 | 280,961                        | 29,203       | 31,314         | 5,469                                 |
| 1999 | 12,187        | 1,275                 | 290,502                        | 24,648       | 37,019         | 9,066                                 |
| 2000 | 12,611        | 1,244                 | 306,903                        | 24,819       | 31,508         | 17,657                                |
| 2001 | 11,784        | 1,170                 | 300,796                        | 23,152       | 40,395         | 11,874                                |
| 2002 | 10,907        | 1,199                 | 289,027                        | 26,213       | 39,617         | 17,067                                |
| 2003 | 11,313        | 1,132                 | 319,367                        | 25,798       | 40,679         | 17,930                                |
| 2004 | 11,335        | 1,098                 | 333,296                        | 28,153       | 40,640         | 17,488                                |
| 2005 | 10,690        | 1,077                 | 326,781                        | 27,583       | 42,443         | 17,749                                |
| 2006 | 11,186        | 1,093                 | 288,149                        | 28,422       | 42,224         | 18,750                                |

Table 2-1b (in trillion Btu)

| Year | Coal<br>TBtu | Natural<br>Gas<br>TBtu | Petroleum<br>Products<br>TBtu | Hydro<br>TBtu | Nuclear<br>TBtu | Net<br>Imported<br>Electricity<br>TBtu | Biofuels <sup>1</sup><br>TBtu | Total <sup>2</sup><br>TBtu |
|------|--------------|------------------------|-------------------------------|---------------|-----------------|--|-------------------------------|----------------------------|
| 1992 | 356.0        | 1,034.0                | 1,667.8                       | 288.7         | 252.9           | 165.6                                  | 104.5                         | 3,869.5                    |
| 1993 | 326.2        | 1,023.1                | 1,661.0                       | 302.1         | 282.4           | 209.8                                  | 117.6                         | 3,922.2                    |
| 1994 | 316.8        | 1,095.6                | 1,595.6                       | 285.3         | 305.5           | 202.4                                  | 122.7                         | 3,923.9                    |
| 1995 | 305.3        | 1,295.4                | 1,547.4                       | 267.0         | 276.7           | 132.2                                  | 124.9                         | 3,948.9                    |
| 1996 | 311.8        | 1,230.7                | 1,591.4                       | 298.1         | 370.0           | 111.3                                  | 141.2                         | 4,054.6                    |
| 1997 | 325.2        | 1,358.0                | 1,548.1                       | 311.5         | 310.3           | 68.2                                   | 179.5                         | 4,100.8                    |
| 1998 | 337.4        | 1,267.1                | 1,550.0                       | 297.8         | 328.5           | 52.8                                   | 160.5                         | 3,994.1                    |
| 1999 | 318.0        | 1,308.7                | 1,603.8                       | 252.0         | 386.8           | 90.3                                   | 168.4                         | 4,128.1                    |
| 2000 | 330.9        | 1,279.6                | 1,697.1                       | 253.2         | 328.6           | 175.5                                  | 177.5                         | 4,242.3                    |
| 2001 | 307.0        | 1,204.7                | 1,665.1                       | 236.2         | 422.0           | 117.9                                  | 127.7                         | 4,080.6                    |
| 2002 | 280.6        | 1,194.8                | 1,591.2                       | 267.4         | 413.6           | 169.7                                  | 124.7                         | 4,042.1                    |
| 2003 | 286.1        | 1,176.4                | 1,773.6                       | 263.2         | 423.9           | 179.1                                  | 129.3                         | 4,231.6                    |
| 2004 | 276.5        | 1,120.2                | 1,856.0                       | 287.2         | 423.8           | 176.0                                  | 159.9                         | 4,299.6                    |
| 2005 | 260.9        | 1,099.1                | 1,819.1                       | 281.4         | 442.6           | 176.7                                  | 164.4                         | 4,244.2                    |
| 2006 | 272.8        | 1,116.2                | 1,584.4                       | 290.0         | 440.3           | 189.4                                  | 177.7                         | 4,070.9                    |

<sup>1</sup> Includes primarily wood, waste, wind and ethanol

<sup>2</sup> Excludes non-fuel uses and steam

# New York State Primary Consumption of Refined Petroleum Products, 1992-2006

Figure 2-2

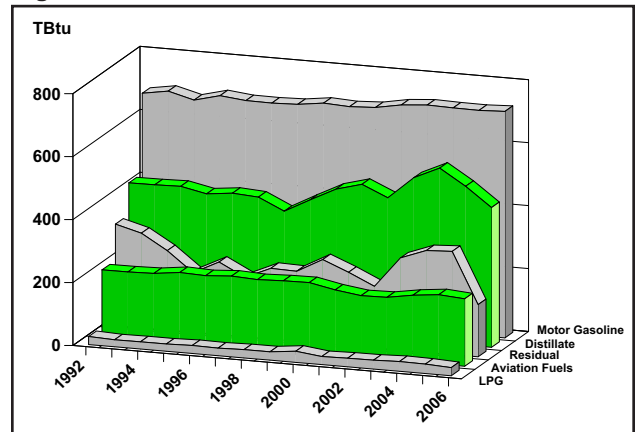


Table 2-2a (in thousand barrels)

| Year | Distillate<br>Mbbbl | Residual<br>Mbbbl | Kerosene<br>Mbbbl | LPG <sup>1</sup><br>Mbbbl | Motor<br>Gasoline<br>Mbbbl | Aviation<br>Fuels <sup>2</sup><br>Mbbbl | Total<br>Petroleum<br>Products<br>Mbbbl |
|------|---------------------|-------------------|-------------------|---------------------------|----------------------------|---|---|
| 1992 | 72,742              | 51,307            | 1,861             | 7,077                     | 129,064                    | 36,582                                  | 298,633                                 |
| 1993 | 72,900              | 47,823            | 2,422             | 6,139                     | 131,710                    | 36,653                                  | 297,647                                 |
| 1994 | 73,218              | 40,125            | 2,289             | 6,352                     | 128,228                    | 37,050                                  | 287,262                                 |
| 1995 | 70,349              | 30,127            | 2,363             | 6,332                     | 132,627                    | 38,825                                  | 280,623                                 |
| 1996 | 71,914              | 36,628            | 2,883             | 7,073                     | 130,979                    | 38,333                                  | 287,810                                 |
| 1997 | 71,033              | 29,992            | 2,906             | 6,687                     | 130,923                    | 39,294                                  | 280,835                                 |
| 1998 | 64,515              | 35,732            | 3,358             | 7,306                     | 131,469                    | 38,581                                  | 280,961                                 |
| 1999 | 71,969              | 35,352            | 3,086             | 7,316                     | 133,621                    | 39,158                                  | 290,502                                 |
| 2000 | 79,038              | 42,349            | 3,443             | 9,849                     | 132,831                    | 39,393                                  | 306,903                                 |
| 2001 | 82,878              | 37,090            | 3,444             | 7,111                     | 133,724                    | 36,549                                  | 300,796                                 |
| 2002 | 76,684              | 31,110            | 2,373             | 7,612                     | 136,664                    | 34,584                                  | 289,027                                 |
| 2003 | 88,919              | 46,578            | 3,195             | 7,771                     | 138,010                    | 34,894                                  | 319,367                                 |
| 2004 | 95,301              | 51,469            | 3,182             | 8,640                     | 137,387                    | 37,317                                  | 333,296                                 |
| 2005 | 86,630              | 52,151            | 3,632             | 8,260                     | 137,255                    | 38,853                                  | 326,781                                 |
| 2006 | 76,243              | 26,394            | 2,579             | 7,186                     | 137,959                    | 37,787                                  | 288,149                                 |

Table 2-2b (in trillion Btu)

| Year | Distillate<br>TBtu | Residual<br>TBtu | Kerosene<br>TBtu | LPG <sup>1</sup><br>TBtu | Motor<br>Gasoline<br>TBtu | Aviation<br>Fuels <sup>2</sup><br>TBtu | Total<br>Petroleum<br>Products<br>TBtu |
|------|--------------------|------------------|------------------|--------------------------|---------------------------|--|--|
| 1992 | 423.7              | 322.6            | 10.5             | 25.7                     | 678.0                     | 207.4                                  | 1,667.8                                |
| 1993 | 424.6              | 300.7            | 13.8             | 22.2                     | 691.9                     | 207.8                                  | 1,661.0                                |
| 1994 | 426.6              | 252.3            | 13.0             | 23.0                     | 670.6                     | 210.1                                  | 1,595.6                                |
| 1995 | 409.8              | 189.4            | 13.4             | 23.0                     | 691.7                     | 220.1                                  | 1,547.4                                |
| 1996 | 418.9              | 230.2            | 16.4             | 25.4                     | 683.2                     | 217.3                                  | 1,591.4                                |
| 1997 | 413.7              | 188.6            | 16.4             | 24.1                     | 682.5                     | 222.8                                  | 1,548.1                                |
| 1998 | 375.9              | 224.6            | 19.1             | 26.4                     | 685.2                     | 218.8                                  | 1,550.0                                |
| 1999 | 419.2              | 222.3            | 17.5             | 26.5                     | 696.3                     | 222.0                                  | 1,603.8                                |
| 2000 | 460.3              | 266.3            | 19.6             | 35.5                     | 692.0                     | 223.4                                  | 1,697.1                                |
| 2001 | 482.7              | 233.2            | 19.6             | 25.7                     | 696.7                     | 207.2                                  | 1,665.1                                |
| 2002 | 446.7              | 195.7            | 13.5             | 27.5                     | 711.7                     | 196.1                                  | 1,591.2                                |
| 2003 | 517.9              | 292.9            | 18.1             | 28.3                     | 718.6                     | 197.8                                  | 1,773.6                                |
| 2004 | 555.2              | 323.5            | 18.0             | 31.2                     | 716.5                     | 211.6                                  | 1,856.0                                |
| 2005 | 504.6              | 327.9            | 20.6             | 29.9                     | 715.8                     | 220.3                                  | 1,819.1                                |
| 2006 | 444.1              | 165.9            | 14.6             | 26.0                     | 719.5                     | 214.3                                  | 1,584.4                                |

<sup>1</sup> Excludes non-fuel use

<sup>2</sup> Kerosene-type jet fuel and aviation gasoline

# New York State Primary Consumption of Energy by Sector, 1992-2006

Figure 2-3

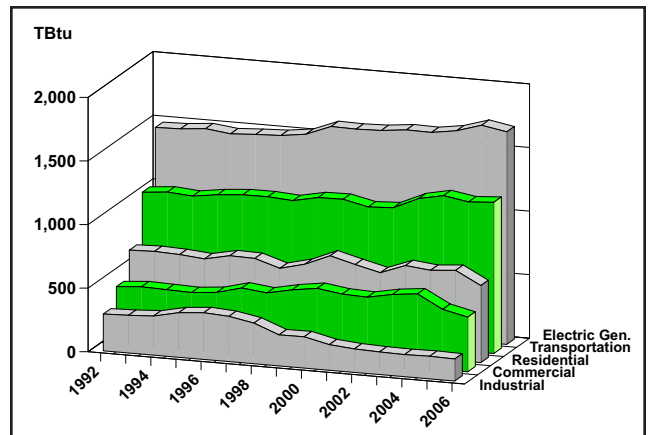


Table 2-3 (in trillion Btu)

| Year | Residential<br>TBtu | Commercial<br>TBtu | Industrial<br>TBtu | Transportation<br>TBtu | Electric<br>Generation<br>TBtu | Total<br>TBtu |
|------|---------------------|--------------------|--------------------|------------------------|--------------------------------|---------------|
| 1992 | 647.5               | 432.8              | 289.7              | 1,031.2                | 1,468.3                        | 3,869.5       |
| 1993 | 654.3               | 448.4              | 296.6              | 1,049.0                | 1,473.9                        | 3,922.2       |
| 1994 | 646.5               | 443.2              | 307.9              | 1,033.7                | 1,492.6                        | 3,923.9       |
| 1995 | 629.9               | 437.6              | 350.4              | 1,062.0                | 1,469.0                        | 3,948.9       |
| 1996 | 671.4               | 455.4              | 367.7              | 1,078.9                | 1,481.1                        | 4,054.6       |
| 1997 | 667.3               | 507.1              | 355.9              | 1,080.3                | 1,490.2                        | 4,100.8       |
| 1998 | 606.0               | 484.8              | 320.1              | 1,066.4                | 1,516.8                        | 3,994.1       |
| 1999 | 655.8               | 526.1              | 244.2              | 1,107.6                | 1,594.3                        | 4,128.1       |
| 2000 | 738.8               | 554.9              | 246.7              | 1,111.3                | 1,590.7                        | 4,242.3       |
| 2001 | 687.4               | 526.9              | 201.4              | 1,067.8                | 1,597.1                        | 4,080.6       |
| 2002 | 639.5               | 519.5              | 185.2              | 1,078.9                | 1,619.0                        | 4,042.1       |
| 2003 | 713.2               | 558.0              | 177.7              | 1,167.2                | 1,615.5                        | 4,231.6       |
| 2004 | 692.9               | 579.3              | 174.1              | 1,207.7                | 1,645.7                        | 4,299.6       |
| 2005 | 709.1               | 475.0              | 178.3              | 1,175.5                | 1,706.4                        | 4,244.2       |
| 2006 | 606.7               | 430.1              | 173.4              | 1,189.3                | 1,671.4                        | 4,070.9       |

# New York State Primary Consumption of Energy for Electric Generation, 1992-2006

Figure 2-4

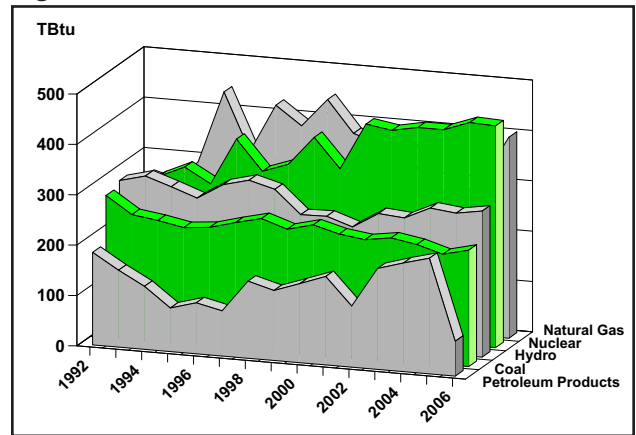


Table 2-4a (in physical units)

| Year | Coal <sup>1</sup><br>MTons | Natural<br>Gas<br>Bcf | Distillate <sup>2</sup><br>TBtu | Residual<br>Mbbbl | Total<br>Petroleum<br>Mbbbl | Hydro<br>GWh | Nuclear<br>GWh | Net<br>Imported<br>Electricity<br>GWh |
|------|----------------------------|-----------------------|---------------------------------|-------------------|-----------------------------|--------------|----------------|---------------------------------------|
| 1992 | 10,727                     | 254                   | 499                             | 28,786            | 29,285                      | 27,920       | 24,155         | 16,587                                |
| 1993 | 9,472                      | 241                   | 903                             | 23,444            | 24,347                      | 39,304       | 26,889         | 21,692                                |
| 1994 | 9,152                      | 289                   | 2,300                           | 17,786            | 20,086                      | 27,656       | 29,231         | 20,737                                |
| 1995 | 8,774                      | 431                   | 1,627                           | 12,264            | 13,891                      | 25,895       | 26,336         | 13,952                                |
| 1996 | 8,992                      | 320                   | 1,268                           | 14,940            | 16,208                      | 28,830       | 35,226         | 11,770                                |
| 1997 | 9,464                      | 413                   | 1,568                           | 12,813            | 14,381                      | 30,498       | 29,570         | 7,091                                 |
| 1998 | 9,928                      | 377                   | 1,390                           | 23,075            | 24,465                      | 29,203       | 31,314         | 5,469                                 |
| 1999 | 9,265                      | 433                   | 2,207                           | 20,053            | 22,260                      | 24,648       | 37,019         | 9,066                                 |
| 2000 | 9,763                      | 373                   | 2,352                           | 22,789            | 25,141                      | 24,819       | 31,508         | 17,657                                |
| 2001 | 9,258                      | 357                   | 3,010                           | 25,146            | 28,156                      | 23,152       | 40,395         | 11,874                                |
| 2002 | 9,154                      | 366                   | 2,229                           | 17,244            | 19,473                      | 26,213       | 39,617         | 17,067                                |
| 2003 | 9,646                      | 261                   | 2,410                           | 29,627            | 32,037                      | 25,798       | 40,679         | 17,930                                |
| 2004 | 9,702                      | 259                   | 1,740                           | 32,722            | 34,462                      | 28,153       | 40,640         | 17,488                                |
| 2005 | 9,080                      | 304                   | 1,574                           | 35,064            | 36,638                      | 27,583       | 42,443         | 17,749                                |
| 2006 | 9,597                      | 388                   | 442                             | 10,599            | 11,041                      | 28,422       | 42,224         | 18,750                                |

Table 2-4b (in trillion Btu)

| Year | Coal <sup>1</sup><br>TBtu | Natural<br>Gas<br>TBtu | Distillate <sup>2</sup><br>TBtu | Residual<br>TBtu | Total<br>Petroleum<br>TBtu | Hydro <sup>4</sup><br>TBtu | Nuclear <sup>4</sup><br>TBtu | Net<br>Imported<br>Electricity <sup>3</sup><br>TBtu | Biofuel <sup>4</sup><br>TBtu | Wind <sup>4</sup><br>TBtu | Total <sup>3</sup><br>TBtu |
|------|---------------------------|------------------------|---------------------------------|------------------|----------------------------|----------------------------|------------------------------|---|------------------------------|---------------------------|----------------------------|
| 1992 | 277.9                     | 261.6                  | 2.9                             | 181.0            | 183.9                      | 288.7                      | 252.9                        | 165.6   | 37.7                         | 0                         | 1,468.3                    |
| 1993 | 244.4                     | 247.6                  | 5.3                             | 147.4            | 152.7                      | 302.1                      | 282.4                        | 209.8   | 34.9                         | 0                         | 1,473.9                    |
| 1994 | 237.1                     | 297.0                  | 13.4                            | 111.8            | 125.2                      | 285.3                      | 305.5                        | 202.4   | 40.1                         | 0                         | 1,492.6                    |
| 1995 | 227.4                     | 440.4                  | 9.5                             | 77.1             | 86.6                       | 267.0                      | 276.7                        | 132.2   | 38.7                         | 0                         | 1,469.0                    |
| 1996 | 232.3                     | 326.9                  | 7.4                             | 93.9             | 101.3                      | 298.1                      | 370.0                        | 111.3   | 41.2                         | 0                         | 1,481.1                    |
| 1997 | 246.2                     | 422.9                  | 9.1                             | 80.6             | 89.7                       | 311.5                      | 310.3                        | 68.2  | 41.4                         | 0                         | 1,490.2                    |
| 1998 | 258.6                     | 386.3                  | 8.1                             | 145.1            | 153.2                      | 297.8                      | 328.5                        | 52.8  | 39.6                         | 0                         | 1,516.8                    |
| 1999 | 241.8                     | 443.0                  | 12.9                            | 126.1            | 139.0                      | 252.0                      | 386.8                        | 90.3  | 41.4                         | 0                         | 1,594.3                    |
| 2000 | 254.8                     | 380.1                  | 13.7                            | 143.3            | 157.0                      | 253.2                      | 328.6                        | 175.5   | 41.4                         | 0.1                       | 1,590.7                    |
| 2001 | 241.1                     | 364.0                  | 17.5                            | 158.1            | 175.6                      | 236.2                      | 422.0                        | 117.9   | 40.1                         | 0.2                       | 1,597.1                    |
| 2002 | 234.3                     | 372.5                  | 13.0                            | 108.4            | 121.4                      | 267.4                      | 413.6                        | 169.7   | 39.2                         | 0.8                       | 1,619.0                    |
| 2003 | 242.1                     | 267.1                  | 14.0                            | 186.3            | 200.3                      | 263.2                      | 423.9                        | 179.1   | 39.4                         | 0.4                       | 1,615.5                    |
| 2004 | 233.6                     | 266.5                  | 10.1                            | 205.7            | 215.8                      | 287.2                      | 423.8                        | 176.0   | 41.5                         | 1.2                       | 1,645.7                    |
| 2005 | 218.6                     | 312.8                  | 9.2                             | 220.4            | 229.6                      | 281.4                      | 442.6                        | 176.7   | 43.7                         | 1.0                       | 1,706.4                    |
| 2006 | 231.1                     | 399.2                  | 2.6                             | 66.6             | 69.2                       | 290.0                      | 440.3                        | 189.4   | 46.8                         | 5.4                       | 1,671.4                    |

<sup>1</sup> Bituminous coal only

<sup>2</sup> Includes small quantities of kerosene-type jet fuel

<sup>3</sup> Excludes utility consumption of fuels used in the production of steam distributed for space heating

<sup>4</sup> Converts to TBtu by applying a statewide average annual heat rate for fossil-fueled power plants

# New York State Electric Generation by Fuel Type, 1992-2006

Figure 2-5

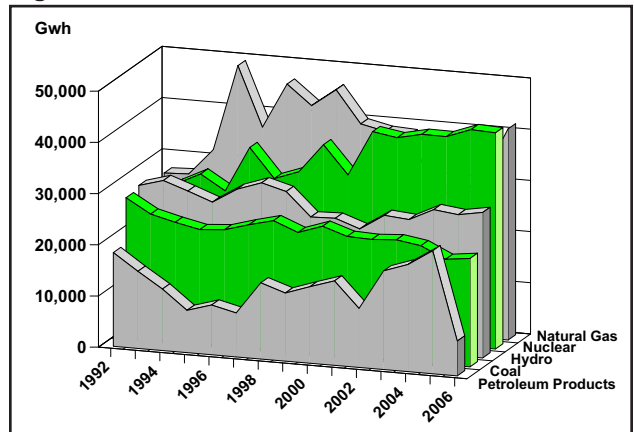


Table 2-5 (in gigawatt hours)

| Year | Coal<br>GWh | Natural<br>Gas<br>GWh | Petroleum<br>Products<br>Gwh | Hydro <sup>1</sup><br>GWh | Nuclear<br>Gwh | Net<br>Imported<br>Electricity<br>Gwh | Other<br>Biofuels <sup>2</sup><br>GWh | Wind<br>GWh | Total <sup>3,4</sup><br>GWh |
|------|-------------|-----------------------|------------------------------|---------------------------|----------------|---------------------------------------|---------------------------------------|-------------|-----------------------------|
| 1992 | 27,280      | 26,850                | 18,319                       | 27,920                    | 24,155         | 16,587                                | 2,320                                 | 0           | 143,431                     |
| 1993 | 24,502      | 27,075                | 15,073                       | 29,304                    | 26,889         | 21,692                                | 2,374                                 | 0           | 146,909                     |
| 1994 | 23,291      | 32,230                | 12,030                       | 27,656                    | 29,231         | 20,737                                | 2,602                                 | 0           | 147,777                     |
| 1995 | 22,289      | 49,057                | 8,268                        | 25,895                    | 26,336         | 13,952                                | 2,632                                 | 0           | 148,429                     |
| 1996 | 22,672      | 37,449                | 9,717                        | 28,830                    | 35,226         | 11,770                                | 2,863                                 | 0           | 148,527                     |
| 1997 | 24,059      | 46,281                | 8,588                        | 30,498                    | 29,570         | 7,091                                 | 2,809                                 | 0           | 148,896                     |
| 1998 | 25,265      | 42,472                | 14,901                       | 29,203                    | 31,314         | 5,469                                 | 2,754                                 | 0           | 151,377                     |
| 1999 | 23,366      | 45,999                | 13,304                       | 24,648                    | 37,019         | 9,066                                 | 2,950                                 | 0           | 156,352                     |
| 2000 | 25,010      | 39,729                | 14,945                       | 24,819                    | 31,508         | 17,657                                | 2,958                                 | 10          | 156,636                     |
| 2001 | 23,432      | 38,697                | 16,512                       | 23,152                    | 40,395         | 11,874                                | 2,704                                 | 21          | 156,787                     |
| 2002 | 23,239      | 38,451                | 11,534                       | 26,213                    | 39,617         | 17,067                                | 2,541                                 | 82          | 158,745                     |
| 2003 | 23,581      | 28,156                | 19,292                       | 25,798                    | 40,679         | 17,930                                | 2,537                                 | 41          | 158,014                     |
| 2004 | 22,854      | 27,325                | 20,940                       | 28,153                    | 40,640         | 17,488                                | 2,695                                 | 116         | 160,211                     |
| 2005 | 20,598      | 31,831                | 24,035                       | 27,583                    | 42,443         | 17,749                                | 2,868                                 | 101         | 167,208                     |
| 2006 | 21,185      | 41,250                | 6,816                        | 28,422                    | 42,224         | 18,750                                | 3,072                                 | 518         | 162,237                     |

<sup>1</sup> Hydro totals after 2000 do not "net out" electricity used at pumped storage facilities

<sup>2</sup> Includes renewable and biofuels used by generators, not including wind

<sup>3</sup> Electricity generated from combined heat and power is included

<sup>4</sup> Generation data are net of station use

# New York State Fossil Fuel for Electric Generation Trends, 1992-2006

Figure 2-6a Fossil Fuel Used per kWh Required

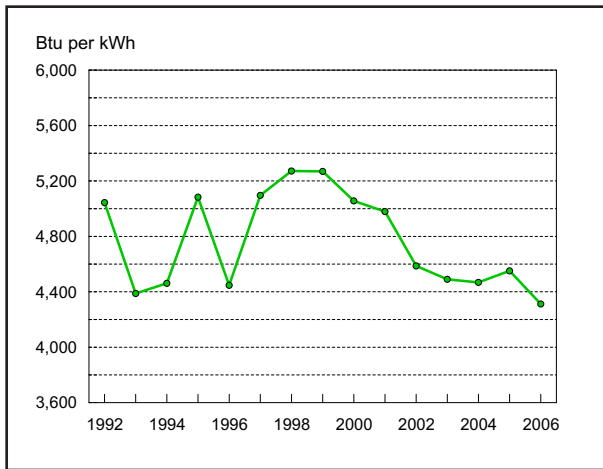


Figure 2-6b CO<sub>2</sub> Tons Emitted Per GWh Required

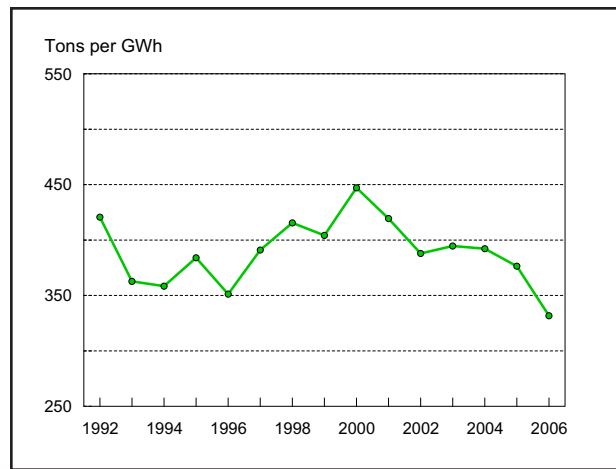


Table 2-6 Fossil Fuel Use for Electricity Trends

| Year | Total Fossil Fuel Use | Fossil Fuel per kWh Required | CO <sub>2</sub> Emitted per GWh Required |
|------|-----------------------|------------------------------|--|
|      | TBtu                  | Btu                          | Tons of CO <sub>2</sub> Equivalent       |
| 1992 | 723.4                 | 5,044                        | 420.7                                    |
| 1993 | 644.7                 | 4,388                        | 362.7                                    |
| 1994 | 659.3                 | 4,461                        | 358.4                                    |
| 1995 | 754.4                 | 5,083                        | 384.0                                    |
| 1996 | 660.5                 | 4,447                        | 351.2                                    |
| 1997 | 758.8                 | 5,096                        | 391.0                                    |
| 1998 | 798.1                 | 5,272                        | 415.5                                    |
| 1999 | 823.8                 | 5,269                        | 404.2                                    |
| 2000 | 791.9                 | 5,056                        | 447.1                                    |
| 2001 | 780.7                 | 4,979                        | 419.4                                    |
| 2002 | 728.2                 | 4,587                        | 387.9                                    |
| 2003 | 709.5                 | 4,490                        | 394.6                                    |
| 2004 | 715.9                 | 4,468                        | 392.2                                    |
| 2005 | 761.0                 | 4,551                        | 376.4                                    |
| 2006 | 699.5                 | 4,312                        | 331.7                                    |

Notes: Fossil Fuel includes natural gas, coal, and all petroleum products used for electric generation.

# New York State Sales of Electricity to Ultimate Consumers, 1992-2006

Figure 2-7

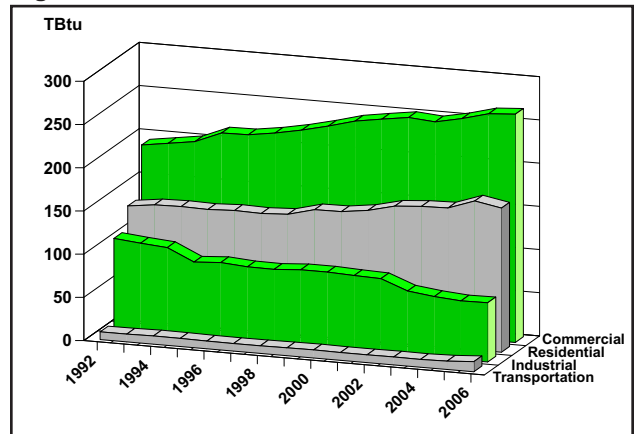


Table 2-7a (in gigawatt hours)

| Year | Residential<br>GWh | Commercial<br>GWh | Industrial<br>GWh | Transportation<br>GWh | Total<br>GWh |
|------|--------------------|-------------------|-------------------|-----------------------|--------------|
| 1992 | 38,720             | 56,079            | 31,027            | 2,644                 | 128,470      |
| 1993 | 39,897             | 57,410            | 30,187            | 2,676                 | 130,170      |
| 1994 | 40,105             | 58,802            | 29,467            | 2,803                 | 131,177      |
| 1995 | 39,887             | 62,509            | 25,317            | 2,757                 | 130,471      |
| 1996 | 40,285             | 62,663            | 25,947            | 2,632                 | 131,527      |
| 1997 | 40,059             | 64,033            | 25,285            | 2,567                 | 131,944      |
| 1998 | 40,563             | 65,834            | 25,218            | 2,580                 | 134,196      |
| 1999 | 42,919             | 67,969            | 25,835            | 2,654                 | 139,378      |
| 2000 | 43,018             | 70,417            | 25,838            | 2,753                 | 142,027      |
| 2001 | 44,236             | 71,850            | 25,450            | 2,646                 | 141,399      |
| 2002 | 46,457             | 73,198            | 25,148            | 2,637                 | 143,564      |
| 2003 | 47,116             | 72,495            | 21,745            | 2,689                 | 144,045      |
| 2004 | 47,379             | 74,378            | 20,675            | 2,650                 | 145,082      |
| 2005 | 50,533             | 76,822            | 19,947            | 2,846                 | 150,148      |
| 2006 | 48,896             | 77,419            | 20,102            | 3,421                 | 149,838      |

Table 2-7b (in trillion Btu)

| Year | Residential<br>TBtu | Commercial<br>TBtu | Industrial<br>TBtu | Transportation<br>TBtu | Total<br>TBtu |
|------|---------------------|--------------------|--------------------|------------------------|---------------|
| 1992 | 132.1               | 191.3              | 105.9              | 9.0                    | 438.3         |
| 1993 | 136.1               | 195.9              | 103.0              | 9.1                    | 444.1         |
| 1994 | 136.8               | 200.6              | 100.5              | 9.6                    | 447.6         |
| 1995 | 136.1               | 213.3              | 86.4               | 9.4                    | 445.2         |
| 1996 | 137.5               | 213.8              | 88.5               | 9.0                    | 448.8         |
| 1997 | 136.7               | 218.5              | 86.3               | 8.8                    | 450.3         |
| 1998 | 138.4               | 224.6              | 86.0               | 8.8                    | 457.8         |
| 1999 | 146.4               | 231.9              | 88.2               | 9.1                    | 475.6         |
| 2000 | 146.8               | 240.3              | 88.2               | 9.4                    | 484.7         |
| 2001 | 150.9               | 245.2              | 86.8               | 9.0                    | 491.9         |
| 2002 | 158.5               | 249.8              | 85.8               | 9.0                    | 503.1         |
| 2003 | 160.8               | 247.4              | 74.2               | 9.2                    | 491.6         |
| 2004 | 161.7               | 253.8              | 70.5               | 9.0                    | 495.0         |
| 2005 | 172.4               | 262.1              | 68.1               | 9.7                    | 512.3         |
| 2006 | 166.8               | 264.2              | 68.6               | 11.7                   | 511.2         |

# New York State Net Consumption of Energy by Sector, 1992-2006

Figure 2-8

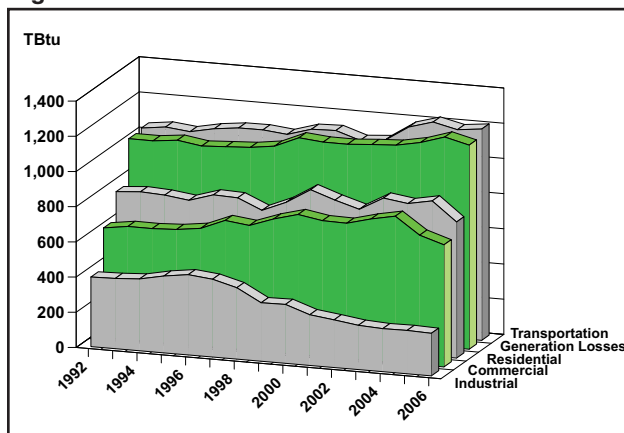


Table 2-8 (in trillion Btu)

| Year | Residential<br>TBtu | Commercial<br>TBtu | Industrial<br>TBtu | Transportation<br>TBtu | Net<br>Consumption<br>TBtu | Electric<br>Generation<br>Losses <sup>1</sup><br>TBtu | Primary<br>Consumption<br>TBtu |
|------|---------------------|--------------------|--------------------|------------------------|----------------------------|---|--------------------------------|
| 1992 | 779.6               | 624.1              | 395.6              | 1,040.2                | 2,839.5                    | 1,030.0   | 3,869.5                        |
| 1993 | 790.4               | 644.3              | 399.6              | 1,058.1                | 2,892.4                    | 1,029.8   | 3,922.2                        |
| 1994 | 783.3               | 643.8              | 408.4              | 1,043.3                | 2,878.8                    | 1,045.1   | 3,923.9                        |
| 1995 | 766.0               | 650.9              | 436.8              | 1,071.4                | 2,925.1                    | 1,023.8   | 3,948.9                        |
| 1996 | 808.9               | 669.2              | 456.2              | 1,087.9                | 3,022.2                    | 1,032.3   | 4,054.6                        |
| 1997 | 804.0               | 725.6              | 442.2              | 1,089.1                | 3,060.9                    | 1,039.9   | 4,100.8                        |
| 1998 | 744.4               | 709.4              | 406.1              | 1,075.2                | 2,953.1                    | 1,059.0   | 3,994.1                        |
| 1999 | 802.2               | 758.0              | 332.4              | 1,116.7                | 3,009.3                    | 1,118.7   | 4,128.1                        |
| 2000 | 885.6               | 795.2              | 334.9              | 1,120.7                | 3,136.4                    | 1,106.0   | 4,242.3                        |
| 2001 | 838.3               | 772.1              | 288.2              | 1,076.8                | 2,975.4                    | 1,105.2   | 4,080.6                        |
| 2002 | 798.0               | 769.3              | 271.0              | 1,087.9                | 2,926.2                    | 1,115.9   | 4,042.1                        |
| 2003 | 874.0               | 805.4              | 251.9              | 1,176.4                | 3,107.8                    | 1,123.9   | 4,321.6                        |
| 2004 | 854.6               | 833.1              | 244.6              | 1,216.7                | 3,149.0                    | 1,150.7   | 4,299.6                        |
| 2005 | 881.5               | 737.1              | 246.3              | 1,185.2                | 3,134.7                    | 1,194.1   | 4,244.2                        |
| 2006 | 773.5               | 694.2              | 242.0              | 1,201.0                | 2,910.8                    | 1,160.1   | 4,070.9                        |

<sup>1</sup> Conversion and transmission losses

# New York State Net Residential Consumption of Energy by Fuel Type, 1992-2006

Figure 2-9

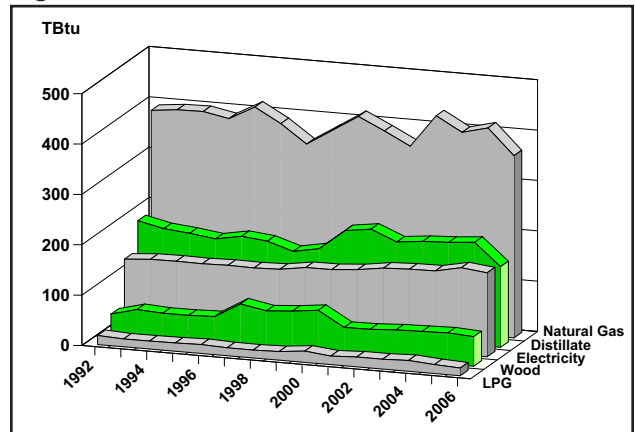


Table 2-9a (in physical units)

| Year | Coal<br>MTons | Natural<br>Gas<br>Bcf | Distillate<br>Mbbbl | Kerosene<br>Mbbbl | LPG<br>Mbbbl | Total<br>Petroleum<br>Mbbbl | Wood<br>MCords | Electricity<br>GWh |
|------|---------------|-----------------------|---------------------|-------------------|--------------|-----------------------------|----------------|--------------------|
| 1992 | 50            | 379                   | 32,553              | 1,252             | 4,965        | 38,770                      | 2,092          | 38,720             |
| 1993 | 42            | 384                   | 30,618              | 1,565             | 4,293        | 36,476                      | 2,758          | 39,897             |
| 1994 | 28            | 385                   | 29,769              | 1,396             | 4,350        | 35,515                      | 2,618          | 40,105             |
| 1995 | 29            | 375                   | 28,624              | 1,240             | 4,516        | 34,380                      | 2,618          | 39,887             |
| 1996 | 34            | 403                   | 30,240              | 1,450             | 4,937        | 36,627                      | 2,719          | 40,285             |
| 1997 | 28            | 376                   | 29,367              | 1,744             | 4,379        | 35,490                      | 4,202          | 40,059             |
| 1998 | 16            | 340                   | 26,637              | 1,866             | 4,323        | 32,826                      | 3,734          | 40,563             |
| 1999 | 22            | 371                   | 28,347              | 2,327             | 4,691        | 35,365                      | 3,931          | 42,919             |
| 2000 | 11            | 400                   | 35,229              | 2,344             | 6,211        | 43,784                      | 4,225          | 43,018             |
| 2001 | 13            | 376                   | 36,502              | 2,390             | 4,698        | 43,590                      | 2,755          | 44,236             |
| 2002 | 5             | 370                   | 32,893              | 1,642             | 5,411        | 39,976                      | 2,796          | 46,457             |
| 2003 | 11            | 410                   | 33,847              | 1,639             | 5,390        | 40,876                      | 2,943          | 47,116             |
| 2004 | 18            | 393                   | 34,263              | 2,065             | 5,961        | 42,289                      | 3,017          | 47,379             |
| 2005 | 18            | 406                   | 35,054              | 2,203             | 4,903        | 42,160                      | 3,091          | 50,533             |
| 2006 | 18            | 356                   | 27,501              | 1,803             | 4,266        | 33,570                      | 2,940          | 48,896             |

Table 2-9b (in trillion Btu)

| Year | Coal<br>TBtu | Natural<br>Gas<br>TBtu | Distillate<br>TBtu | Kerosene<br>TBtu | LPG<br>TBtu | Total<br>Petroleum<br>TBtu | Wood<br>TBtu | Electricity<br>TBtu | Total<br>TBtu |
|------|--------------|------------------------|--------------------|------------------|-------------|----------------------------|--------------|---------------------|---------------|
| 1992 | 1.2          | 389.8                  | 189.6              | 7.1              | 18.0        | 214.7                      | 41.8         | 132.1               | 779.6         |
| 1993 | 1.0          | 395.4                  | 178.3              | 8.9              | 15.5        | 202.7                      | 55.2         | 136.1               | 790.4         |
| 1994 | 0.7          | 396.3                  | 173.4              | 7.9              | 15.8        | 197.1                      | 52.4         | 136.8               | 783.3         |
| 1995 | 0.7          | 386.7                  | 166.7              | 7.0              | 16.4        | 190.1                      | 52.4         | 136.1               | 766.0         |
| 1996 | 0.8          | 414.1                  | 176.1              | 8.2              | 17.8        | 202.2                      | 54.4         | 137.5               | 808.9         |
| 1997 | 0.7          | 385.8                  | 171.1              | 9.9              | 15.8        | 196.8                      | 84.0         | 136.7               | 804.0         |
| 1998 | 0.4          | 349.5                  | 155.2              | 10.6             | 15.6        | 181.4                      | 74.7         | 138.4               | 744.4         |
| 1999 | 0.6          | 381.3                  | 165.1              | 13.2             | 17.0        | 195.3                      | 78.6         | 146.4               | 802.2         |
| 2000 | 0.3          | 413.1                  | 205.2              | 13.3             | 22.4        | 240.9                      | 84.5         | 146.8               | 885.6         |
| 2001 | 0.3          | 388.8                  | 212.6              | 13.6             | 17.0        | 243.2                      | 55.1         | 150.9               | 838.3         |
| 2002 | 0.1          | 362.9                  | 191.6              | 9.3              | 19.7        | 220.6                      | 55.9         | 158.5               | 798.0         |
| 2003 | 0.3          | 427.9                  | 197.2              | 9.3              | 19.6        | 226.1                      | 58.9         | 160.8               | 874.0         |
| 2004 | 0.4          | 399.3                  | 199.6              | 11.7             | 21.6        | 232.9                      | 60.3         | 161.7               | 854.6         |
| 2005 | 0.4          | 412.5                  | 204.2              | 12.5             | 17.7        | 234.4                      | 61.8         | 172.4               | 881.5         |
| 2006 | 0.4          | 361.7                  | 160.2              | 10.2             | 15.4        | 185.8                      | 58.8         | 166.8               | 773.5         |

# New York State Net Commercial Consumption of Energy by Fuel Type, 1992-2006

Figure 2-10

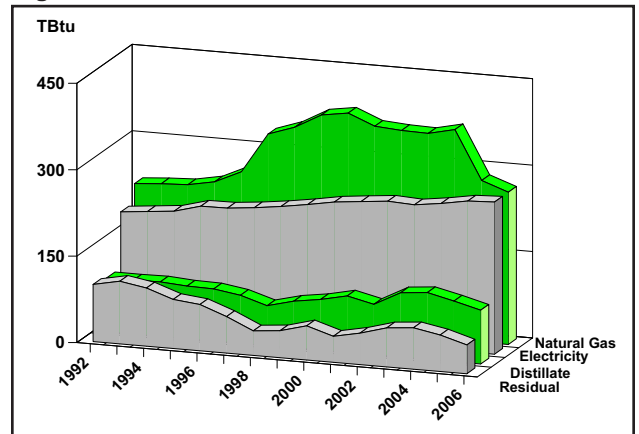


Table 2-10a (in physical units)

| Year | Coal<br>MTons | Natural<br>Gas<br>Bcf | Distillate<br>Mbbbl | Residual<br>Mbbbl | Kerosene<br>Mbbbl | LPG<br>Mbbbl | Total<br>Petroleum<br>Mbbbl | Electricity<br>GWh |
|------|---------------|-----------------------|---------------------|-------------------|-------------------|--------------|-----------------------------|--------------------|
| 1992 | 226           | 217                   | 16,161              | 15,773            | 408               | 876          | 33,218                      | 56,079             |
| 1993 | 190           | 221                   | 16,130              | 17,303            | 616               | 758          | 34,807                      | 57,410             |
| 1994 | 157           | 223                   | 16,232              | 16,057            | 538               | 768          | 33,595                      | 58,802             |
| 1995 | 191           | 231                   | 15,711              | 13,555            | 714               | 797          | 30,777                      | 62,509             |
| 1996 | 249           | 253                   | 15,531              | 12,791            | 751               | 871          | 29,944                      | 62,663             |
| 1997 | 226           | 321                   | 14,337              | 10,105            | 801               | 773          | 26,016                      | 64,033             |
| 1998 | 131           | 335                   | 11,914              | 6,765             | 981               | 763          | 20,423                      | 65,834             |
| 1999 | 158           | 360                   | 13,946              | 7,439             | 682               | 828          | 22,895                      | 67,969             |
| 2000 | 90            | 366                   | 15,128              | 9,429             | 948               | 1,096        | 26,601                      | 70,417             |
| 2001 | 102           | 347                   | 16,865              | 7,193             | 874               | 829          | 25,761                      | 71,850             |
| 2002 | 40            | 362                   | 15,032              | 8,678             | 493               | 960          | 25,163                      | 73,198             |
| 2003 | 73            | 339                   | 19,198              | 10,784            | 665               | 951          | 31,598                      | 72,495             |
| 2004 | 143           | 359                   | 19,907              | 11,441            | 745               | 1,052        | 33,145                      | 74,378             |
| 2005 | 141           | 276                   | 18,086              | 10,066            | 759               | 865          | 29,776                      | 76,822             |
| 2006 | 139           | 260                   | 16,049              | 7,950             | 354               | 753          | 25,105                      | 77,419             |

Table 2-10b (in trillion Btu)

| Year | Coal<br>TBtu | Natural<br>Gas<br>TBtu | Distillate<br>TBtu | Residual<br>TBtu | Kerosene<br>TBtu | LPG<br>TBtu | Total<br>Petroleum<br>TBtu | Wood<br>Waste<br>TBtu | Electricity<br>TBtu | Total<br>TBtu |
|------|--------------|------------------------|--------------------|------------------|------------------|-------------|----------------------------|-----------------------|---------------------|---------------|
| 1992 | 5.6          | 223.6                  | 94.1               | 99.2             | 2.3              | 3.2         | 198.8                      | 4.8                   | 191.3               | 624.1         |
| 1993 | 4.6          | 227.2                  | 94.0               | 108.8            | 3.5              | 2.7         | 209.0                      | 7.6                   | 195.9               | 644.3         |
| 1994 | 3.9          | 229.6                  | 94.6               | 101.0            | 3.1              | 2.8         | 201.5                      | 8.2                   | 200.6               | 643.8         |
| 1995 | 4.8          | 238.5                  | 91.5               | 85.2             | 4.1              | 2.9         | 183.7                      | 10.6                  | 213.3               | 650.9         |
| 1996 | 6.2          | 259.9                  | 90.5               | 80.4             | 4.3              | 3.1         | 178.3                      | 11.0                  | 213.8               | 669.2         |
| 1997 | 5.6          | 329.5                  | 83.5               | 63.5             | 4.5              | 2.8         | 154.3                      | 17.7                  | 218.5               | 725.6         |
| 1998 | 3.3          | 345.3                  | 69.4               | 42.5             | 5.6              | 2.8         | 120.3                      | 15.9                  | 224.6               | 709.4         |
| 1999 | 4.0          | 370.4                  | 81.2               | 46.8             | 3.9              | 3.0         | 134.9                      | 16.8                  | 231.9               | 758.0         |
| 2000 | 2.3          | 377.7                  | 88.1               | 59.3             | 5.4              | 4.0         | 156.8                      | 18.1                  | 240.3               | 795.2         |
| 2001 | 2.5          | 358.9                  | 98.2               | 45.2             | 5.0              | 3.0         | 151.4                      | 14.1                  | 245.2               | 772.1         |
| 2002 | 1.0          | 355.6                  | 87.6               | 54.6             | 2.8              | 3.5         | 148.5                      | 14.4                  | 249.8               | 769.3         |
| 2003 | 1.8          | 354.5                  | 111.8              | 67.8             | 3.8              | 3.5         | 186.9                      | 14.8                  | 247.4               | 805.4         |
| 2004 | 3.6          | 365.1                  | 116.0              | 71.9             | 4.2              | 3.8         | 195.9                      | 14.7                  | 253.8               | 833.1         |
| 2005 | 3.5          | 280.7                  | 105.4              | 63.3             | 4.3              | 3.1         | 176.0                      | 14.7                  | 262.1               | 737.1         |
| 2006 | 3.5          | 264.4                  | 93.5               | 50.0             | 2.0              | 2.7         | 148.2                      | 14.0                  | 264.2               | 694.2         |

# New York State Net Industrial Consumption of Energy by Fuel Type, 1992-2006

Figure 2-11

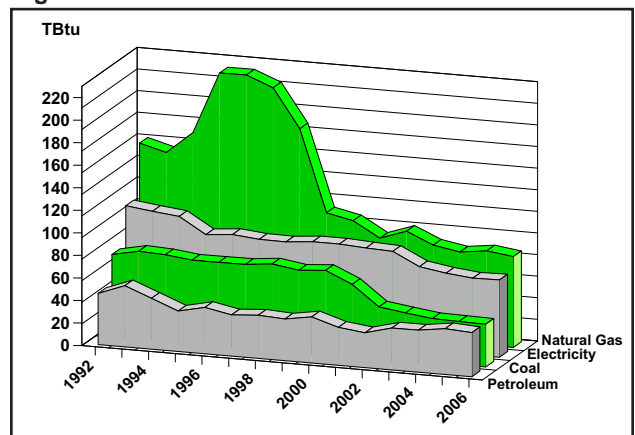


Table 2-11a (in physical units)

| Year | Coal<br>MTons | Natural<br>Gas<br>Bcf | Distillate<br>Mbbbl | Residual<br>Mbbbl | Kerosene<br>Mbbbl | LPG<br>Mbbbl | Total<br>Petroleum<br>Mbbbl | Electricity<br>GWh |
|------|---------------|-----------------------|---------------------|-------------------|-------------------|--------------|-----------------------------|--------------------|
| 1992 | 2,758         | 148                   | 3,624               | 3,060             | 201               | 1,092        | 7,977                       | 31,027             |
| 1993 | 2,947         | 142                   | 4,317               | 3,860             | 241               | 961          | 9,379                       | 30,187             |
| 1994 | 2,893         | 162                   | 3,411               | 3,160             | 355               | 948          | 7,874                       | 29,467             |
| 1995 | 2,791         | 215                   | 3,071               | 1,990             | 409               | 881          | 6,351                       | 25,317             |
| 1996 | 2,799         | 216                   | 3,053               | 2,456             | 682               | 1,142        | 7,333                       | 25,947             |
| 1997 | 2,804         | 207                   | 2,922               | 1,965             | 361               | 1,445        | 6,693                       | 25,285             |
| 1998 | 2,878         | 173                   | 3,016               | 1,868             | 511               | 1,687        | 7,082                       | 25,218             |
| 1999 | 2,742         | 102                   | 3,441               | 1,623             | 77                | 1,772        | 6,913                       | 25,835             |
| 2000 | 2,747         | 97                    | 3,285               | 2,005             | 151               | 2,308        | 7,749                       | 25,838             |
| 2001 | 2,411         | 84                    | 2,981               | 1,554             | 180               | 1,559        | 6,264                       | 25,450             |
| 2002 | 1,708         | 92                    | 2,889               | 1,362             | 238               | 1,145        | 5,634                       | 25,148             |
| 2003 | 1,583         | 82                    | 2,960               | 1,584             | 891               | 1,379        | 6,814                       | 21,745             |
| 2004 | 1,472         | 78                    | 3,481               | 1,483             | 372               | 1,561        | 6,897                       | 20,675             |
| 2005 | 1,451         | 81                    | 3,371               | 1,337             | 670               | 2,417        | 7,795                       | 19,947             |
| 2006 | 1,433         | 78                    | 3,592               | 1,308             | 422               | 2,103        | 7,425                       | 20,102             |

Table 2-11b (in trillion Btu)

| Year | Coal<br>TBtu | Natural<br>Gas<br>TBtu | Distillate<br>TBtu | Residual<br>TBtu | Kerosene<br>TBtu | LPG<br>TBtu | Total<br>Petroleum<br>TBtu | Wood<br>Waste<br>TBtu | Electricity<br>TBtu | Total <sup>1, 2</sup><br>TBtu |
|------|--------------|------------------------|--------------------|------------------|------------------|-------------|----------------------------|-----------------------|---------------------|-------------------------------|
| 1992 | 71.3         | 152.8                  | 21.1               | 19.2             | 1.1              | 4.0         | 45.4                       | 20.2                  | 105.9               | 395.6                         |
| 1993 | 76.2         | 146.5                  | 25.1               | 24.3             | 1.4              | 3.5         | 54.3                       | 19.6                  | 103.0               | 399.6                         |
| 1994 | 75.1         | 166.3                  | 19.9               | 19.9             | 2.0              | 3.4         | 45.2                       | 21.3                  | 100.5               | 408.4                         |
| 1995 | 72.4         | 221.2                  | 17.9               | 12.5             | 2.3              | 3.2         | 35.9                       | 20.9                  | 86.4                | 436.8                         |
| 1996 | 72.5         | 221.4                  | 17.8               | 15.4             | 3.9              | 4.1         | 41.2                       | 32.6                  | 88.5                | 456.2                         |
| 1997 | 72.7         | 212.1                  | 17.0               | 12.4             | 2.0              | 5.2         | 36.6                       | 34.5                  | 86.3                | 442.2                         |
| 1998 | 75.1         | 177.8                  | 17.6               | 11.7             | 2.9              | 6.1         | 38.3                       | 28.9                  | 86.0                | 406.1                         |
| 1999 | 71.6         | 105.2                  | 20.0               | 10.2             | 0.4              | 6.4         | 37.0                       | 30.4                  | 88.2                | 332.4                         |
| 2000 | 73.5         | 100.2                  | 19.1               | 12.6             | 0.9              | 8.3         | 40.9                       | 32.1                  | 88.2                | 334.9                         |
| 2001 | 63.1         | 86.8                   | 17.4               | 9.7              | 1.0              | 5.6         | 33.7                       | 17.8                  | 86.8                | 288.2                         |
| 2002 | 45.2         | 95.0                   | 16.8               | 8.6              | 1.4              | 4.1         | 30.9                       | 14.1                  | 85.8                | 271.0                         |
| 2003 | 41.9         | 84.7                   | 17.2               | 10.0             | 5.0              | 5.0         | 37.2                       | 13.9                  | 74.2                | 251.9                         |
| 2004 | 38.9         | 80.6                   | 20.3               | 9.3              | 2.1              | 5.6         | 37.3                       | 17.3                  | 70.5                | 244.6                         |
| 2005 | 38.4         | 83.7                   | 19.6               | 8.4              | 3.8              | 8.8         | 40.6                       | 15.6                  | 68.1                | 246.3                         |
| 2006 | 37.9         | 80.6                   | 20.9               | 8.2              | 2.4              | 7.7         | 39.2                       | 15.8                  | 68.6                | 242.0                         |

<sup>1</sup> Excludes non-fuel uses (e.g., feedstock)

<sup>2</sup> Includes those fuels used by industry to generate electricity and process steam

# New York State Net Transportation Consumption of Energy by Fuel Type, 1992-2006

Figure 2-12

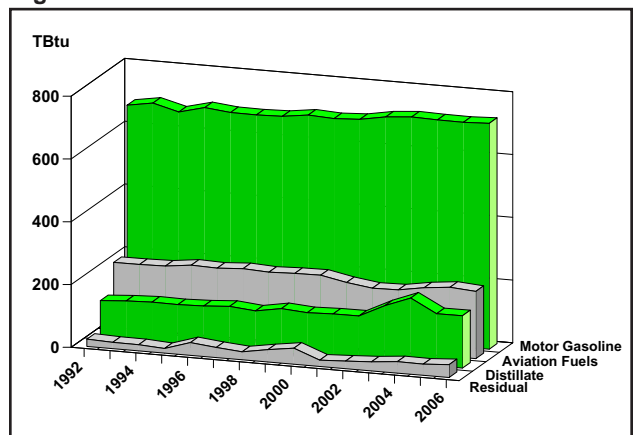


Table 2-12a (in physical units)

| Year | Natural Gas<br>Bcf | Distillate<br>Mbbbl | Residual<br>Mbbbl | Motor Gasoline<br>Mbbbl | Aviation Fuels'<br>Mbbbl | LPG<br>Mbbbl | Total Petroleum<br>Mbbbl | Ethanol<br>Mbbbl | Electricity<br>GWh |
|------|--------------------|---------------------|-------------------|-------------------------|--------------------------|--------------|--------------------------|------------------|--------------------|
| 1992 | 6                  | 19,905              | 3,688             | 129,064                 | 36,582                   | 144          | 189,383                  | 0                | 2,644              |
| 1993 | 6                  | 20,932              | 3,216             | 131,710                 | 36,653                   | 127          | 192,638                  | 83               | 2,676              |
| 1994 | 6                  | 21,506              | 3,122             | 128,228                 | 37,050                   | 286          | 190,192                  | 205              | 2,803              |
| 1995 | 8                  | 21,316              | 2,318             | 132,627                 | 38,825                   | 138          | 195,224                  | 654              | 2,757              |
| 1996 | 8                  | 21,822              | 6,441             | 130,979                 | 38,333                   | 123          | 197,698                  | 552              | 2,632              |
| 1997 | 8                  | 22,839              | 5,109             | 130,923                 | 39,294                   | 90           | 198,255                  | 532              | 2,567              |
| 1998 | 8                  | 21,558              | 4,024             | 131,469                 | 38,581                   | 533          | 196,165                  | 394              | 2,580              |
| 1999 | 9                  | 24,028              | 6,237             | 133,621                 | 39,158                   | 25           | 203,069                  | 341              | 2,654              |
| 2000 | 8                  | 23,044              | 8,126             | 132,831                 | 39,393                   | 234          | 203,628                  | 377              | 2,753              |
| 2001 | 6                  | 23,520              | 3,207             | 133,724                 | 36,549                   | 25           | 197,025                  | 107              | 2,646              |
| 2002 | 9                  | 23,641              | 3,826             | 133,664                 | 34,584                   | 66           | 198,781                  | 95               | 2,637              |
| 2003 | 40                 | 30,504              | 4,583             | 138,010                 | 34,894                   | 51           | 208,042                  | 549              | 2,689              |
| 2004 | 9                  | 35,910              | 5,823             | 137,387                 | 37,317                   | 66           | 216,503                  | 7,024            | 2,650              |
| 2005 | 10                 | 28,545              | 5,684             | 137,255                 | 38,853                   | 75           | 210,412                  | 7,811            | 2,846              |
| 2006 | 11                 | 28,660              | 6,538             | 137,959                 | 37,787                   | 65           | 211,008                  | 10,477           | 3,421              |

Table 2-12b (in trillion Btu)

| Year | Natural Gas<br>TBtu | Distillate<br>TBtu | Residual<br>TBtu | Motor Gasoline<br>TBtu | Aviation Fuels'<br>TBtu | LPG<br>TBtu | Total Petroleum<br>TBtu | Ethanol<br>TBtu | Electricity<br>TBtu | Total<br>TBtu |
|------|---------------------|--------------------|------------------|------------------------|-------------------------|-------------|-------------------------|-----------------|---------------------|---------------|
| 1992 | 6.2                 | 115.9              | 23.2             | 678.0                  | 207.4                   | 0.5         | 1,025.0                 | 0               | 9.0                 | 1,040.2       |
| 1993 | 6.4                 | 121.9              | 20.2             | 691.9                  | 207.8                   | 0.5         | 1,042.3                 | 0.3             | 9.1                 | 1,058.1       |
| 1994 | 6.4                 | 125.3              | 19.6             | 670.6                  | 210.1                   | 1.0         | 1,026.6                 | 0.7             | 9.6                 | 1,043.3       |
| 1995 | 8.6                 | 124.2              | 14.6             | 691.7                  | 220.1                   | 0.5         | 1,051.1                 | 2.3             | 9.4                 | 1,071.4       |
| 1996 | 8.4                 | 127.1              | 40.5             | 683.2                  | 217.3                   | 0.4         | 1,068.5                 | 2.0             | 9.0                 | 1,087.9       |
| 1997 | 7.7                 | 133.0              | 32.1             | 682.5                  | 222.8                   | 0.3         | 1,070.7                 | 1.9             | 8.8                 | 1,089.1       |
| 1998 | 8.2                 | 125.6              | 25.3             | 685.2                  | 218.8                   | 1.9         | 1,056.8                 | 1.4             | 8.8                 | 1,075.2       |
| 1999 | 8.8                 | 140.0              | 39.2             | 696.3                  | 222.0                   | 0.1         | 1,097.6                 | 1.2             | 9.1                 | 1,116.7       |
| 2000 | 8.5                 | 134.2              | 51.1             | 692.0                  | 223.4                   | 0.8         | 1,101.5                 | 1.3             | 9.4                 | 1,120.7       |
| 2001 | 6.2                 | 137.0              | 20.2             | 696.7                  | 207.2                   | 0.1         | 1,061.2                 | 0.4             | 9.0                 | 1,076.8       |
| 2002 | 8.8                 | 137.7              | 24.1             | 711.7                  | 196.1                   | 0.2         | 1,069.8                 | 0.3             | 9.0                 | 1,087.9       |
| 2003 | 42.2                | 177.7              | 28.8             | 718.6                  | 197.8                   | 0.2         | 1,123.1                 | 1.9             | 9.2                 | 1,176.4       |
| 2004 | 8.7                 | 209.2              | 36.6             | 716.5                  | 211.6                   | 0.2         | 1,174.1                 | 24.9            | 9.0                 | 1,216.7       |
| 2005 | 9.4                 | 166.3              | 35.7             | 715.8                  | 220.3                   | 0.3         | 1,138.4                 | 27.6            | 9.7                 | 1,185.2       |
| 2006 | 10.3                | 166.9              | 41.1             | 719.5                  | 214.3                   | 0.3         | 1,142.0                 | 37.0            | 11.7                | 1,201.0       |

<sup>1</sup> Consists of aviation gasoline and kerosene-type jet fuel

### Section 3

## NEW YORK ENERGY PRICES

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This section presents data on retail energy prices for the 15-year period, 1992 through 2006. Energy prices are provided by fuel type in nominal dollars per physical unit and per million Btu for the residential, commercial, industrial, and transportation sectors.

This section includes a column in the price tables displaying gross domestic product (GDP) price deflators for converting nominal (current year) dollars into constant 2006 (real) dollars. To convert energy prices from nominal to constant 2006 dollars, divide the nominal energy price by the GDP price deflator for that particular year.

Historical petroleum, electricity, coal, and natural gas prices were compiled from U.S. DOE's *State Energy Price and Expenditure Report*.

## Key Observations about 2006 New York State Energy Price Data

- ✓ Regarding residential sector statewide average nominal fuel prices:
  - Home heating oil rose 18% from an average \$2.19 per gallon in 2005 to \$2.59 per gallon in 2006;
  - Natural gas increased 7% from an average \$14.91 per thousand cubic feet in 2005 to \$15.91 in 2006;
  - Electricity increased 6% from 15.7¢ to 16.7¢ per kilowatt hour from 2005 to 2006.
  
- ✓ Average prices were \$2.18 per gallon for commercial distillate fuel oil and \$55.30 per barrel for commercial residual fuel oil. Both of these prices represent a 16% increase over their 2005 prices.
  
- ✓ Average prices for commercial electricity and natural gas were 13.6¢ per kilowatt hour and \$12.10 per thousand cubic feet. Both of these prices represent a 5% and 6% decrease over 2005 prices, respectively.
  
- ✓ The average industrial sector residual fuel oil price rose 16% during the past year, from \$47.59 to \$55.30 per barrel; the average natural gas price in the industrial sector rose 8%, from \$9.88 to \$10.71 per thousand cubic feet; and the average industrial electricity price rose 5% from 8.2¢ to 8.6¢ per kilowatt hour.
  
- ✓ The average retail price for all grades of gasoline was \$2.73 per gallon, up 49¢ per gallon from the \$2.24 per gallon average price in 2005.

# New York State Residential Energy Prices in Nominal Dollars, 1992-2006

Figure 3-1

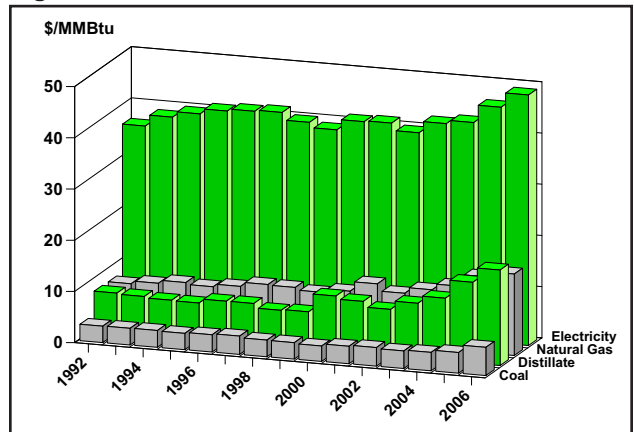


Table 3-1a (in physical units)

| Year | Coal <sup>1</sup><br>\$/Ton | Distillate <sup>2</sup><br>¢/gal | Kerosene<br>¢/gal | Propane<br>¢/gal | Natural<br>Gas<br>\$/Mcf | Electricity<br>¢/kWh | GDP<br>Deflators<br>2006=1.0 |
|------|-----------------------------|----------------------------------|-------------------|------------------|--------------------------|----------------------|------------------------------|
| 1992 | 74.23                       | 106.91                           | 78.31             | 124.54           | 7.59                     | 12.43                | 0.696                        |
| 1993 | 74.76                       | 104.10                           | 75.09             | 114.59           | 8.14                     | 13.17                | 0.715                        |
| 1994 | 76.00                       | 100.46                           | 75.92             | 126.05           | 8.75                     | 13.55                | 0.736                        |
| 1995 | 73.54                       | 99.32                            | 72.70             | 123.14           | 8.39                     | 13.90                | 0.757                        |
| 1996 | 77.77                       | 110.55                           | 81.43             | 128.44           | 8.90                     | 14.04                | 0.779                        |
| 1997 | 80.33                       | 110.76                           | 84.45             | 129.27           | 9.73                     | 14.12                | 0.796                        |
| 1998 | 70.34                       | 98.59                            | 59.90             | 119.18           | 9.62                     | 13.62                | 0.809                        |
| 1999 | 76.72                       | 100.78                           | 73.63             | 121.06           | 9.12                     | 13.27                | 0.827                        |
| 2000 | 75.51                       | 149.97                           | 127.50            | 152.36           | 9.80                     | 13.97                | 0.854                        |
| 2001 | 85.19                       | 141.75                           | 117.94            | 159.85           | 11.70                    | 14.04                | 0.878                        |
| 2002 | 83.33                       | 126.67                           | 106.91            | 140.40           | 10.32                    | 13.55                | 0.892                        |
| 2003 | 76.15                       | 149.55                           | 134.66            | 160.38           | 11.46                    | 14.31                | 0.913                        |
| 2004 | 80.35                       | 169.61                           | 162.11            | 178.16           | 12.63                    | 14.54                | 0.937                        |
| 2005 | 90.23                       | 219.13                           | 214.92            | 199.27           | 14.91                    | 15.72                | 0.969                        |
| 2006 | 121.47                      | 258.73                           | 286.60            | 223.65           | 15.91                    | 16.69                | 1.000                        |

Table 3-1b (in \$/million Btu)

| Year | Coal <sup>1</sup><br>\$/MMBtu | Distillate <sup>2</sup><br>\$/MMBtu | Kerosene<br>\$/MMBtu | Propane<br>\$/MMBtu | Natural<br>Gas<br>\$/MMBtu | Electricity<br>\$/MMBtu | GDP<br>Deflators<br>2006=1.0 |
|------|-------------------------------|-------------------------------------|----------------------|---------------------|----------------------------|-------------------------|------------------------------|
| 1992 | 3.21                          | 7.71                                | 5.80                 | 14.43               | 7.37                       | 36.43                   | 0.696                        |
| 1993 | 3.25                          | 7.51                                | 5.56                 | 13.35               | 7.91                       | 38.61                   | 0.715                        |
| 1994 | 3.29                          | 7.24                                | 5.62                 | 14.56               | 8.51                       | 39.72                   | 0.736                        |
| 1995 | 3.18                          | 7.16                                | 5.38                 | 14.27               | 8.17                       | 40.73                   | 0.757                        |
| 1996 | 3.38                          | 7.97                                | 6.03                 | 14.93               | 8.67                       | 41.14                   | 0.779                        |
| 1997 | 3.57                          | 7.99                                | 6.26                 | 15.02               | 9.47                       | 41.38                   | 0.796                        |
| 1998 | 3.25                          | 7.11                                | 4.44                 | 13.85               | 9.31                       | 39.91                   | 0.809                        |
| 1999 | 3.21                          | 7.27                                | 5.45                 | 14.06               | 8.87                       | 38.90                   | 0.827                        |
| 2000 | 3.02                          | 10.81                               | 9.44                 | 17.74               | 9.55                       | 40.95                   | 0.854                        |
| 2001 | 3.42                          | 10.22                               | 8.74                 | 18.58               | 11.37                      | 41.14                   | 0.878                        |
| 2002 | 3.63                          | 9.13                                | 7.92                 | 16.32               | 10.03                      | 39.71                   | 0.892                        |
| 2003 | 3.42                          | 10.78                               | 9.97                 | 18.56               | 11.09                      | 41.94                   | 0.913                        |
| 2004 | 3.60                          | 12.23                               | 12.01                | 20.68               | 12.30                      | 42.62                   | 0.937                        |
| 2005 | 4.04                          | 15.80                               | 15.92                | 23.12               | 14.52                      | 46.07                   | 0.969                        |
| 2006 | 5.51                          | 18.65                               | 21.23                | 26.06               | 15.49                      | 48.92                   | 1.000                        |

<sup>1</sup> Anthracite

<sup>2</sup> Home heating oil

# New York State Commercial Energy Prices in Nominal Dollars, 1992-2006

Figure 3-2

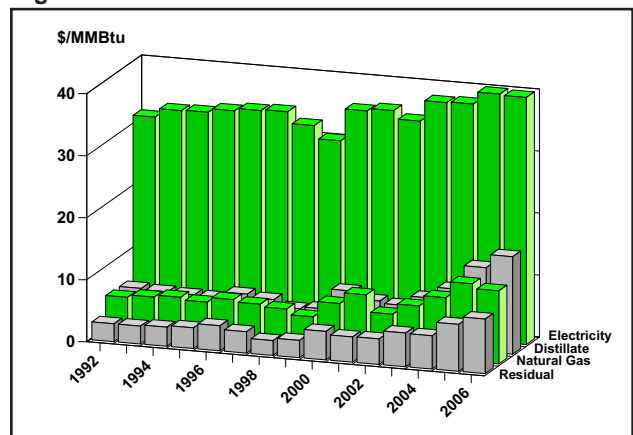


Table 3-2a (in physical units)

| Year | Coal <sup>1</sup><br>\$/Ton | Distillate <sup>2</sup><br>¢/gal | Residual<br>\$/bbl | Kerosene<br>¢/gal | Propane<br>¢/gal | Natural<br>Gas<br>\$/Mcf | Electricity<br>¢/kWh | GDP<br>Deflators<br>2006=1.0 |
|------|-----------------------------|----------------------------------|--------------------|-------------------|------------------|--------------------------|----------------------|------------------------------|
| 1992 | 40.43                       | 75.42                            | 18.17              | 78.31             | 85.24            | 5.76                     | 10.76                | 0.696                        |
| 1993 | 38.39                       | 73.32                            | 18.13              | 75.09             | 83.25            | 6.15                     | 11.23                | 0.715                        |
| 1994 | 38.60                       | 71.45                            | 19.39              | 75.92             | 94.12            | 6.52                     | 11.27                | 0.736                        |
| 1995 | 38.61                       | 70.20                            | 21.01              | 72.70             | 91.62            | 6.07                     | 11.48                | 0.757                        |
| 1996 | 36.82                       | 83.30                            | 25.38              | 81.43             | 102.02           | 6.88                     | 11.62                | 0.779                        |
| 1997 | 37.12                       | 76.23                            | 21.62              | 84.45             | 98.07            | 6.49                     | 11.68                | 0.796                        |
| 1998 | 29.62                       | 60.94                            | 14.98              | 59.90             | 86.94            | 6.10                     | 11.04                | 0.809                        |
| 1999 | 32.00                       | 65.31                            | 17.47              | 73.63             | 88.61            | 5.15                     | 10.33                | 0.827                        |
| 2000 | 40.03                       | 110.34                           | 28.92              | 127.50            | 113.46           | 7.72                     | 12.10                | 0.854                        |
| 2001 | 40.35                       | 93.60                            | 25.60              | 117.94            | 120.22           | 9.57                     | 12.24                | 0.878                        |
| 2002 | 44.09                       | 88.40                            | 25.90              | 106.91            | 107.95           | 6.73                     | 11.79                | 0.892                        |
| 2003 | 39.15                       | 109.87                           | 34.21              | 134.66            | 127.37           | 8.50                     | 12.93                | 0.913                        |
| 2004 | 41.75                       | 134.80                           | 33.71              | 162.11            | 142.61           | 10.21                    | 12.98                | 0.937                        |
| 2005 | 46.88                       | 188.48                           | 47.59              | 214.92            | 160.14           | 12.88                    | 14.36                | 0.969                        |
| 2006 | 63.11                       | 218.07                           | 55.30              | 245.87            | 199.38           | 12.10                    | 13.59                | 1.000                        |

Table 3-2b (in \$/million Btu)

| Year | Coal <sup>1</sup><br>\$/MMBtu | Distillate <sup>2</sup><br>\$/MMBtu | Residual<br>\$/MMBtu | Kerosene<br>\$/MMBtu | Propane<br>\$/MMBtu | Natural<br>Gas<br>\$/MMBtu | Electricity<br>\$/MMBtu | GDP<br>Deflators<br>2006=1.0 |
|------|-------------------------------|-------------------------------------|----------------------|----------------------|---------------------|----------------------------|-------------------------|------------------------------|
| 1992 | 1.75                          | 5.47                                | 2.89                 | 5.80                 | 9.88                | 5.59                       | 31.52                   | 0.696                        |
| 1993 | 1.67                          | 5.29                                | 2.88                 | 5.56                 | 9.70                | 5.99                       | 32.92                   | 0.715                        |
| 1994 | 1.67                          | 5.15                                | 3.08                 | 5.62                 | 10.87               | 6.33                       | 33.03                   | 0.736                        |
| 1995 | 1.67                          | 5.06                                | 3.34                 | 5.38                 | 10.62               | 5.91                       | 33.64                   | 0.757                        |
| 1996 | 1.60                          | 6.01                                | 4.04                 | 6.03                 | 11.86               | 6.69                       | 34.05                   | 0.779                        |
| 1997 | 1.65                          | 5.50                                | 3.44                 | 6.26                 | 11.39               | 6.32                       | 34.22                   | 0.796                        |
| 1998 | 1.37                          | 4.39                                | 2.38                 | 4.44                 | 10.10               | 5.91                       | 32.36                   | 0.809                        |
| 1999 | 1.34                          | 4.71                                | 2.78                 | 5.45                 | 10.29               | 5.01                       | 30.28                   | 0.827                        |
| 2000 | 1.60                          | 7.96                                | 4.60                 | 9.44                 | 13.21               | 7.53                       | 35.46                   | 0.854                        |
| 2001 | 1.62                          | 6.75                                | 4.07                 | 8.74                 | 13.97               | 9.30                       | 35.88                   | 0.878                        |
| 2002 | 1.92                          | 6.37                                | 4.12                 | 7.92                 | 12.55               | 6.54                       | 34.55                   | 0.892                        |
| 2003 | 1.76                          | 7.92                                | 5.44                 | 9.97                 | 14.74               | 8.23                       | 37.89                   | 0.913                        |
| 2004 | 1.87                          | 9.72                                | 5.36                 | 12.01                | 16.56               | 9.94                       | 38.04                   | 0.937                        |
| 2005 | 2.10                          | 13.59                               | 7.57                 | 15.92                | 18.58               | 12.54                      | 42.09                   | 0.969                        |
| 2006 | 2.86                          | 15.72                               | 8.80                 | 18.21                | 23.13               | 11.78                      | 39.83                   | 1.000                        |

<sup>1</sup> Anthracite

<sup>2</sup> Home heating oil

# New York State Industrial Energy Prices in Nominal Dollars, 1992-2006

Figure 3-3

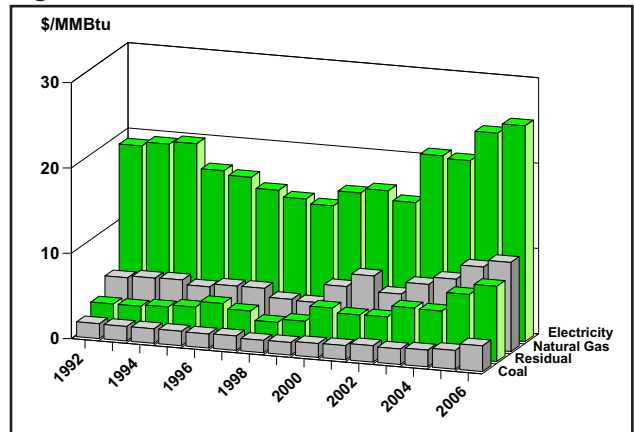


Table 3-3a (in physical units)

| Year | Coal<br>\$/Ton | Distillate<br>¢/gal | Residual<br>\$/bbl | Kerosene<br>¢/gal | Propane<br>¢/gal | Natural<br>Gas<br>\$/Mcf | Electricity<br>¢/kWh | GDP<br>Deflators<br>2006=1.0 |
|------|----------------|---------------------|--------------------|-------------------|------------------|--------------------------|----------------------|------------------------------|
| 1992 | 42.71          | 76.44               | 18.17              | 65.94             | 85.24            | 4.94                     | 6.50                 | 0.696                        |
| 1993 | 41.56          | 70.30               | 18.13              | 65.31             | 83.25            | 5.16                     | 6.67                 | 0.715                        |
| 1994 | 41.50          | 70.51               | 19.39              | 69.47             | 74.76            | 5.22                     | 6.78                 | 0.736                        |
| 1995 | 41.31          | 67.08               | 21.01              | 60.22             | 73.96            | 4.67                     | 5.79                 | 0.757                        |
| 1996 | 40.19          | 81.54               | 25.38              | 77.17             | 78.18            | 5.04                     | 5.62                 | 0.779                        |
| 1997 | 41.27          | 74.78               | 21.62              | 70.72             | 86.41            | 5.05                     | 5.20                 | 0.796                        |
| 1998 | 36.75          | 57.93               | 14.98              | 54.18             | 80.40            | 4.03                     | 4.94                 | 0.809                        |
| 1999 | 36.70          | 64.79               | 17.47              | 62.50             | 82.04            | 3.90                     | 4.76                 | 0.827                        |
| 2000 | 40.60          | 105.25              | 28.92              | 111.49            | 110.83           | 6.10                     | 5.37                 | 0.854                        |
| 2001 | 41.46          | 91.62               | 25.60              | 90.79             | 109.79           | 7.69                     | 5.56                 | 0.878                        |
| 2002 | 50.17          | 88.50               | 25.90              | 81.43             | 103.96           | 5.80                     | 5.18                 | 0.892                        |
| 2003 | 45.25          | 107.90              | 34.21              | 109.77            | 128.11           | 7.27                     | 7.14                 | 0.913                        |
| 2004 | 54.30          | 127.39              | 33.71              | 137.92            | 144.82           | 8.13                     | 7.04                 | 0.937                        |
| 2005 | 65.16          | 190.14              | 47.59              | 181.85            | 157.90           | 9.88                     | 8.23                 | 0.969                        |
| 2006 | 78.19          | 220.00              | 55.30              | 208.03            | 196.59           | 10.71                    | 8.62                 | 1.000                        |

Table 3-3b (in \$/million Btu)

| Year | Coal<br>\$/MMBtu | Distillate<br>\$/MMBtu | Residual<br>\$/MMBtu | Kerosene<br>\$/MMBtu | Propane<br>\$/MMBtu | Natural<br>Gas<br>\$/MMBtu | Electricity<br>\$/MMBtu | GDP<br>Deflators<br>2006=1.0 |
|------|------------------|------------------------|----------------------|----------------------|---------------------|----------------------------|-------------------------|------------------------------|
| 1992 | 1.74             | 5.51                   | 2.89                 | 4.88                 | 9.88                | 4.79                       | 19.06                   | 0.696                        |
| 1993 | 1.70             | 5.07                   | 2.88                 | 4.84                 | 9.70                | 5.02                       | 19.53                   | 0.715                        |
| 1994 | 1.70             | 5.08                   | 3.08                 | 5.15                 | 8.64                | 5.08                       | 19.86                   | 0.736                        |
| 1995 | 1.69             | 4.84                   | 3.34                 | 4.46                 | 8.57                | 4.55                       | 16.97                   | 0.757                        |
| 1996 | 1.64             | 5.88                   | 4.04                 | 5.72                 | 9.09                | 4.91                       | 16.48                   | 0.779                        |
| 1997 | 1.69             | 5.39                   | 3.44                 | 5.24                 | 10.04               | 4.92                       | 15.23                   | 0.796                        |
| 1998 | 1.45             | 4.18                   | 2.38                 | 4.01                 | 9.34                | 3.90                       | 14.49                   | 0.809                        |
| 1999 | 1.47             | 4.67                   | 2.78                 | 4.63                 | 9.53                | 3.79                       | 13.96                   | 0.827                        |
| 2000 | 1.63             | 7.59                   | 4.60                 | 8.26                 | 12.90               | 5.95                       | 15.75                   | 0.854                        |
| 2001 | 1.66             | 6.61                   | 4.07                 | 6.73                 | 12.76               | 7.47                       | 16.28                   | 0.878                        |
| 2002 | 1.92             | 6.38                   | 4.12                 | 6.03                 | 12.08               | 5.63                       | 15.17                   | 0.892                        |
| 2003 | 1.81             | 7.78                   | 5.44                 | 8.13                 | 14.83               | 7.04                       | 20.92                   | 0.913                        |
| 2004 | 1.96             | 9.19                   | 5.36                 | 10.22                | 16.81               | 7.92                       | 20.63                   | 0.937                        |
| 2005 | 2.20             | 13.71                  | 7.57                 | 13.47                | 18.32               | 9.62                       | 24.12                   | 0.969                        |
| 2006 | 3.01             | 15.86                  | 8.80                 | 15.41                | 22.81               | 10.43                      | 25.26                   | 1.000                        |

<sup>1</sup> Anthracite

<sup>2</sup> Home heating oil

# New York State Transportation Energy Prices in Nominal Dollars, 1992-2006

Figure 3-4

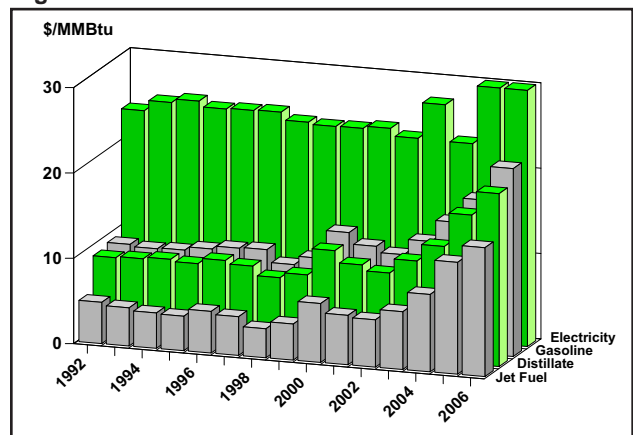


Table 3-4a (in physical units)

| Year | Motor Gasoline<br>¢/gal | Distillate <sup>1</sup><br>¢/gal | Jet Fuel <sup>2</sup><br>¢/gal | Residual <sup>3</sup><br>\$/bbl | Electricity <sup>4</sup><br>¢/kWh | GDP Deflators<br>2006=1.0 |
|------|-------------------------|----------------------------------|--------------------------------|---------------------------------|-----------------------------------|---------------------------|
| 1992 | 116.09                  | 123.34                           | 65.30                          | 14.64                           | 8.11                              | 0.696                     |
| 1993 | 113.06                  | 125.32                           | 60.30                          | 14.41                           | 8.53                              | 0.715                     |
| 1994 | 114.10                  | 128.35                           | 55.90                          | 15.06                           | 8.68                              | 0.736                     |
| 1995 | 118.89                  | 125.04                           | 54.60                          | 16.73                           | 8.46                              | 0.757                     |
| 1996 | 123.37                  | 134.12                           | 65.90                          | 19.84                           | 8.50                              | 0.779                     |
| 1997 | 124.62                  | 128.80                           | 61.10                          | 17.57                           | 8.52                              | 0.796                     |
| 1998 | 106.25                  | 113.75                           | 45.90                          | 12.19                           | 8.21                              | 0.809                     |
| 1999 | 118.77                  | 122.10                           | 57.10                          | 15.50                           | 8.14                              | 0.827                     |
| 2000 | 159.60                  | 165.25                           | 93.10                          | 25.79                           | 8.16                              | 0.854                     |
| 2001 | 143.00                  | 145.85                           | 78.20                          | 19.93                           | 8.25                              | 0.878                     |
| 2002 | 134.25                  | 136.55                           | 74.80                          | 21.84                           | 7.95                              | 0.892                     |
| 2003 | 156.85                  | 159.85                           | 91.30                          | 28.45                           | 9.38                              | 0.913                     |
| 2004 | 188.17                  | 187.35                           | 122.30                         | 29.64                           | 7.92                              | 0.937                     |
| 2005 | 224.00                  | 242.15                           | 176.85                         | 42.63                           | 11.39                             | 0.969                     |
| 2006 | 273.48                  | 280.83                           | 203.73                         | 49.53                           | 11.46                             | 1.000                     |

Table 3-4b (in \$/million Btu)

| Year | Motor Gasoline<br>\$/MMBtu | Distillate <sup>1</sup><br>\$/MMBtu | Jet Fuel <sup>2</sup><br>\$/MMBtu | Residual <sup>3</sup><br>\$/MMBtu | Electricity <sup>4</sup><br>\$/MMBtu | GDP Deflators<br>2006=1.0 |
|------|----------------------------|-------------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|---------------------------|
| 1992 | 9.28                       | 8.89                                | 4.84                              | 2.33                              | 23.77                                | 0.696                     |
| 1993 | 9.04                       | 9.04                                | 4.47                              | 2.29                              | 25.00                                | 0.715                     |
| 1994 | 9.16                       | 9.25                                | 4.14                              | 2.40                              | 25.44                                | 0.736                     |
| 1995 | 9.57                       | 9.02                                | 4.04                              | 2.66                              | 24.79                                | 0.757                     |
| 1996 | 9.93                       | 9.67                                | 4.88                              | 3.15                              | 24.90                                | 0.779                     |
| 1997 | 10.04                      | 9.29                                | 4.53                              | 2.79                              | 24.98                                | 0.796                     |
| 1998 | 8.56                       | 8.20                                | 3.40                              | 1.94                              | 24.07                                | 0.809                     |
| 1999 | 9.57                       | 8.80                                | 4.23                              | 2.47                              | 23.85                                | 0.827                     |
| 2000 | 12.87                      | 11.92                               | 6.90                              | 4.10                              | 23.90                                | 0.854                     |
| 2001 | 11.53                      | 10.52                               | 5.79                              | 3.17                              | 24.18                                | 0.878                     |
| 2002 | 10.83                      | 9.85                                | 5.54                              | 3.47                              | 23.29                                | 0.892                     |
| 2003 | 12.65                      | 11.53                               | 6.76                              | 4.53                              | 27.49                                | 0.913                     |
| 2004 | 15.16                      | 13.51                               | 9.06                              | 4.71                              | 23.21                                | 0.937                     |
| 2005 | 18.03                      | 17.46                               | 13.10                             | 6.78                              | 33.38                                | 0.969                     |
| 2006 | 22.01                      | 20.25                               | 15.09                             | 7.88                              | 33.59                                | 1.000                     |

<sup>1</sup> Diesel

<sup>2</sup> Kerosene-based

<sup>3</sup> Bunker fuel

<sup>4</sup> Railroad use

## Section 4

# NEW YORK ENERGY EXPENDITURES

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This section presents the estimated costs of net energy consumed by sector and fuel type in nominal and constant 2006 dollars for selected years; 1992, 1997, and 2002 through 2006. Estimated costs were derived by multiplying quantities of fuels consumed, in TBtu, by their respective prices.

## Key Observations about 2006 New York State Energy Expenditures Data

- ✓ Cumulative heating degree-days in 2006 were 13% lower than 2005 levels.
- ✓ In nominal dollars, New York's 2006 energy bill of \$59.5 billion was up 5% from 2005, 103% more than the \$29.3 billion spent in 1992.
- ✓ In constant 2006 dollars, New York's energy bill rose 2%, or \$1 billion from a year ago, and was \$17.4 billion, or 41%, greater than in 1992.
- ✓ New Yorkers spent \$17.4 billion for household energy. The residential sector experienced a 2% decrease in spending from the 2005 level in nominal dollars and 5% in constant dollars.
- ✓ The total commercial customer energy bill was \$15.7 billion, 6% lower than 2005 in nominal dollars and 9% lower in constant dollars.
- ✓ Industrial customers paid \$3.3 billion for energy, 7% more than 2005 in nominal dollars and 4% more in constant dollars.
- ✓ The annual energy bill for transporting people and goods was \$23.2 billion, an increase of 20% from 2005 levels in nominal dollars and an increase of 17% in constant dollars.
- ✓ In nominal dollars, over the past year, statewide expenditures for electricity decreased by 1%, increased for petroleum by 14%, and decreased for natural gas by 7%, respectively.

# New York State Energy Expenditure Estimates by Fuel Type and Sector in Nominal Dollars, 1992-2006

Figure 4-1

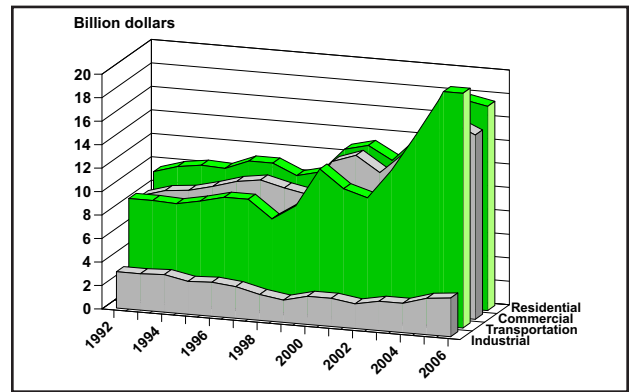
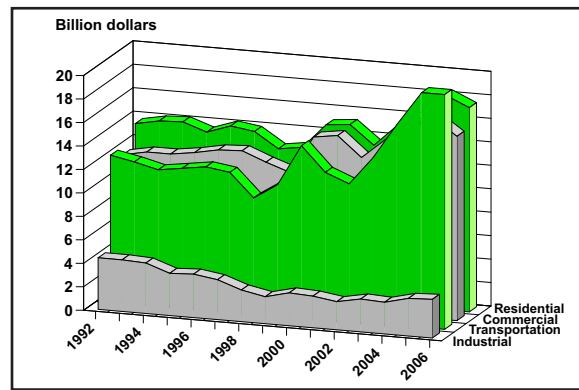


Table 4-1 (in million dollars)

|                       | 1992              | 1997              | 2002              | 2003              | 2004              | 2005              | 2006              |
|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>RESIDENTIAL</b>    |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$3.9             | \$2.5             | \$0.4             | \$1.0             | \$1.4             | \$1.6             | \$2.1             |
| Petroleum             | 1,762.6           | 1,665.6           | 2,145.1           | 2,583.0           | 3,028.3           | 3,834.3           | 3,606.8           |
| Distillate            | 1,461.6           | 1,366.4           | 1,750.0           | 2,126.5           | 2,441.1           | 3,226.2           | 2,988.4           |
| Kerosene              | 41.2              | 61.9              | 73.7              | 92.8              | 140.5             | 198.9             | 217.0             |
| LPG                   | 259.8             | 237.2             | 321.5             | 363.8             | 446.7             | 409.2             | 401.4             |
| Natural Gas           | 2,871.0           | 3,655.0           | 3,641.1           | 4,747.5           | 4,910.3           | 5,988.8           | 5,603.5           |
| Electricity           | 4,812.5           | 5,657.2           | 6,294.1           | 6,744.3           | 6,891.4           | 7,943.8           | 8,160.7           |
| <b>Total</b>          | <b>\$9,449.9</b>  | <b>\$10,980.3</b> | <b>\$12,080.7</b> | <b>\$14,075.9</b> | <b>\$14,831.4</b> | <b>\$17,768.5</b> | <b>\$17,373.1</b> |
| <b>COMMERCIAL</b>     |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$9.8             | \$9.2             | \$1.9             | \$3.2             | \$6.7             | \$7.4             | \$10.0            |
| Petroleum             | 846.8             | 733.6             | 847.8             | 1,344.4           | 1,627.3           | 2,036.1           | 2,007.7           |
| Distillate            | 515.1             | 459.0             | 558.4             | 885.7             | 1,127.4           | 1,431.7           | 1,469.9           |
| Residual              | 286.7             | 218.4             | 225.0             | 368.9             | 385.6             | 479.1             | 439.6             |
| Kerosene              | 13.3              | 28.1              | 22.2              | 37.9              | 50.4              | 68.5              | 36.6              |
| LPG                   | 31.6              | 28.1              | 42.3              | 51.9              | 63.9              | 56.8              | 61.5              |
| Natural Gas           | 1,249.3           | 2,082.2           | 2,325.4           | 2,918.4           | 3,630.5           | 3,520.2           | 3,115.3           |
| Electricity           | 6,029.8           | 7,477.1           | 8,630.8           | 9,374.2           | 9,655.2           | 11,031.6          | 10,521.2          |
| <b>Total</b>          | <b>\$8,135.7</b>  | <b>\$10,302.1</b> | <b>\$11,805.9</b> | <b>\$13,640.2</b> | <b>\$14,919.7</b> | <b>\$16,595.4</b> | <b>\$15,654.3</b> |
| <b>INDUSTRIAL</b>     |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$124.2           | \$122.5           | \$86.8            | \$76.0            | \$76.4            | \$84.5            | \$113.8           |
| Petroleum             | 216.7             | 197.0             | 200.6             | 303.0             | 351.9             | 545.2             | 615.7             |
| Distillate            | 116.3             | 91.7              | 107.2             | 133.8             | 186.5             | 269.2             | 331.9             |
| Residual              | 55.5              | 42.6              | 35.4              | 54.4              | 49.9              | 63.6              | 72.3              |
| Kerosene              | 5.4               | 10.5              | 8.4               | 40.7              | 21.5              | 51.2              | 36.9              |
| LPG                   | 39.5              | 52.2              | 49.5              | 74.1              | 94.1              | 161.2             | 174.6             |
| Natural Gas           | 731.9             | 1,042.9           | 535.3             | 596.0             | 638.2             | 804.9             | 840.5             |
| Electricity           | 2,018.5           | 1,314.6           | 1,301.9           | 1,552.4           | 1,454.5           | 1,641.5           | 1,732.6           |
| <b>Total</b>          | <b>\$3,091.2</b>  | <b>\$2,677.0</b>  | <b>\$2,124.6</b>  | <b>\$2,527.4</b>  | <b>\$2,521.0</b>  | <b>\$3,076.2</b>  | <b>\$3,302.7</b>  |
| <b>TRANSPORTATION</b> |                   |                   |                   |                   |                   |                   |                   |
| Petroleum             | \$8,386.1         | \$9,189.0         | \$10,233.7        | \$12,610.9        | \$15,777.3        | \$18,942.9        | \$22,780.9        |
| Distillate            | 1,030.7           | 1,235.2           | 1,355.7           | 2,048.1           | 2,826.0           | 2,903.2           | 3,380.4           |
| Residual              | 54.0              | 89.7              | 83.7              | 130.3             | 172.5             | 242.3             | 323.8             |
| Motor Gasoline        | 6,293.1           | 6,852.8           | 7,705.3           | 9,091.5           | 10,858.6          | 12,906.1          | 15,837.4          |
| Aviation              | 1,003.3           | 1,008.4           | 1,086.5           | 1,338.0           | 1,916.8           | 2,885.9           | 3,233.3           |
| LPG                   | 4.9               | 3.0               | 2.4               | 3.0               | 3.4               | 5.5               | 6.0               |
| Electricity           | 214.0             | 219.8             | 209.6             | 252.9             | 208.9             | 324.2             | 392.0             |
| <b>Total</b>          | <b>\$8,600.1</b>  | <b>\$9,408.9</b>  | <b>\$10,443.3</b> | <b>\$12,863.7</b> | <b>\$15,986.2</b> | <b>\$19,267.1</b> | <b>\$23,172.9</b> |
| <b>TOTAL</b>          |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$137.8           | \$134.3           | \$89.1            | \$80.2            | \$84.6            | \$93.6            | \$126.0           |
| Petroleum             | 11,212.1          | 11,785.2          | 13,427.2          | 16,841.3          | 20,784.8          | 25,358.5          | 29,011.0          |
| Distillate            | 3,123.7           | 3,152.2           | 3,771.3           | 5,194.1           | 6,580.9           | 7,830.3           | 8,170.6           |
| Residual              | 396.2             | 350.7             | 344.1             | 553.6             | 608.0             | 785.0             | 835.8             |
| Motor Gasoline        | 6,293.1           | 6,852.8           | 7,705.3           | 9,091.5           | 10,858.6          | 12,906.1          | 15,837.4          |
| Kerosene              | 59.9              | 100.6             | 104.3             | 171.3             | 212.4             | 318.5             | 290.5             |
| Aviation              | 1,003.3           | 1,008.4           | 1,086.5           | 1,338.0           | 1,916.8           | 2,885.9           | 3,233.3           |
| LPG                   | 335.9             | 320.5             | 415.8             | 492.8             | 608.1             | 632.7             | 643.4             |
| Natural Gas           | 4,852.2           | 6,180.1           | 6,501.9           | 8,261.9           | 9,178.9           | 10,314.0          | 9,559.3           |
| Electricity           | 13,074.7          | 14,668.7          | 16,436.3          | 17,923.8          | 18,209.9          | 20,941.1          | 20,806.7          |
| <b>Total</b>          | <b>\$29,276.9</b> | <b>\$30,054.0</b> | <b>\$36,454.4</b> | <b>\$43,107.2</b> | <b>\$48,258.3</b> | <b>\$56,707.1</b> | <b>\$59,503.0</b> |

**New York State  
Energy Expenditure Estimates  
by Fuel Type and Sector  
in Constant 2006 Dollars,  
1992-2006**

**Figure 4-2**



**Table 4-2 (in million dollars)**

|                       | 1992              | 1997              | 2002              | 2003              | 2004              | 2005              | 2006              |
|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>RESIDENTIAL</b>    |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$5.5             | \$3.1             | \$0.4             | \$1.1             | \$1.5             | \$1.6             | \$2.1             |
| Petroleum             | 2,532.7           | 2,091.7           | 2,403.9           | 2,830.1           | 3,231.9           | 3,958.0           | 3,606.8           |
| Distillate            | 2,100.2           | 1,716.0           | 1,961.1           | 2,329.9           | 2,605.2           | 3,330.3           | 2,988.4           |
| Kerosene              | 59.2              | 77.8              | 82.5              | 101.6             | 149.9             | 205.3             | 217.0             |
| LPG                   | 373.3             | 297.9             | 360.3             | 398.6             | 476.8             | 422.4             | 401.4             |
| Natural Gas           | 4,125.5           | 4,590.0           | 4,080.3           | 5,201.6           | 5,240.4           | 6,182.0           | 5,603.5           |
| Electricity           | 6,915.3           | 7,104.4           | 7,053.3           | 7,389.4           | 7,354.7           | 8,200.0           | 8,160.7           |
| <b>Total</b>          | <b>\$13,579.1</b> | <b>\$13,789.2</b> | <b>\$13,537.9</b> | <b>\$15,422.2</b> | <b>\$15,828.5</b> | <b>\$18,341.6</b> | <b>\$17,373.1</b> |
| <b>COMMERCIAL</b>     |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$14.1            | \$11.6            | \$2.2             | \$3.5             | \$7.2             | \$7.7             | \$10.0            |
| Petroleum             | 1,216.8           | 921.3             | 950.0             | 1,473.0           | 1,736.7           | 2,101.8           | 2,007.7           |
| Distillate            | 740.2             | 576.4             | 625.7             | 970.4             | 1,203.2           | 1,477.9           | 1,469.9           |
| Residual              | 412.0             | 274.2             | 252.1             | 404.2             | 411.5             | 494.9             | 439.6             |
| Kerosene              | 19.2              | 35.4              | 24.8              | 41.5              | 53.8              | 70.7              | 36.6              |
| LPG                   | 45.4              | 35.3              | 47.4              | 56.9              | 68.2              | 58.6              | 61.5              |
| Natural Gas           | 1,795.3           | 2,614.8           | 2,605.9           | 3,197.6           | 3,874.5           | 3,633.8           | 3,115.3           |
| Electricity           | 8,664.5           | 9,389.8           | 9,671.9           | 10,270.9          | 10,304.3          | 11,387.5          | 10,521.2          |
| <b>Total</b>          | <b>\$11,690.6</b> | <b>\$12,937.5</b> | <b>\$13,230.0</b> | <b>\$14,944.9</b> | <b>\$15,922.7</b> | <b>\$17,130.8</b> | <b>\$15,654.3</b> |
| <b>INDUSTRIAL</b>     |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$178.4           | \$153.9           | \$97.2            | \$83.3            | \$81.5            | \$87.3            | \$113.8           |
| Petroleum             | 311.4             | 247.4             | 224.8             | 332.0             | 375.6             | 562.8             | 615.7             |
| Distillate            | 167.1             | 115.1             | 120.1             | 146.6             | 199.0             | 277.9             | 331.9             |
| Residual              | 79.7              | 53.6              | 39.7              | 59.6              | 53.2              | 65.7              | 72.3              |
| Kerosene              | 7.7               | 13.2              | 9.5               | 44.5              | 22.9              | 52.8              | 36.9              |
| LPG                   | 56.8              | 65.5              | 55.5              | 81.2              | 100.5             | 166.4             | 174.6             |
| Natural Gas           | 1,051.7           | 1,309.7           | 599.9             | 653.0             | 681.1             | 830.9             | 840.5             |
| Electricity           | 2,900.4           | 1,650.9           | 1,458.9           | 1,700.9           | 1,552.3           | 1,694.4           | 1,732.6           |
| <b>Total</b>          | <b>\$4,441.9</b>  | <b>\$3,361.8</b>  | <b>\$2,380.9</b>  | <b>\$2,769.2</b>  | <b>\$2,690.5</b>  | <b>\$3,175.4</b>  | <b>\$3,302.7</b>  |
| <b>TRANSPORTATION</b> |                   |                   |                   |                   |                   |                   |                   |
| Petroleum             | \$12,050.5        | \$11,539.7        | \$11,468.1        | \$13,817.1        | \$16,838.0        | \$19,554.0        | \$22,780.9        |
| Distillate            | 1,481.1           | 1,551.1           | 1,519.3           | 2,244.0           | 3,016.0           | 2,996.8           | 3,380.4           |
| Residual              | 77.7              | 112.6             | 93.8              | 142.8             | 184.2             | 250.1             | 323.8             |
| Motor Gasoline        | 9,043.0           | 8,605.9           | 8,634.7           | 9,961.1           | 11,588.6          | 13,322.4          | 15,837.4          |
| Aviation              | 1,441.7           | 1,266.3           | 1,217.6           | 1,466.0           | 2,045.7           | 2,979.0           | 3,233.3           |
| LPG                   | 7.1               | 3.8               | 2.7               | 3.2               | 3.6               | 5.7               | 6.0               |
| Electricity           | 307.5             | 276.1             | 234.9             | 277.1             | 222.9             | 334.6             | 392.0             |
| <b>Total</b>          | <b>\$12,358.0</b> | <b>\$11,815.8</b> | <b>\$11,703.0</b> | <b>\$14,094.2</b> | <b>\$17,060.9</b> | <b>\$19,888.6</b> | <b>\$23,172.9</b> |
| <b>TOTAL</b>          |                   |                   |                   |                   |                   |                   |                   |
| Coal                  | \$198.0           | \$168.6           | \$99.8            | \$87.9            | \$90.3            | \$96.6            | \$126.0           |
| Petroleum             | 16,111.4          | 14,800.9          | 15,046.9          | 18,452.2          | 22,182.2          | 26,178.5          | 29,011.0          |
| Distillate            | 4,488.6           | 3,958.6           | 4,226.2           | 5,690.9           | 7,023.4           | 8,082.9           | 8,170.6           |
| Residual              | 569.4             | 440.4             | 385.6             | 606.6             | 648.9             | 810.3             | 835.8             |
| Motor Gasoline        | 9,043.0           | 8,605.9           | 8,634.7           | 9,961.1           | 11,588.6          | 13,322.4          | 15,837.4          |
| Kerosene              | 86.1              | 126.3             | 116.8             | 187.7             | 226.7             | 328.8             | 290.5             |
| Aviation              | 1,441.7           | 1,266.3           | 1,217.6           | 1,466.0           | 2,045.7           | 2,979.0           | 3,233.3           |
| LPG                   | 482.6             | 402.5             | 465.9             | 539.9             | 649.0             | 653.1             | 643.4             |
| Natural Gas           | 6,972.5           | 8,514.5           | 7,286.1           | 9,052.2           | 9,796.0           | 10,646.7          | 9,559.3           |
| Electricity           | 18,787.8          | 18,421.1          | 18,418.9          | 19,638.3          | 19,434.2          | 21,616.6          | 20,806.7          |
| <b>Total</b>          | <b>\$42,069.6</b> | <b>\$41,904.3</b> | <b>\$40,851.7</b> | <b>\$47,230.6</b> | <b>\$51,502.7</b> | <b>\$58,536.4</b> | <b>\$59,503.0</b> |

## Section 5

# NEW YORK'S SOURCES OF ENERGY

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New York is the fourth largest energy user of all the states. Thirteen percent of the total primary energy requirements are met from in-State resources, as compared to 70 percent for the nation. Hydroelectric power is produced at various locations throughout New York, including 28 large projects and approximately 340 small (less than 10 MW) projects. Crude oil and natural gas production are found in the western region of the State. Biofuels are derived primarily from wood, wastes, and agricultural products.

Households, businesses, industries, and electric utilities in New York rely largely on fuels produced elsewhere. In estimating New York's sources of petroleum products, state-level data on shipments of domestic crude, refined oil, and final destination of imported oil are unavailable. Consequently, New York's oil dependence is estimated by applying Petroleum Administration for Defense Districts 1 (PADD1) fuel-specific reliance estimates to the New York petroleum-product mix. PADD1 includes all East Coast states.

## Key Observations about New York's Sources of Energy in 2006

- ✓ Thirteen percent (13%) of New York's total primary energy requirement was met from in-state resources, including 7% from hydropower and 4% from biofuels.
- ✓ Hydroelectric power and energy from biofuels account for 55% and 34%, respectively, of New York's in-state primary energy production, while crude oil and natural gas constitute the remaining 11%.
- ✓ In-state crude oil and natural gas production represent 0.1% and 4.8%, respectively, of the State's use of these fuels. New York consumers rely on external sources for 100% of refined petroleum fuel products because there are no petroleum refineries in the State.
- ✓ In-state production of natural gas was unchanged from 2005 to 2006, while biofuels production increased 7%.
- ✓ In 2006, natural gas production in the State was recorded at 55.2 Bcf, and accounted for 1.4% of total statewide annual energy use.
- ✓ New York's reliance on foreign oil as a proportion of total petroleum use was 89% in 2006, as contrasted to 75% in 1992.
- ✓ The share of New York's oil provided by Organization of Petroleum Exporting Countries (OPEC) decreased from 45% in 2005 to 44% in 2006, while the share from non-OPEC sources was unchanged.

# New York State Primary Energy Production by Fuel Type, 1992-2006

Table 5-1a (in physical units)

| Year | Hydro-<br>electricity<br>GWh | Natural<br>Gas<br>Bcf | Crude<br>Oil<br>Mbbl |
|------|------------------------------|-----------------------|----------------------|
| 1992 | 27,920                       | 23.6                  | 406                  |
| 1993 | 29,304                       | 21.9                  | 341                  |
| 1994 | 27,656                       | 21.6                  | 299                  |
| 1995 | 25,895                       | 19.3                  | 304                  |
| 1996 | 28,830                       | 18.2                  | 309                  |
| 1997 | 30,498                       | 16.2                  | 276                  |
| 1998 | 29,203                       | 16.6                  | 217                  |
| 1999 | 24,648                       | 16.8                  | 193                  |
| 2000 | 24,819                       | 17.8                  | 181                  |
| 2001 | 23,152                       | 28.0                  | 183                  |
| 2002 | 26,213                       | 37.1                  | 179                  |
| 2003 | 25,798                       | 36.0                  | 157                  |
| 2004 | 28,153                       | 46.9                  | 184                  |
| 2005 | 27,583                       | 55.2                  | 211                  |
| 2006 | 28,422                       | 55.2                  | 319                  |

Figure 5-1

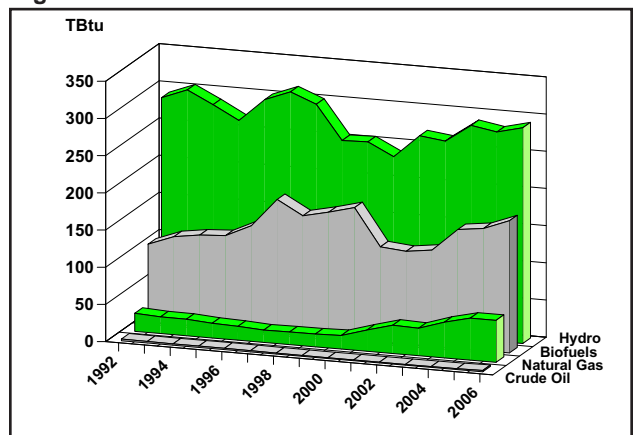


Table 5-1b (in trillion Btu)

| Year | Hydro-<br>electricity<br>TBtu | Natural<br>Gas<br>TBtu | Crude<br>Oil<br>TBtu | Biofuels <sup>1</sup><br>TBtu | Wind<br>TBtu | Energy<br>Production<br>TBtu |
|------|-------------------------------|------------------------|----------------------|-------------------------------|--------------|------------------------------|
| 1992 | 288.7                         | 24.3                   | 2.4                  | 104.5                         | 0.0          | 419.9                        |
| 1993 | 302.1                         | 22.5                   | 2.0                  | 117.6                         | 0.0          | 444.2                        |
| 1994 | 285.3                         | 22.2                   | 1.7                  | 122.7                         | 0.0          | 431.9                        |
| 1995 | 267.0                         | 19.8                   | 1.8                  | 124.9                         | 0.0          | 413.5                        |
| 1996 | 298.1                         | 18.7                   | 1.8                  | 141.2                         | 0.0          | 459.8                        |
| 1997 | 311.5                         | 16.6                   | 1.6                  | 179.5                         | 0.0          | 509.2                        |
| 1998 | 297.8                         | 17.1                   | 1.3                  | 160.5                         | 0.0          | 476.7                        |
| 1999 | 252.0                         | 17.3                   | 1.1                  | 168.4                         | 0.0          | 438.8                        |
| 2000 | 253.2                         | 18.3                   | 1.0                  | 177.4                         | 0.1          | 450.0                        |
| 2001 | 236.2                         | 28.7                   | 1.1                  | 127.5                         | 0.2          | 393.7                        |
| 2002 | 267.4                         | 38.1                   | 1.0                  | 123.9                         | 0.8          | 431.2                        |
| 2003 | 263.2                         | 36.9                   | 0.9                  | 128.9                         | 0.4          | 430.3                        |
| 2004 | 287.2                         | 48.1                   | 1.1                  | 158.7                         | 1.2          | 496.3                        |
| 2005 | 281.4                         | 56.5                   | 1.2                  | 163.4                         | 1.0          | 503.6                        |
| 2006 | 290.0                         | 56.5                   | 1.9                  | 172.4                         | 5.4          | 526.1                        |

<sup>1</sup> Includes primarily wood, wastes, and ethanol

# New York State Estimated Sources of Petroleum Products, 1992-2006

Figure 5-2

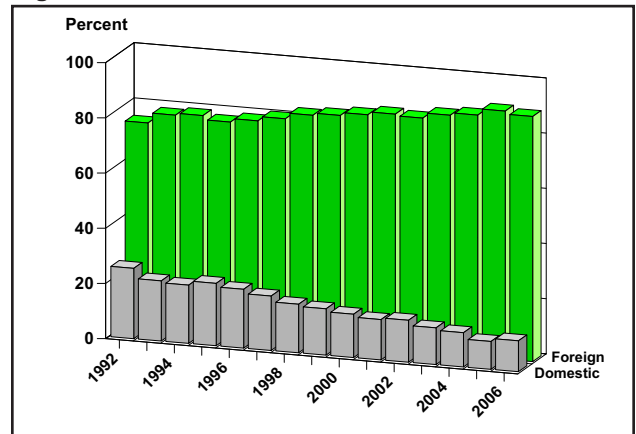


Table 5-2 - New York State

| Year | Total Domestic <sup>1</sup><br>% | Total Foreign<br>% | OPEC <sup>2</sup><br>% | Non-OPEC <sup>3</sup><br>% |
|------|----------------------------------|--------------------|------------------------|----------------------------|
| 1992 | 25.5                             | 74.5               | 45.3                   | 29.2                       |
| 1993 | 21.8                             | 78.2               | 46.4                   | 31.8                       |
| 1994 | 21.1                             | 78.9               | 45.0                   | 33.9                       |
| 1995 | 22.6                             | 77.4               | 43.9                   | 33.5                       |
| 1996 | 21.3                             | 78.7               | 40.9                   | 37.8                       |
| 1997 | 19.7                             | 80.3               | 41.7                   | 38.6                       |
| 1998 | 17.6                             | 82.4               | 43.4                   | 39.0                       |
| 1999 | 16.8                             | 83.2               | 42.5                   | 40.7                       |
| 2000 | 15.7                             | 84.3               | 43.4                   | 40.9                       |
| 2001 | 14.6                             | 85.4               | 44.0                   | 41.4                       |
| 2002 | 15.2                             | 84.8               | 37.9                   | 46.9                       |
| 2003 | 13.3                             | 86.7               | 39.9                   | 46.8                       |
| 2004 | 12.4                             | 87.6               | 42.8                   | 44.8                       |
| 2005 | 10.1                             | 89.9               | 44.9                   | 45.0                       |
| 2006 | 11.2                             | 88.8               | 43.9                   | 44.9                       |

<sup>1</sup> Domestic, oil produced in the United States or its outer continental shelf

<sup>2</sup> OPEC, the largest contributors are Saudi Arabia, Venezuela, Nigeria, Iraq, and Algeria

<sup>3</sup> Non-OPEC, the largest contributors are Canada, Mexico, United Kingdom, Angola, and Russia

## Section 6

# APPENDICES

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|            |  |     |
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## Appendix A

### New York State Estimated Greenhouse Gas Emissions from Fuel Combustion, 1990, 2000 and 2006

Figure A-1 Annual NYS GHG Emissions from Fuel Combustion

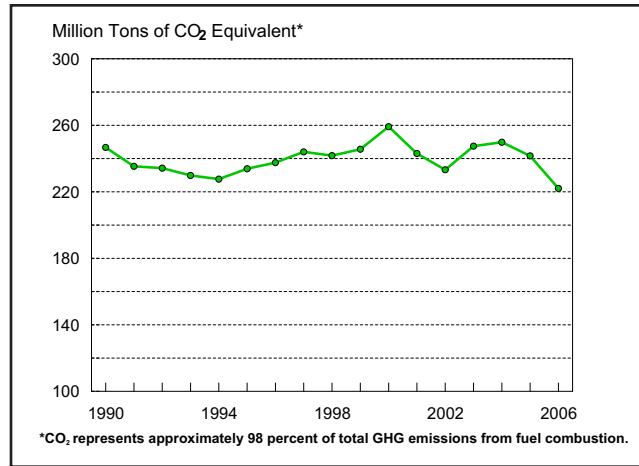


Table A-1 (in million tons carbon dioxide equivalent)

| By Sector           | 1990            |                   |             | 2000            |                   |             | 2006            |                   |             | Percent Changes 1990-2006 |
|---------------------|-----------------|-------------------|-------------|-----------------|-------------------|-------------|-----------------|-------------------|-------------|---------------------------|
|                     | CO <sub>2</sub> | Total GHG MM Tons | Percent     | CO <sub>2</sub> | Total GHG MM Tons | Percent     | CO <sub>2</sub> | Total GHG MM Tons | Percent     | Total GHG                 |
| Electric Generation | 70.3            | 70.5              | 29%         | 69.8            | 70.0              | 27%         | 53.6            | 53.8              | 24%         | -23.7%                    |
| Residential         | 37.1            | 37.6              | 15%         | 43.3            | 44.2              | 17%         | 35.9            | 36.6              | 16%         | -2.7%                     |
| Commercial          | 29.3            | 29.4              | 12%         | 35.2            | 35.4              | 14%         | 28.0            | 28.1              | 13%         | +4.4%                     |
| Industrial          | 25.2            | 25.3              | 10%         | 28.1            | 28.3              | 11%         | 17.7            | 17.8              | 8%          | -29.6%                    |
| Transportation      | 80.5            | 83.8              | 34%         | 78.1            | 81.3              | 31%         | 82.4            | 85.7              | 39%         | +2.3%                     |
| <b>Total</b>        | <b>242.3</b>    | <b>246.7</b>      | <b>100%</b> | <b>254.6</b>    | <b>259.2</b>      | <b>100%</b> | <b>217.7</b>    | <b>222.0</b>      | <b>100%</b> | <b>-10.0%</b>             |

Table A-2 (as a percentage of total carbon dioxide emissions)

| By Fuel Type       | 1990            |           | 2000            |           | 2006            |           |
|--------------------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|                    | CO <sub>2</sub> | Total GHG | CO <sub>2</sub> | Total GHG | CO <sub>2</sub> | Total GHG |
| Coal               | 15%             | 15%       | 14%             | 14%       | 13%             | 13%       |
| Natural Gas        | 22%             | 21%       | 30%             | 30%       | 30%             | 30%       |
| Petroleum Products | 63%             | 64%       | 56%             | 56%       | 57%             | 57%       |

Notes:

- Total Greenhouse Gas (GHG) emissions from fuel combustion include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O).
- CO<sub>2</sub> and total GHG emissions are expressed in millions of tons of carbon dioxide equivalent. One ton equals approximately 2,000 pounds. "MM" equals one million.

## Appendix B

### New York State

### Household Consumption and Expenditures by End Use, 2001

**Table B-1 Total Household Energy**

|                  | Households <sup>1</sup><br>(MM) | Average per Household |             |
|------------------|---------------------------------|-----------------------|-------------|
|                  |                                 | Consumption           | Expenditure |
| Electricity      | 7.1                             | 5,973 kWh             | \$870       |
| Natural Gas      | 5.4                             | 69 Mcf                | \$829       |
| Fuel Oil         | 2.2                             | 511 gallons           | \$624       |
| Kerosene         | 0.2                             | 163 gallons           | \$219       |
| LPG <sup>2</sup> | 0.5                             | Q                     | \$314       |
| Wood             | 0.7                             | 4 cords               | Q           |

**Table B-2 Space-Heating**

|             | Households <sup>1</sup><br>(MM) | Average per Household |             |
|-------------|---------------------------------|-----------------------|-------------|
|             |                                 | Consumption           | Expenditure |
| Electricity | 0.5                             | 3,544 kWh             | \$473       |
| Natural Gas | 4.2                             | 63 Mcf                | \$737       |
| Fuel Oil    | 2.1                             | 389 gallons           | \$478       |

**Table B-3 Water-Heating**

|             | Households <sup>1</sup><br>(MM) | Average per Household |             |
|-------------|---------------------------------|-----------------------|-------------|
|             |                                 | Consumption           | Expenditure |
| Electricity | 0.9                             | 2,390 kWh             | \$273       |
| Natural Gas | 4.4                             | 17 Mcf                | \$205       |
| Fuel Oil    | 1.7                             | 179 gallons           | \$206       |

**Table B-4 Electric Air Conditioning**

|             | Households <sup>1</sup><br>(MM) | Average per Household |             |
|-------------|---------------------------------|-----------------------|-------------|
|             |                                 | Consumption           | Expenditure |
| Central Air | 1.3                             | 961 kWh               | \$138       |
| Room/Wall   | 3.4                             | 593 kWh               | \$96        |

<sup>1</sup> The 7.1 million households represent New York single family, mobile home, and multifamily housing units.

<sup>2</sup> Propane

Note: Some households may use multiple space heating fuels.

Q = Data has been withheld

## Appendix C

### Estimated Annual Gasoline Consumption by County, 2004-2006

Table C-1 (in thousand gallons)

| County                | 2004             | 2005             | 2006             |
|-----------------------|------------------|------------------|------------------|
| <b>New York State</b> | <b>5,829,696</b> | <b>5,755,012</b> | <b>5,784,552</b> |
| <b>New York City</b>  | <b>1,153,066</b> | <b>1,103,197</b> | <b>1,060,003</b> |
| <b>Rest of State</b>  | <b>4,676,630</b> | <b>4,651,815</b> | <b>4,724,549</b> |
| Albany                | 153,363          | 155,746          | 139,822          |
| Allegany              | 16,523           | 17,250           | 17,954           |
| Broome                | 104,813          | 105,694          | 105,443          |
| Cattaraugus           | 23,273           | 23,044           | 23,698           |
| Cayuga                | 39,839           | 37,864           | 33,706           |
| Chautauqua            | 42,018           | 45,213           | 47,034           |
| Chemung               | 34,389           | 37,708           | 32,310           |
| Chenango              | 22,968           | 22,803           | 23,067           |
| Clinton               | 38,454           | 39,588           | 43,065           |
| Columbia              | 40,647           | 39,616           | 34,896           |
| Cortland              | 28,661           | 26,754           | 25,621           |
| Delaware              | 24,926           | 24,184           | 24,129           |
| Dutchess              | 123,289          | 113,704          | 113,860          |
| Erie                  | 367,985          | 351,292          | 392,891          |
| Essex                 | 19,661           | 20,625           | 21,041           |
| Franklin              | 16,822           | 16,444           | 16,962           |
| Fulton                | 22,907           | 22,931           | 27,737           |
| Genesee               | 60,431           | 59,860           | 61,410           |
| Greene                | 32,145           | 30,479           | 32,149           |
| Hamilton              | 3,355            | 3,193            | 2,743            |
| Herkimer              | 30,823           | 28,983           | 28,649           |
| Jefferson             | 54,871           | 60,959           | 57,264           |
| Lewis                 | 11,997           | 13,441           | 13,265           |
| Livingston            | 40,093           | 37,992           | 40,474           |
| Madison               | 22,809           | 21,151           | 20,852           |
| Monroe                | 291,177          | 284,012          | 291,064          |
| Montgomery            | 40,129           | 40,212           | 42,704           |
| Nassau                | 532,256          | 507,108          | 516,843          |
| Niagara               | 67,155           | 65,521           | 67,720           |
| Oneida                | 99,955           | 105,867          | 110,923          |
| Onondaga              | 222,659          | 236,666          | 222,372          |
| Ontario               | 65,679           | 65,120           | 63,650           |
| Orange                | 149,564          | 166,283          | 158,217          |
| Orleans               | 12,452           | 11,908           | 12,987           |
| Oswego                | 59,069           | 60,889           | 56,977           |
| Otsego                | 35,163           | 34,633           | 35,640           |
| Putnam                | 40,066           | 36,373           | 41,787           |
| Rensselaer            | 67,960           | 68,147           | 66,178           |
| Rockland              | 55,557           | 52,759           | 49,209           |
| St. Lawrence          | 39,247           | 40,688           | 40,424           |
| Saratoga              | 100,213          | 101,128          | 94,898           |
| Schenectady           | 71,111           | 67,859           | 66,554           |
| Schoharie             | 13,169           | 15,265           | 16,470           |
| Schuyler              | 9,769            | 9,275            | 9,568            |
| Seneca                | 18,764           | 25,494           | 26,724           |
| Steuben               | 49,595           | 50,251           | 51,660           |
| Suffolk               | 707,718          | 689,875          | 702,170          |
| Sullivan              | 37,628           | 35,695           | 37,159           |
| Tioga                 | 20,527           | 19,498           | 19,276           |
| Tompkins              | 36,217           | 36,257           | 35,298           |
| Ulster                | 87,725           | 88,392           | 91,591           |
| Warren                | 40,201           | 40,143           | 41,007           |
| Washington            | 20,654           | 19,941           | 20,389           |
| Wayne                 | 39,801           | 39,611           | 39,001           |
| Westchester           | 242,003          | 259,476          | 264,482          |
| Wyoming               | 17,762           | 18,127           | 17,432           |
| Yates                 | 8,711            | 7,823            | 7,898            |

Individual county data for New York City are not available.

## Appendix D

### Occupied Housing Units by Type of Space Heating Fuel by County, 2000

Table D-1 (in housing units)

| County                | Total Occupied Housing Units | Utility Gas      | Bottled Tank or LP Gas | Electricity    | Fuel Oil, Kerosene, etc. | Coal or Coke | Wood          | Solar Energy | Other         | No Fuel Used  |
|-----------------------|------------------------------|------------------|------------------------|----------------|--------------------------|--------------|---------------|--------------|---------------|---------------|
| <b>New York State</b> | <b>7,056,860</b>             | <b>3,651,779</b> | <b>237,949</b>         | <b>615,685</b> | <b>2,336,714</b>         | <b>9,563</b> | <b>82,613</b> | <b>2,539</b> | <b>73,671</b> | <b>46,347</b> |
| <b>New York City</b>  | <b>3,021,588</b>             | <b>1,601,078</b> | <b>80,585</b>          | <b>246,026</b> | <b>996,605</b>           | <b>2,394</b> | <b>465</b>    | <b>1,757</b> | <b>53,822</b> | <b>38,856</b> |
| Bronx                 | 463,212                      | 200,824          | 12,685                 | 48,312         | 182,853                  | 679          | 78            | 371          | 10,287        | 7,123         |
| Kings                 | 880,727                      | 531,682          | 31,026                 | 45,733         | 248,020                  | 443          | 175           | 812          | 11,740        | 11,096        |
| New York              | 738,644                      | 278,978          | 14,530                 | 104,981        | 300,758                  | 852          | 128           | 289          | 23,937        | 14,191        |
| Queens                | 782,664                      | 463,057          | 20,406                 | 42,258         | 243,152                  | 402          | 63            | 265          | 7,189         | 5,872         |
| Richmond              | 156,341                      | 126,537          | 1,938                  | 4,742          | 21,822                   | 18           | 21            | 20           | 669           | 574           |
| <b>Rest of State</b>  | <b>4,035,272</b>             | <b>2,050,701</b> | <b>157,364</b>         | <b>369,659</b> | <b>1,340,109</b>         | <b>7,169</b> | <b>82,148</b> | <b>782</b>   | <b>19,849</b> | <b>7,491</b>  |
| Albany                | 120,512                      | 80,854           | 2,739                  | 15,788         | 19,563                   | 47           | 879           | 35           | 379           | 228           |
| Allegany              | 18,009                       | 10,430           | 1,681                  | 1,433          | 2,233                    | 113          | 1,977         | 2            | 126           | 14            |
| Broome                | 80,749                       | 53,678           | 3,833                  | 7,265          | 13,582                   | 196          | 1,625         | 16           | 440           | 114           |
| Cattaraugus           | 32,023                       | 17,929           | 3,369                  | 3,327          | 4,165                    | 80           | 2,842         | -            | 288           | 23            |
| Cayuga                | 30,558                       | 15,263           | 3,504                  | 2,686          | 7,329                    | 132          | 1,401         | 3            | 201           | 39            |
| Chautauqua            | 54,515                       | 39,645           | 3,591                  | 5,670          | 2,360                    | 39           | 2,452         | 2            | 740           | 16            |
| Chemung               | 35,049                       | 26,366           | 1,263                  | 2,792          | 3,107                    | 247          | 960           | 15           | 233           | 66            |
| Chenango              | 19,926                       | 3,041            | 1,952                  | 2,206          | 10,405                   | 126          | 2,012         | 6            | 138           | 40            |
| Clinton               | 29,423                       | 592              | 740                    | 9,348          | 17,246                   | 13           | 1,392         | -            | 34            | 58            |
| Columbia              | 24,796                       | 2,775            | 1,145                  | 3,661          | 15,985                   | 50           | 1,060         | 22           | 90            | 8             |
| Cortland              | 18,210                       | 9,224            | 1,319                  | 1,874          | 4,411                    | 133          | 1,090         | 3            | 138           | 18            |
| Delaware              | 19,270                       | 1,905            | 1,938                  | 1,781          | 11,219                   | 48           | 2,287         | 4            | 83            | 5             |
| Dutchess              | 99,536                       | 21,259           | 3,122                  | 11,695         | 61,351                   | 199          | 1,283         | 30           | 479           | 118           |
| Erie                  | 380,873                      | 343,172          | 5,944                  | 19,377         | 7,841                    | 162          | 2,237         | 36           | 1,527         | 577           |
| Essex                 | 15,028                       | 63               | 1,076                  | 2,281          | 10,435                   | 14           | 1,123         | 4            | 20            | 12            |
| Franklin              | 17,931                       | 129              | 665                    | 2,682          | 12,729                   | 5            | 1,608         | 3            | 85            | 25            |
| Fulton                | 21,884                       | 8,824            | 1,431                  | 1,496          | 8,823                    | 3            | 1,161         | 14           | 91            | 41            |
| Genesee               | 22,770                       | 13,098           | 2,140                  | 2,238          | 4,379                    | 70           | 653           | -            | 166           | 26            |
| Greene                | 18,256                       | 993              | 1,188                  | 2,167          | 12,780                   | 71           | 1,016         | 4            | 75            | 22            |
| Hamilton              | 2,362                        | 2                | 437                    | 130            | 1,423                    | 0            | 359           | -            | 9             | 2             |
| Herkimer              | 25,734                       | 11,024           | 1,172                  | 2,479          | 9,476                    | 26           | 1,364         | 12           | 110           | 71            |
| Jefferson             | 40,068                       | 16,471           | 3,252                  | 5,963          | 11,548                   | 53           | 2,243         | -            | 369           | 169           |
| Lewis                 | 10,040                       | 267              | 779                    | 695            | 5,827                    | 23           | 2,415         | -            | 25            | 9             |
| Livingston            | 22,150                       | 10,400           | 2,862                  | 2,814          | 4,572                    | 152          | 1,176         | 2            | 149           | 23            |
| Madison               | 25,368                       | 10,103           | 1,891                  | 2,941          | 8,849                    | 77           | 1,299         | -            | 157           | 51            |
| Monroe                | 286,512                      | 230,558          | 3,820                  | 35,776         | 12,273                   | 80           | 1,475         | 92           | 1,721         | 717           |
| Montgomery            | 20,038                       | 9,181            | 881                    | 1,737          | 7,365                    | 26           | 713           | -            | 87            | 48            |
| Nassau                | 447,387                      | 171,500          | 4,268                  | 21,212         | 247,586                  | 241          | 157           | 79           | 1,645         | 699           |
| Niagara               | 87,846                       | 67,198           | 3,598                  | 6,474          | 9,317                    | 86           | 793           | -            | 269           | 111           |
| Oneida                | 90,496                       | 52,374           | 3,200                  | 8,743          | 22,464                   | 47           | 2,501         | 9            | 966           | 192           |
| Onondaga              | 181,153                      | 137,401          | 4,332                  | 24,670         | 10,784                   | 206          | 1,655         | 30           | 1,500         | 575           |
| Ontario               | 38,370                       | 21,897           | 4,421                  | 4,444          | 5,881                    | 235          | 1,412         | 13           | 221           | 16            |
| Orange                | 114,788                      | 51,420           | 4,885                  | 10,257         | 46,430                   | 155          | 930           | 15           | 533           | 163           |
| Orleans               | 15,363                       | 6,345            | 2,086                  | 1,685          | 4,445                    | 26           | 689           | 5            | 74            | 28            |
| Oswego                | 45,522                       | 19,374           | 8,160                  | 3,991          | 10,957                   | 111          | 2,502         | 11           | 340           | 76            |
| Otsego                | 23,291                       | 3,393            | 2,581                  | 2,264          | 12,652                   | 78           | 2,119         | -            | 164           | 40            |
| Putnam                | 32,703                       | 1,062            | 1,029                  | 7,249          | 22,653                   | 41           | 503           | 5            | 136           | 25            |
| Rensselaer            | 59,894                       | 25,701           | 2,385                  | 7,355          | 22,000                   | 66           | 2,009         | 11           | 173           | 194           |
| Rockland              | 92,675                       | 82,333           | 934                    | 5,875          | 2,956                    | 0            | 109           | -            | 243           | 225           |
| St. Lawrence          | 40,506                       | 12,693           | 2,407                  | 3,583          | 17,922                   | 13           | 3,532         | 4            | 209           | 143           |
| Saratoga              | 78,165                       | 39,998           | 5,690                  | 8,492          | 20,942                   | 85           | 2,482         | 20           | 338           | 118           |
| Schenectady           | 59,684                       | 43,228           | 1,146                  | 5,866          | 8,755                    | 0            | 429           | 29           | 144           | 87            |
| Schoharie             | 11,991                       | 154              | 1,141                  | 1,607          | 7,756                    | 29           | 1,205         | 14           | 72            | 13            |
| Schuyler              | 7,374                        | 1,571            | 1,539                  | 713            | 2,624                    | 208          | 695           | -            | 18            | 6             |
| Seneca                | 12,630                       | 5,676            | 2,250                  | 1,169          | 2,740                    | 307          | 350           | 4            | 111           | 23            |
| Steuben               | 39,071                       | 21,489           | 5,147                  | 3,104          | 5,574                    | 705          | 2,869         | 2            | 160           | 21            |
| Suffolk               | 469,299                      | 129,887          | 8,920                  | 30,153         | 297,010                  | 498          | 826           | 98           | 1,434         | 473           |
| Sullivan              | 27,661                       | 381              | 3,208                  | 3,743          | 18,636                   | 78           | 1,349         | 15           | 212           | 39            |
| Tioga                 | 19,725                       | 5,519            | 1,922                  | 1,924          | 8,467                    | 440          | 1,397         | -            | 23            | 33            |
| Tompkins              | 36,420                       | 19,214           | 3,098                  | 6,144          | 5,696                    | 343          | 1,696         | 7            | 163           | 59            |
| Ulster                | 67,499                       | 10,510           | 5,071                  | 6,613          | 42,362                   | 159          | 2,406         | 25           | 259           | 94            |
| Warren                | 25,726                       | 10,343           | 1,629                  | 2,934          | 9,307                    | 45           | 1,343         | 6            | 106           | 13            |
| Washington            | 22,458                       | 4,183            | 1,586                  | 2,286          | 12,108                   | 105          | 2,099         | 20           | 49            | 22            |
| Wayne                 | 34,908                       | 18,156           | 3,523                  | 3,705          | 7,483                    | 106          | 1,783         | 9            | 95            | 48            |
| Westchester           | 337,142                      | 140,518          | 6,298                  | 27,770         | 158,438                  | 302          | 263           | 46           | 2,114         | 1,393         |
| Wyoming               | 14,906                       | 7,329            | 1,690                  | 1,951          | 2,555                    | 88           | 1,194         | -            | 93            | 6             |
| Yates                 | 9,029                        | 2,668            | 1,676                  | 1,381          | 2,333                    | 181          | 749           | -            | 25            | 16            |

# Appendix E

## New York State Degree-Days, 1992-2006

Figure E-1

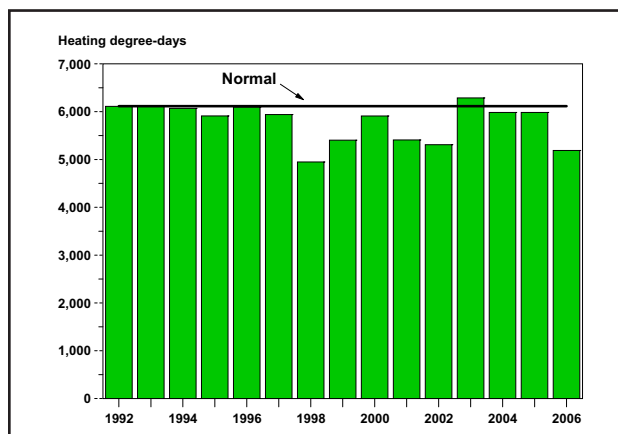


Table E-1 (monthly heating degree-days)

| Year          | Jan.         | Feb.         | March      | April      | May        | June      | July     | August    | Sept.      | Oct.       | Nov.       | Dec.         | Total        |
|---------------|--------------|--------------|------------|------------|------------|-----------|----------|-----------|------------|------------|------------|--------------|--------------|
| 1992          | 1,079        | 942          | 940        | 581        | 246        | 56        | 18       | 26        | 97         | 464        | 685        | 978          | 6,112        |
| 1993          | 1,037        | 1,143        | 966        | 501        | 185        | 36        | 2        | 8         | 106        | 427        | 675        | 1,027        | 6,113        |
| 1994          | 1,388        | 1,135        | 915        | 448        | 269        | 15        | 1        | 21        | 101        | 375        | 532        | 869          | 6,069        |
| 1995          | 969          | 1,078        | 760        | 564        | 248        | 19        | 1        | 5         | 111        | 259        | 761        | 1,136        | 5,911        |
| 1996          | 1,196        | 1,008        | 963        | 535        | 258        | 21        | 9        | 9         | 75         | 377        | 786        | 858          | 6,095        |
| 1997          | 1,157        | 846          | 862        | 552        | 316        | 27        | 7        | 19        | 100        | 379        | 728        | 948          | 5,941        |
| 1998          | 925          | 808          | 767        | 458        | 125        | 35        | 5        | 7         | 54         | 328        | 623        | 813          | 4,948        |
| 1999          | 1,115        | 892          | 854        | 463        | 166        | 11        | 0        | 15        | 52         | 391        | 531        | 914          | 5,404        |
| 2000          | 1,185        | 913          | 692        | 539        | 188        | 32        | 17       | 18        | 97         | 360        | 693        | 1,176        | 5,910        |
| 2001          | 1,128        | 942          | 937        | 469        | 170        | 21        | 13       | 3         | 85         | 328        | 513        | 799          | 5,408        |
| 2002          | 932          | 836          | 797        | 420        | 286        | 25        | 1        | 2         | 55         | 341        | 669        | 945          | 5,309        |
| 2003          | 1,327        | 1,123        | 860        | 580        | 280        | 50        | 5        | 4         | 73         | 431        | 581        | 974          | 6,288        |
| 2004          | 1,393        | 1,018        | 796        | 484        | 148        | 46        | 8        | 16        | 56         | 382        | 634        | 1,004        | 5,985        |
| 2005          | 1,225        | 970          | 976        | 447        | 320        | 4         | 1        | 3         | 34         | 338        | 587        | 1,079        | 5,984        |
| 2006          | 908          | 954          | 841        | 433        | 201        | 27        | 1        | 11        | 109        | 401        | 522        | 781          | 5,189        |
| <b>Normal</b> | <b>1,188</b> | <b>1,017</b> | <b>867</b> | <b>528</b> | <b>233</b> | <b>45</b> | <b>8</b> | <b>18</b> | <b>113</b> | <b>405</b> | <b>678</b> | <b>1,016</b> | <b>6,116</b> |

Table E-2 (monthly cooling degree-days)

| Year          | Jan.     | Feb.     | March    | April    | May       | June       | July       | Aug.       | Sept.     | Oct.     | Nov.     | Dec.     | Total      |
|---------------|----------|----------|----------|----------|-----------|------------|------------|------------|-----------|----------|----------|----------|------------|
| 1992          | 0        | 0        | 0        | 0        | 11        | 69         | 163        | 143        | 51        | 0        | 0        | 0        | 437        |
| 1993          | 0        | 0        | 0        | 0        | 23        | 113        | 295        | 231        | 51        | 0        | 0        | 0        | 713        |
| 1994          | 0        | 0        | 0        | 0        | 7         | 162        | 317        | 153        | 50        | 0        | 0        | 0        | 689        |
| 1995          | 0        | 0        | 0        | 0        | 9         | 127        | 301        | 262        | 49        | 13       | 0        | 0        | 761        |
| 1996          | 0        | 0        | 0        | 0        | 8         | 128        | 179        | 203        | 68        | 0        | 0        | 0        | 586        |
| 1997          | 0        | 0        | 0        | 0        | 3         | 108        | 227        | 177        | 54        | 0        | 0        | 0        | 569        |
| 1998          | 0        | 0        | 0        | 0        | 44        | 93         | 254        | 258        | 100       | 5        | 0        | 0        | 754        |
| 1999          | 0        | 0        | 0        | 0        | 26        | 176        | 362        | 216        | 95        | 0        | 0        | 0        | 875        |
| 2000          | 0        | 0        | 0        | 0        | 20        | 112        | 146        | 171        | 53        | 0        | 0        | 0        | 502        |
| 2001          | 0        | 0        | 0        | 0        | 26        | 142        | 160        | 291        | 58        | 5        | 0        | 0        | 682        |
| 2002          | 0        | 0        | 0        | 0        | 7         | 121        | 302        | 277        | 100       | 0        | 0        | 0        | 807        |
| 2003          | 0        | 0        | 0        | 0        | 7         | 72         | 238        | 271        | 70        | 0        | 0        | 0        | 658        |
| 2004          | 0        | 0        | 0        | 0        | 38        | 92         | 199        | 179        | 86        | 0        | 0        | 0        | 594        |
| 2005          | 0        | 0        | 0        | 0        | 3         | 196        | 290        | 315        | 136       | 4        | 0        | 0        | 944        |
| 2006          | 0        | 0        | 0        | 0        | 20        | 120        | 315        | 233        | 46        | 3        | 0        | 0        | 737        |
| <b>Normal</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>24</b> | <b>107</b> | <b>233</b> | <b>195</b> | <b>56</b> | <b>6</b> | <b>0</b> | <b>0</b> | <b>621</b> |

Note: Normal is a 30-year degree day average value for the period 1971-2000.

## Appendix F

### Abbreviations and Conversion Factors

#### ABBREVIATIONS

|                 |   |
|-----------------|---|
| M               | thousand or 10 <sup>3</sup>                   |
| MM              | million or 10 <sup>6</sup>                    |
| B               | billion or 10 <sup>9</sup>                    |
| T               | trillion or 10 <sup>12</sup>                  |
| bbl             | barrel  |
| Btu             | British thermal unit                          |
| cf              | cubic foot                                    |
| CO <sub>2</sub> | carbon dioxide                                |
| gal             | gallon  |
| GDP             | gross domestic product                        |
| GSP             | gross state product                           |
| GWh             | gigawatt hour or million kWh                  |
| kWh             | kilowatt hour                                 |
| LPG             | liquefied petroleum gas                       |
| OPEC            | Organization of Petroleum Exporting Countries |
| N/A             | Not applicable                                |
| n.a.            | Not available                                 |

#### CONVERSION FACTORS

Approximate heat content of various fuels (2006)

|                                |                      |
|--------------------------------|----------------------|
| Coal                           |                      |
| Electric generation            | 19,952,000 Btu/ton   |
| Other end use sectors          | 22,050,000 Btu/ton   |
| Natural Gas                    |                      |
| Electric generation            | 1,028 Btu/cf         |
| Other end use sectors          | 1,030 Btu/cf         |
| Wood                           | 20,000,000 Btu/cord  |
| Electricity                    | 3,412 Btu/kWh        |
| Petroleum Products             |                      |
| Distillate fuel oil            | 5,825,000 Btu/barrel |
| Ethanol                        | 3,539,000 Btu/barrel |
| Jet fuel, kerosene-type        | 5,670,000 Btu/barrel |
| Kerosene                       | 5,670,000 Btu/barrel |
| Motor gasoline                 | 5,218,000 Btu/barrel |
| LPG (propane)                  | 3,604,000 Btu/barrel |
| Residual fuel oil              | 6,287,000 Btu/barrel |
| (one barrel equals 42 gallons) |                      |

## **Appendix G**

### **Glossary**

#### **GLOSSARY**

**Anthracite coal** - The highest ranked coal, used primarily for residential and commercial space heating. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter.

**Barrel (bbl)** - Liquid volume measure equal to 42 gallons, commonly used in expressing quantities of petroleum or petroleum products.

**Biofuels** - Non-fossil biomass energy sources that are essentially unprocessed and burned or gasified to produce thermal energy or electricity. Examples are fuel wood, waste wood, garbage, and crop waste. Different mixes of biofuels are used by each consuming sector. The residential sector burns wood for space heating. The transportation sector uses ethanol as an additive to motor gasoline. Some electric generation uses wood or municipal waste as co-firing or primary fuels.

**Bituminous coal** - Often referred to as “soft coal,” is more volatile than anthracite, and has a higher heat content than lignite. It has a heating value of 11,450-13,010 Btu per pound and is the most commonly used coal.

**British thermal unit (Btu)** - The quantity of heat necessary to raise the temperature of one pound of water one degree Fahrenheit. Because different energy types use different standards of measurement, they often are converted into Btu to facilitate comparison. One Btu is equal to 252 calories of heat energy.

**Coke** - A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal. The volatile constituents are driven off by baking in an oven at temperatures as high as 2,000 degrees Fahrenheit so that the fixed carbon and residual ash are fused together.

**Combined Heat and Power (CHP)** - Includes plants designed to produce both heat and electricity from a single heat source.

**Commercial sector** - The sector of the economy that engages primarily in providing services and goods. Apartment and office buildings, governmental units, schools, institutions, churches, restaurants, and retail stores are included.

**Cord of wood** - A cord of wood measures 4 feet by 4 feet by 8 feet, or 128 cubic feet.

**Crude oil** - A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs. Refined crude oil produces a number of different fuels, including residual fuel, motor gasoline, and distillate fuels.

**Degree-days, cooling** - A measure of temperature as it affects energy demand for space cooling. It is similar to heating degree-days, although the relationship is not as precise. If the average of a day's high and low temperature extremes is below 65°F, then the cooling degree-days for that day are zero; otherwise, they are equal to the difference between the average and 65°F.

**Degree-days, heating** - A measure of temperature as it affects energy demand for space heating. It is based on the fact that most buildings require no heat to maintain an inside temperature of at least 70°F when the daily mean is 65°F or higher. If the average of a day's high and low temperature extremes is above 65°F, the heating degree-days for that day are taken to be zero; otherwise, they are equal to the difference between the average and 65°F. Note that a higher number of heating degree-days implies cooler temperatures.

**Dekatherm** - One dekatherm equals 10 therms or 1,000,000 Btu.

**Distillate fuel** - A category of fuels comprised of No. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. These products are used primarily for space heating, on-highway and off-road diesel engine fuel (including railroad engine fuel), and electric power generation.

**Electric generation** - Includes both publicly and privately owned generating plants in New York State.

**End-use** - Any ultimate consumption of any type of fossil fuel (petroleum, coal, natural gas) or electricity, whether generated by fossil fuel or other energy sources. End-users are often classified by economic sector, such as residential, commercial, industrial, and transportation.

**Feedstock** - The raw material furnished to a machine or process. Fossil fuels sometimes are used as feedstocks for their chemical properties, rather than their values as fuel (e.g., oil used to produce plastics and synthetic fabrics).

**Gallon (gal)** - A unit of volume, the U.S. gallon contains 3.785 liters and is 0.083 times the imperial gallon. One U.S. gallon of water weighs 8.3 pounds.

**Gigawatt (GW)** - One million kilowatts, or one billion watts.

**Gigawatt hour (GWh)** - One million kilowatt hours, or one billion watt hours.

**Hydro** - A prefix used to identify a type of generating station, power, or energy output in which the prime energy source is water.

**Industrial Sector** - That section of the economy involved in either mining, construction, or manufacturing.

**Jet fuel** - Includes both naphtha- and kerosene-type jet fuels that meet standards for use in aircraft turbine engines. Some jet fuel is used for generating electricity in gas turbines.

**Kerosene** - A petroleum middle distillate with burning properties suitable for use as an illuminant when burned in wick lamps. Kerosene also is used in space heaters, cooking stoves, and water heaters and to reduce viscosity of distillate fuels during winter.

**Kilowatt (kW)** - One thousand watts.

**Kilowatt hour (kWh)** - The amount of electrical energy involved with a one kilowatt demand over a period of one hour. One kilowatt hour is equivalent to 3,412 Btu.

**Liquefied petroleum gas (LPG)** - Propane, propylene, butane, and propane-butane mixtures produced at a refinery or natural gas-processing plant, including plants that fractionate raw natural gas-processing plant liquids. These are derived by refining and processing natural gas, crude oil, or unfinished oil.

**Mcf** - One thousand cubic feet.

**Megawatt (MW)** - One thousand kilowatts or one million watts.

**Megawatt hour (MWh)** - One thousand kilowatt hours, or one million watt hours.

**Motor gasoline** - A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Leaded and unleaded refinery products are included.

**Natural gas** - A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase ("gas well" gas) or in solution with crude oil ("oil well" gas) in natural underground reservoirs at reservoir conditions. It comes from the ground with or without accompanying crude oil and is generally much higher in heat content than manufactured gas.

**Naphtha** - A general term applied to a petroleum fraction with an approximate boiling range between 122 and 400°F.

**Net Energy Consumption** - “Net” is the end-use consumption including electricity sales but excluding losses incurred during generation and distribution of electricity.

**Nominal Dollars** - Values that have not been adjusted to remove the effect of changes in inflation. The price paid for a product or service at the time of the transaction.

**Nuclear** - The energy liberated by fission, fusion, or radioactive decay.

**Organization of Petroleum Exporting Countries (OPEC)** - OPEC includes Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Ecuador, and Venezuela.

**Petroleum** - A general term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oil, and refined nonhydrocarbon compounds blended into finished petroleum products.

**Primary Energy Consumption** - “Primary” represents total consumption of fuels including fuels used to generate electricity.

**Propane** - A colorless, highly volatile hydrocarbon that is readily recovered as a liquefied gas at natural gas-processing plants and refineries. It is used primarily for residential and commercial heating and cooling, and also as a fuel for transportation and industrial uses, including petrochemical feedstocks. Propane is the first product refined from crude petroleum.

**Real Dollars** - Values that have been adjusted to remove the effect of inflation or changes in the purchasing power of the dollar. Also referred to as constant dollars because the adjustments equalize and make the cost of commodities comparable over time.

**Refined petroleum** - Products made from processing crude oil, unfinished oils, natural gas liquids, and other miscellaneous hydrocarbon compounds. Includes aviation gasoline, motor gasoline, naphtha- and kerosene-type jet fuels, kerosene, distillate fuel oil, residual fuel oil, ethane, liquefied petroleum gases, petrochemical feedstocks, special naphthas, lubricants, paraffin wax, petroleum coke, asphalt, road oil, till gas, and miscellaneous products.

**Residential sector** - Includes private households. Specifically included are the following end-uses: space heating and cooling, water heating, cooking, lighting, clothes drying, and refrigeration.

**Residual fuel** - The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as No. 5 and 6 fuel oil, heavy diesel oil, Navy Special Fuel Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for production of electric power, space heating, vessel bunkering, and various industrial purposes.

**Short Ton (Coal)** - A unit of weight equal to 2,000 pounds.

**Therm** - 100,000 Btu.

**Trillion (T)** - 1,000,000,000,000, or  $10^{12}$ .

**Ton** - In the United States, Canada, and Union of South Africa, a unit of weight equal to 2,000 pounds. The American ton is often called the “short ton”. The metric or “long ton” equals 2,204.62 pounds.

**Watt (W)** - The unit of measure for electric power or rate of doing work. The rate of energy transfer equivalent to one ampere flowing under a pressure of one volt at unity power factor. It is analogous to horsepower or foot-pounds per minute of mechanical power. One horsepower is equivalent to approximately 746 watts.

**Watt-hour (Wh)** - An electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electrical circuit operating continuously for one hour.

## **Appendix H**

### **Data Sources**

***State Energy Data Report*** - U.S. Department of Energy, Energy Information Administration (U.S. DOE/EIA)

***State Energy Price & Expenditure Report*** - U.S. DOE/EIA

***Annual Energy Review*** - U.S. DOE/EIA

***Monthly Energy Review*** - U.S. DOE/EIA

***Electric Power Annual*** - U.S. DOE/EIA

***Electric Power Monthly*** - U.S. DOE/EIA

***Natural Gas Annual*** - U.S. DOE/EIA

***Natural Gas Monthly*** - U.S. DOE/EIA

***Petroleum Supply Annual*** - U.S. DOE/EIA

***Sales of Fuel Oil and Kerosene*** - U.S. DOE/EIA

***Retail Motor Gasoline Price Report*** - U.S. DOE/EIA

***Quarterly Coal Report*** - U.S. DOE/EIA

***Coal Distribution Report*** - U.S. DOE/EIA

***Residential Energy Consumption Survey*** - U.S. DOE/EIA

***Detailed Population Characteristics*** - U.S. Bureau of the Census

***Detailed Housing Characteristics*** - U.S. Bureau of the Census

***Heating and Cooling Degree-day Report*** - U.S. National Climatic Data Center

***Employment and Earnings*** - U.S. Bureau of Labor Statistics

***Survey of Current Business*** - U.S. Bureau of Economic Analysis

***United States Highway Statistics*** - U.S. Federal Highway Administration

***Motor Gasoline Reported by State*** - U.S. Federal Highway Administration

***State Heating Oil & Propane Program*** - N.Y.S. Energy Research and Development Authority

***New York State, Gas and Mineral Resources*** - N.Y.S. Department of Environmental Conservation

***Highway Statistics for New York State*** - N.Y.S. Department of Motor Vehicles

***Motor Fuel Gallonage & Revenue Report*** - N.Y.S. Department of Taxation & Finance

***Aviation Statistics*** - Port Authority of New York & New Jersey

***Load & Capacity Data Report*** - New York Independent System Operator

For information on other  
NYSERDA reports, contact:

New York State Energy Research and  
Development Authority  
17 Columbia Circle  
Albany, New York 12203-6399

toll-free 1-866-NYSERDA  
local: (518) 862-1090  
fax: (518) 862-1091

[info@nysesda.org](mailto:info@nysesda.org)  
[www.nysesda.org](http://www.nysesda.org)

**PATTERNS AND TRENDS**  
**NEW YORK STATE ENERGY PROFILES: 1992-2006**  
**JANUARY 2008**

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