

**Table 1. 2002 Summary Statistics**

| Item  | Value      | U.S. Rank |
|---|------------|-----------|
| <b>Massachusetts</b>  |            |           |
| NERC Region(s).....   |            | NPCC      |
| Primary Energy Source .....                                   |            | Gas       |
| Net Summer Capability (megawatts).....                        | 12,159     | 27        |
| Electric Utilities .....                                      | 1,090      | 44        |
| Independent Power Producers & Combined Heat and Power .....   | 11,069     | 9         |
| Net Generation (megawatthours).....                           | 42,015,689 | 34        |
| Electric Utilities .....                                      | 1,156,651  | 45        |
| Independent Power Producers & Combined Heat and Power .....   | 40,859,038 | 8         |
| Emissions (thousand short tons)                               |            |           |
| Sulfur Dioxide .....  | 97         | 26        |
| Nitrogen Oxide .....  | 38         | 38        |
| Carbon Dioxide .....  | 25,699     | 33        |
| Sulfur Dioxide/sq. mile.....                                  | 12         | 8         |
| Nitrogen Oxide/sq. mile.....                                  | 5          | 11        |
| Carbon Dioxide/sq. mile.....                                  | 3,279      | 6         |
| Utility and ESP Retail Electricity Sales (megawatthours)..... | 52,409,743 | 25        |
| Utility Retail Electricity Sales (megawatthours) .....        | 43,879,763 | 29        |
| ESP Retail Electricity Sales (megawatthours).....             | 8,529,980  | 7         |
| Direct Use (megawatthours).....                               | -1,300,511 | 50        |
| Average Retail Price (cents/kWh).....                         | 10.18      | 8         |

See footnotes at end of tables.

**Table 2. Ten Largest Plants by Generating Capability, 2002**

| Plant                           | Energy Sources       | Operating Company               | Net Capability (MW) |
|---------------------------------|----------------------|---------------------------------|---------------------|
| <b>Massachusetts</b>            |                      |                                 |                     |
| 1. Brayton Point .....          | Gas, Petroleum, Coal | U S Gen New England Inc         | 1,538               |
| 2. Canal .....                  | Gas, Petroleum       | Mirant Canal LLC                | 1,112               |
| 3. Northfield Mountain .....    | Hydro                | Northeast Generation Co         | 1,080               |
| 4. Mystic Generating Sta .....  | Gas, Petroleum       | Exelon New England Holdings LLC | 778                 |
| 5. Salem Harbor .....           | Petroleum, Coal      | U S Gen New England Inc         | 712                 |
| 6. Pilgrim Nuclear Power .....  | Nuclear              | Entergy Nuclear Generation Co   | 667                 |
| 7. Bear Swamp .....             | Hydro                | U S Gen New England Inc         | 570                 |
| 8. Stony Brook .....            | Petroleum, Gas       | Massachusetts Mun Whls Elec Co  | 531                 |
| 9. ANP Bellingham Energy .....  | Petroleum, Gas       | ANP Bellingham Energy Co        | 447                 |
| 10. ANP Blackstone Energy ..... | Gas                  | ANP Blackstone Energy Co        | 444                 |

See footnotes at end of tables.

**Table 3. Top Five Utilities Ranked by Retail Sales, 2002**  
(Megawatthours)

| Utility                                 | All Sectors | Residential | Commercial | Industrial | Other   |
|---|-------------|-------------|------------|------------|---------|
| <b>Massachusetts</b>                    |             |             |            |            |         |
| A. Massachusetts Electric Company ..... | 17,145,737  | 8,056,404   | 6,505,182  | 2,532,104  | 52,047  |
| B. Boston Edison Company .....          | 10,724,435  | 3,958,034   | 5,876,260  | 783,552    | 106,589 |
| C. Western Massachusetts Elec Co.....   | 3,319,632   | 1,446,053   | 1,195,187  | 651,501    | 26,891  |
| D. Commonwealth Electric Company .....  | 3,245,928   | 1,797,977   | 1,285,226  | 150,759    | 11,966  |
| E. New Energy Ventures, Inc .....       | 3,173,115   | 0           | 3,173,115  | 0          | 0       |
| Total .....                             | 37,608,847  | 15,258,468  | 18,034,970 | 4,117,916  | 197,493 |
| Percentage of Utility Sales.....        | 72          | 82          | 76         | 45         | 18      |

See footnotes at end of tables.

**Table 4. Electric Power Industry Generating Capability by Primary Energy Source, 1993, 1997, and 2002**  
(Megawatts)

| Energy Source  | 1993          | 1997          | 2002          | Annual Growth Rate 1993-2002 (Percent) | Percentage Share 1993 | Percentage Share 1997 | Percentage Share 2002 |
|--|---------------|---------------|---------------|--|-----------------------|-----------------------|-----------------------|
| <b>Massachusetts</b>                                   |               |               |               |  |                       |                       |                       |
| Coal .....   | 1,679         | 1,737         | 145           | -23.8                                  | 15.4                  | 15.3                  | 1.2                   |
| Petroleum .....  | 2,691         | 1,941         | 305           | -21.5                                  | 24.6                  | 17.1                  | 2.5                   |
| Natural Gas .....                                      | 18            | 870           | 27            | 4.7                                    | .2                    | 7.7                   | .2                    |
| Dual Fired .....                                       | 2,552         | 2,370         | 569           | -15.4                                  | 23.4                  | 20.9                  | 4.7                   |
| Nuclear .....  | 665           | 669           | 0             | NM                                     | 6.1                   | 5.9                   | .0                    |
| Hydroelectric .....                                    | 1,856         | 1,855         | 44            | -34.1                                  | 17.0                  | 16.4                  | .4                    |
| Other Renewables .....                                 | *             | *             | 0             | NM                                     | .0                    | .0                    | .0                    |
| <b>Total Electric Utilities .....</b>                  | <b>9,461</b>  | <b>9,442</b>  | <b>1,090</b>  | <b>-21.3</b>                           | <b>86.6</b>           | <b>83.4</b>           | <b>9.0</b>            |
| Coal .....   | 31            | 10            | 1,544         | 54.4                                   | .3                    | .1                    | 12.7                  |
| Petroleum .....  | 50            | 122           | 1,724         | 48.2                                   | .5                    | 1.1                   | 14.2                  |
| Natural Gas .....                                      | 152           | 429           | 2,188         | 34.5                                   | 1.4                   | 3.8                   | 18.0                  |
| Dual Fired .....                                       | 867           | 929           | 2,783         | 13.8                                   | 7.9                   | 8.2                   | 22.9                  |
| Nuclear .....  | 0             | 0             | 667           | NM                                     | .0                    | .0                    | 5.5                   |
| Hydroelectric .....                                    | 59            | 58            | 1,859         | 46.8                                   | .5                    | .5                    | 15.3                  |
| Other Renewables .....                                 | 306           | 337           | 305           | .0                                     | 2.8                   | 3.0                   | 2.5                   |
| <b>Total IPP's &amp; Combined Heat and Power .....</b> | <b>1,465</b>  | <b>1,886</b>  | <b>11,069</b> | <b>25.2</b>                            | <b>13.4</b>           | <b>16.6</b>           | <b>91.0</b>           |
| Coal .....   | 1,710         | 1,747         | 1,689         | -.1                                    | 15.6                  | 15.4                  | 13.9                  |
| Petroleum .....  | 2,741         | 2,063         | 2,029         | -3.3                                   | 25.1                  | 18.2                  | 16.7                  |
| Natural Gas .....                                      | 170           | 1,299         | 2,215         | 33.0                                   | 1.6                   | 11.5                  | 18.2                  |
| Dual Fired .....                                       | 3,418         | 3,299         | 3,351         | -.2                                    | 31.3                  | 29.1                  | 27.6                  |
| Nuclear .....  | 665           | 669           | 667           | .0                                     | 6.1                   | 5.9                   | 5.5                   |
| Hydroelectric .....                                    | 1,915         | 1,913         | 1,903         | -.1                                    | 17.5                  | 16.9                  | 15.6                  |
| Other Renewables .....                                 | 306           | 337           | 305           | -.1                                    | 2.8                   | 3.0                   | 2.5                   |
| <b>Total Electric Industry .....</b>                   | <b>10,925</b> | <b>11,328</b> | <b>12,159</b> | <b>1.2</b>                             | <b>100.0</b>          | <b>100.0</b>          | <b>100.0</b>          |

See footnotes at end of tables.

**Table 5. Electric Power Industry Generation of Electricity by Primary Energy Source, 1993, 1997, and 2002**  
(Megawatthours)

| Energy Source  | 1993              | 1997              | 2002              | Annual Growth Rate 1993-2002 (Percent) | Percentage Share 1993 | Percentage Share 1997 | Percentage Share 2002 |
|--|-------------------|-------------------|-------------------|--|-----------------------|-----------------------|-----------------------|
| <b>Massachusetts</b>                                   |                   |                   |                   |  |                       |                       |                       |
| Coal .....   | 9,815,909         | 12,488,802        | 0                 | NM                                     | 26.5                  | 27.8                  | 0.0                   |
| Petroleum .....  | 11,112,574        | 11,586,081        | 220,435           | -35.3                                  | 30.0                  | 25.8                  | .5                    |
| Natural Gas .....                                      | 2,897,352         | 5,213,021         | 728,570           | -14.2                                  | 7.8                   | 11.6                  | 1.7                   |
| Nuclear .....  | 4,338,685         | 4,310,431         | 0                 | NM                                     | 11.7                  | 9.6                   | .0                    |
| Hydroelectric .....                                    | -976              | 300,362           | 207,646           | NA                                     | .0                    | .7                    | .5                    |
| <b>Total Electric Utilities .....</b>                  | <b>28,163,544</b> | <b>33,898,697</b> | <b>1,156,651</b>  | <b>-29.9</b>                           | <b>76.0</b>           | <b>75.4</b>           | <b>2.8</b>            |
| Coal .....   | 114,485           | 37,654            | 11,502,861        | 66.9                                   | .3                    | .1                    | 27.4                  |
| Petroleum .....  | 479,277           | 226,337           | 6,579,860         | 33.8                                   | 1.3                   | .5                    | 15.7                  |
| Natural Gas .....                                      | 6,152,756         | 8,413,150         | 15,140,405        | 10.5                                   | 16.6                  | 18.7                  | 36.0                  |
| Nuclear .....  | 0                 | 0                 | 5,768,766         | NM                                     | .0                    | .0                    | 13.7                  |
| Hydroelectric .....                                    | 204,540           | 243,147           | -187,500          | NA                                     | .6                    | .5                    | -.4                   |
| Other Renewables .....                                 | 1,964,605         | 2,146,346         | 2,050,777         | .5                                     | 5.3                   | 4.8                   | 4.9                   |
| Other .....  | 0                 | 0                 | 3,869             | NM                                     | .0                    | .0                    | .0                    |
| <b>Total IPP's &amp; Combined Heat and Power .....</b> | <b>8,915,663</b>  | <b>11,066,633</b> | <b>40,859,038</b> | <b>18.4</b>                            | <b>24.0</b>           | <b>24.6</b>           | <b>97.2</b>           |
| Coal .....   | 9,930,394         | 12,526,456        | 11,502,861        | 1.6                                    | 26.8                  | 27.9                  | 27.4                  |
| Petroleum .....  | 11,591,851        | 11,812,418        | 6,800,295         | -5.8                                   | 31.3                  | 26.3                  | 16.2                  |
| Natural Gas .....                                      | 9,050,108         | 13,626,171        | 15,868,975        | 6.4                                    | 24.4                  | 30.3                  | 37.8                  |
| Nuclear .....  | 4,338,685         | 4,310,431         | 5,768,766         | 3.2                                    | 11.7                  | 9.6                   | 13.7                  |
| Hydroelectric .....                                    | 203,564           | 543,509           | 20,146            | -22.7                                  | .5                    | 1.2                   | .0                    |
| Other Renewables .....                                 | 1,964,605         | 2,146,346         | 2,050,777         | .5                                     | 5.3                   | 4.8                   | 4.9                   |
| Other .....  | 0                 | 0                 | 3,869             | NM                                     | .0                    | .0                    | .0                    |
| <b>Total Electric Industry .....</b>                   | <b>37,079,207</b> | <b>44,965,330</b> | <b>42,015,689</b> | <b>1.4</b>                             | <b>100.0</b>          | <b>100.0</b>          | <b>100.0</b>          |

See footnotes at end of tables.

**Table 6. Electric Power Delivered Fuel Prices for Coal, Petroleum, and Natural Gas, 1993, 1997, and 2002**

| Fuel  | 1993    | 1997    | 2002    | Annual Growth Rate 1993-2002 (Percent) |
|---|---------|---------|---------|--|
| <b>Massachusetts</b>                          |         |         |         |  |
| Coal (2002 cents per million Btu) .....       | 186.8   | 174.6   | 191.9   | 0.3                                    |
| Average heat value (Btu per pound) .....      | 12,951  | 12,571  | 12,501  | -.4                                    |
| Average sulfur Content(percent) .....         | 1.0     | .7      | .7      | -4.9                                   |
| Petroleum (2002 cents per million Btu) .....  | 291.8   | 267.9   | 354.9   | 2.2                                    |
| Average heat value (Btu per gallon) .....     | 151,281 | 151,641 | 150,202 | -.1                                    |
| Average sulfur Content(percent) .....         | 1.5     | 1.1     | .9      | -5.7                                   |
| Gas (2002 cents per million Btu) .....        | 293.1   | 309.3   | 351.4   | 2.0                                    |
| Average heat value (Btu per cubic foot) ..... | 1,034   | 1,033   | 1,019   | -.2                                    |

See footnotes at end of tables.

**Table 7. Electric Power Industry Emissions Estimates, 1993, 1997, and 2002**  
(Thousand Short Tons)

| Emission Type        | 1993   | 1997   | 2002   | Annual Growth Rate 1993-2002 (Percent) |
|----------------------|--------|--------|--------|--|
| <b>Massachusetts</b> |        |        |        |  |
| Sulfur Dioxide       |        |        |        |  |
| Coal .....           | 77     | 74     | 62     | -2.3                                   |
| Petroleum .....      | 71     | 71     | 34     | -7.8                                   |
| Gas.....             | *      | *      | *      | .8                                     |
| Other.....           | 1      | 1      | 1      | 4.0                                    |
| Total .....          | 149    | 145    | 97     | -4.6                                   |
| Nitrogen Oxide       |        |        |        |  |
| Coal .....           | 31     | 24     | 21     | -4.1                                   |
| Petroleum .....      | 11     | 14     | 7      | -4.6                                   |
| Gas.....             | 8      | 12     | 5      | -4.9                                   |
| Other.....           | 3      | 4      | 4      | 2.7                                    |
| Total .....          | 53     | 54     | 38     | -3.8                                   |
| Carbon Dioxide       |        |        |        |  |
| Coal .....           | 9,774  | 12,396 | 11,665 | 2.0                                    |
| Petroleum .....      | 10,231 | 9,563  | 5,904  | -5.9                                   |
| Gas.....             | 4,679  | 7,175  | 7,754  | 5.8                                    |
| Other.....           | 371    | 419    | 375    | .1                                     |
| Total .....          | 25,054 | 29,552 | 25,699 | .3                                     |

See footnotes at end of tables.

**Table 8. Retail Sales, Revenue, and Average Revenue per Kilowatthour by Sector, 1993, 1997, and 2001**

| Sector  | 1993   | 1997   | 2002   | Annual Growth Rate 1993-2002 (Percent) | Percentage Share 1993 | Percentage Share 1997 | Percentage Share 2002 |
|---|--------|--------|--------|--|-----------------------|-----------------------|-----------------------|
| <b>Massachusetts</b>                              |        |        |        |  |                       |                       |                       |
| Retail Sales (thousand megawatthours)             |        |        |        |  |                       |                       |                       |
| Residential.....                                  | 15,785 | 16,274 | 18,548 | 1.8                                    | 34.9                  | 34.1                  | 35.4                  |
| Commercial.....                                   | 18,897 | 20,834 | 23,680 | 2.5                                    | 41.7                  | 43.7                  | 45.2                  |
| Industrial .....                                  | 9,605  | 9,930  | 9,077  | -.6                                    | 21.2                  | 20.8                  | 17.3                  |
| Other .....                                       | 994    | 622    | 1,105  | 1.2                                    | 2.2                   | 1.3                   | 2.1                   |
| Total .....                                       | 45,281 | 47,659 | 52,410 | 1.6                                    | 100.0                 | 100.0                 | 100.0                 |
| Retail Sales Revenue (million 2002 dollars)       |        |        |        |  |                       |                       |                       |
| Residential.....                                  | 1,935  | 1,938  | 2,034  | .6                                     | 38.4                  | 37.8                  | 38.1                  |
| Commercial.....                                   | 2,036  | 2,204  | 2,400  | 1.8                                    | 40.4                  | 42.9                  | 45.0                  |
| Industrial .....                                  | 927    | 896    | 796    | -1.7                                   | 18.4                  | 17.5                  | 14.9                  |
| Other .....                                       | 135    | 93     | 108    | -2.4                                   | 2.7                   | 1.8                   | 2.0                   |
| Total .....                                       | 5,033  | 5,131  | 5,338  | .6                                     | 100.0                 | 100.0                 | 100.0                 |
| Average Revenue per Kilowatthour (2002 cents/kWh) |        |        |        |  |                       |                       |                       |
| Residential.....                                  | 12.26  | 11.91  | 10.97  | -1.2                                   | NA                    | NA                    | NA                    |
| Commercial.....                                   | 10.77  | 10.58  | 10.14  | -.7                                    | NA                    | NA                    | NA                    |
| Industrial .....                                  | 9.65   | 9.02   | 8.77   | -1.1                                   | NA                    | NA                    | NA                    |
| Other .....                                       | 13.60  | 14.89  | 9.79   | -3.6                                   | NA                    | NA                    | NA                    |
| Total .....                                       | 11.12  | 10.77  | 10.18  | -1.0                                   | NA                    | NA                    | NA                    |

See footnotes at end of tables.

**Table 9. Utility Retail Sales Statistics, 2002**

| Item  | Investor-Owned | Public  | Federal | Cooperative | Energy Service Providers | Total     |
|---|----------------|---------|---------|-------------|--------------------------|-----------|
| <b>Massachusetts</b>                                  |                |         |         |             |                          |           |
| Number of Entities.....                               | 7              | 40      | 0       | 0           | 8                        | 55        |
| Number of Retail Customers.....                       | 2,470,435      | 384,759 | 0       | 0           | 35,324                   | 2,890,518 |
| Retail Sales (thousand megawatthours).....            | 36,469         | 7,410   | 0       | 0           | 8,530                    | 52,410    |
| Percentage of Retail Sales.....                       | 69.59          | 14.14   | .00     | .00         | 16.28                    | 100.00    |
| Revenue from Retail Sales (million 2002 dollars)..... | 4,194          | 706     | 0       | 0           | 438                      | 5,338     |
| Percentage of Revenue.....                            | 78.58          | 13.22   | .00     | .00         | 8.20                     | 100.00    |
| Revenue per Kilowatthour (2002 cents/kWh).....        | 11.50          | 9.52    | .00     | .00         | 0                        | 10.18     |

IPP = Independent Power Producer.

NA = Not available.

NM = Not meaningful.

\* = Value is less than half of the smallest unit of measure (e.g., for values with no decimals, the smallest unit is "1" and values under 0.5 are shown as "\*\*".)