

Office of Power Technologies (OPT)

## GPRA2003 Sector Summary

## OPT GPRA Metric Data

| Metric | 2003 | 2004 | 2005 | 2006 | 2007 | 2010 | 2015 | 2020 | 2025 | 2030 |
|--------|------|------|------|------|------|------|------|------|------|------|
|--------|------|------|------|------|------|------|------|------|------|------|

### Energy Metrics

|                                                        |         |         |         |         |           |           |           |           |           |           |
|--------------------------------------------------------|---------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Primary Energy Displaced (Trillion Btu)          | 195.500 | 396.000 | 701.500 | 972.000 | 1,338.000 | 2,163.000 | 3,510.000 | 4,930.000 | 6,130.000 | 7,330.000 |
| Direct Electricity Displaced (Billion Kilowatthours)   | 17.010  | 27.900  | 46.400  | 68.900  | 98.500    | 174.500   | 338.250   | 510.650   | 647.650   | 770.150   |
| Direct Natural Gas Displaced (Billion Cubic Feet)      | 118.600 | 187.750 | 290.600 | 383.650 | 483.550   | 817.050   | 1,618.200 | 2,389.750 | 3,010.250 | 3,559.750 |
| Direct Petroleum Displaced (Million Barrels)           | 3.580   | 4.660   | 4.635   | 6.970   | 9.345     | 9.770     | 27.450    | 58.850    | 87.700    | 116.050   |
| Direct Coal Displaced (Million Short Tons)             | 3.625   | 8.965   | 17.095  | 25.430  | 38.375    | 59.945    | 79.285    | 100.235   | 121.185   | 139.835   |
| Direct Biomass Displaced (Trillion Btu)                | 0       | 0       | 0       | 0       | 0         | 0         | 0         | 0         | 0         | 0         |
| Direct Energy Displaced From Feedstocks (Trillion Btu) | 0       | 0       | 0       | 0       | 0         | 0         | 0         | 0         | 0         | 0         |
| Direct Energy Displaced From Wastes (Trillion Btu)     | 0       | 0       | 0       | 0       | 0         | 0         | 0         | 0         | 0         | 0         |
| Other Direct Energy Displaced (Trillion Btu)           | 0       | 0       | 0       | 0       | 0         | 0         | 0         | 0         | 0         | 0         |

### Financial Metrics

|                                                       |           |           |           |           |           |           |           |            |            |            |
|-------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|
| Energy Costs or Savings (Millions of 1999 \$'s)       | 740.000   | 1,130.000 | 1,615.000 | 2,130.000 | 2,535.000 | 4,180.000 | 8,705.000 | 15,155.000 | 21,105.000 | 27,055.000 |
| Non-Energy Savings or Costs (Millions of 1999 \$'s)   | 5.000     | 20.000    | 0         | (20.000)  | (35.000)  | 25.000    | 235.000   | 470.000    | 665.000    | 895.000    |
| EERE Expenditures (Millions of 1999 \$'s)             | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 0          | 0          |
| Other Government Expenditures (Millions of 1999 \$'s) | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 0          | 0          |
| Consumer Investment (Millions of 1999 \$'s)           | 1,000.000 | 550.000   | 850.000   | 850.000   | 950.000   | 700.000   | 1,400.000 | 1,400.000  | 1,100.000  | 700.000    |
| Private Sector Expenditures (Millions of 1999 \$'s)   | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 0          | 0          |

# OPT GPRA Metric Data

Metric

2003

2004

2005

2006

2007

2010

2015

2020

2025

2030

## Environmental Metrics

|                                               |        |         |         |         |         |         |         |         |         |         |
|-----------------------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| CO Displaced (MMTons)                         | 0      | 0       | 0       | (0.050) | (0.050) | (0.050) | (0.100) | (0.100) | (0.100) | (0.100) |
| Carbon Equivalent Emissions Displaced (MMTCe) | 17.605 | 21.955  | 28.455  | 34.710  | 44.410  | 62.510  | 90.610  | 122.560 | 152.010 | 180.710 |
| Other Greenhouse Emissions Displaced (MMTCe)  | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| SO2 Displaced (MMTons)                        | 0.041  | 0.113   | 0.215   | 0.332   | 0.508   | 0.850   | 1.245   | 1.580   | 1.990   | 2.300   |
| NOX Displaced (MMTons)                        | 0.036  | 0.087   | 0.168   | 0.274   | 0.341   | 0.585   | 0.875   | 1.270   | 1.560   | 1.905   |
| Particulates Displaced (MMTons)               | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| VOCs Displaced (MMTons)                       | 0      | 0       | (0.005) | (0.005) | (0.005) | (0.010) | (0.010) | (0.015) | (0.015) | (0.015) |
| HCs Displaced (MMTons)                        | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| Other Environmental Benefits (MMTons)         | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| PM10 Displaced (MMTons)                       | 0      | (0.005) | (0.010) | (0.010) | (0.010) | (0.010) | (0.010) | (0.015) | (0.010) | 0       |

## Energy-Cumulative Metrics

|                                                        |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Total Primary Energy Displaced (Trillion Btu)          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Electricity Displaced (Billion Kilowatthours)   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Natural Gas Displaced (Billion Cubic Feet)      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Petroleum Displaced (Million Barrels)           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Coal Displaced (Million Short Tons)             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Biomass Displaced (Trillion Btu)                | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Energy Displaced From Feedstocks (Trillion Btu) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Energy Displaced From Wastes (Trillion Btu)     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Direct Energy Displaced (Trillion Btu)           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# OPT GPRA Metric Data

Metric

2003

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2006

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## Financial-Cumulative Metrics

|                                                       |               |           |           |           |           |           |                |                |                |                |
|-------------------------------------------------------|---------------|-----------|-----------|-----------|-----------|-----------|----------------|----------------|----------------|----------------|
| Energy Costs or Savings (Millions of 1999 \$'s)       | 0             | 0         | 0         | 0         | 0         | 0         | 0              | 0              | 0              | 0              |
| Non-Energy Savings or Costs (Millions of 1999 \$'s)   | 0             | 0         | 0         | 0         | 0         | 0         | 0              | 0              | 0              | 0              |
| EERE Expenditures (Millions of 1999 \$'s)             | 0             | 0         | 0         | 0         | 0         | 0         | 0              | 0              | 0              | 0              |
| Other Government Expenditures (Millions of 1999 \$'s) | 0             | 0         | 0         | 0         | 0         | 0         | 0              | 0              | 0              | 0              |
| Consumer Investment (Millions of 1999 \$'s)           | 1,000.00<br>0 | 1,300.000 | 1,750.000 | 2,300.000 | 2,250.000 | 5,800.000 | 11,350.00<br>0 | 19,500.00<br>0 | 19,600.00<br>0 | 19,050.00<br>0 |
| Private Sector Expenditures (Millions of 1999 \$'s)   | 0             | 0         | 0         | 0         | 0         | 0         | 0              | 0              | 0              | 0              |

## Environmental-Cumulative Metrics

|                                               |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------------------|---|---|---|---|---|---|---|---|---|---|
| CO Displaced (MMTons)                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Carbon Equivalent Emissions Displaced (MMTCe) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Greenhouse Emissions Displaced (MMTCe)  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SO2 Displaced (MMTons)                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NOX Displaced (MMTons)                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Particulates Displaced (MMTons)               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOCs Displaced (MMTons)                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HCs Displaced (MMTons)                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Environmental Benefits (MMTons)         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM10 Displaced (MMTons)                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# OPT GPRA Metric Data

Metric

2003

2004

2005

2006

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## Energy-Lifecycle Metrics

|                                                        |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Total Primary Energy Displaced (Trillion Btu)          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Electricity Displaced (Billion Kilowatthours)   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Natural Gas Displaced (Billion Cubic Feet)      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Petroleum Displaced (Million Barrels)           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Coal Displaced (Million Short Tons)             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Biomass Displaced (Trillion Btu)                | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Energy Displaced From Feedstocks (Trillion Btu) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Direct Energy Displaced From Wastes (Trillion Btu)     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Direct Energy Displaced (Trillion Btu)           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Financial-Lifecycle Metrics

|                                                       |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Energy Costs or Savings (Millions of 1999 \$'s)       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Energy Savings or Costs (Millions of 1999 \$'s)   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EERE Expenditures (Millions of 1999 \$'s)             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Government Expenditures (Millions of 1999 \$'s) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Consumer Investment (Millions of 1999 \$'s)           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Private Sector Expenditures (Millions of 1999 \$'s)   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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## Environmental-Lifecycle Metrics

|                                               |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------------------|---|---|---|---|---|---|---|---|---|---|
| CO Displaced (MMTons)                         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Carbon Equivalent Emissions Displaced (MMTCe) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Greenhouse Emissions Displaced (MMTCe)  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SO2 Displaced (MMTons)                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NOX Displaced (MMTons)                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Particulates Displaced (MMTons)               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOCs Displaced (MMTons)                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HCs Displaced (MMTons)                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Environmental Benefits (MMTons)         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM10 Displaced (MMTons)                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |