

Advanced Combustion Engine R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0.020	1.030	9.510	30.520	134.360	338.620	471.010	521.370	570.660
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	0.180	1.640	5.260	23.160	58.380	81.210	89.890	98.390
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0	0.260	15.970	154.520	517.690	2,191.28 0	5,170.10 0	7,148.89 0	9,736.70 0	12,361.0 90
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0	(0.020)	80.350	666.700	1,612.98 0	3,851.00 0	4,602.23 0	3,687.88 0	3,834.27 0	4,195.65 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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
Carbon Equivalent Emissions Displaced (MMTCe)	0	0	0.020	0.170	0.540	2.390	6.020	8.380	9.320	10.300
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

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Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0.020	1.050	10.560	41.090	331.200	1,619.64 0	3,758.91 0	6,288.68 0	9,013.54 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	0.180	1.820	7.080	57.100	279.240	648.070	1,084.22 0	1,554.01 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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0	0	0.020	0.170	0.069	5.410	25.520	58.020	101.890	157.840
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0	0	0.080	0.750	2.360	11.500	34.050	54.270	73.400	93.490
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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
Carbon Equivalent Emissions Displaced (MMTce)	0	0	0.020	0.190	0.730	5.880	28.790	66.860	111.970	160.950
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

Advanced Combustion Engine R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

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

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

Advanced Combustion Engine R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Biofuels (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	4.230	8.460	16.920	33.840	67.680	169.190	338.390	972.870	1,945.730	2,918.600
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)	0.730	1.460	2.920	5.830	11.670	29.170	58.340	167.740	335.470	503.210
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	572.290	1,773.600	3,007.560	4,384.570	63,784.570	11,692.380	16,915.190	16,415.750	8,076.320	(200.270)
Non-Energy Savings or Costs (Millions of 1999 \$'s)	(4.380)	(47.680)	(111.510)	(204.660)	(352.900)	(1,018.960)	(3,343.310)	(4,146.300)	(4,980.480)	(5,964.050)
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

Environmental Metrics

CO Displaced (MMTons)	0	0.060	0.140	0.260	0.420	1.220	3.690	4.210	3.800	3.610
Carbon Equivalent Emissions Displaced (MMTCe)	0.080	0.160	0.320	0.640	1.270	3.180	6.370	18.270	36.540	54.810
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	0.010	0.010	0.020	0.060	0.180	0.240	0.200	0.180
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	0.010	0.010	0.020	0.050	0.290	0.230	0.250	0.280

Biofuels (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	5.080	13.540	30.450	64.290	131.970	538.040	1,891.590	5,486.970	9,801.420	22,448.680
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)	0.880	2.330	5.250	11.090	22.750	92.770	326.140	946.030	1,689.900	3,870.460
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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	654.190	2,427.790	5,435.350	9,819.920	16,198.180	46,097.380	120,761.300	205,685.210	272,098.600	274,869.600
Non-Energy Savings or Costs (Millions of 1999 \$'s)	(5.260)	(52.940)	(164.440)	(369.100)	(722.010)	(3,025.450)	(13,869.990)	(32,158.630)	(51,801.550)	(79,720.310)
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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0.060	0.200	0.460	0.880	3.640	16.050	35.690	55.650	73.960
Carbon Equivalent Emissions Displaced (MMTCe)	0.100	0.250	0.570	1.210	2.480	10.130	35.610	84.950	151.780	297.540
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	0.010	0.020	0.040	0.190	0.810	1.910	3.010	3.950
Particulates Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0

Biofuels (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
VOCs Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
HCs Displaced (MMTons)	0	0	0.010	0.020	0.030	0.150	0.940	2.000	3.190	4.600
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

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

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

Biofuels (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Electric Vehicles R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	6.810	11.250	15.190	18.620	21.520	33.590	81.600	141.890	224.090	333.580
Direct Electricity Displaced (Billion Kilowatthours)	0	0	0	0	0	(0.350)	(4.200)	(9.960)	(14.380)	(17.760)
Direct Natural Gas Displaced (Billion Cubic Feet)	0	0	0	0	0	0	0	0	0	0
Direct Petroleum Displaced (Million Barrels)	1.650	2.730	3.690	4.520	5.220	8.220	20.670	36.500	54.180	75.360
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	288.900	483.880	662.170	836.990	1,010.10 0	1,460.03 0	2,469.91 0	3,469.65 0	6,275.64 0	10,216.8 00
Non-Energy Savings or Costs (Millions of 1999 \$'s)	(0.090)	(0.200)	(0.340)	(0.700)	(1.150)	1,193.35 0	3,872.12 0	4,501.00 0	4,773.99 0	5,369.58 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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0.050	0.190	0.410	0.660
Carbon Equivalent Emissions Displaced (MMTce)	0	0	0	0.010	0.020	0.120	0.920	2.010	3.370	5.250
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	0.020	0.030	0.050
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	0.020	0.040	0.070

Electric Vehicles R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0	0.010	0.010	0.010	4.070	103.790	448.110	1,082.190	2,137.700
Direct Electricity Displaced (Billion Kilowatthours)	0	0	0	0	0	(0.460)	(11.740)	(50.680)	(114.120)	(196.540)
Direct Natural Gas Displaced (Billion Cubic Feet)	0	0	0	0	0	0	0	0	0	0
Direct Petroleum Displaced (Million Barrels)	2.750	5.480	9.170	13.690	18.910	39.990	113.930	266.800	500.460	832.990
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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	494.750	978.630	1,640.800	2,477.790	3,487.880	7,342.570	17,503.330	33,007.580	58,335.540	101,009.960
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0	0	(0.640)	(1.340)	(2.490)	1,684.560	15,684.270	38,069.630	61,438.620	86,533.790
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

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

Electric Vehicles R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

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

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

Electric Vehicles R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Fuel Cell R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0	0	0	0	2.300	147.980	368.120	697.950	1,092.450
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	0.400	25.540	65.910	133.940	222.650
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0	0	0	0	0	25.120	1,588.540	3,778.890	8,889.160	17,479.130
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0	0	0	0	0	899.740	12,193.920	11,780.720	5,517.580	3,451.720
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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0	0.030	0.220	0.880
Carbon Equivalent Emissions Displaced (MMTce)	0	0	0	0	0	0.040	2.870	7.160	14.200	23.590
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	0.020	0.030	0.070
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	0.010	0.030	0.080

Fuel Cell R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0	0	0	0	2.340	393.400	1,785.890	4,577.110	9,288.310
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	0.400	67.850	313.440	835.720	1,774.690
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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0	0	0	0	0	25.540	4,238.880	18,791.450	51,794.920	121,289.050
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0	0	0	0	0	899.700	49,097.320	108,689.700	155,490.520	186,887.220
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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0	0.060	0.660	3.530
Carbon Equivalent Emissions Displaced (MMTCe)	0	0	0	0	0	0.050	7.620	34.600	90.220	189.720
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	0.020	0.070	0.180	0.420
Particulates Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0

Fuel Cell R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
VOCs Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
HCs Displaced (MMTons)	0	0	0	0	0	0	0.010	0.030	0.110	0.390
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

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

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

Fuel Cell R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Fuels Utilization (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy 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 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

Environmental 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

Fuels Utilization (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

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

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)	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

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

Fuels Utilization (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

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

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

Fuels Utilization (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Heavy Vehicle Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0.010	1.170	6.510	21.210	156.420	502.190	1,132.450	1,547.550	1,725.650
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	0.200	1.120	3.660	26.970	86.580	195.240	266.810	297.520
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0	0.110	13.360	90.240	316.200	1,942.100	6,004.990	12,399.210	17,985.220	21,370.210
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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0.020	0.070	0.190	0.280	0.310
Carbon Equivalent Emissions Displaced (MMTCe)	0	0	0.020	0.120	0.390	2.960	9.530	21.860	30.060	33.610
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	0.020	0.070	0.190	0.270	0.300
Particulates Displaced (MMTons)	0	0	0	0	0	0	0	0.010	0.010	0.020
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

Heavy Vehicle Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0.010	1.180	7.690	28.890	334.930	1,976.36 0	6,396.36 0	13,442.4 80	21,792.9 00
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	0.200	1.330	4.980	57.740	340.740	1,102.87 0	2,317.59 0	3,757.27 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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0	0.110	13.470	103.710	419.910	4,279.15 0	24,644.9 40	74,232.1 10	154,268. 480	255,011. 400
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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0	0	0	0	0.040	0.240	0.960	2.210	3.720
Carbon Equivalent Emissions Displaced (MMTce)	0	0	0.020	0.140	0.530	6.310	37.260	122.190	258.780	421.280
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	0.040	0.240	0.940	2.160	3.640
Particulates Displaced (MMTons)	0	0	0	0	0	0	0.010	0.050	0.110	0.180

Heavy Vehicle Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

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

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

Heavy Vehicle Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Hybrid Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	0.030	1.190	9.830	26.810	50.100	182.060	696.760	1,498.950	2,631.140	3,849.900
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	0.200	1.700	4.620	8.640	31.390	120.130	258.430	453.630	663.750
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0.270	12.600	104.660	289.550	552.270	1,990.790	7,487.510	16,004.820	35,099.380	61,598.390
Non-Energy Savings or Costs (Millions of 1999 \$'s)	12.470	424.640	2,511.430	4,177.010	5,007.860	10,556.270	15,688.050	17,689.400	11,438.930	12,044.900
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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0.010	0.010	0.020	0.030
Carbon Equivalent Emissions Displaced (MMTCe)	0	0.020	0.190	0.520	0.970	3.530	13.500	29.020	50.940	74.530
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	0.010	0.030	0.050	0.090	0.120
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	0.010	0.020	0.030	0.040

Hybrid Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	0.030	1.210	11.040	37.860	87.960	474.360	2,792.67 0	8,555.47 0	19,325.6 90	36,146.8 10
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	0.210	1.900	6.530	15.160	81.780	481.480	1,475.03 0	3,331.90 0	6,231.99 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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0.270	12.870	117.520	407.080	959.350	5,165.62 0	30,168.6 60	91,808.7 60	0	0
Non-Energy Savings or Costs (Millions of 1999 \$'s)	12.470	437.110	2,948.54 0	7,125.55 0	12,133.4 10	36,646.7 90	110,945. 600	194,803. 400	270,767. 720	330,297. 250
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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0	0	0	0	0.010	0.030	0.070	0.150	0.270
Carbon Equivalent Emissions Displaced (MMTCe)	0	0.020	0.210	0.730	1.700	9.180	54.070	165.630	374.150	699.800
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	0.020	0.110	0.320	0.680	1.200
Particulates Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0

Hybrid Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
VOCs Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
HCs Displaced (MMTons)	0	0	0	0	0	0.010	0.040	0.100	0.220	0.380
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

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

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

Hybrid Systems R&D (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Materials Technologies (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0.030	0.290	0.780	1.460	5.860	40.140	92.600	168.470	256.430
Direct Electricity Displaced (Billion Kilowatthours)	0	0	0	0	0	(0.030)	(0.410)	(0.960)	(1.390)	(1.710)
Direct Natural Gas Displaced (Billion Cubic Feet)	0	0	0	0	0	0	0	0	0	0
Direct Petroleum Displaced (Million Barrels)	0.160	0.270	0.410	0.570	0.760	1.750	8.300	18.290	33.160	51.070
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0.010	0.370	3.050	8.440	16.090	64.250	433.810	978.590	2,228.44 0	4,158.77 0
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0.360	12.370	73.140	121.650	145.850	521.740	2,171.23 0	2,245.24 0	1,401.57 0	1,249.91 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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0.010	0.020	0.060	0.160
Carbon Equivalent Emissions Displaced (MMTCe)	0	0	0.010	0.020	0.030	0.110	0.780	1.800	3.340	5.240
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	0.010	0.020
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	0.010	0.020

Materials Technologies (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Energy-Cumulative Metrics

Total Primary Energy Displaced (Trillion Btu)	0	0.040	0.320	1.100	2.560	14.460	134.580	488.640	1,170.190	2,279.600
Direct Electricity Displaced (Billion Kilowatthours)	0	0	0	0	0	(0.040)	(1.130)	(4.890)	(11.010)	(18.960)
Direct Natural Gas Displaced (Billion Cubic Feet)	0	0	0	0	0	0	0	0	0	0
Direct Petroleum Displaced (Million Barrels)	0.270	0.540	0.940	1.510	2.270	6.290	32.470	103.140	237.160	456.880
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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	0.010	0.380	3.430	11.870	27.950	157.810	1,459.880	5,234.530	13,597.320	30,339.050
Non-Energy Savings or Costs (Millions of 1999 \$'s)	0.360	12.730	85.870	207.520	353.370	1,329.620	10,143.270	21,299.080	30,374.170	37,563.830
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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0.010	0.080	0.300	0.890
Carbon Equivalent Emissions Displaced (MMTCe)	0	0	0.010	0.020	0.050	0.280	2.620	9.500	22.890	45.310
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	0.010	0.020	0.060	0.120
Particulates Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0

Materials Technologies (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
VOCs Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
HCs Displaced (MMTons)	0	0	0	0	0	0	0	0.010	0.040	0.100
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

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

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

Materials Technologies (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

Technology Deployment (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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Energy 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)	(174.270)	(195.740)	(208.750)	(214.510)	(220.410)	(268.470)	(414.090)	(538.590)	(590.750)	(604.850)
Direct Petroleum Displaced (Million Barrels)	34.220	38.440	40.990	42.130	43.280	52.720	81.320	105.770	116.010	118.780
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 Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	(160.500)	(180.520)	89.710	130.350	192.140	389.090	912.780	1,286.89 0	3,489.54 0	6,389.25 0
Non-Energy Savings or Costs (Millions of 1999 \$'s)	(77.450)	(88.080)	(81.260)	(18.050)	122.620	497.180	525.300	248.300	160.950	193.260
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

Environmental Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0	0	0.010	0.010
Carbon Equivalent Emissions Displaced (MMTce)	1.410	1.600	1.720	1.770	1.800	2.050	2.870	3.570	3.880	3.970
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	0.020	0.040	0.060	0.070

Technology Deployment (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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

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)	(512.310)	(708.050)	(916.800)	(1,131.31 0)	(1,351.72 0)	(2,099.08 0)	(3,862.88 0)	(6,343.42 0)	(9,218.93 0)	(12,215.0 90)
Direct Petroleum Displaced (Million Barrels)	100.610	139.050	180.040	222.170	265.450	412.220	758.590	1,245.72 0	1,810.41 0	2,398.80 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-Cumulative Metrics

Energy Costs or Savings (Millions of 1999 \$'s)	(401.250)	(581.770)	(492.060)	(361.710)	(169.570)	717.120	4,214.93 0	9,728.87 0	22,566.6 70	48,228.6 40
Non-Energy Savings or Costs (Millions of 1999 \$'s)	(223.100)	(311.190)	(392.450)	(410.500)	(287.870)	851.290	3,688.73 0	5,623.62 0	6,559.07 0	7,434.85 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

Environmental-Cumulative Metrics

CO Displaced (MMTons)	0	0	0	0	0	0	0	0.010	0.050	0.100
Carbon Equivalent Emissions Displaced (MMTce)	4.060	5.660	7.380	9.150	10.950	16.800	29.380	46.050	64.980	84.640
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	0.010
Particulates Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0

Technology Deployment (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
VOCs Displaced (MMTons)	0	0	0	0	0	0	0	0	0	0
HCs Displaced (MMTons)	0	0	0	0	0	0.010	0.070	0.230	0.510	0.840
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

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

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

Technology Deployment (OTT) GPRA2003 Metric Data

Metric	2003	2004	2005	2006	2007	2010	2015	2020	2025	2030
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