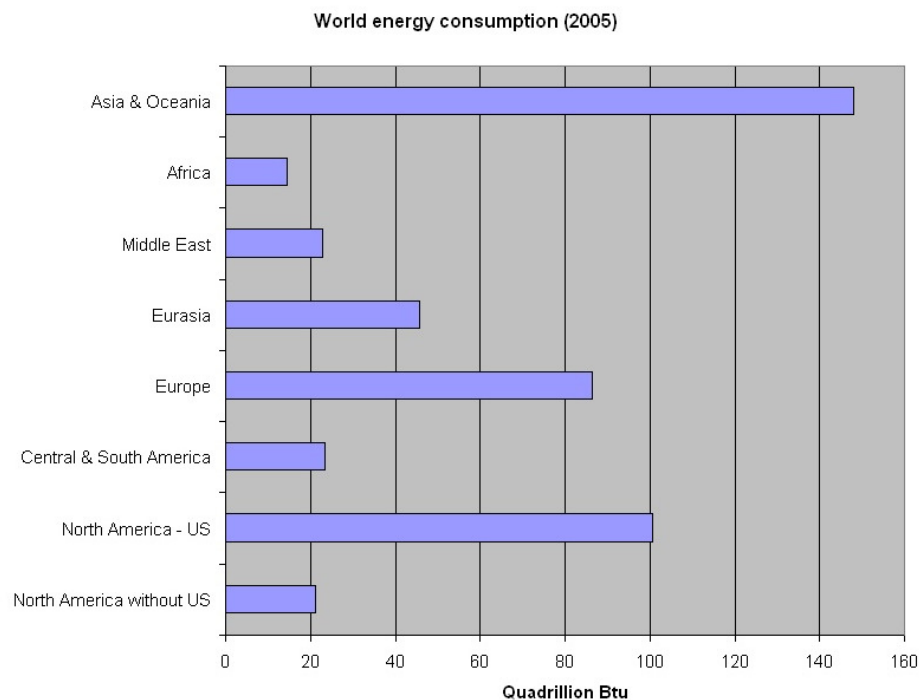




U.S. Energy Facts

Challenges and Opportunities

Current U.S. Energy Consumption



- The U.S. is the #1 consumer of energy.
- The U.S. consumes 101 quads.
- The per capital consumption is .3 quads.

Quad = One Quadrillion British thermal units

U.S. Energy Consumption

Source	Quads
Oil	39.8
Natural Gas	23.6
Coal	22.8
Nuclear	8.4
Hydroelectric	2.5
Geothermal	0.4
Biomass	3.6
Solar	0.1
Wind	0.3
Total	101.5

- Oil is almost 40% of consumption.
- Fossil fuels are 85% of consumption.

U.S. Electric Consumption

Description	2007	2006	2005	2004	2003	2002
Net Generation (thousand megawatthours)						
Coal	2,016,456	1,990,511	2,012,873	1,978,301	1,973,737	1,933,130
Petroleum	65,739	64,166	122,225	121,145	119,406	94,567
Natural Gas	896,590	816,441	760,960	710,100	649,908	691,006
Other Gases	13,453	14,177	13,464	15,252	15,600	11,463
Nuclear	806,425	787,219	781,986	788,528	763,733	780,064
Hydroelectric	247,510	289,246	270,321	268,417	275,806	264,329
Other Renewables	105,238	96,525	87,329	83,067	79,487	79,109
Wind	34,450	26,589	17,811	14,144	11,187	10,354
Solar	612	508	550	575	534	555
Wood	39,014	38,762	38,856	38,117	37,529	38,665
Geothermal	14,637	14,568	14,692	14,811	14,424	14,491
Other Biomass	16,525	16,099	15,420	15,421	15,812	15,044
Pumped Storage	-6,896	-6,558	-6,558	-8,488	-8,535	-8,743
Other	12,231	12,974	12,821	14,232	14,045	13,527
All Energy Sources	4,156,745	4,064,702	4,055,423	3,970,555	3,883,185	3,858,452

- **2007 4.1 million MWh or 14 quads.**
- **Growth rate 2% per annum.**
- **Electricity is only 14% of consumption.**
- **Reflects minimal use of electricity in passenger cars.**

U.S. Energy Production

Source	Quads
Oil	10.8
Natural Gas	22.2
Coal	23.5
Nuclear	8.4
Hydroelectric	2.5
Geothermal	0.4
Biomass	3.6
Solar	0.1
Wind	0.3
Total	71.8

- 29 Quad imports required for oil.
- U.S is a net exporter of coal.

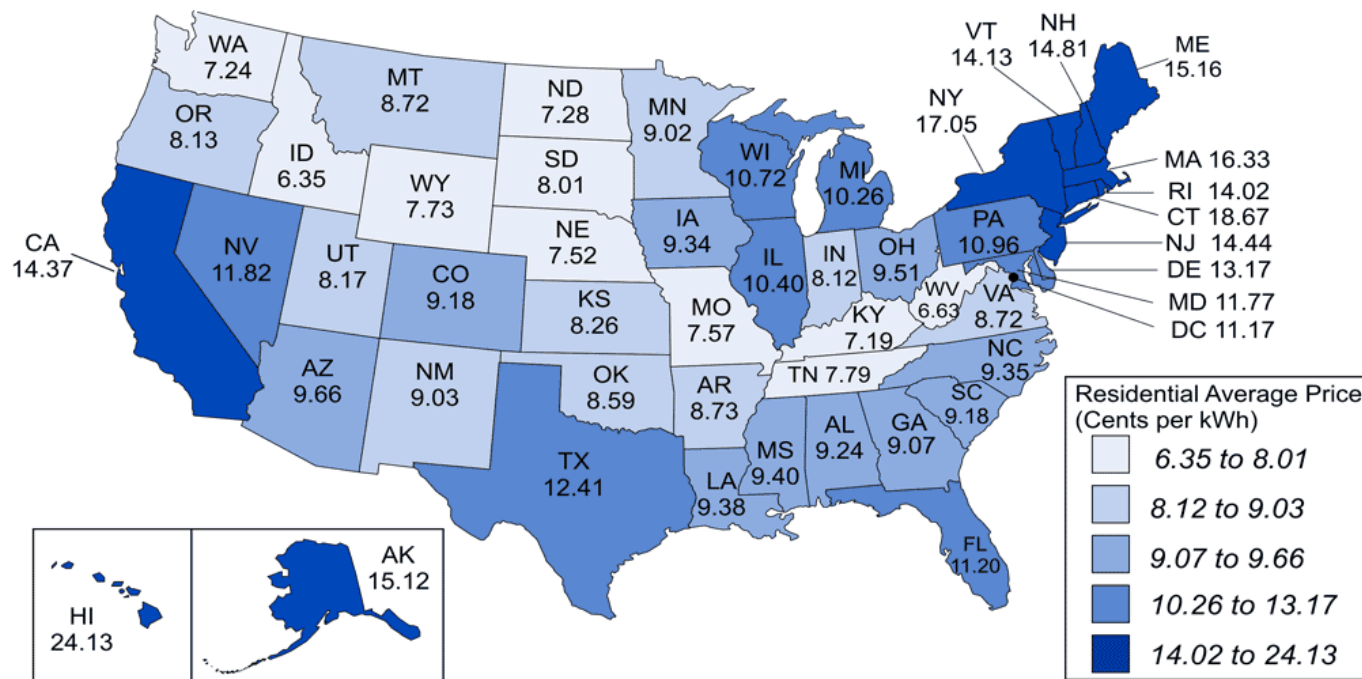
Coal Generated Electricity

State	Thousands of Tons	
	2007	2006
Connecticut	1,962	1,690
Maine	73	64
Massachusetts	4,130	4,752
New Hampshire	1,329	1,464
Rhode Island	--	--
Vermont	--	--
New Jersey	3,738	4,031
New York	8,613	8,701
Pennsylvania	49,490	50,710
Illinois	54,317	52,104
Indiana	55,552	55,417
Michigan	33,433	33,772
Ohio	53,897	54,252
Wisconsin	23,153	21,929
Iowa	23,192	21,346
Kansas	19,729	20,714
Minnesota	17,576	17,853
Missouri	40,258	40,449
Nebraska	12,145	11,045
North Dakota	22,387	22,473
South Dakota	2,142	1,649
Delaware	2,137	2,243
District of Columbia	--	--
Florida	25,554	26,000
Georgia	36,501	37,576
Maryland	10,089	10,858

State	Thousands of Tons	
	2007	2006
North Carolina	28,673	29,722
South Carolina	15,919	15,091
Virginia	12,008	13,227
West Virginia	34,572	34,841
Alabama	33,008	34,309
Kentucky	38,500	37,539
Mississippi	8,737	9,076
Tennessee	24,994	25,294
Arkansas	14,223	14,106
Louisiana	14,687	13,964
Oklahoma	21,105	18,743
Texas	92,921	93,731
Arizona	20,530	19,430
Colorado	17,009	17,557
Idaho	NM	18
Montana	10,939	10,861
Nevada	3,197	3,129
New Mexico	13,935	14,641
Utah	15,896	15,551
Wyoming	24,202	24,212
California	809	760
Oregon	2,134	2,320
Washington	5,135	5,142
Alaska	543	451
Hawaii	NM	624
U.S. Total	955,801	955,432

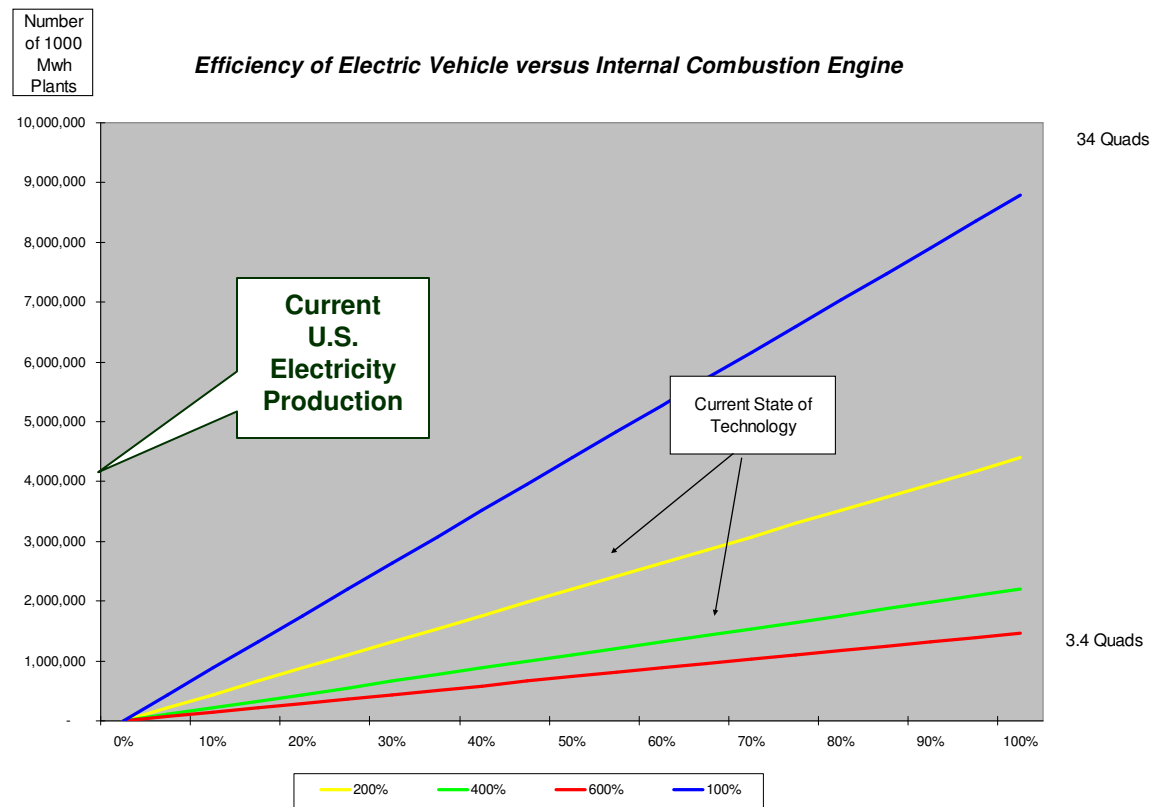
U.S. Cost of Electricity

The U.S. average residential retail price of electricity was **10.64 cents per kilowatthour** in 2007.



Source: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue with State Distributions Report."

Electric/Hybrid Impact



Electric/Hybrid Vehicles will cause a tremendous increase in demand for electricity.

Municipal Solid Waste (MSW) Produced

State	Millions of Tons		Percent Recycled	Percent Incinerated	Percent Landfilled
	1991	2008 Estimate			
Alabama	5,200	6,240	12	8	80
Alaska	500	600	6	15	79
Arizona	4,147	4,976	7	0	93
Arkansas	2,154	2,585	10	5	85
California	44,535	53,442	11	2	81
Colorado	3,500	4,200	26	1	73
Connecticut	2,900	3,480	19	57	24
Delaware	790	948	16	19	65
District of Columbia	919	1,103	30	59	11
Florida	19,400	23,280	27	23	49
Georgia	6,000	7,200	12	3	85
Hawaii	1,300	1,560	4	42	54
Idaho	850	1,020	10	0	90
Illinois	14,140	16,968	11	2	87
Indiana	8,400	10,080	8	17	75
Iowa	2,088	2,506	23	2	75
Kansas	2,400	2,880	5	0	95
Kentucky	4,650	5,580	15	0	85
Louisiana	3,484	4,181	10	0	90
Maine	1,246	1,495	30	37	33
Maryland	5,000	6,000	15	17	68
Massachusetts	6,600	7,920	30	47	23
Michigan	13,000	15,600	26	17	57
Minnesota	4,270	5,124	38	35	27
Mississippi	1,400	1,680	8	3	89
Missouri	7,500	9,000	13	0	87

■ CA is the largest producer of MSW.

■ CT & DC incinerate the highest percentage (57% & 59%).

Data from Reporting on Municipal Solid Waste – A Local Issue, US Environmental Protection Agency September 1993.

Municipal Solid Waste (MSW) Produced

State	Millions of Tons		Percent Recycled	Percent Incinerated	Percent Landfilled
	1991	2008 Estimate			
Montana	744	893	5	2	93
Nebraska	1,400	1,680	10	0	90
Nevada	2,300	2,760	10	0	90
New Hampshire	1,138	1,366	10	26	64
New Jersey	7,513	9,016	34	21	45
New Mexico	1,487	1,784	6	0	95
New York	22,800	27,360	21	17	62
North Carolina	7,788	9,346	4	1	95
North Dakota	466	559	17	0	83
Ohio	16,400	19,680	19	6	75
Oklahoma	3,000	3,600	10	8	82
Oregon	3,350	4,020	23	6	71
Pennsylvania	8,984	10,781	11	30	59
Rhode Island	1,200	1,440	15	0	85
South Carolina	5,000	6,000	10	5	85
South Dakota	800	960	10	0	90
Tennessee	5,800	6,960	10	8	82
Texas	14,469	17,363	11	1	88
Utah	1,500	1,800	13	7	80
Vermont	550	660	25	3	72
Virginia	7,600	9,120	24	18	58
Washington	5,708	6,850	33	2	65
West Virginia	1,700	2,040	10	0	90
Wisconsin	3,352	4,022	24	4	72
Wyoming	320	384	4	0	96
Total	291,742	350,090	17	11	72

■ KA, NC, NM, WY over 95% landfilled.

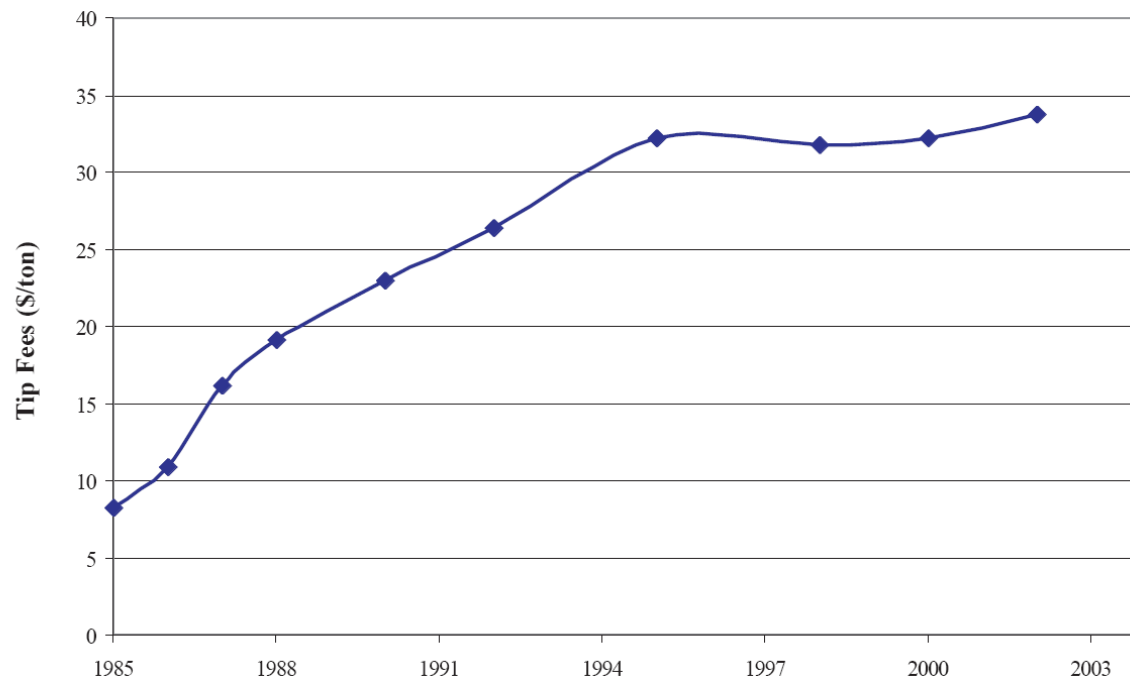
■ MN landfills only 27%.

Data from Reporting on Municipal Solid Waste – A Local Issue, US Environmental Protection Agency September 1993.

Tip Fees

- Fees paid to landfill owner for waste disposal.
- Varies geographically.
- Premiums are charged as much as \$100 per ton for noxious and other hazardous material.

National Tips Fees



- Tip Fees have steadily increased over the past 20 years.
- Trend is expected to continue due to ongoing regulatory environment.

Data provided by 2005 National Solid Waste Management Association (NSWMA) Survey of Membership

Regional Tip Fees

Table 1. Landfill Tip Fees (\$/ton)

Region	2004	2002	2000	1998	1995	1992	1990	1988	1987	1986	1985
Northeast	70.53	69.07	69.84	66.68	73.17	65.83	64.76	61.11	52.41	17.11	12.66
Mid-Atlantic	46.29	45.26	45.84	44.11	45.68	47.94	40.75	33.84	26.32	22.08	16.99
South	30.97	30.43	30.53	30.89	28.50	22.48	16.92	16.46	13.13	5.76	3.24
Midwest	34.96	34.14	32.85	30.64	31.15	27.10	23.15	17.70	16.42	11.75	7.23
South Central	24.06	23.28	21.90	21.02	20.30	12.53	12.05	11.28	10.17	7.61	7.24
West Central	24.13	23.40	22.29	22.51	23.29	12.62	11.06	8.50	7.23	6.21	5.36
West	37.74	38.90	34.54	36.08	37.69	27.92	25.63	19.45	13.92	11.10	10.96
National	34.29	33.70	32.19	31.81	32.19	26.32	23.01	19.12	16.11	10.92	8.20

Regions

Northeast: CT, ME, MA, NH, NY, RI, VT

Mid-Atlantic: DE, MD, NJ, PA, VA, WV

South: AL, FL, GA, KY, MS, NC, SC, TN

Midwest: IL, IN, IA, MI, MN, MO, OH, WI

South Central: AZ, AR, LA, NM, OK, TX

West Central: CO, KS, MT, NE, ND, SD, UT, WY

West: AK, CA, HI, ID, NV, OR, WA

High Opportunity States

California

- Greatest production of MSW (53,400 million tons)
- High electricity cost (\$.1437/kWh)
- High percentage landfilled (81%)

Connecticut

- High electricity cost (\$.187/kWh)
- High tip fees (\$70/ton)
- High percentage incinerated (57%)

Hawaii

- Highest electricity cost (\$.241/kWh)
- High percentage incinerated (43%)