

## **ACEEE Estimates of Near-Term Electricity and Gas Savings**

Prepared by R. Neal Elliott, Anna Monis Shipley, Steven Nadel and Elizabeth Brown  
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Based on a review of existing literature and market experiences, ACEEE has developed estimates of electricity and natural savings that could realistically be realized through energy efficiency and conservation in time frames of one year and five years. The energy efficiency and conservation measures for achieving these savings vary according to whether they are implemented in the residential, commercial, or industrial sector. For example, electricity savings in the industrial sector can be quickly realized by upgrading motor systems, while lighting and chiller improvements lead to savings in the commercial sector. Gas savings in industry come principally from boiler and steam systems, while commercial and residential savings come from hot water and space heating. The projected savings are conservative compared to the 6 percent electricity savings that was achieved in California during its 2001 electric power crisis.

The savings potential in each state depends upon the mix of residential, commercial, and industrial energy consumption. We project that states with a strong existing base of energy efficiency programs will be able to expand them more quickly in the near-term in order to increase energy savings.

The following tables uses USDOE Energy Information Administration estimates of electricity consumption by sector for 2001 as the basis for estimating savings. We applied our state-by-state estimates of savings to derive one-year and five-year estimates of the savings that could be achieved through expanded energy efficiency programs.

State	2001 Electricity Consumption (EIA 2003)			Potential Electricity Savings (ACEEE 2003)						Electricity Savings (Megawatthours)		% Electricity Savings	
	Residential Sales (Megawatthours)	Commercial Sales (Megawatthours)	Industrial Sales (Megawatthours)	Residential		Commercial		Industry		1 year	5 year	1 year	5 year
				1 year	5 year	1 year	5 year	1 year	5 year				
Alabama	20,718,677	10,978,790	27,617,687	1.6%	3.2%	1.8%	3.6%	1.4%	3.4%	898,592	1,984,277	1.5%	3.3%
Arizona	15,377,684	13,731,290	10,033,740	2.1%	4.1%	2.4%	4.7%	1.5%	3.8%	795,467	1,666,928	2.0%	4.3%
Arkansas	10,557,866	6,075,079	10,126,208	1.6%	3.2%	1.9%	3.7%	1.4%	3.4%	418,934	906,467	1.6%	3.4%
California	66,574,670	79,691,297	55,891,513	2.8%	5.7%	3.4%	6.7%	2.2%	5.4%	5,777,251	12,159,245	2.9%	6.0%
Colorado	9,787,280	13,553,026	6,586,859	2.0%	3.9%	2.4%	4.7%	1.5%	3.8%	613,501	1,276,891	2.0%	4.3%
Connecticut	10,375,882	10,342,476	6,099,933	2.8%	5.6%	3.4%	6.8%	2.4%	6.0%	786,890	1,646,454	2.9%	6.1%
Delaware	2,651,448	2,310,713	3,271,592	2.0%	4.3%	2.3%	4.7%	1.7%	4.3%	162,504	362,174	2.0%	4.4%
Florida	71,114,670	51,342,236	16,604,579	2.1%	4.1%	2.3%	4.7%	1.7%	4.3%	3,003,953	5,998,942	2.2%	4.3%
Georgia	29,932,837	22,867,547	26,717,324	2.0%	4.1%	2.3%	4.7%	1.7%	4.3%	1,601,880	3,445,350	2.0%	4.3%
Idaho	5,626,311	4,894,064	7,165,289	2.4%	4.8%	2.9%	5.8%	1.8%	4.6%	407,045	881,972	2.3%	5.0%
Illinois	32,871,442	31,734,447	39,298,519	2.4%	4.8%	2.8%	5.7%	2.1%	5.1%	2,500,829	5,404,226	2.4%	5.2%
Indiana	22,110,951	15,501,743	35,743,096	2.4%	4.8%	2.8%	5.7%	2.1%	5.1%	1,706,924	3,788,680	2.3%	5.2%
Iowa	10,513,101	6,727,381	11,392,481	2.4%	3.1%	2.9%	5.8%	2.1%	5.1%	684,402	1,306,080	2.4%	4.6%
Kansas	9,514,696	9,169,287	8,087,146	1.6%	3.2%	1.9%	3.8%	1.4%	3.4%	431,250	919,159	1.6%	3.4%
Kentucky	16,813,546	9,252,216	32,543,259	1.6%	3.2%	1.8%	3.6%	1.4%	3.4%	872,655	1,973,955	1.5%	3.4%
Louisiana	21,433,523	13,814,112	25,861,967	1.6%	5.6%	1.9%	3.7%	1.4%	3.4%	949,811	2,588,505	1.6%	4.2%
Maine	3,932,266	2,672,723	4,750,044	2.8%	4.9%	3.4%	6.8%	2.4%	6.0%	313,997	658,361	2.8%	5.8%
Maryland	19,101,665	10,452,013	19,308,301	2.5%	5.6%	2.8%	5.7%	2.1%	5.2%	1,171,351	2,672,238	2.4%	5.6%
Massachusetts	15,581,197	18,565,266	10,156,905	2.8%	4.0%	3.4%	6.8%	2.4%	6.0%	1,308,386	2,482,963	3.0%	5.6%
Michigan	25,318,849	20,609,561	35,062,022	2.0%	4.8%	2.3%	4.7%	1.7%	4.2%	1,577,668	3,674,890	1.9%	4.5%
Minnesota	14,857,556	8,085,873	23,496,827	2.4%	3.1%	2.9%	5.8%	2.1%	5.1%	1,077,867	2,143,081	2.3%	4.6%
Missouri	21,652,354	18,468,962	12,937,381	1.6%	3.2%	1.9%	3.8%	1.3%	3.3%	858,935	1,808,138	1.6%	3.4%
Mississippi	12,265,641	6,746,134	12,454,453	1.6%	3.9%	1.8%	3.6%	1.4%	3.4%	483,634	1,147,418	1.5%	3.6%
Montana	3,358,385	2,737,526	6,529,326	2.0%	3.1%	2.4%	4.7%	1.5%	3.8%	229,855	482,277	1.8%	3.8%
Nebraska	6,799,606	5,086,141	4,618,083	1.6%	4.1%	1.9%	3.8%	1.3%	3.3%	263,688	626,239	1.6%	3.8%
Nevada	5,539,534	3,865,557	6,262,803	2.1%	4.8%	2.4%	4.7%	1.5%	3.8%	301,058	684,035	1.9%	4.4%
New Hampshire	3,444,195	2,010,427	3,418,391	2.4%	5.6%	2.9%	5.8%	2.0%	5.1%	209,204	482,872	2.4%	5.4%
New Jersey	20,497,980	26,838,617	15,040,847	2.8%	3.3%	3.3%	6.6%	2.4%	6.0%	1,825,364	3,342,956	2.9%	5.4%
New Mexico	3,565,532	4,464,122	4,412,883	1.6%	5.6%	1.9%	3.7%	1.2%	3.0%	193,586	497,285	1.6%	4.0%
New York	38,574,310	46,921,092	31,929,350	2.8%	3.2%	3.3%	6.6%	2.4%	6.0%	3,397,888	6,246,312	2.9%	5.3%
North Carolina	33,144,040	23,834,909	31,264,700	1.6%	3.1%	1.8%	3.7%	1.4%	3.4%	1,389,203	2,971,299	1.6%	3.4%
North Dakota	2,954,024	1,794,510	1,759,711	1.6%	4.0%	1.9%	3.8%	1.3%	3.3%	103,467	243,138	1.6%	3.7%
Ohio	37,889,450	30,540,857	69,681,659	2.0%	3.2%	2.3%	4.7%	1.7%	4.2%	2,645,166	5,591,479	1.9%	4.0%
Oklahoma	17,077,366	11,633,983	11,763,696	1.6%	5.5%	1.9%	3.7%	1.4%	3.4%	648,605	1,773,823	1.6%	4.4%
Oregon	15,379,614	11,319,208	15,498,134	2.8%	3.9%	3.4%	6.7%	2.2%	5.4%	1,141,031	2,205,372	2.7%	5.2%
Pennsylvania	38,164,153	29,159,185	45,991,878	2.0%	5.6%	2.3%	4.6%	1.7%	4.2%	2,195,783	5,409,170	1.9%	4.8%
Rhode Island	2,376,295	2,492,124	1,354,202	2.8%	3.2%	3.4%	6.8%	2.4%	6.0%	183,385	325,684	2.9%	5.2%
South Carolina	18,257,716	11,926,737	24,701,257	1.6%	3.1%	1.8%	3.7%	1.4%	3.4%	844,548	1,846,017	1.5%	3.4%
South Dakota	2,866,175	1,450,044	1,656,961	1.6%	4.0%	1.9%	3.8%	1.3%	3.3%	94,242	224,722	1.6%	3.8%
Tennessee	28,756,837	12,127,834	35,312,603	2.0%	5.9%	2.3%	4.6%	1.7%	4.3%	1,464,039	3,777,685	1.9%	5.0%
Texas	82,547,572	62,238,153	84,086,943	3.0%	4.8%	3.4%	6.7%	2.5%	6.2%	6,609,055	13,319,498	2.9%	5.8%
Utah	4,246,106	4,514,613	5,766,212	2.4%	5.6%	2.9%	5.8%	1.8%	4.6%	337,415	762,727	2.3%	5.3%
Vermont	28,129,556	20,213,040	16,398,544	2.8%	4.1%	3.4%	6.8%	2.4%	6.0%	1,864,383	3,491,669	2.9%	5.4%
Virginia	1,808,617	1,484,125	1,381,171	2.0%	4.7%	2.3%	4.7%	1.7%	4.3%	95,157	213,723	2.0%	4.6%
Washington	28,808,844	17,682,979	40,711,980	2.3%	3.2%	2.9%	5.7%	1.8%	4.6%	1,931,015	3,802,470	2.2%	4.4%
West Virginia	7,577,864	4,991,118	10,469,459	1.6%	5.7%	1.8%	3.7%	1.4%	3.4%	354,222	966,662	1.5%	4.2%
Wisconsin	16,385,266	12,697,935	19,405,054	2.8%	3.9%	3.3%	6.7%	2.4%	6.0%	1,357,751	2,666,901	2.8%	5.5%
Wyoming	1,719,933	2,175,801	7,729,470	2.0%	0.1%	2.4%	4.7%	1.5%	3.8%	202,484	397,106	1.7%	3.4%
US-TOTAL	924,018,699	751,026,562	945,521,695							58,335,222	123,541,641	2.2%	4.7%

State	2001 Natural Gas Consumption (EIA 2003)			Potential Natural Gas Savings (ACEEE 2003)						Natural Gas Savings (Million Cubic Feet)		% Natural Gas Savings	
	Residential (Million Cubic Feet)	Commercial (Million Cubic Feet)	Industrial (Million Cubic Feet)	Residential		Commercial		Industry		1 year	5 year	1 year	5 year
				1 year	5 year	1 year	5 year	1 year	5 year				
Alabama	49,229	26,377	155,054	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	2,817	6,519	1.2%	2.8%
Arizona	37,049	31,121	21,228	2.2%	4.5%	2.0%	4.0%	1.5%	3.6%	1,760	3,674	2.0%	4.1%
Arkansas	37,202	32,031	122,311	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	2,343	5,385	1.2%	2.8%
California	512,695	245,795	666,462	2.6%	5.1%	2.4%	4.8%	2.1%	5.2%	32,920	72,756	2.3%	5.1%
Colorado	123,629	65,011	57,436	2.2%	4.4%	2.0%	4.0%	1.5%	3.6%	4,876	10,168	2.0%	4.1%
Connecticut	40,599	44,404	26,019	2.6%	5.2%	2.3%	4.7%	1.8%	4.5%	2,564	5,363	2.3%	4.8%
Delaware	9,175	5,680	20,059	2.2%	4.4%	1.9%	3.8%	1.5%	3.6%	603	1,351	1.7%	3.9%
Florida	15,547	49,286	94,711	1.7%	3.4%	1.6%	3.1%	1.5%	3.6%	2,413	5,513	1.5%	3.5%
Georgia	119,969	50,645	137,899	1.4%	2.9%	1.2%	2.5%	1.5%	3.6%	4,344	9,690	1.4%	3.1%
Idaho	19,118	13,623	30,435	2.2%	4.4%	2.0%	4.0%	1.8%	4.4%	1,233	2,734	2.0%	4.3%
Illinois	427,146	189,160	277,292	2.2%	4.4%	1.9%	3.9%	1.7%	4.2%	17,753	37,833	2.0%	4.2%
Indiana	147,338	78,479	250,766	1.8%	3.6%	1.6%	3.2%	1.7%	4.2%	8,143	18,390	1.7%	3.9%
Iowa	71,074	45,911	92,569	2.2%	4.4%	2.0%	3.9%	1.7%	4.2%	4,038	8,853	1.9%	4.2%
Kansas	70,182	38,127	92,771	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	2,554	5,637	1.3%	2.8%
Kentucky	56,947	35,255	94,896	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	2,357	5,255	1.3%	2.8%
Louisiana	49,003	28,833	747,015	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	9,602	23,467	1.2%	2.8%
Maine	954	2,642	10,929	2.6%	5.2%	2.3%	4.7%	1.8%	4.5%	285	668	2.0%	4.6%
Maryland	76,891	59,802	27,412	2.2%	4.4%	1.9%	3.8%	1.8%	4.4%	3,300	6,841	2.0%	4.2%
Massachusetts	106,636	61,677	81,184	2.6%	5.2%	2.3%	4.7%	1.8%	4.5%	5,677	12,090	2.3%	4.8%
Michigan	343,682	173,791	223,798	2.2%	4.4%	1.9%	3.9%	1.4%	3.5%	14,052	29,652	1.9%	4.0%
Minnesota	124,891	93,845	92,451	2.2%	4.4%	2.0%	3.9%	1.7%	4.2%	6,177	13,130	2.0%	4.2%
Missouri	116,188	64,924	67,846	1.4%	2.9%	1.3%	2.6%	1.1%	2.7%	3,235	6,839	1.3%	2.7%
Mississippi	27,909	21,579	99,341	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	1,814	4,195	1.2%	2.8%
Montana	20,147	13,245	20,923	1.8%	3.7%	1.6%	3.3%	1.5%	3.6%	890	1,932	1.6%	3.6%
Nebraska	46,663	27,792	40,145	1.4%	2.9%	1.3%	2.6%	1.1%	2.7%	1,461	3,141	1.3%	2.7%
Nevada	32,609	22,912	11,475	1.8%	3.7%	1.6%	3.3%	1.5%	3.6%	1,145	2,374	1.7%	3.5%
New Hampshire	6,812	7,349	8,685	2.2%	4.4%	2.0%	4.0%	1.5%	3.8%	430	927	1.9%	4.1%
New Jersey	209,834	136,578	86,097	2.6%	5.1%	2.2%	4.5%	1.8%	4.5%	9,979	20,737	2.3%	4.8%
New Mexico	36,577	24,150	36,874	1.5%	2.9%	1.3%	2.6%	1.1%	2.9%	1,263	2,737	1.3%	2.8%
New York	376,176	347,253	84,411	2.6%	5.1%	2.2%	4.5%	1.8%	4.5%	18,920	38,603	2.3%	4.8%
North Carolina	56,815	38,583	88,844	1.4%	2.9%	1.2%	2.5%	1.1%	2.9%	2,303	5,113	1.2%	2.8%
North Dakota	10,570	10,456	17,759	1.4%	2.9%	1.3%	2.6%	1.1%	2.7%	478	1,053	1.2%	2.7%
Ohio	308,522	172,537	293,369	1.8%	3.6%	1.6%	3.2%	1.4%	3.5%	12,422	26,872	1.6%	3.5%
Oklahoma	64,622	42,110	161,341	1.4%	2.9%	1.3%	2.6%	1.1%	2.9%	3,312	7,544	1.2%	2.8%
Oregon	38,271	27,884	69,760	2.5%	5.1%	2.4%	4.8%	2.1%	5.2%	3,095	6,914	2.3%	5.1%
Pennsylvania	238,849	136,468	197,676	2.6%	5.1%	2.2%	4.5%	1.3%	3.2%	11,667	24,587	2.0%	4.3%
Rhode Island	17,937	12,808	6,127	2.6%	5.2%	2.3%	4.7%	1.8%	4.5%	876	1,807	2.4%	4.9%
South Carolina	27,485	20,743	79,674	1.4%	2.9%	1.2%	2.5%	1.1%	2.9%	1,559	3,572	1.2%	2.8%
South Dakota	12,335	9,711	4,211	1.4%	2.9%	1.3%	2.6%	1.1%	2.7%	347	717	1.3%	2.7%
Tennessee	68,053	52,947	118,566	1.8%	3.6%	1.7%	3.3%	1.5%	3.6%	3,839	8,539	1.6%	3.6%
Texas	208,449	177,714	2,093,120	2.6%	5.1%	2.4%	4.7%	2.1%	5.2%	53,003	127,727	2.1%	5.2%
Utah	55,008	30,917	33,585	2.2%	4.4%	2.0%	4.0%	1.8%	4.4%	2,430	5,157	2.0%	4.3%
Vermont	2,719	2,473	2,597	2.6%	5.2%	2.3%	4.7%	1.8%	4.5%	175	374	2.3%	4.8%
Virginia	70,249	59,809	65,231	1.8%	3.6%	1.6%	3.1%	1.5%	3.6%	3,166	6,805	1.6%	3.5%
Washington	84,416	57,160	75,651	2.2%	4.3%	2.1%	4.1%	1.8%	4.4%	4,334	9,335	2.0%	4.3%
West Virginia	33,459	27,737	39,598	1.4%	2.9%	1.2%	2.5%	1.1%	2.9%	1,273	2,772	1.3%	2.7%
Wisconsin	125,277	76,439	132,638	2.6%	5.2%	2.3%	4.6%	2.0%	4.9%	7,619	16,547	2.3%	4.9%
Wyoming	10,977	9,535	37,136	1.8%	3.7%	1.6%	3.3%	1.5%	3.6%	897	2,063	1.6%	3.6%
US-TOTAL	4,745,884	3,003,308	7,295,377							281,738	623,952	1.9%	4.1%