ACEEE
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Energy Efficiency: Creates Jobs in States while Reducing Consumer Bills

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The *American Clean Energy and Security Act of 2009* ("ACES" or "H.R. 2454") includes many important energy efficiency provisions that have been largely overlooked in discussions and analyses of the bill thus far. The bill requires utilities to obtain 20% of their energy through a combination of renewable energy and energy efficiency by 2020, with energy efficiency allowed to meet up to 8% of the 20% goal. Other energy efficiency provisions would produce savings through improved building codes and retrofits, and appliance standards.

ACEEE has analyzed benefits of these energy efficiency provisions and looked at three provisions to improving the energy efficiency in the legislation by including a stand-alone energy efficiency resource standard (EERS) requiring 10% cumulative savings by 2020, directing one-third of electric local distribution company allowances to energy efficiency, and sustaining State Energy and Environmental Development funding at 9.5% of allowance revenue through 2030.

ACES with these enhancements would in 2030:

- save American consumers an average of $832 per household
- create over 1 million jobs
- reduce carbon dioxide emissions by over 900 MMT

These consumer household savings would, for every state, far more than offset the cost of cap-and-trade as estimated by the Congressional Budget Office (a national estimate).

The energy efficiency enhancements to ACES would result in the creation of 71% more jobs nationwide and an additional 70% in net consumer savings per household in 2030. These 2030 energy savings would produce the equivalent of the output from 512 power plants or from taking 159,772,000 cars off the road.

While all states show significant increases in jobs and net consumer savings per household, there is significant variation among the states. This variation can best be seen in the net consumer savings per household, which normalize a number of these parameters. While most states have per household savings in 2020 ranging from $150–350, there are some outliers, mostly at the high end. Most of the states with high savings have larger than average energy consumption (and savings opportunities) in the commercial, industrial, and transportation sectors. More generally, this variation results from variations in energy prices and the relative energy intensity per household, combined with the presence of a significant state EERS. States with higher energy prices and/or greater energy use per household like Wyoming tend to have higher savings. For jobs, the number of jobs generated roughly correlate with population.

The summary table on the next page presents net jobs created, annual energy savings, annual net consumer savings, and cumulative CO_2 for each state (plus D.C.). A copy of ACEEE's full report and fact sheets on impacts in each state can be downloaded at: http://www.aceee.org/energy/national/50states.htm.

ACES

2020	Annual Net Jobs Created	Annual Energy Savings (in quads)	Annual Net Consumer savings (2007$/household)	Cumulative CO2 Savings (in MMT)
National	383,800	4.65	$ 215	296
Alabama	5,000	0.11	$ 289	7.9
Alaska	700	0.02	$ 483	1.5
Arizona	8,000	0.09	$ 204	5.5
Arkansas	3,700	0.06	$ 273	3.9
California	38,900	0.27	$ 137	18.3
Colorado	7,100	0.06	$ 158	3.3
Connecticut	5,200	0.05	$ 240	3.6
Delaware	1,000	0.02	$ 271	1.2
District of Columbia	1,100	0.02	$ 511	1.5
Florida	20,600	0.29	$ 229	17.4
Georgia	13,300	0.18	$ 276	12.5
Hawaii	1,000	0.02	$ 322	2.1
Idaho	2,200	0.03	$ 226	1.4
Illinois	20,000	0.17	$ 193	9.7
Indiana	8,900	0.16	$ 287	11.8
Iowa	4,300	0.05	$ 211	2.8
Kansas	3,700	0.06	$ 261	4.4
Kentucky	4,800	0.11	$ 251	8.0
Louisiana	2,800	0.11	$ 318	6.5
Maine	1,600	0.03	$ 245	1.8
Maryland	8,600	0.07	$ 190	4.5
Massachusetts	9,000	0.08	$ 189	5.3
Michigan	12,800	0.12	$ 156	6.9
Minnesota	7,500	0.07	$ 178	4.0
Mississippi	3,100	0.06	$ 278	3.8
Missouri	8,400	0.13	$ 237	9.2
Montana	1,400	0.02	$ 317	1.5
Nebraska	2,800	0.04	$ 260	2.6
Nevada	3,200	0.04	$ 241	2.5
New Hampshire	1,700	0.02	$ 231	1.6
New Jersey	12,300	0.12	$ 258	8.5
New Mexico	3,000	0.03	$ 241	2.1
New York	29,700	0.20	$ 177	13.9
North Carolina	10,900	0.14	$ 207	8.9
North Dakota	800	0.02	$ 300	1.0
Ohio	16,400	0.14	$ 183	9.0
Oklahoma	4,500	0.09	$ 285	5.2
Oregon	5,300	0.05	$ 175	2.8
Pennsylvania	17,600	0.23	$ 236	15.7
Rhode Island	1,800	0.02	$ 135	0.5
South Carolina	5,000	0.10	$ 266	7.3
South Dakota	1,300	0.02	$ 286	1.1
Tennessee	7,700	0.11	$ 226	7.9
Texas	19,900	0.32	$ 246	20.2
Utah	4,200	0.05	$ 261	2.5
Vermont	800	0.02	$ 305	1.2
Virginia	10,300	0.11	$ 197	6.2
Washington	8,500	0.08	$ 153	4.1
West Virginia	1,900	0.05	$ 237	3.8
Wisconsin	8,700	0.08	$ 191	5.1
Wyoming	900	0.03	$ 574	1.8

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2030	Annual Net Jobs Created	Annual Energy Savings (in quads)	Annual Net Consumer savings (2007$/household)	Cumulative CO2 Savings (in MMT)
National	607,200	8.39	$ 486	506
Alabama	6,900	0.17	$ 509	11
Alaska	800	0.05	$ 1,149	3
Arizona	11,800	0.15	$ 420	10
Arkansas	4,600	0.10	$ 500	6
California	68,500	0.59	$ 368	37
Colorado	11,300	0.13	$ 409	7
Connecticut	9,100	0.11	$ 677	8
Delaware	1,900	0.04	$ 792	3
District of Columbia	2,000	0.05	$ 1,146	3
Florida	32,600	0.45	$ 396	27
Georgia	19,300	0.28	$ 524	18
Hawaii	1,900	0.04	$ 876	5
Idaho	2,900	0.06	$ 531	3
Illinois	33,300	0.35	$ 528	19
Indiana	11,900	0.24	$ 537	15
Iowa	5,800	0.09	$ 475	5
Kansas	5,700	0.11	$ 573	7
Kentucky	6,200	0.16	$ 458	10
Louisiana	4,000	0.16	$ 541	9
Maine	2,500	0.06	$ 611	4
Maryland	14,500	0.15	$ 525	9
Massachusetts	16,800	0.17	$ 573	11
Michigan	22,800	0.26	$ 456	14
Minnesota	12,100	0.15	$ 467	8
Mississippi	4,100	0.10	$ 493	6
Missouri	11,900	0.20	$ 464	13
Montana	1,800	0.05	$ 702	3
Nebraska	3,400	0.08	$ 524	4
Nevada	4,500	0.08	$ 528	5
New Hampshire	3,000	0.05	$ 653	4
New Jersey	21,300	0.25	$ 670	16
New Mexico	3,400	0.06	$ 466	3
New York	53,900	0.44	$ 544	29
North Carolina	16,800	0.23	$ 373	14
North Dakota	1,000	0.04	$ 707	2
Ohio	26,000	0.28	$ 469	17
Oklahoma	6,100	0.14	$ 526	8
Oregon	7,600	0.10	$ 409	5
Pennsylvania	28,000	0.38	$ 558	24
Rhode Island	3,600	0.05	$ 900	4
South Carolina	7,300	0.16	$ 482	10
South Dakota	1,600	0.04	$ 659	2
Tennessee	11,000	0.18	$ 441	11
Texas	28,400	0.53	$ 443	31
Utah	5,300	0.09	$ 542	4
Vermont	1,300	0.04	$ 835	3
Virginia	15,900	0.20	$ 421	11
Washington	13,500	0.16	$ 386	8
West Virginia	2,700	0.09	$ 521	6
Wisconsin	13,900	0.16	$ 483	9
Wyoming	700	0.05	$ 950	3

ACES with Enhanced Efficiency

2020	Annual Net Jobs Created	Annual Energy Savings (in quads)	Annual Net Consumer savings (2007$/household)	Cumulative CO2 Savings (in MMT)
National	569,200	7.66	$ 283	480
Alabama	8,200	0.19	$ 347	13
Alaska	1,000	0.03	$ 829	2
Arizona	13,300	0.16	$ 252	9
Arkansas	5,600	0.11	$ 340	6
California	66,200	0.45	$ 209	30
Colorado	11,000	0.11	$ 218	6
Connecticut	8,900	0.07	$ 349	6
Delaware	1,800	0.03	$ 450	2
District of Columbia	1,900	0.04	$ 809	2
Florida	38,800	0.49	$ 296	30
Georgia	21,400	0.31	$ 340	20
Hawaii	2,100	0.03	$ 604	4
Idaho	3,300	0.04	$ 275	2
Illinois	30,400	0.27	$ 252	16
Indiana	13,000	0.25	$ 314	17
Iowa	6,200	0.08	$ 282	5
Kansas	5,600	0.10	$ 319	7
Kentucky	7,400	0.19	$ 275	13
Louisiana	4,700	0.17	$ 383	10
Maine	2,600	0.04	$ 415	3
Maryland	14,600	0.11	$ 279	7
Massachusetts	15,200	0.11	$ 274	8
Michigan	19,600	0.18	$ 211	10
Minnesota	11,400	0.11	$ 240	6
Mississippi	5,100	0.11	$ 378	7
Missouri	12,800	0.21	$ 265	13
Montana	2,100	0.05	$ 476	3
Nebraska	4,100	0.07	$ 332	4
Nevada	4,900	0.08	$ 398	5
New Hampshire	2,900	0.04	$ 377	3
New Jersey	19,400	0.21	$ 419	15
New Mexico	4,300	0.05	$ 337	3
New York	48,100	0.28	$ 244	21
North Carolina	18,700	0.24	$ 246	15
North Dakota	1,300	0.05	$ 511	3
Ohio	24,900	0.23	$ 244	14
Oklahoma	6,800	0.13	$ 328	8
Oregon	8,600	0.08	$ 239	4
Pennsylvania	27,200	0.35	$ 269	23
Rhode Island	2,900	0.03	$ 158	1
South Carolina	8,400	0.17	$ 308	11
South Dakota	1,900	0.04	$ 432	2
Tennessee	12,500	0.21	$ 280	14
Texas	33,300	0.59	$ 321	36
Utah	6,000	0.08	$ 315	4
Vermont	1,400	0.02	$ 485	2
Virginia	16,800	0.18	$ 221	10
Washington	14,100	0.13	$ 200	7
West Virginia	2,900	0.10	$ 288	6
Wisconsin	13,400	0.13	$ 249	9
Wyoming	1,200	0.06	$ 766	3

ACES with Enhanced Efficiency

2030	Annual Net Jobs Created	Annual Energy Savings (in quads)	Annual Net Consumer savings (2007$/household)	Cumulative CO2 Savings (in MMT)
National	1,035,500	15.69	$ 832	959
Alabama	13,100	0.35	$ 947	22
Alaska	1,300	0.08	$ 2,060	5
Arizona	21,900	0.32	$ 795	19
Arkansas	8,100	0.20	$ 870	11
California	121,500	1.01	$ 639	68
Colorado	18,700	0.25	$ 726	13
Connecticut	15,900	0.17	$ 1,082	13
Delaware	3,400	0.08	$ 1,421	5
District of Columbia	3,600	0.08	$ 1,893	5
Florida	69,100	0.91	$ 742	56
Georgia	34,500	0.55	$ 891	35
Hawaii	4,100	0.07	$ 1,825	10
Idaho	4,900	0.10	$ 872	5
Illinois	52,200	0.61	$ 822	34
Indiana	19,500	0.46	$ 888	27
Iowa	9,200	0.18	$ 817	10
Kansas	9,200	0.21	$ 945	12
Kentucky	10,900	0.34	$ 833	20
Louisiana	7,600	0.30	$ 935	18
Maine	4,300	0.10	$ 1,100	7
Maryland	26,200	0.26	$ 883	18
Massachusetts	28,600	0.27	$ 904	21
Michigan	35,400	0.44	$ 687	25
Minnesota	19,300	0.26	$ 719	14
Mississippi	7,800	0.19	$ 922	12
Missouri	19,900	0.39	$ 736	22
Montana	3,100	0.10	$ 1,347	6
Nebraska	5,800	0.15	$ 897	8
Nevada	7,800	0.16	$ 1,064	10
New Hampshire	5,300	0.09	$ 1,156	6
New Jersey	34,500	0.41	$ 1,101	30
New Mexico	5,800	0.13	$ 868	7
New York	87,900	0.67	$ 806	51
North Carolina	31,900	0.47	$ 664	27
North Dakota	1,800	0.11	$ 1,566	5
Ohio	41,700	0.54	$ 744	31
Oklahoma	10,400	0.26	$ 860	14
Oregon	13,900	0.18	$ 690	10
Pennsylvania	45,600	0.67	$ 903	43
Rhode Island	5,600	0.08	$ 1,407	6
South Carolina	14,000	0.29	$ 835	19
South Dakota	2,800	0.08	$ 1,146	4
Tennessee	20,100	0.38	$ 777	23
Texas	54,400	1.15	$ 904	70
Utah	8,500	0.17	$ 987	8
Vermont	2,400	0.06	$ 1,375	4
Virginia	28,400	0.38	$ 690	20
Washington	24,400	0.30	$ 644	15
West Virginia	4,500	0.21	$ 1,031	11
Wisconsin	22,500	0.29	$ 825	18
Wyoming	1,200	0.12	$ 2,148	6

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