

Energy Bill Savings Estimates as passed by the Senate
 ACEEE's assessment of the potential energy, carbon, and economic savings
 14-Dec-07

NOTE: Strikethrough sections are those removed from the house-passed bill and are not included in the totals.

Annual Energy Savings Estimates			2010										2020												
Title	Subtitle	Section	Electricity (TWh)	Avoided Peak Demand (MW)	Direct Natural Gas (BCF) (4)	Indirect Natural Gas (BCF) (5)	Primary Energy Savings (Quads)	Carbon (MMT) (3.5)	Electricity (TWh)	Avoided Peak Demand (MW)	Direct Natural Gas (BCF) (4)	Indirect Natural Gas (BCF) (5)	Oil Savings (Million barrels per day)	Primary Energy Savings (Quads)	Carbon (MMT) (3.5)	Electricity (TWh)	Avoided Peak Demand (MW)	Direct Natural Gas (BCF) (4)	Indirect Natural Gas (BCF) (5)	Oil Savings (Million barrels per day)	Primary Energy Savings (Quads)	Carbon (MMT) (3.5)	Carbon Dioxide (MMT (3.5))	Net Consumer Savings (\$Billion (7))	
Title I - Energy Security Through Improved Vehicle Fuel Economy	Subtitle A - Increased Corporate Average Fuel Economy (CAFE) Standards	Sec. 102 CAFE Heavy duty vehicles	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.23	2.0	48.8	NA	NA	NA	NA	NA	2.4	4.8	110	404	\$ 58
		Sec. 301 External power supply efficiency standards	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	0.2	2.8	NA	NA	NA	NA	NA	0.4	0.8	19	71
Title II - Energy Savings Through Improved Standards for Appliances and Lighting	Subtitle A - Appliance Energy Efficiency (1)	Sec. 303 Residential boilers	2.17	585	NA	NA	11	0.02	0.5	5.8	1591	NA	28	NA	0.08	1.2	5.3	1,581	NA	28	NA	0.08	1.2	42	\$ 0.23
		Sec. 304 Furnaces fan standard process	NA	NA	NA	NA	NA	NA	NA	5.2	1454	NA	28	NA	0.05	1.0	11	3,510	NA	18.5	NA	0.25	0.24	0.8	\$ 0.08
		Sec. 308 Regional heating and cooling standards	NA	NA	NA	NA	NA	NA	NA	2.3	670	77	13	NA	0.10	1.8	7.4	2,011	162	36	NA	0.24	3.8	14.2	\$ 0.80
		Sec. 310 Standby mode	NA	NA	NA	NA	NA	NA	NA	1.5	407	NA	8	NA	0.02	0.3	3.0	814	NA	15	NA	0.03	0.6	2.2	\$ 0.12
		Sec. 311 Energy standards for home appliances	NA	NA	NA	NA	NA	NA	NA	23	6,280	NA	116	NA	0.24	4.8	46.85	12,580	NA	228	NA	0.47	8.3	34.1	\$ 1.84
		Sec. 312 Walk-in coolers and freezers	0.60	162	NA	NA	3	0.01	0.1	4.5	1215	NA	23	NA	0.05	0.8	4.7	1,229	NA	23	NA	0.05	0.8	3.4	\$ 0.19
		Sec. 313 Electric motor efficiency standards	NA	NA	NA	NA	NA	NA	NA	4.5	1221	NA	22.8	NA	0.05	0.8	0	2,160	NA	30.1	NA	0.06	1.8	5.9	\$ 0.32
		Sec. 321 Efficient Light Bulbs	NA	NA	NA	NA	NA	NA	NA	53,050	7,215	NA	297	NA	0.81	11.7	63.25	8,516	NA	336	NA	0.70	13.8	50.7	\$ 2.74
		Sec. 322 Incandescent reflector lamps	NA	NA	NA	NA	NA	NA	NA	5.8	713	NA	29	NA	0.06	1.2	8.4	713	NA	25	NA	0.06	1.2	4.2	\$ 0.23
		Sec. 324 Metal halide fixture standard	1.41	381	NA	NA	7	0.01	0.3	8.3	2241	NA	42	NA	0.20	1.7	14.4	3,688	NA	70	NA	0.14	2.8	10.5	\$ 0.57
Title IV - Energy Savings in Buildings and Industry (7)	Subtitle A - Residential Building Efficiency	Sec. 411 Weatherization Assistance	0.88	232	2.07	4.3	0.01	0.21	1.4	398	10.4	7	NA	0.03	0.4	NA	NA	NA	NA	NA	NA	0.06	-	-	\$ -
		Sec. 413 Manufactured Housing	NA	NA	NA	NA	NA	NA	NA	2.8	747	6.8	14	NA	0.04	0.7	NA	1,404	12.8	25	NA	0.06	1.2	4	\$ 0.25
	Subtitle B - High-Performance Commercial Buildings	Sec. 422 Zero Net Energy Commercial Building Initiative (2)	4.8	1,311	12.0	24.60	0.06	1.21	26.1	7,867	71.8	148	NA	0.39	7.24	53	14,424	132	271	NA	0.71	12.58	46	\$ 2.81	
		Sec. 431-434 Efficiency in Federal Buildings	NA	NA	NA	NA	NA	NA	NA	5.8	1,504	20.4	28	NA	0.09	1.4	10.5	2,848	27.2	53	NA	0.14	2.5	9	\$ 0.52
	Subtitle D - Industrial Energy Efficiency	Sec. 451 Industrial Energy Efficiency	4.0	1,000	6.8	20	0.05	0.85	3.3	800	5.7	17	NA	0.04	0.70	3.3	800	5.7	17	NA	0.04	0.75	3	\$ 0.15	
		Sec. 452 Energy-intensive industries program	30	8,100	198	152	0.52	9.28	33	8,450	232	177	NA	0.61	10.4	40	10,600	268	203	NA	0.87	11.8	44	\$ 2.58	
Title V - Energy Savings in Government and Public Institutions	Subtitle E - Energy Efficiency and Conservation Block Grant Program (6)	Sec. 471 Energy sustainability and efficiency grants and loans for institutions	0.3	84	2.5	2	0.01	0.10	0.8	210	2.5	4	NA	0.01	0.2	0.8	210	6.2	4	NA	0.01	0.2	1	\$ 0.05	
		Sec. 542 Energy Efficiency and Conservation Block Grant Program (6)	0.36	101	2.33	1.8	0.01	0.11	0.25	68	1.56	1.3	NA	0.004	0.1	-	-	NA	0	NA	-	-	-	\$ -	
Title VII - Renewable Electricity Standard	-	Sec. 1401 Renewable electricity standard	0.3	85	-	4.3	0.00	0.08	31.8	10,345	-	360.8	NA	0.331	6.3	31.8	10,345	-	435	NA	0.33	6.3	23.0	8	\$ 1.25
		Sec. 1441 Zero-Emission Standard	1.3	328	7.8	6.17	0.03	0.37	2.0	823	13.3	10.00	NA	0.023	0.60	4.3	318	-	3	6.86	NA	0.03	0.3	1.8	\$ 0.07
Subtotal			44.8	12,036	224	228	0.7	12.8	198	44,075	435	1,000	1.1	4.7	86	281	87,822	623	1,443	3	9	197	722	60	
-See Credits	-	Amphibious	0.6	123	44.0	3.84	0.03	0.51	3.0	605	68.3	13.28	NA	0.09	1.50	4.0	334	33.0	5.00	NA	0.04	0.7	3.6	\$ -0.44	
		IMAC	4.5	931	8.7	6.24	0.04	0.20	13.1	3,835	23.8	68.13	NA	0.48	3.44	8.6	3,432	48.1	48.34	NA	0.43	3.5	8.0	\$ -0.45	
		Commercial Bldgs	3.4	878	8.6	10.80	0.03	0.58	16.4	4,438	67.0	83.83	NA	0.33	4.46	16.4	4,438	67.0	83.83	NA	0.23	4.4	15.6	\$ -0.80	
		Building Homes	0.6	161	33.8	3.81	0.03	0.30	0.8	348	47.8	4.09	NA	0.03	0.43	0.8	348	47.8	4.09	NA	0.03	0.4	1.8	\$ -0.40	
		Plug-In Hybrids (7)	0.0	0	NA	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	\$ -0.00
		CRB	2.8	3,439	31.6	30.80	0.06	1.33	38.4	10,842	182.7	300	NA	0.253	6.08	30.4	10,842	182.7	300	NA	0.24	5.6	20.3	8	\$ 0.36
		See Credits Subtotal	13.3	3316.3	6.2	62.2	0.1	2.7	30.4	10,618	186.6	358.4	0.0	0.0	18.2	68.6	18,013	31.8	239	0.0	0.68	23.0	43	2	\$ 0.28
TOTAL			45	12,036	224	228	1	15	198	44,075	435	1,000	1.1	4.7	86	281	87,822	623	1,443	2.8	9.0	197	722	60	

Cumulative Energy Savings Estimates			2010					2020					2030					Net Consumer Savings (Billion 2005\$) (7)					
SubTitle/Part	Section		Electricity (TWh)	Direct Natural Gas (BCF) (4)	Indirect Natural Gas (BCF) (3)	Primary Energy Savings (Quads)	Carbon (MMT) (3.5)	Electricity (TWh)	Direct Natural Gas (BCF) (4)	Indirect Natural Gas (BCF) (3)	Oil Savings (Gigabarrels)	Primary Energy Savings (Quads)	Carbon (MMT) (3.5)	Electricity (TWh)	Direct Natural Gas (BCF) (4)	Indirect Natural Gas (BCF) (3)	Oil Savings (Gigabarrels)	Primary Energy Savings (Quads)	Carbon (MMT) (3.5)	Carbon Dioxide (MMT (3.5))	Net Consumer Savings (Billion 2005\$) (7)		
Title I - Energy Security Through Improved Vehicle Fuel Economy	SubTitle A - Increased Corporate Average Fuel Economy (CAFE) Standards	Sec. 102 CAFE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.51	7.86	188	N/A	N/A	N/A	8.39	44	1,046	3,538	\$ 195		
		Heavy Duty vehicles	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.05	0.24	5.8	N/A	N/A	N/A	0.91	5	113	416	\$ 21		
Title III - Energy Savings Through Improved Standards for Appliance and Lighting	SubTitle A - Appliance Energy Efficiency	Sec. 301 External power supply efficiency standards	N/A	N/A	N/A	N/A	N/A	55	N/A	N/A	278	N/A	0.57	10.9	113	N/A	551	N/A	1.13	22.5	82.4	\$ 4.45	
		Sec. 303 Residential boilers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	119	N/A	N/A	0.04	0.56	N/A	N/A	163	N/A	0.16	2.39	6.8	\$ 0.61	
		Sec. 304 Furnace fan standard process	N/A	N/A	N/A	N/A	N/A	N/A	23	N/A	N/A	N/A	0.24	4.7	118	N/A	578	N/A	1.19	23.6	86.5	\$ 4.67	
		Sec. 306 Regional heating and cooling standards	N/A	N/A	N/A	N/A	N/A	N/A	7.4	N/A	384	38	N/A	0.46	7.1	60	N/A	1,620	291	2.22	35.7	131.0	\$ 8.46
		Sec. 310 Standby mode	N/A	N/A	N/A	N/A	N/A	N/A	8	N/A	42	N/A	0.09	1.7	32	N/A	155	N/A	0.32	6.3	23.1	\$ 1.25	
		Sec. 311 Energy standards for home appliances	N/A	N/A	N/A	N/A	N/A	N/A	128	N/A	650	N/A	1.34	25.6	490	N/A	2,393	N/A	4.93	97.6	358.3	\$ 19.35	
		Sec. 312 Walk-in coolers and freezers	0.80	N/A	4.1	0.01	0.2	28	N/A	143	N/A	N/A	0.29	5.6	75	N/A	368	N/A	0.76	15.0	55.0	\$ 2.97	
		Sec. 313 Electric motor efficiency standards	N/A	N/A	N/A	N/A	N/A	N/A	32	N/A	160.3	N/A	0.33	6.3	96	N/A	469	N/A	0.97	19.1	70.2	\$ 3.79	
		Sec. 321 Efficient Light Bulbs	N/A	N/A	N/A	N/A	N/A	N/A	366	N/A	1956	N/A	4.03	77.0	1,031	N/A	5,035	N/A	10.37	205.5	754	\$ 40.73	
		Sec. 322 Incandescent reflector lamps	N/A	N/A	N/A	N/A	N/A	N/A	49	N/A	249	N/A	0.51	9.8	107	N/A	523	N/A	1.06	21.3	78.3	\$ 4.23	
Title IV - Energy Savings in Buildings and Industry (8)	SubTitle B - Lighting Energy Efficiency	Sec. 324 Metal halide fixture standard	2.13	N/A	10.8	0.02	0.5	54	N/A	274	N/A	0.56	10.8	172	N/A	840	N/A	1.73	34.2	125.7	\$ 6.78		
		Sec. 411 Weatherization Assistance	1.72	12.44	8.7	0.03	0.5	15.7	114	80	N/A	0.28	4.8	21.5	156	105	N/A	0.39	6.6	24.1	\$ 1.43		
		Sec. 413 Manufactured Housing	N/A	N/A	N/A	N/A	N/A	N/A	18	45	93	N/A	0.24	4.3	60	145	292	N/A	0.75	14.0	51	\$ 2.90	
		Sec. 422 Zero Net Energy Commercial Building Initiative (7)	7.3	18.0	36.9	0.10	1.8	189	467	959.3	N/A	2.50	47.1	614	1,514	3,112	N/A	8.12	144.7	531	\$ 29.88		
		Sec. 431-434, Efficiency in Federal Buildings	N/A	N/A	N/A	N/A	N/A	47.5	151	241	N/A	0.65	11.7	141	428	713	N/A	1.80	34.3	126	\$ 7.17		
Title V - Energy Savings in Government and Public	SubTitle C - High-Performance Federal Buildings	Sec. 451 Industrial Energy Efficiency	8	14	41	0.10	2	42.7	73	216	N/A	0.52	10	78	130	385	N/A	0.95	17.1	63	\$ 3.49		
		Sec. 452 Energy-intensive industries program	60	393	301	1.03	18	387	2,560	1,960	N/A	6.59	115	765	5,067	3,736	N/A	13.29	227	832	\$ 49.30		
		Sec. 471 Energy sustainability and efficiency grants and loans for institutions	0.5	3.7	2	0.01	0.15	7.8	62	39	N/A	0.15	2.5	15.5	124.2	76	N/A	0.28	4.9	18	\$ 1.08		
		SubTitle E - Energy Efficiency and Conservation Block Grant Program (6)	0.8	4.67	4	0.01	0.23	6.1	38.10	31	N/A	0.10	1.8	6.3	38.88	32	N/A	0.10	1.8	6.7	\$ 0.39		
Title VI - Renewable Electricity Standard	SubTitle D - Industrial Energy Efficiency	Sec. 542 Energy Efficiency and Conservation Block Grant Program (6)	0.3			0.00	0.06	1.6	167	8	N/A	0.48	7.3	319			1,612	N/A	3.3	63.6	234	\$ 12.61	
		Sec. 1541 Tax-Exempt Bonds	3	11	8	0.03	0.56	25	155	127	N/A	0.13	7.3	40	349	303	N/A	0.68	11.6	43	\$ 2.53		
Tax Credits	Subtotal	Appliances	81	445	408	1	24	1,486	3,930	7,529	2	28	550	3,992	9,354	19,655	9	99	2,092	7,679	\$ 429		
		HVAC	0.6	28.6	9	0.04	0.61	14.6	456	34	N/A	0.81	9.8	31	662	148	N/A	1.3	20.8	76	\$ 4.88		
		Commercial Bldgs	4.3	9.6	13	0.03	0.67	71.6	431	262	N/A	1.37	16.0	190	336	666	N/A	3.3	42.9	167	\$ 8.70		
		Existing Homes	1.4	17.5	23	0.06	1.16	98.7	406	500	N/A	0.62	25.6	262	1078	1,328	N/A	3.6	68.1	250	\$ 14.42		
		Plug-in Hybrids (9)	0.0	20.5	7	0.03	0.72	9.0	196	46	N/A	0.18	4.7	12.1	371	87	N/A	0.4	8.9	33	\$ 2.07		
		CH2	0.0	0.0	0	0.00	0.01	6.3	0	32	N/A		4.86	15.6	0	(78)	N/A	0.5	11.1	41	\$ (0.62)		
		CH2	11.8	47.3	60	0.08	1.82	296	1,183	1,468	N/A	1.50	41.5	690	2,759	3,494	N/A	4.66	96.9	356	\$ 18.85		
Subtotal	20.8	31.8	105.4	0.3	4.9	199.4	4,083	10,103	3	32	660	1,175	9,354	19,655	0	13	249	813	\$ 50				
TOTAL	81	445	408	1	24	1,486	3,930	7,529	2	28	550	3,992	9,354	19,655	9	99	2,092	7,679	\$ 429				

- Notes:
- Appliance efficiency assessments were prepared based on an analysis by Andrew Delaski of ASAP.
 - Commercial building initiative savings depend on level of authorized funding. We assume 20% of total savings potential as the budget-constrained scenario. It is this scenario that is included in the total.
 - Indirect gas is the gas avoided in electric power generation. Indirect gas and electric carbon emissions reductions are based on national average fuel mix and heat rate as projected in AEO 2005.
 - Direct gas represents the natural gas saved directly by the measures.
 - Carbon savings estimates do not include direct coal savings, which result from displaced steam generation.
 - Savings from the block grant program depend on the level of funding. This scenario assumes funding of \$100 million per year from 2006-2012.
 - Net consumer savings are preliminary estimates assuming AEO 2007 projected energy prices.