

HOMEOWNERS SAVE WITH THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE® (IECC®)

Adopting the 2021 IECC Can Save New Homeowners Hundreds of Dollars a Year

According to analysis by the Department of Energy (DOE) Pacific Northwest National Laboratory (PNNL), the average new home built to requirements in the 2021 IECC will save residents of most states hundreds or even thousands of dollars a year in energy bills over homes built to the currently adopted energy code.

When wrapped into a down payment and financing, the annual cost increase is dwarfed by the annual energy savings—indicating that following code requirements can play an important role in improving housing affordability.

Details by state are captured in Table 1 along with notes on the assumptions made. Infographics and an interactive map with average cost savings by state are available at www.iccsafe.org/advocacy/iecc-adoptions.



Table 1. Benefits for Average New Home Built to 2021 IECC (* indicates code was amended, ** indicates No Statewide)

State	Current State Code	Annual Savings (\$)	Annual Energy Cost Savings (%)	Downpayment Increase (\$)	Annual Mortgage Increase (\$)	Years to Positive Cashflows	Present Value of Energy Cost Savings (\$)	Simple Payback (Years)	Net Annual Consumer Cash Flow in 1st Year (\$)	Jobs Created: First Year	Jobs Created: 30 Years Cumulative
Alabama	2015 IECC*	313	13	247	8	2	6,519	6	220	196	5,359
Alaska	2009 IECC**	1,941	29.2	1,030	101	1	45,762	4	1,484	42	1,232
Arizona	2009 IECC (Home Rule)	446	18.1	476	31	2	8,043	9	250	1,464	41,600
Arkansas	2009 IECC*	783	30.2	591	27	2	17,602	6	552	131	4,130
California	2019 Bldg. EE Standards	Deviates from Model Code									
Colorado	2009 IECC (Home Rule)	423	19.9	574	31	3	7,133	11	193	1,286	36,552
Connecticut	2015 IECC*	301	8.8	394	53	4	4,077	10	111	275	7,033
Delaware	2018 IECC	285	9.8	406	15	3	4,429	11	129	117	3,487
Florida	2018 IECC*	225	11.7	205	19	2	3,878	7	135	2,099	62,480
Georgia	2015 IECC*	327	15.1	392	28	3	5,579	10	164	1,218	36,240

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Hawaii	2009 IECC (Home Rule)	896	16.8	288	6	1	22,468	3	790	192	5,630
Idaho	2018 IECC*	290	15.2	437	25	4	4,516	12	114	196	5,570
Illinois	2018 IECC*	194	9.8	391	135	11	1,047	16	3	626	16,254
Indiana	2018 IECC*	334	13.9	568	47	5	4,597	14	90	395	10,255
Iowa	2012 IECC*	346	12.7	384	40	3	5,991	9	174	146	3,948
Kansas	2009 IECC (Home Rule)	712	25.9	574	61	2	15,033	6	453	218	5,883
Kentucky	2009 IECC	708	28.5	599	44	2	15,096	7	457	289	7,931
Louisiana	2009 IECC	423	20	479	11	2	7,868	9	247	287	9,042
Maine	2009 IECC	1,007	23.5	564	50	1	23,772	4	762	69	1,742
Maryland	2018 IECC*	264	10.6	319	24	3	4,213	10	130	621	18,453
Massachusetts	2018 IECC*	73	2.4	64	6	2	1,827	7	46	231	5,895
Michigan	2015 IECC*	337	10.7	499	68	5	4,514	12	97	444	11,526
Minnesota	2012 IECC*	238	9.1	376	32	5	2,772	13	76	427	11,543
Mississippi	2009 IECC**	632	25	590	28	2	13,048	7	400	153	4,193
Missouri	2009 IECC (Home Rule)	677	26	700	54	2	13,298	8	381	780	21,058
Montana	2018 IECC*	177	9	369	25	8	1,534	17	24	85	2,429
Nebraska	2018 IECC	163	7.9	334	48	11	780	16	-1	100	2,711
Nevada	2021 IECC*	Code Updated Since Analysis Performed									
New Hampshire	2015 IECC*	537	15.1	401	61	2	10,956	6	337	102	2,590
New Jersey	2018 IECC*	397	16.1	391	63	2	6,673	8	199	490	12,677
New Mexico	2018 IECC*	266	12	393	20	4	4,191	12	110	231	6,564
New York	2018 IECC	212	8.4	263	27	3	2,794	10	94	747	19,297
North Carolina	2015 IECC*	345	16.3	383	26	3	6,223	9	187	1,275	37,970
North Dakota	2009 IECC (Home Rule)	728	26.5	519	65	2	15,397	6	483	38	1,022
Ohio	2018 IECC*	261	12	422	49	6	3,143	13	66	681	17,657
Oklahoma	2009 IECC*	788	29.1	661	43	2	16,940	7	517	173	5,453
Oregon	2017 OR Res. Specialty Code	81	5.1	-52	-3	Immediate Yrs.	3,543	Immediate Yrs.	102	N/A	9,650
Pennsylvania	2015 IECC*	341	13.5	430	50	3	5,303	10	142	562	14,537
Rhode Island	2015 IECC*	814	18.5	595	69	2	17,769	6	540	546	14,105
South Carolina	2009 IECC	679	25.2	579	24	2	14,612	7	455	558	16,603
South Dakota	2009 IECC (Home Rule)	727	25.2	447	53	1	16,416	5	520	49	1,331

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Tennessee	2009 IECC*	719	29	615	43	2	15,312	7	463	781	21,402
Texas	2015 IECC	179	8.9	161	26	2	2,690	7	98	1,281	40,390
Utah	2015 IECC*	334	16.4	458	25	3	5,783	11	152	588	16,705
Vermont	2018 IECC*	Vermont's state code surpasses the level of efficiency of the 2021 IECC. The average new homeowner in Vermont saves an additional 4.3%, which equates to \$126 annually on utility bills, when compared to the 2021 IECC.								-4	-104
Virginia	2018 IECC*	Code Updated Since Analysis Performed									
Washington	2018 WA State Energy Code	Deviates from Model Code									
Washington, D.C.	2015 IECC*	162	11	150	5	2	2,569	7	105	9	274
West Virginia	2009 IECC	841	27.4	734	31	2	18,409	7	557	86	2,560
Wisconsin	2009 IECC*	651	21.6	593	84	2	12,411	7	362	372	9,644
Wyoming	2009 IECC	651	24.1	584	36	2	13,730	7	413	32	904

Notes: The following assumptions are made in conjunction with these values:

- Mortgage Interest Rate: 3%
- Loan Fees: 1% of mortgage amount
- Loan Term: 30 years
- Down Payment: 12% of home value
- Nominal Discount Rate: 3%
- Inflation Rate: 1.4%
- Marginal Federal Income Tax: 12%
- Marginal State Income Tax: State Specific Rate
- Property Tax: State Specific Rate

Note: While a state may have adopted an energy code, it may not be applicable in all local jurisdictions. Consult codeadoption.iccsafe.org for information on state and local adoptions.

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