



**INTERNATIONAL
CODE
COUNCIL®**

HOMEOWNERS SAVE WITH THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE®

Adopting the 2018 International Energy Conservation Code (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 2018 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.

On average, any increase in cost is recouped in the first year. 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/iecc-adoptions.

Table 1. Benefits for Average New Home Built to 2018 IECC (* indicates code was amended)

State	Current State Code	Down Payment Increase (\$)	Mortgage Cost Increase (\$/yr)	Years to Positive Cashflow	Annual Energy Cost Savings (\$)	Annual Energy Cost Savings (%)	Present Value of Energy Cost Savings (\$)	First Cost Increase (\$)
Alabama	2015 IECC*	5.18	2.83	1.0	103.60	3.7	1592.59	54.73
Alaska	2009 IECC	449.64	245.24	1.0	3595.63	20.9	55273.65	1519.72
Arizona	2009 IECC	223.32	121.80	1.0	534.27	9.1	8213.04	1402.22
Arkansas	2009 IECC*	219.87	119.92	1.0	848.48	15.8	13043.22	1404.85
California	Custom code not analyzed							
Colorado	2009 IECC	216.58	118.12	1.0	1049.03	17.3	16126.16	1199.33
Connecticut	2015 IECC*	6.10	3.33	1.0	214.63	3.0	3299.39	40.73
Delaware	2012 IECC	12.56	6.85	1.0	35.05	1.1	538.80	116.67
District of Columbia	2012 IECC*	12.22	6.67	1.0	167.45	7.2	2574.12	116.67
Florida	2015 IECC*	0.57	0.31	1.0	10.26	0.5	157.72	0.00
Georgia	2015 IECC*	State updated its code since analysis was done						
Hawaii	Custom code not analyzed							
Idaho	2012 IECC*	8.97	4.89	1.0	697.06	12.1	10715.52	117.85
Illinois	2015 IECC*	State updated its code since analysis was done						
Indiana	2009 IECC	208.74	113.85	1.0	1126.50	15.2	17317.07	1199.33
Iowa	2012 IECC*	9.45	5.16	1.0	299.24	5.0	4600.05	117.85
Kansas	2009 IECC	203.83	111.17	1.0	1213.07	17.5	18647.86	1199.33
Kentucky	2009 IECC	217.40	118.57	1.0	723.50	18.0	11121.97	1199.33
Louisiana	2009 IECC	216.91	118.31	1.8	387.95	10.1	5963.74	1402.22
Maine	2009 IECC	313.08	170.76	1.0	2277.20	15.1	35006.15	1523.18

State	Current State Code	Down Payment Increase (\$)	Mortgage Cost Increase (\$/yr)	Years to Positive Cashflow	Annual Energy Cost Savings (\$)	Annual Energy Cost Savings (%)	Present Value of Energy Cost Savings (\$)	First Cost Increase (\$)
Maryland	2015 IECC	State updated its code since analysis was done						
Massachusetts	2018 IECC*	2018 IECC currently adopted						
Michigan	2012 IECC*	9.72	5.30	1.0	109.29	1.7	1680.06	117.85
Minnesota	2012 IECC*	10.95	5.97	1.0	109.61	1.8	1684.97	118.04
Mississippi	2009 IECC	227.34	123.99	1.4	482.27	15.3	7413.67	1402.22
Missouri	2009 IECC	228.82	124.80	1.0	943.51	14.5	14504.06	1199.33
Montana	2012 IECC*	9.69	5.29	1.0	345.63	6.3	5313.18	118.04
Nebraska	2009 IECC	182.33	99.44	1.0	938.68	15.0	14429.81	1004.72
Nevada	2018 IECC*	State updated its code since analysis was done						
New Hampshire	2009 IECC*	245.06	133.65	1.0	2101.34	17.1	32302.75	1004.72
New Jersey	2015 IECC*	7.51	4.09	1.0	1045.68	15.3	16074.66	39.54
New Mexico	2018 IECC	2018 IECC currently adopted						
New York	2018 IECC	2018 IECC currently adopted						
North Carolina	2015 IECC*	6.17	3.36	1.0	156.40	6.9	2404.25	57.36
North Dakota	2009 IECC	247.65	135.07	1.0	1281.34	19.4	19697.34	1523.18
Ohio	2009 IECC	State updated its code since analysis was done						
Oklahoma	2009 IECC*	254.65	138.89	1.0	948.50	19.6	14580.77	1404.85
Oregon		Custom code not analyzed						
Pennsylvania	2015 IECC*	6.24	3.40	1.0	509.82	6.5	7837.18	39.54
Rhode Island	2012 IECC	10.60	5.78	1.0	66.70	0.8	1025.34	117.85
South Carolina	2009 IECC	247.50	134.99	1.0	550.17	18.2	8457.46	1404.85
South Dakota	2009 IECC	251.86	137.36	1.0	1382.76	19.1	21256.41	1004.72
Tennessee	2009 IECC*	204.07	111.30	1.0	636.01	19.8	9777.03	1404.85
Texas	2015 IECC	2.57	1.40	1.0	14.71	0.5	226.13	54.73
Utah	2015 IECC*	5.02	2.74	1.0	568.15	9.3	8733.86	57.36
Vermont	2015 IECC*	5.33	2.91	1.0	1638.92	14.9	25194.22	40.92
Virginia	2015 IECC*	6.75	3.68	1.0	273.71	9.8	4207.59	39.54
Washington		Custom code not analyzed						
West Virginia	2009 IECC	219.21	119.56	1.0	663.28	19.2	10196.24	1199.33
Wisconsin	2009 IECC*	310.79	169.51	1.0	1774.93	18.4	27285.02	1523.18
Wyoming	2009 IECC	272.67	148.72	1.0	1331.72	16.3	20471.80	1004.72

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

- Mortgage interest rate (fixed rate) 5% annual rate
- Loan fees 0.7%, initial, % of mortgage amount
- Loan term 30 years
- Down payment 10%
- Nominal Discount rate 5%
- Inflation rate 2.52%
- Marginal federal income tax 12%
- Property tax 1.5%

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

© 2020 International Code Council. All Rights Reserved.

PRESENTED BY THE ICC FAMILY OF SOLUTIONS

