

Impact of the 2009 and 2012 International Energy Conservation Code in Multifamily Buildings

CODE COMPLIANCE COST PREMIUM PER APARTMENT UNIT¹

2009 IECC - Low-Rise Property

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
Envelope Inspection	\$150-\$170	\$150-\$170	\$150-\$170	\$150-\$170	\$150-\$170	\$150-\$170	\$150-\$170	\$150-\$170
Fenestrations	\$73-\$109	\$73-\$109	\$73-\$109	-	-	-	-	-
Thermostats	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15
Duct Testing (Top Floor)	\$50-\$60	\$50-\$60	\$50-\$60	\$50-\$60	\$50-\$60	\$50-\$60	\$50-\$60	\$50-\$60
Overhead and Fees	\$28-\$39	\$28-\$39	\$28-\$39	\$21-\$27	\$21-\$27	\$21-\$27	\$21-\$27	\$21-\$27
Total	\$311-\$393	\$311-\$393	\$311-\$393	\$231-\$272	\$231-\$272	\$231-\$272	\$231-\$272	\$231-\$272

2009 IECC - High-Rise Property

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
Attic Insulation	\$71-\$99	\$71-\$99	\$71-\$99	\$71-\$99	\$71-\$99	\$71-\$99	-	\$99-\$127
Continuous Insulation (Lap Siding)	-	-	-	\$737-\$872	\$737-\$872	\$2,346-\$2,749	\$2,346-\$2,749	\$2,561-\$2,749
Continuous Insulation (Brick)	-	-	-	\$737-\$872	\$737-\$872	\$1,856-\$2,207	\$1,856-\$2,207	\$2,029-\$2,177
Slab Insulation	-	-	-	\$29-\$31	\$29-\$31	\$59-\$62	\$59-\$62	\$59-\$61
Fenestrations	-	-	-	-	-	-	\$73-\$109	\$73-\$109
Thermostats	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15	\$10-\$15
Piping Insulation	\$5-\$10	\$5-\$10	\$5-\$10	\$5-\$10	\$5-\$10	\$5-\$10	\$5-\$10	\$5-\$10
Overhead and Fees (Lap Siding)	\$9-\$14	\$9-\$14	\$9-\$14	\$85-\$113	\$85-\$113	\$249-\$323	\$249-\$324	\$281-\$338
Overhead and Fees (Brick)	\$9-\$14	\$9-\$14	\$9-\$14	\$85-\$113	\$85-\$113	\$200-\$263	\$200-\$264	\$227-\$275
Total (Lap Siding)²	\$95-\$138	\$95-\$138	\$95-\$138	\$938-\$1,139	\$938-\$1,139	\$2,740-\$3,257	\$2,742-\$3,269	\$3,087-\$3,409
Total (Brick)	\$95-\$138	\$95-\$138	\$95-\$138	\$938-\$1,139	\$938-\$1,139	\$2,201-\$2,656	\$2,203-\$2,667	\$2,501-\$2,775

¹ Cost calculations are based on "Impact of the 2009 and 2012 International Energy Conservation Code in Multifamily Buildings", Niles Bolton Associates, Inc., March 2012. Costs reflect only the cost premium to comply with the new code versions relative to the previous code edition. Charts do not represent total code compliance costs.

² Note: Column values do not equal "total". "Total (Lap Siding)" represents all lap-siding denoted items and other items, except those denoted as "Brick". "Total (Brick)" represents all brick denoted items and other items, except those denoted as "Lap Siding".

Impact of the 2009 and 2012 International Energy Conservation Code in Multifamily Buildings

2012 IECC: Low-Rise Property Zones 1-4

	Zone 1	Zone 2	Zone 3 R-13 + R-5	Zone 3 R-20	Zone 4 R-13 + R-5	Zone 4 R-20
Envelope Testing	\$150-\$180	\$150-\$180	\$150-\$180	\$150-\$180	\$150-\$180	\$150-\$180
Fenestrations	\$88-\$124	\$88-\$124	\$88-\$124	\$88-\$124	-	-
Refrigerant Piping Shielding	\$200-\$220	\$200-\$220	\$200-\$220	\$200-\$220	\$200-\$220	\$200-\$220
Attic Insulation	-	\$94-\$132	\$94-\$132	\$94-\$132	\$132-\$170	\$132-\$170
Cavity Insulation	-	-	-	\$1,124-\$1,290	-	\$1,124-\$1,290
Continuous Insulation (Lap Siding)	-	-	\$1,984-\$2,315	-	\$1,984-\$2,315	-
Continuous Insulation (Brick)	-	-	\$1,371-\$1,637	-	\$1,371-\$1,637	-
Overhead and Fees (Lap Siding)	\$44-\$58	\$58-\$72	\$252-\$327	\$166-\$214	\$247-\$317	\$161-\$205
Overhead and Fees (Brick)	\$44-\$58	\$58-\$72	\$190-\$252	\$166-\$214	\$185-\$243	\$161-\$205
Total (Lap Siding)	\$481-\$582	\$585-\$728	\$2,767-\$3,297	\$1,822-\$2,159	\$2,712-\$3,201	\$1,767-\$2,064
Total (Brick)	\$481-\$582	\$585-\$728	\$2,093-\$2,546	\$1,822-\$2,159	\$2,038-\$2,450	\$1,767-\$2,064

2012 IECC Low-Rise Property Zones 5-8

	Zone 5	Zone 6 R-13 + R-10	Zone 6 R-20 + R-5	Zone 7 and 8 R-20 + R-5	Zone 7 and 8 R-13 + R-10
Envelope Testing	\$150-\$180	\$150-\$180	\$150-\$180	\$150-\$180	\$150-\$180
Fenestrations	-	-	-	-	-
Refrigerant Piping Shielding	\$200-\$220	\$200-\$220	\$200-\$220	\$200-\$220	\$200-\$220
Attic Insulation	\$132-\$170	-	-	-	-
Cavity Insulation	-	-	\$1,124-\$1,290	-	-
Continuous Insulation (Lap Siding)	-	\$1,984-\$2,248	\$1,984-\$2,315	\$1,984-\$2,315	\$1,719-\$2,017
Continuous Insulation (Brick)	-	\$1,440-\$1,646	\$1,371-\$1,637	\$1,371-\$1,637	\$1,176-\$1,414
Overhead and Fees (Lap Siding)	\$48-\$63	\$233-\$291	\$248-\$317	\$233-\$299	\$207-\$264
Overhead and Fees (Brick)	\$48-\$63	\$179-\$225	\$172-\$224	\$172-\$224	\$153-\$200
Total (Lap Siding)	\$530-\$632	\$2,567-\$2,940	\$2,567-\$3,013	\$2,567-\$3,013	\$2,276-\$2,681
Total (Brick)	\$530-\$632	\$1,969-\$2,271	\$1,893-\$2,262	\$1,893-\$2,262	\$1,678-\$1,814

Impact of the 2009 and 2012 International Energy Conservation Code in Multifamily Buildings

2012 IECC High-Rise Property Zones 1-5

	Zones 1-3 R-20	Zones 1-3 R-13 + R-3.8	Zone 4 R-20	Zone 4 R-13 + R-3.8	Zone 5 R-20 + R-3.8	Zone 5 R-13 + R-7.5
Envelope Testing	-	-	\$300-\$350	\$300-\$350	\$300-\$350	\$300-\$350
Fenestrations	\$72-\$109	\$72-\$109	-	-	-	-
Refrigerant Piping Shielding	-	-	-	-	-	-
Additional Duct Insulation	\$10-\$13	\$10-\$13	\$10-\$13	\$10-\$13	\$10-\$13	\$10-\$13
Attic Insulation	-	-	-	-	\$99-\$127	\$99-\$127
Cavity Insulation	\$1,140-\$1,307	-	\$1,140-\$1,307	-	-	-
Continuous Insulation (Lap Siding)	-	\$737-\$872	-	-	\$1,877-\$2,179	\$1,609-\$1,877
Continuous Insulation (Brick)	-	\$737-\$872	-	-	\$1,877-\$2,179	\$1,119-\$1,335
Overhead and Fees (Lap Siding)	\$122-157	\$82-\$109	\$145-\$184	\$31-\$36	\$229-\$294	\$202-\$260
Overhead and Fees (Brick)	\$122-157	\$82-\$109	\$145-\$184	\$31-\$36	\$229-\$294	\$153-\$201
Total (Lap Siding)	\$1,345-\$1,586	\$902-\$1,102	\$1,595-\$1,853	\$341-\$399	\$2,515-\$2,962	\$2,220-\$2,627
Total (Brick)	\$1,345-\$1,586	\$902-\$1,102	\$1,595-\$1,853	\$341-\$399	\$2,515-\$2,962	\$1,680-\$2,026

2012 High-Rise Property Zones 6-8

	Zones 6 and 7 R-20 + R-3.8	Zones 6 and 7 R-13 + R-7.5	Zone 8 R-20 + R-10	Zone 8 R-13 + R-15.6
Envelope Testing	\$300-\$350	\$300-\$350	\$300-\$350	\$300-\$350
Attic Insulation	\$99-127	\$99-127	-	-
Additional Duct Insulation	\$10-13	-	\$10-\$13	\$10-\$13
Continuous Insulation (Lap Siding)	\$1,877-\$2,179	-	\$4,170-\$4,793	-
Continuous Insulation (Brick)	\$1,877-\$2,179	-	\$3,601-\$4,185	-
Overhead and Fees (Lap Siding)	\$229-\$294	\$41-\$48	\$448-\$567	\$31-\$36
Overhead and Fees (Brick)	\$229-\$294	\$41-\$48	\$391-\$500	\$31-\$36
Total (Lap Siding)	\$2,515-\$2,962	\$450-\$538	\$4,928-\$5,723	\$341-\$399
Total (Brick)	\$2,515-\$2,962	\$450-\$538	\$4,302-\$5,047	\$341-\$399