

Table 7: Low-Rise Multifamily Incremental Cost Summary Table

Measure	Percent of Homes with Measure (n=1,217)	Percent of Homes with Upgrade (n=1,217)	Incremental Cost (\$/ft ²)		
			Approach 1: 17-14	Approach 2: NREMD	Average
Building Shell					
Conditioned Walls	100%	29%	\$0.07	\$0.04	\$0.05
Flat Ceiling	26%	8%	\$0.11	\$0.09	\$0.10
Cathedral Ceiling	37%	7%	\$0.04	\$0.03	\$0.04
Framed Floor	6%	1%	\$0.01	\$0.00	\$0.01
Higher Efficiency Windows	100%	55%	\$0.25	\$0.13	\$0.19
HVAC Equipment					
Gas Furnace	69%	61%	\$0.09	\$0.06	\$0.08
Gas Boiler	13%	7%	\$0.00	\$0.00	\$0.00
Central AC	73%	20%	\$0.04	\$0.06	\$0.05
ASHP - Cooling	18%	4%	\$0.04	\$0.00	\$0.02
Instantaneous Gas WH	70%	34%	\$0.01	\$0.01	\$0.01
Conventional Gas WH	18%	17%	\$0.14	\$0.15	\$0.15
Heat Pump Water Heater ^a	7%	6%	\$0.00	\$0.00	\$0.00
Additional Measures					
Duct Leakage CFM25/100 ft ²	81%	67%	\$0.29	\$0.29	\$0.29
Air Infiltration ACH50	100%	81%	\$0.17	\$0.06	\$0.11
Ventilation – Bath Fans ^a	97%	97%	\$0.02	\$0.02	\$0.02
Ventilation – HRVs ^a	2%	1%	\$0.00	\$0.00	\$0.00
Ventilation – ERVs ^a	3%	0%	\$0.00	\$0.00	\$0.00
Lighting ^{a,b}	100%	98%	\$0.00	\$0.00	\$0.00
Total Incremental Cost			\$1.29	\$0.97	\$1.13

^a Heat pump water heater, ventilation, and light bulb cost data was limited in BeOpt. The values presented for both Approach 1 and Approach 2 rely on primary data collected during the original 1714 study, and the values are equal.

^b LED light bulbs are provided by the Massachusetts RNC Program at no cost to builders. The incremental cost for lighting was developed with secondary data sources. See [Appendix A](#) for additional details.