

Executive Summary

Rhode Island Energy (RI Energy) delivers energy efficiency services to multifamily buildings (5+ units) through three complementary programs: EnergyWise Multifamily (EWMF), Income-Eligible Multifamily (IEMF), and C&I Multifamily Retrofit (C&I MF). Resource Innovations evaluated the gross and net energy savings, as well as demand reductions, from prescriptive measures installed through all three multifamily-focused programs.

Why Evaluation?

RI Energy uses evaluations to assess program performance and estimate likely savings for future program years. This evaluation examined prescriptive measures across end-uses, including water heating, HVAC, lighting, plug load, and building envelope. The team used an engineering analysis, building simulation modeling, billing data disaggregation, and participant surveys to develop updated savings estimates. These results will inform program planning and prospective savings claims beginning in 2026.

Key Results



Building Shell

therms/year

Building shell measures accounted for 57% of total lifetime savings (total MMBtus accounting for all fuels) across all multifamily programs. The evaluation's calibrated building simulation analysis showed that, in natural gas-heated homes, these measures deliver meaningful annual reductions in energy use—insulation saved 47 therms per dwelling unit, air sealing saved 53 therms, and duct insulation saved 5 therms.



Thermostats

therms/year

Wi-Fi thermostats and programmable thermostats were the second largest contributor to total lifetime savings, accounting for 21% across all fuel types. Notably, they dominated savings in the IEMF program. In natural gas-heated homes, Wi-Fi thermostats saved 17.9 therms per unit installed, while programmable thermostats saved 13 therms. Boiler reset controls delivered the largest impact with 31.8 therms.

Recommendations:

Adopt Evaluated Savings for Prospective Application: Apply the updated gross savings algorithms and NTG ratios from this evaluation for prospective application starting in 2026.

Revisit Previous Data Improvement Recommendations: Two of three prior evaluation recommendations remain unresolved. RI Energy should prioritize implementing automated data validation checks and maintaining comprehensive contact information.

Ensure Complete Technical Data Capture in New Tracking System: The new tracking system lacks critical technical parameters (pre/post R-values, ACH50 results). RI Energy should work with vendors to ensure these values are captured for future evaluations. RI Energy is aware of this shortcoming and working to address it.

Collect Pre-Program Hot Water Data for a Sample of Participants: RI Energy should collect pre-program hot water flow rates for a representative sample of participants in 2026 to validate current baseline assumptions and refine showerhead/aerator savings estimates.