



# Executive Summary

National Grid offers energy efficiency services to multifamily customers in Rhode Island through both its EnergyWise Multifamily (EWMF) and Income-Eligible Multifamily (IEMF) Programs. The programs are similarly structured and delivered through a single lead vendor. Both programs offer whole-building energy assessments during which trained assessors and technicians directly install a variety of no-cost efficiency measures and identify opportunities for deeper savings measures, such as common area lighting, weatherization, heating systems, and custom projects. In the past three years, the MF programs have served more than 400 multifamily facilities across the state.

## Why Evaluation?

National Grid uses evaluation to retrospectively assess the performance of its programs and estimate savings for future program years. In March 2020, National Grid contracted with Cadeo and ILLUME Advising, third-party energy efficiency program evaluators, to complete an impact and process evaluation of both MF programs as implemented in 2017, 2018, and 2019. The evaluation produced verified energy savings for most measures, which are applicable for both EWMF and IEMF, and yielded insights and recommendations for better serving multifamily customers.

## Key Impact Findings

The evaluation team used three complementary methods - billing analysis, engineering algorithms, and building simulation - as part of the impact evaluation. Unfortunately, data quality issues - namely incomplete and inconsistent program tracking data - limited our team's ability to accurately develop savings estimates for several key natural gas and delivered fuel measures, including weatherization and heating systems. To better enable future evaluations, the evaluation team offered several recommendations for improving data management. As shown below, the evaluation team was able to evaluate both common area and in-unit lighting, the program's primary source of electric savings.



### Common Area Lighting kWh/year



Using detailed pre- and post-retrofit wattages gathered by MF assessors and location-based hours-of-use values from a recent multifamily metering study in Massachusetts, the evaluation found higher savings for common area lighting than National Grid planned.



### In-Unit Lighting kWh/year



Since it was not possible to estimate sufficiently precise billing analysis results for MF in-unit lighting, the evaluation team leveraged the results of the concurrent EnergyWise Single Family evaluation. This resulted in a decrease in savings relative to National Grid's assumed savings.

## Key Process Findings

Process evaluation activities revealed that the program is running smoothly. Program satisfaction among participants is high (86%); stakeholders believe the program is working well and credit the quality of working relationships between key program implementers (i.e., contractors, assessors, and inspectors). One opportunity for program improvement came at the suggestion of MF stakeholders. Rather than completing paperwork via paper and pen, MF assessors and inspectors call for the digitization of paperwork processes so they can focus on other program delivery components.