Case Study: Multifamily Energy Efficiency

In Concord, Massachusetts, frigid winters are the norm. When a few Concord Greene Condominiums residents mentioned they were feeling cold at home, the property manager took notice – and took action.

A little investigation

Bill Bannan, condominium facility manager, visited an empty unit to look into why it was cold. He entered the crawl space and quickly found the problem – an open, uninsulated attic area.

“I got into the crawlspace and I was immediately met by a blast of cold air,” Bill said. “These first-floor bedrooms were always cold because they weren’t fully protected from the elements.”

Not only were residents chilly, but Concord Greene’s heating costs were certainly higher than they needed to be.

From a chance encounter to a long-term partnership

Soon after Bill discovered the source of the cold, he happened to meet a National Grid program manager and some representatives from RISE Engineering, National Grid’s lead vendor, at an industry tradeshow. He shared his recent findings with them and they were eager to help. They explained that the program could help Concord Greene reduce consumption of commercially metered natural gas. From that point on, a partnership was formed.

National Grid evaluated the attic issue and agreed with Bill. The improperly insulated attic area was the root cause. But RISE had a plan. In just 3 short months, the team from RISE insulated 219 units. While the insulation process was somewhat disruptive for residents, RISE installers were, as Bill noted, “very respectful and accommodating.”
The results are in

From the start, Bill knew the insulation upgrades would lead to lower energy consumption and costs for Concord Greene and a better home environment for residents. With the help of National Grid incentives, the project became even more desirable and affordable.

The upgrades completed by National Grid and RISE Engineering produced significant savings:

<table>
<thead>
<tr>
<th>Project cost</th>
<th>$343,383.51</th>
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</thead>
<tbody>
<tr>
<td>National Grid incentives provided</td>
<td>$311,369.75</td>
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<tr>
<td>Total paid by Concord Greene</td>
<td>$32,013.76</td>
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<tr>
<td>Annual energy cost savings</td>
<td>$15,500</td>
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<tr>
<td>Payback period</td>
<td>2.1 years</td>
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<tr>
<td>Energy savings</td>
<td>438,633 lifetime therms</td>
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Now, Concord Greene residents enjoy these two major benefits:

1. **Greater home comfort**
   
   Thanks to improved insulation, cold winter air is no longer creeping into the condos. In fact, as soon as insulation was installed, residents felt an immediate improvement. They also had their furnaces checked and repaired or replaced as part of the process.

2. **Healthier living environments**
   
   Because the average age of Concord Greene residents is over 70, maintaining warm homes in the winter is even more important to overall wellbeing. The National Institute on Aging reports that being outside in the cold or in a very cold house can have a significant impact on the elderly. If an older person’s body temperature gets colder than 95 degrees, it can lead to several health problems, including heart attacks and kidney issues.

“It’s our goal to provide our multifamily customers with energy-saving solutions that also improve resident comfort, which the insulation upgrade at Concord Greene certainly achieved.” – Elizabeth Terry, National Grid Program Manager

If you’re ready to bring the benefits of energy efficiency to your community, we can help make it happen.

Visit: ngrid.com/multifamily Call: 1-800-594-7277
Email: energysavings@nationalgrid.com for more information.