

## Rocky Mountain Institute - Basalt, CO



RMI's Innovation Center is **the highest performing building in the coldest climate zone** in the U.S.

### Application Overview

Phase Change Energy Solutions' ENRG Blanket was chosen as an integral component of RMI's Innovation Center.

The building was designed and constructed as a "living lab" to test, demonstrate, and share how high performance buildings can be designed, contracted, constructed and operated. The building is similar in size and use to 90% of U.S. commercial offices, demonstrating a practical model for building owners and operators.

**ENRG Blanket™**, installed in walls and light shelves **contributes to one of the most energy efficient buildings in North America.**

## 1. The Project

This premier building was designed and constructed using methods and materials that can be replicated in both new construction and building retrofits. The 15,610 square-foot building is located in Basalt, Colorado, one of the coldest climate zones in the U.S.

## 2. The Challenge

Design a net-positive building that pushes the boundaries of passive building design, using materials and methods that can be incorporated into most commercial buildings. The building needed to be representative, in size, use and occupancy, of a large segment of the commercial building market to make the experiment meaningful and compelling. Materials selection had to support a life cycle performance and resiliency of a 100-years.



## 3. The Solution

RMI's design team brought together a well-developed and planned array of materials, design techniques and construction methods to achieve their goals. The material selection required the various components to interact to achieve the overall goal of exceptional energy efficiency, comfort and resiliency. Thermal Mass is crucial to passive heating and cooling because it stabilizes interior temperatures despite significant exterior temperature swings. RMI selected ENRG Blanket, powered by BioPCM®, as an integral thermal mass component. ENRG Blanket was embedded in the light shelves and walls. During warm afternoons, ENRG Blanket absorbs incredible amounts of excess heat, which it releases when the building temperatures naturally cool in the evening.

## 4. The Results

At the end of the first year of operation, the building's EUI is trending at 15.9 kbtu/sqft/yr, 9% lower than the modeled use of 17.2 kbtu/sqft/yr. The building achieves a net-positive energy profile and is 74% more efficient than the average office building in its climate.

RMI's Innovation Center is ranked as the highest performing building in the coldest climate zone in the U.S.

Learn more about RMI at [www.rmi.org/innovationcenter](http://www.rmi.org/innovationcenter)