

Fort Irwin Army Barracks - Fort Irwin, California



Application Overview

The U.S. Army needed to retrofit 24 structures, including 22 barracks to provide comfortable space conditions on the Ft. Irwin National Training Center in California. The retrofit plan required a solution that also reduced energy consumption in these simple concrete structures

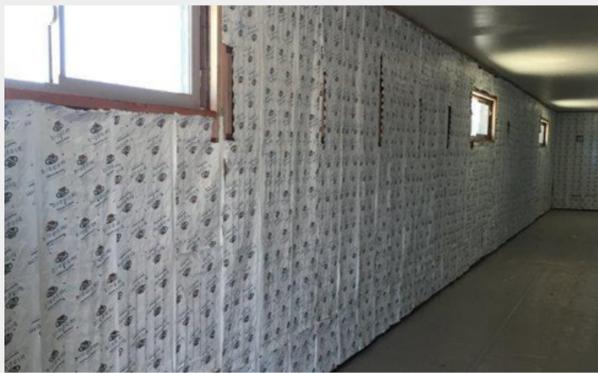
ENRG Blanket™ installed above drop ceiling tiles reduced energy consumption and improved thermal comfort

1. The Project

The Department of Defense (DOD) selected Phase Change Energy Solutions to supply a phase change materials solution to retrofit 24 DOD structures located at Ft. Irwin, CA. This included 22 barracks and 2 operations structures. The object was to improve thermal control and comfort while reducing energy consumption in these buildings.

2. The Challenge

These simple concrete block barracks buildings were nearly impossible to regulate from a temperature perspective. The buildings were uninsulated and had no finished walls on the interior. Our challenge was to determine the best means of application of ENRG Blanket to provide the maximum thermal benefit to the buildings and help the army gain tight thermal control over the interior temperatures.



3. The Solution

We reviewed several options and engineered a simple solution that added furring strips to the interior walls, providing enough space to install a thin layer of batt insulation against the exterior wall and cover it with ENRG Blanket material to interact with the conditioned interior space. After installing the insulation and the ENRG Blanket, interior wall board was added as a finish interior wall covering

4. The Results

The impact of ENRG Blanket on the facility's HVAC energy consumption and comfort was immediate. Before the installation, the Army was unable to regulate the interior temperatures due to the HVAC system's inability to handle the heating and cooling loads. After the installation, they are able to maintain consistent comfortable temperatures throughout the day. Overall energy savings are significant and can be directly attributed to the addition of ENRG Blanket.

To learn more or discuss your project, please call us at: **800-283-7887**
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