

Fort Carson; Net Zero Energy Base



Fort Carson was home to the very first military SolarWall® installation on a hangar building, circa 1996. Since that time, SolarWall air heating systems have been applied to hundreds of military buildings on 40+ bases for energy resilience.

Fort Carson is now designated as a Net Zero Energy Base, and SolarWall systems continue to be applied to base buildings at Fort Carson to help achieve that target.

Background

Fort Carson in Colorado is a Net Zero Energy Installation (NZEI) which means that they aim to produce as much energy on-site from renewable sources as they consume with their buildings and facilities. With 39% of their energy being used for natural gas heating, focusing on thermal load reduction is essential.

In the 2011 report entitled: *“Targeting Net Zero Energy at Fort Carson: Assessment and Recommendations”* prepared for the U.S. Department of Energy by the Federal Energy Management Program (FEMP), the use of the SolarWall solar ventilation preheating technology is analyzed:

“Solar vent preheat works very well in the Front Range’s cold, sunny climate on buildings with large ventilation requirements. It is most often used on industrial buildings with open indoor space & high ventilation requirements, including hangars, maintenance shops and gymnasiums.”

The FEMP report goes on to recommend the following:

“Solar ventilation preheating systems are one of the most cost-effective renewable energy technologies available to Fort Carson. We recommend installing additional solar ventilation preheating systems wherever feasible, putting a priority on motor pools, hangars, and heat plant.”

Solution

New buildings at Fort Carson must meet a minimum LEED® Silver standard as part of their commitment to being a Net Zero Energy Installation. Most recently, SolarWall heating systems were installed on two new base buildings that were targeting LEED® Certification.

The Fort Carson Assault Hangar features a 7,800 ft² (725m²) SolarWall system that is connected to 3 ERVs, heating 15,000 cfm of air.

The Fort Carson Unmanned Aircraft Maintenance Hangar has multiple SolarWall systems on the south and west walls, heating 8,000 cfm of ventilation air.

Canada
Conserval Engineering Inc.
200 Wildcat Road, Toronto, ON M3J 2N5
P: 416-661-7057 F: 416-661-7146
E: info@solarwall.com
www.solarwall.com

U.S.A.
Conserval Systems Inc.
4242 Ridge Lea Rd, Suite 28, Buffalo NY 14226
P: 716-835-4903 F: 716-835-4904
E: info@solarwall.com
www.solarwall.com

Europe
SolarWall Europe Sarl.
66 Avenue des Champs Elysees
75008 Paris, France
E: info@solarwall.eu
www.solarwall.eu