21st century technology — simple and effective.

Photo courtesy of Warren Gretz, NREL

The economic and environmental impact of this transpired solar wall is quite impressive. When FedEx needed to provide 90,000 cfm of ventilation air to its **COLORADO** building, it chose to use the transpired solar wall, saving $7,000 and reducing carbon dioxide emissions by 254,000 pounds per year.

Photo by Jim Yost

Solar energy absorbed by the dark, south-facing solar wall provides heated ventilation to this lumber warehouse located in the Rocky Mountains.

For more information:

Visit the Department of Energy's Energy Efficiency and Renewable Energy website at: **www.eren.doe.gov**

Call or email the Energy Efficiency and Renewable Energy Clearinghouse at:

1.800.363.3732

doe.erec@nciinc.com

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In your area, contact:

Transpired Solar Walls

For Your Commercial Buildings

Transpired Solar Walls

Transpired solar walls are remarkably simple, yet effective, energy sources available for certain commercial building applications. Outside air passes through a south-facing, perforated, solar collector wall and is pre-heated 30 to 55 degrees Fahrenheit on sunny days before entering the building's ventilation system.

Photo courtesy of Warren Gretz, NREL

An army helicopter waits for maintenance outside the hangar in **COLORADO**. The transpired solar collectors help heat the 7,800-square-foot building as well as improve indoor air quality degraded by fumes from helicopter fuel.

Transpired Solar Walls

The Right Choice for Business

"We wanted to provide a comfortable environment for our employees and customers in our new 22,000-square-foot drive-through lumber and building center warehouse, so we installed a solar wall on 100 feet of our south-facing wall. The solar wall was relatively inexpensive and is now our primary heating source for the warehouse."

— Don Sather, Owner, Big Horn Materials, Silverthorne, CO

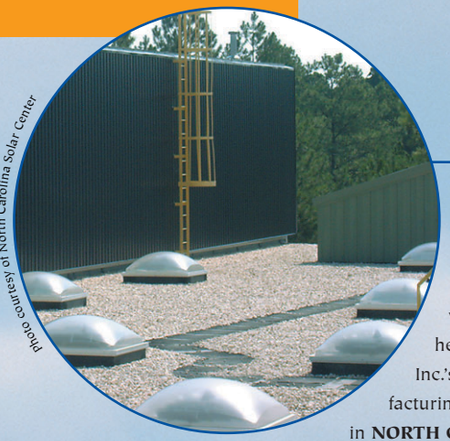

Photo courtesy of North Carolina Solar Center

This "bird's eye view" shows the transpired solar wall that provides ventilation and heating for Interface, Inc.'s carpet tile manufacturing plant warehouse in **NORTH CAROLINA**.

Photo courtesy of Conserval Systems Inc.

This K-12 school located in downtown Minneapolis, **MINNESOTA,** uses more than 2,000 square feet of transpired solar wall to ensure high quality indoor air while reducing heating costs.

Photo courtesy of Conserval Systems Inc.

Residents of this new, luxury 65-unit apartment building in Cambridge, **MASSACHUSETTS**, enjoy solar heated fresh air. The building owner was entitled to a 10% investment tax credit and 5.5-year accelerated depreciation credit plus large energy savings each month.

Cost Effective

Cost Effective Energy.

By pre-heating cold outdoor air with solar energy, transpired wall collectors remove a substantial load from a building's conventional heating system, reducing maintenance, and saving energy and money. Using free and renewable energy from the sun is the wise choice for your business. To reduce capital costs, the system may qualify for a 10% federal investment tax credit.

Clean Air

Clean Air.

Solar transpired wall collectors improve indoor air quality in many commercial buildings such as manufacturing plants, vehicle maintenance facilities, gymnasiums, aircraft hangars, schools and warehouses.

Attractive

Attractive.

The transpired collector can improve a building's appearance, giving the south-facing side a neat, clean, uniform look. Many color options coordinate with building materials and finishes.

Clean Energy

Clean Energy.

Solar heated transpired wall systems use clean, non-polluting energy from the sun. It is safe for our environment, safe for plants and animals and safe for all of us. Make the responsible choice for your business.