



## Industrial Steelcare



*Black SolarWall® panels on Steelcare's metal storage facility in Hamilton, Ontario.*

*Steelcare received 5 LEED points that were directly related to the implementation of the SolarWall® technology, helping them to become the first LEED Gold certified industrial facility in Canada*

### Background

Steelcare is one of Canada's leading industrial service companies, providing sophisticated warehousing, inventory management and transportation to the steel industry. When Plant 19, located in the Toronto area, was under design, the company began looking at innovative ways to reduce the energy costs of their building while still maintaining the necessary indoor environment. Since the building was going to house steel coils, it was essential to control for the indoor temperature and humidity levels. To prevent condensation on the stored steel rolls, the ventilation air has to be continuously heated throughout the entire year, which is very costly and represents a large portion of the overall energy bill associated with the facility.

### Solution

Commenting on their decision to use a SolarWall® system to displace the energy associated with heating the ventilation air, Steelcare's engineer Bob Edwards said: *"Since energy expenses were prohibitive in our other facilities, we had to reduce costs. After we looked at a lot of options, we got a [25% grant] to put in a SolarWall [system]."*

*"With everything we did, our warehouse is 56% more efficient than conventional construction, and the SolarWall*

*system represents more than 20% of the energy contribution"*

*"Using SolarWall was a simple way of capturing the sun's energy and has helped produce a building that's so efficient that we don't use any natural gas in June, July, and August to maintain the humidity in the building."*

A 140 m<sup>2</sup> (1500 ft<sup>2</sup>) black SolarWall system was installed on the south facing wall of the 8000m<sup>2</sup> (86,000 ft<sup>2</sup>) building. The system draws in 3600 cfm of air, and was designed to provide a temperature rise of 25-30 C over ambient.

The SolarWall air heating technology is delivering substantial financial savings. Commenting on this, Demetrius Tsafaridis, President of Steelcare, relates a humorous anecdote: *"Our gas and electric bills are ridiculously low compared to our other facilities. Our gas supplier said we had better get our meter checked because it showed we are using way to little gas!"*

The SolarWall system provided Steelcare with 5 LEED points, and was one of the reasons they were able to accumulate enough points to be LEED Gold Certified. Two points were obtained for EAc1 (Optimize Energy Performance) and three points were obtained for EAc2 (Renewable Energy).

### 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](http://www.solarwall.com)

### U.S.A.

#### Conserval Systems Inc.

4242 Ridge Lea Road, Suite 28, Buffalo, NY 14226

P: 716-835-4903 F: 716-835-4904

E: info@solarwall.com

[www.solarwall.com](http://www.solarwall.com)