



**trade force tech**  
Integrated Energy Solutions

Pano Cap

## CASE STUDY

# HVAC Energy Management System

## RTU Retrofit Delivers Over 50% Savings



For over 50 years Pano Cap has been producing closures for a variety of food, beverage and medicinal products in Kitchener. In 1997 the company produced its last metal lids and committed to 100% plastic closures including the tamper proof and child resistant

closures that we have all become familiar with.

### Energy Cost Reduction Focus

As part of an ongoing effort to reduce energy costs and reduce its carbon footprint, Pano Cap Canada engaged the HVAC and refrigeration efficiency experts at TradeForce Tech to assess the opportunity for savings in their existing HVAC systems.

The Kitchener facility is heated and cooled using 10 traditional packaged rooftop units (RTU's) ranging in size from 3 tons to 25 tons. In the manufacturing area cooling is required for most of the year and the two 5HP energy recovery ventilation (ERV) boxes in that area were also included in the project.

Typical of many facilities, RTU's were controlled using programmable thermostats controlling temperature set

points with the fans set to "on" to maintain circulation even when not actively heating or cooling. This has now become the recommended setting since the COVID pandemic has illustrated the need for even better levels of ventilation in all buildings.

Based on the analysis of the existing assets, **TradeForce Tech** recommended retrofitting the existing RTU's with the Catalyst ARC system. The 52% energy savings achieved by the system resulted in a payback of just over 2 years after utility incentives. Beyond this, there are maintenance and repair costs savings enabled by this state of the art installation.

Production Manager Chris Carlisle remarked "*in addition to the significant energy savings, we gained a level of visibility and control over our HVAC system that I didn't think was possible. Real time operating conditions, fault detection and even trouble shooting information is available through an easy to*

*understand visual dashboard and you don't need a controls background to adjust or retrieve reports from it. Catalyst has significantly reduced the amount of frustration and time spent on this part of facility operations".*

The dashboard toolset is accessed via any web connected device and provides visibility of key RTU performance parameters on a facility level, or portfolio of facilities, with alarms grouped into 3 categories. Energy, Occupant Comfort and Health (CO<sub>2</sub>) data is provided to allow operators to prioritise service and repair calls. It also allows building operators and their service providers to drill down to the individual unit level to adjust settings and retrieve a wide range of performance reports. It also provides detailed performance information of critical system components and enables operators to perform routine diagnostics and trouble shooting. This can save thousands of dollars in service calls each year because technicians can come prepared to address specific problems before even leaving the shop.



## Proven Results

The Catalyst system is the only RTU retrofit solution independently verified by the US Department of Energy and was named the "#1 Game Changing Technology", however tens of thousands of installations across North America by companies like Pano Cap are the real proof of its value.

## About Us

**Tradeforce Tech** is the only multi trades services and installation company that specializes in energy conservation retrofits and is the leading affiliate integrator of the Catalyst system in Canada. Contact [sales@tradeforcetech.com](mailto:sales@tradeforcetech.com) or call one of the numbers below to arrange for a free, online live demonstration of the Catalyst system in action.



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