

## COPELAND'S SETPOINT MANAGEMENT

# Supermarket to maintain energy efficiency and protect millions in e-commissioning savings



## Client background

A supermarket retailer with more than 1,700 stores in the United States.

## The challenge

A retail facility is at its most efficient on the day it is commissioned. Inevitably, the efficiency of energy intensive HVAC and refrigeration systems declines over time. This is due to wear and tear as well as wellintentioned—but not always well-informed—actions of maintenance service providers.

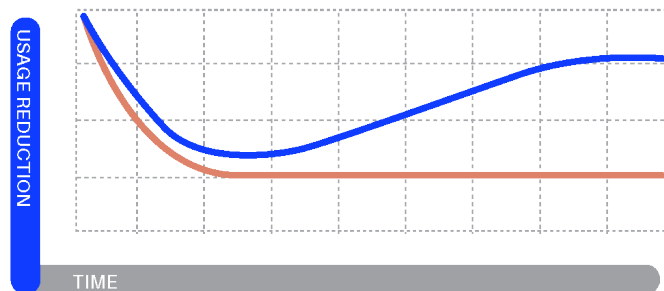
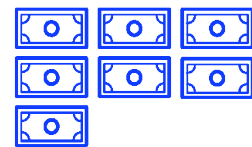
To prevent this eventual loss of efficiency, the client needs a way to monitor and continuously optimize stores to their original levels.

## Results summary

- Utilized Copeland's Service Center and Setpoint Management Service to ensure ongoing store optimization
- Reduced "efficiency creep" by remotely monitoring and triaging setpoint changes that negatively affect energy consumption
- Maintained 83% of value gained from energy commissioning program, saving over \$7 million across 1,000+ stores

## Setpoint Management

SUPERMARKET NETS  
**\$7 MILLION**  
 IN ENERGY SAVINGS USING  
 COPELAND'S SETPOINT  
 MANAGEMENT SERVICE



ENERGY SAVINGS  
 EROSION WITHOUT  
 SETPOINT MANAGEMENT



ENERGY SAVINGS  
 PRESERVATION WITH  
 SETPOINT MANAGEMENT



## Our solution

With the help of the company's energy and maintenance personnel, Copeland created a baseline of optimized equipment and system settings that balanced performance with energy efficiency. Any deviations from this baseline were routed to Copeland's Services Monitoring Center through the installed network of E2 management systems.

By monitoring and triaging costly setpoint deviations, and then notifying the responsible service providers for either change rationale or resolution, Copeland's Setpoint Management service enabled the supermarket to ensure ongoing efficiency as they continuously commissioned over 1,000 stores.

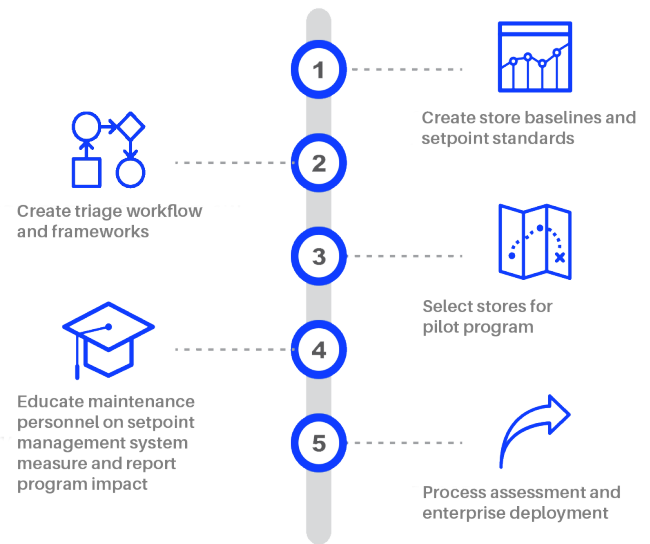
Through a customized, data-driven process, Copeland technicians and store maintenance personnel work together to ensure that maintenance decisions are made with full knowledge of lifetime and energy costs.

Operating an energy efficient supermarket requires not only designing for energy efficiency, but also maintaining for energy efficiency. Equipment setpoints often return to non-optimized levels as soon as six months after commissioning, eliminating much of the savings. Three years after their energy commissioning program ended, Copeland's services helped the customer preserve over 83% of their energy savings. Planning for ongoing efficiency saved this customer over \$7 million.

## Operating an energy efficient supermarket requires not only designing for energy efficiency, but also maintaining for energy efficiency.

### Improvement process

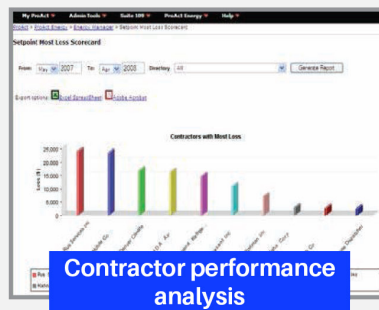
Here's how Copeland maintained energy efficiency across the client's stores:



## Setpoint Management web reports

Benefit Summary	Count Reverted	Sum of \$/WH	Amount (\$)	Annualized Amount (\$)
Checkouts Reverted from 01/2011 to 01/2011	439	4,407,445.00	\$840,714.19	\$578,460.13
Checkouts Reverted from 01/2011 through 01/2011	0	0.00	\$0.00	\$0.00
All Checkouts Reverted through 01/2011	439	4,407,445.00	\$840,714.19	\$578,460.13

**Cost/Benefit analysis**



ID	Category	Inclusion/Exclusion	Inc. Date	Inc. Start	Inc. End	Inc. Status	Current	Inc. Date	Inc. Status	Comments
01000001	Checkouts	Include	01/01/2011	01/01/2011	01/01/2011	Open	Open	01/01/2011	Open	01/01/2011 10:00 AM: Checkouts are not working. Please check the system.
01000002	Checkouts	Exclude	01/02/2011	01/02/2011	01/02/2011	Open	Open	01/02/2011 10:00 AM: Checkouts are not working. Please check the system.	Open	01/02/2011 10:00 AM: Checkouts are not working. Please check the system.

**Incident history & comments**