

# CASE STUDY — Global Wholesale Retailer (Canada)

7.24% Daily Energy Reduction | 13,525 kWh saved across 22 operational days | CAD \$22.4k projected annual savings  
| 8.1 month payback

## INTRODUCTION

A major wholesale retail operator in Canada implemented enPact FilterPro to reduce refrigeration-related electrical consumption at a high-load retail site.

Due to the site's continuous refrigeration demand and fluctuating occupancy patterns, a regression-based measurement methodology was used to isolate the impact of FilterPro from ambient temperature and operational noise.

### SOLUTION

The site implemented:

- enPact FilterPro
- Advanced refrigeration optimisation controls
- Regression-based performance validation methodology

FilterPro continuously optimised refrigeration electrical consumption by:

- Reducing compressor runtime inefficiencies
- Smoothing operational load fluctuations
- Improving system stability during peak demand periods
- Lowering overall refrigeration-related electrical draw

### CHALLENGE

The site faced several operational energy challenges:

- Continuous refrigeration demand across extended trading hours
- Large daily consumption swings caused by occupancy and ambient conditions
- Need for accurate measurement methodology due to noisy consumption profile
- Requirement to separate commissioning effects from operational savings
- Need to validate savings against predicted baseline performance

The customer required a solution capable of reducing refrigeration-related electrical load without affecting operational performance or food safety.

## RESULTS:

- Operational Performance (Fully Operational ON Period):**
- **7.24% validated reduction during full FilterPro operation**
  - **13,525 kWh saved across 22 live operating days**
  - **Actual site consumption consistently operated below predicted baseline**
  - **Stable refrigeration performance maintained throughout optimisation**

**Financial Impact:**

- **CAD \$22,439 projected annual savings**
- **8.13 month projected payback**
- **Live operational performance exceeded original quoted expectations**

Metric	Result
Validated Reduction	7.24%
Trial Energy Saved	13,525 kWh
Trial Duration	22 operational days
Projected Annual Savings	CAD \$22,439
Projected Payback	8.13 months
Technology	enPact FilterPro

### WEATHER-ADJUSTED ANALYSIS

Because the site includes significant refrigeration demand influenced by ambient conditions, weather-adjusted regression modelling was used throughout the analysis. The operational data demonstrated that FilterPro ON-period consumption consistently tracked below the predicted baseline profile, validating the achieved savings independently of changing external conditions. This ensured the reported reduction reflected genuine operational improvement rather than environmental variation.

### CONCLUSION

The deployment successfully demonstrated that enPact FilterPro can deliver measurable refrigeration-related energy reductions within high-load wholesale retail environments.

By combining:

- A validated 7.24% operational reduction
- 13,525 kWh measured trial savings
- CAD \$22,439 projected annual financial savings
- An 8.13 month projected payback

### SCALABILITY INSIGHT

Potential rollout opportunity across Costco-format retail estates  
Based on results from this deployment:

- 7.24% verified average energy reduction
- CAD \$22.4k projected annual savings per site
- Estimated:
  - CAD \$224k annual savings across 10 similar sites
  - CAD \$1.1M+ annual savings across 50 similar sites

The project demonstrates how FilterPro can deliver scalable refrigeration energy optimisation across large-format retail portfolios while maintaining operational stability.

## INTERESTED IN ACHIEVING SIMILAR SAVINGS ACROSS YOUR ESTATE?

Get in touch to discuss validated energy-reduction opportunities and multi-site rollout potential.

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