

# CASE STUDY — Global Wholesale Retailer Phase 2 (Canada)

8.97% Validated Energy Reduction | 9,942 kWh saved across 12 operational days | CAD \$30,240 projected annual savings | 6.03 month payback

## INTRODUCTION

Following the successful initial deployment, Costco Canada expanded Phase 2 testing of enPact FilterPro to further validate refrigeration energy savings under live operating conditions. The objective was to confirm long-term performance, quantify operational savings, and demonstrate the commercial viability of deploying FilterPro across large-format retail environments with significant refrigeration demand. Using weather-adjusted analysis and live consumption monitoring, the project measured energy performance during full FilterPro operation and compared it against the validated site baseline.

### SOLUTION

Patented enPact FilterPro Technology  
enPact FilterPro was installed to optimise refrigeration system performance by reducing electrical losses and improving overall system efficiency. The technology operates without impacting refrigeration temperatures, food safety requirements, or operational processes, allowing optimisation to occur continuously in the background. FilterPro was deployed to:

- Reduce refrigeration energy consumption
- Improve compressor operating efficiency
- Lower electrical demand across refrigeration assets
- Deliver measurable operational cost savings
- Support sustainability and carbon-reduction objectives

### CHALLENGE

Large-format retail sites operate extensive refrigeration systems that consume significant amounts of electricity throughout the day. Key challenges included:

- Continuous refrigeration demand across extended operating hours
- High energy consumption from refrigeration assets
- Variable ambient conditions influencing system load
- Requirement for accurate weather-adjusted validation
- Need to demonstrate measurable financial returns
- Maintaining operational performance throughout the trial period

## RESULTS:

- ### Whole-Site Refrigeration Savings
- **8.97% validated reduction in refrigeration energy consumption**
  - **9,942 kWh saved during the live operational trial**
  - **Savings achieved across 12 operational days**
  - **Consistent reduction in electricity consumption during FilterPro operation**
  - **Performance exceeded previous validation results**
- ### Financial Impact
- **CAD \$30,240 projected annual savings**
  - **6.03 month projected payback**
  - **Significant improvement compared with original business case projections**
  - **Demonstrates strong commercial viability for wider deployment**

Metric	Result
Technology	enPact FilterPro
Validated Reduction	8.97%
Trial Energy Saved	9,942 kWh
Trial Duration	12 Operational Days
Projected Annual Savings	CAD \$30,240
Projected Payback	6.03 Months

**Operational Performance:**  
The Phase 2 trial confirmed that energy reductions were maintained under normal operating conditions while refrigeration performance remained unaffected. Results demonstrate that FilterPro can consistently reduce refrigeration energy demand without requiring changes to site operations, maintenance procedures, or equipment controls.

### CONCLUSION

Phase 2 testing at Costco Canada delivered an 8.97% validated reduction in refrigeration energy consumption, generating 9,942 kWh of measured savings during the trial period.

The results support a projected CAD \$30,240 annual financial saving and a rapid 6.03 month payback, reinforcing FilterPro's ability to provide measurable, scalable energy reductions across refrigeration-intensive retail environments.

The project provides a strong foundation for wider rollout opportunities and demonstrates the value of continuous refrigeration optimisation through enPact FilterPro.

### SCALABILITY INSIGHT

The Phase 2 results further strengthen the business case for deploying FilterPro across large retail estates with substantial refrigeration loads.

The combination of:

- 8.97% validated energy reduction
- CAD \$30,240 annual savings per site
- 6.03 month payback

demonstrates the potential to deliver significant energy and cost reductions when replicated across multiple locations. For organisations operating large-format retail portfolios, the opportunity extends beyond individual site savings to create meaningful estate-wide reductions in energy consumption, operating costs, and carbon emissions.

## 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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