

CASE STUDY — Food Production & Distribution Facility (U.S.)

Patented enPact FilterPro Technology Delivers Up to 15.7% Energy Reduction at a High-Load Food Processing Site (Atlanta, GA)

INTRODUCTION

A major U.S. food manufacturing and distribution facility operating extended hours required a proven, non-intrusive solution to reduce electrical consumption across compressors, motors, HVAC systems, handling equipment, and general building load.

The site selected the patented enPact FilterPro power-alignment technology to improve electrical efficiency and reduce wasted energy without altering operations or affecting production throughput.

SOLUTION

The patented **FilterPro** technology was installed to optimise electrical performance across the facility by:

- Improving voltage alignment and reducing phase imbalance
- Minimising harmonics and electrical “noise” that cause wasted kWh
- Reducing unnecessary energy draw from motors, compressors, fans, and pumps
- Delivering measurable reductions with no operational disruption

Savings were validated using Baseline vs FilterPro ON comparisons and a multi-week measurement period.

CHALLENGE

- Rising electricity consumption from refrigeration, cooking, handling, and HVAC systems
- Equipment running long hours with high inductive load
- Inefficiencies caused by voltage imbalance, harmonics, and poor power factor
- Need for measurable, validated savings before multi-site rollout
- Requirement for a zero-downtime installation

RESULTS

Daily & Weekly Verified Savings

- **15.7% reduction with FilterPro**
- **96.2 kWh/day saved (FilterPro only)**
- **\$14.40 daily savings**
- **612.87 kWh average daily site consumption**
- **516.68 kWh average daily consumption with FilterPro**
- **Baseline vs FilterPro consumption difference: 188.6k → 153.5k (annualised)**

Metric	Value
Savings (%)	15.70%
Daily Savings (kWh)	96.2 kWh
Annual Savings (kWh)	35,100 kWh
Annual Financial Savings	\$5,000
Carbon Savings (Annual)	27,100 lbs CO ₂

CONCLUSION

The patented enPact FilterPro solution delivered a 15.7% electrical reduction at this high-volume restaurant site. With annual savings exceeding 35 MWh, no operational disruption, and strong carbon benefits, FilterPro provides a compelling, scalable opportunity for reducing energy consumption across the group's wider restaurant estate.

ESTATE-WIDE IMPACT (6 LOCATIONS)

If the patented enPact FilterPro technology were rolled out across all 6 sites, the projected benefits are:

- **210,600 kWh saved annually (≈35,100 kWh per site)**
- **≈\$30,000 yearly financial savings across the group**
- **Consistent 15–16% efficiency improvement per location**
- **162,600 lbs of CO₂ reduced every year, supporting corporate sustainability goals**

A scalable, low-disruption solution with strong operational and environmental impact across the full estate.

INTERESTED IN ACHIEVING SIMILAR SAVINGS ACROSS YOUR ESTATE?

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

✉ enquiries@emissis.com | 🌐 emissis.com | ☎ 01642 049024

