CASE STUDY — Convenience Retail Store (Ireland)

10.6% total electricity reduction

150 kWh saved per day | 54,748 kWh saved a year | €8,760 saved annually | 6.2-month payback

INTRODUCTION

A busy convenience retail store in Ireland was looking to reduce rising electricity costs across a site with continuous refrigeration, chillers, lighting and general retail load. The store needed savings it could trust — independently verified, not estimated — and delivered without any disruption to trading.

The patented enPact FilterPro electrical power alignment device was installed at the site's incoming supply to reduce the losses that arise across inductive loads, lowering the kWh drawn to do the same work. Performance was measured through ON/OFF comparison and confirmed against both Emissis metering and the customer's own utility bills.

SOLUTION

Patented enPact FilterPro — electrical power alignment

The store installed the patented enPact FilterPro device at the incomer, aligning the site's electrical supply to cut wasted consumption across refrigeration, chillers, motors, lighting and general loads.

The retrofit required only a short electrical shutdown, with no change to equipment or the way staff run the store, and delivered immediate, measurable reductions.

CHALLENGE

- Rising electricity costs across a continuously trading site
- High, round-the-clock refrigeration and chiller load
- No option for downtime or disruption to trading
- A need for savings verified independently — not estimated
- Assurance the reduction was real by cross-checking against the customer's supplier invoices
- A rapid payback to support wider rollout across the group

Results

54,748 kWh SAVED A YEAR

Equivalent to eliminating over 11 tonnes of CO_2 annually.

€8,760 SAVED EVERY YEAR

Around €730 a month in direct reductions.

10.6% TOTAL CONSUMPTION REDUCTION

Achieved across all electrical loads on site.

6.2-MONTH PAYBACK

Well inside the quoted 10-month window — fast enough to justify multi-site rollout.

Metric	Quoted	Achieved
% Savings	7%	10.6%
Annual kWh Saved	33,942 kWh	54,748 kWh
Annual Financial Savings	€5,431	€8,760
Payback	10.0 months	6.2 months

Confirmed by year-on-year metering

Emissis metering shows the same site consuming less than the year before, month after month:

Month	2025	2026	Saving
Jun	41,512	38,047	-8.3%
Jul	44,660	39,978	-10.5%
Aug	44,698	38,490	-13.9%
Sep*	22,441	19,749	-12.0%

11.1% lower across Jun–Sep (17,047 kWh). *Sep is a part-month (16 days).

CONCLUSION

The patented enPact FilterPro delivered substantial, independently verified savings at this convenience retail store — a 10.6% reduction across all electrical loads and a 6.2-month payback, comfortably ahead of the quoted return.

Because the saving is confirmed by both Emissis metering and the customer's own utility bills, it provides a robust, data-backed basis for rolling the technology out across further stores in the group.

VERIFIED AGAINST THE CUSTOMER'S UTILITY BILLS

The store's own supplier invoices confirm the reduction independently of our metering — the strongest possible check on the numbers.

Month	2025	2026	Saving
Jul	44,636	40,922	3,714 kWh -8.3%
Aug	44,859	39,374	5,485 kWh -12.2%

Billed consumption fell 10.3% year-on-year across these months — closely matching the metered result.

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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