



# Clarifoil® Anti-Fog Film for Frozen Doors

A comprehensive case study was carried out at three fully operational ASDA locations in England between January and May 2024. The study aimed to demonstrate the effectiveness of **Clarifoil** in reducing electrical demand and consumption. Results highlighted significant energy savings and a measurable reduction in carbon emissions, underscoring the potential for impactful sustainable improvements in retail operations.

## Why Clarifoil Anti-Fog Film?

Traditional trim heaters on frozen food doors consume significant energy and often fail to prevent condensation effectively. Fogged glass not only obscures products but also discourages customer purchases.

Clarifoil's Anti-Fog Film revolutionizes frozen food sections by eliminating condensation and frost buildup. With this innovative solution, trim heaters can be turned down – or even turned off – instantly reducing electrical demand. Customers enjoy crystal-clear visibility, even after doors have been opened, ensuring products are always in plain sight.

With over 750 stores and 75,000 doors across the US and Europe already benefiting from Clarifoil, this sustainable and energy-efficient solution is redefining frozen food displays, one clear door at a time.



Looking for more information?  
Please contact [info@mphglobal.com](mailto:info@mphglobal.com)

## Study Findings

Trim heaters dialed down to 20% resulted in electrical savings

**31-41%**

for frozen food cases

The electrical savings of frozen food cases would be

**39-51%**

with trim heaters turned off

Annual Savings	
Trim Heat lowered to 20%	Trim heat off
<b>1,278</b> kWh saved per door	<b>1,570</b> kWh saved per door

Additional  
**Electrical  
Demand**

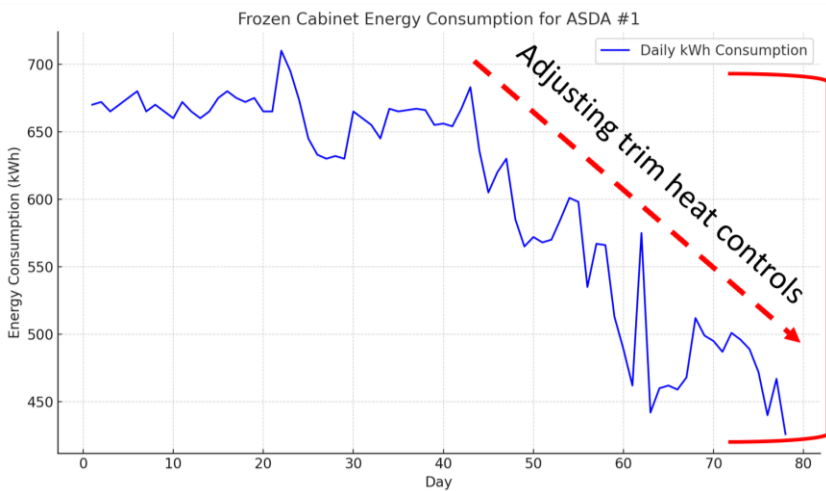
cost savings from implementing  
Clarifoil



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## Results

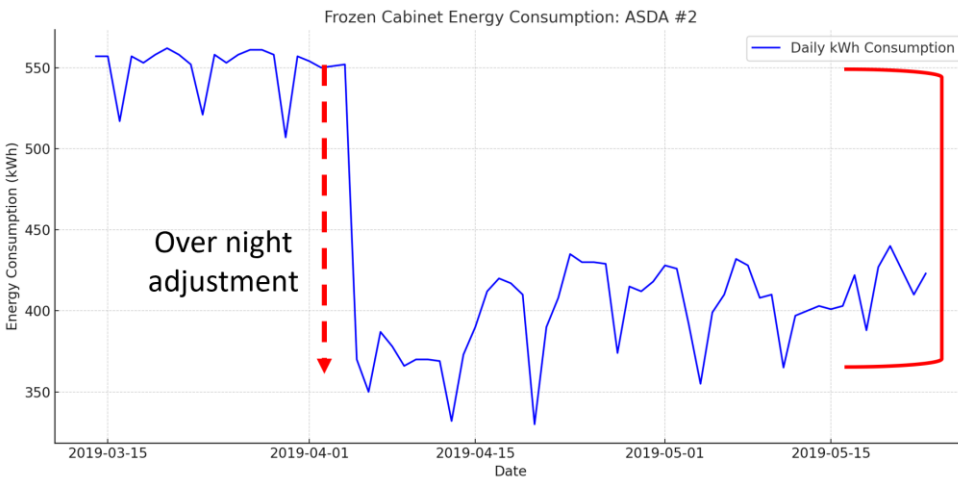
The frozen cases were sub-metered to identify the average energy consumption before and after Clarifoil installation. Daily energy consumptions of frozen cases are displayed on the graphs. **Final trim heater settings are at 20% power** due to customer preference. Annual savings of trim heats shut off are extrapolated off this data.



### ASDA#1 (Reduction Over a month)

Average 1 month consumption	652 kWh
Final Setting	426 kWh
<b>35% Reduction</b>	

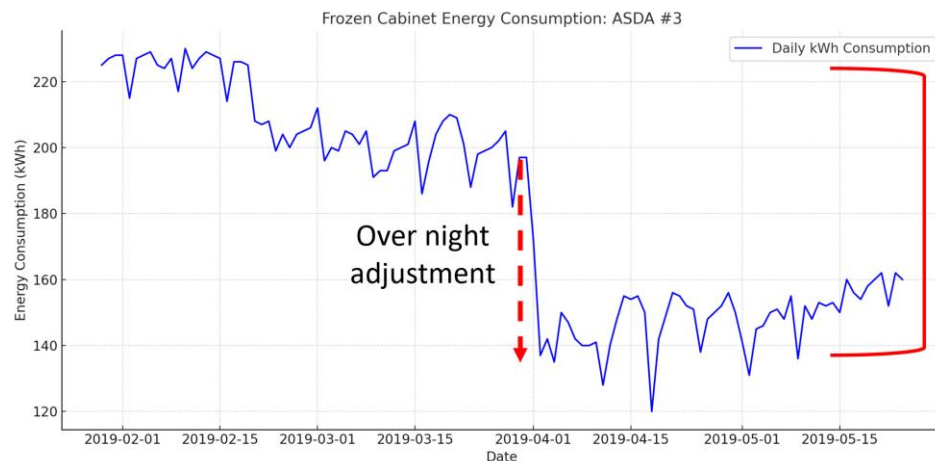
- Gradual decrease to optimal trim heat setting
- Fine-tuning of savings without compromising performance



### ASDA#2 (Reduction Overnight)

Average 1 month consumption	550 kWh
Final Setting	380 kWh
<b>31% Reduction Overnight</b>	

- Direct and measurable impact. Overnight.
- Provides benchmark for rapid rollouts



### ASDA#3 (Reduction Overnight)

Average 3 month consumption	220 kWh
Final Setting	130 kWh
<b>41% Reduction</b>	

- Lower baseline energy consumption due to smaller doors