RETAIL INDUSTRY LEADERS ASSOCIATION

H&M - CLOSING DOORS TO OPEN SAVINGS

RILA Retail Energy Management Program: September 2018

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Implementation Model:
Closed-Door Store Policy Yields Energy and Cost Savings

BARRIER
Open exterior store doors increase energy costs but are considered a way to encourage customer foot traffic.

SOLUTION
Examine the impacts of open versus closed exterior doors on foot traffic and energy use.

OUTCOME
H&M determined that closing exterior doors results in approximately $10,000 in energy cost savings a year on average per store with no discernable impact on foot traffic, leading to the establishment of a company closed-door policy.

OVERVIEW

H&M, the international clothing retailer, has more than 4,500 retail stores worldwide, including over 20 stores in New York City alone. Prior to 2015, H&M stores often kept exterior doors open to promote store foot traffic. It was assumed that on a hot day, feeling air conditioning coming from a store would encourage customers to enter. However, in 2015 New York City passed legislation requiring stores and restaurants to keep front doors closed while building air conditioning is running. The following year, H&M decided to use the operational change mandated by the new closed-door law as an opportunity. They decided to examine whether closing the New York City doors had decreased foot traffic as well as estimate the typical additional energy costs from leaving doors open, so that a cost benefit decision could be made for other locations.

Example design of vinyl sticker provided to stores

> **"For H&M, sustainability is an integral part of all that we do and is shown in our business concept of 'fashion and quality at the best price in a sustainable way.' It is important for us to also put that into practice in our stores. Keeping the doors shut and lowering our environmental impact on the planet by conserving energy shows our customers through concrete actions that being sustainable isn't just something we say, it's something we do every day, in every place we operate."**
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> **John Ehrnst**
> **Sales Manager US**
> **H&M**

Better Buildings® U.S. DEPARTMENT OF ENERGY

This Implementation Model was completed with support from the Department of Energy's Office of Energy Efficiency and Renewable Energy and the Better Buildings Initiative to highlight innovative proven energy solutions from market leaders in the Retail sector. Find more ideas at the Better Buildings Solution Center at betterbuildingssolutioncenter.energy.gov

PROCESS

The H&M North America Sustainability Team set out to determine both potential energy savings and changes in store foot traffic from a closed-door policy. Using the size of the entrance doors and the typical pressure differential between exterior and interior (0.02" WC), H&M first calculated the volume of air that infiltrates the store when the doors are left open. Then, using the 30-year average hourly weather data for a sample store located in NYC, they calculated the energy it takes to cool that infiltrating air to their standard cooling setpoint of 73°F across an entire summer. Retailers interested in conducting a similar study should consider using the National Renewable Energy Laboratory's Retail Building Guide for Entrance Energy Efficiency Measures as a starting place.

H&M assumed a store located in New York City with two sets of exterior doors, and an average combined electric rate of $0.129/kWh, to calculate a conservative estimate of potential savings. From their analysis, H&M Energy Specialist Kyle Hopkins estimated that the average store with two sets of exterior doors costs the company an additional $10,000 annually if they leave the doors open for an entire summer (1,377 open-door hours). This adds up to as much as $1 million in avoidable annual costs across the 125+ H&M locations with exterior doors.

Second, to determine whether H&M stores experience a decrease in foot traffic from keeping doors closed, H&M investigated whether there was any change in foot traffic after the NYC local law came into effect. They found no discernable change in foot traffic data gathered by sensors before and after New York City implemented the closed-door law.

Based on these two striking results, the possibility that other cities may follow New York's legislative lead, and H&Ms goal of "100% leading the change" in retail sustainability, the Sustainability Team proposed a country-wide closed-door policy to senior leadership.

A key aspect of the business case for the new closed door policy was a lack of evidence that foot traffic was affected by the New York City law's implementation. This challenged the assumption that open doors indirectly drive sales enough to justify the additional energy use and costs.

BY THE NUMBERS:

Metric	Results
Estimated average energy savings per store	77,522 kWh
Estimated average energy savings per store	$9,987

OUTCOMES

Presented with a low-cost, low-risk savings opportunity that aligned with H&M's sustainability objectives, senior leadership was open to pursuing the company-wide change. In Spring 2016 the Sustainability Team presented their research, and by the summer, the H&M North America President approved the closed-door policy. The policy states that stores with exterior facing doors should keep these doors closed at all times unless they need to seek an exception for a special case. For example, some outdoor shopping malls require retail tenants to leave exterior doors open.

To support implementation of the policy, the Energy Team worked with the H&M Marketing Department to create a vinyl sticker for stores to place on doors, which reminds store employees and customers to keep them closed. Even with visual prompts, implementing the policy requires ongoing monitoring and troubleshooting. For example, some doors have hinges or hooks that hold doors open if opened widely, requiring associates to monitor them or prompting H&M to remove the mechanisms. In San Francisco, a local law requiring signage stating that retail store doors must be "open" during operating hours was misunderstood as meaning physically open, rather than simply unlocked. Finally, in a few cases where energy consumption data indicated the policy was not being followed, security cameras provide verification whether doors were truly being kept closed.

Even with a few behavioral challenges to overcome, H&M is confident the expected savings will be well worth the educational investment.

INTERNAL PROCESS SPOTLIGHT: CREATING A BUSINESS CASE FOR A CLOSED-DOOR POLICY

Many retailers have untested assumptions about how open doors influence customer foot traffic. Quantifying the costs and benefits of a closed-door proposed policy is an important example of how simple operational energy savings opportunities are still available to many companies.

RECOMMENDATIONS

- Quantify closed door store foot traffic impact by either examining New York City store foot traffic data preand post-law (if doors were left open before the law) and/or running an experiment to compare year over year foot traffic changes at other locations;
- Quantify the loss of energy when doors are left open;
- Quantify energy savings by calculating the additional cost of requiring HVAC systems to compensate for the temperature change and energy loss when store doors are open;
- Use the National Renewable Energy Laboratory's Retail Building Guide for Entrance Energy Efficiency Measures as a starting place;
- Engage with key stakeholders within the company to explain results and explore their concerns;
- Lead with results about foot traffic if no impact is detected, since a reduction in sales is typically the primary concern.

RILA ENERGY MANAGEMENT AT RILA

PROGRAM BACKGROUND

Retailers have a significant opportunity to reduce energy consumption and associated greenhouse gases across their portfolios, to the benefit of both companies and the environment. RILA is committed to helping its members overcome barriers to enhanced energy performance across their building portfolio. RILA has several resources available to help members optimize their energy programs.

ENERGY MANAGEMENT COMMITTEE:

The Energy Management Committee is a community composed of retail energy practitioners who work to improve energy efficiency and procurement at their companies – including the procurement of renewable and alternative energy. Energy practitioners address issues that affect the management of energy consumption as a retail operational expense and capital investment opportunity as well as performance related to efficiency, emissions, and/or renewable energy that may be framed by a sustainability goal. The Committee benchmarks regularly via calls, meetings and surveys.

RETAIL COMPLIANCE CENTER

Retail Compliance Center (RCC) Program Management Tools:

- RILA Retail Advisor for Energy: Free analytical platform that provides program evaluation, customized guidance, peer benchmarking and goal setting for retail energy management programs.
- Retail Energy Management Leadership Model: Roadmap to help retail energy managers optimize their energy programs.
- Energy Management Resource Library: Provides specific tools, case studies, and opportunities to help progress the maturity of energy programs.

For more information on RILA's Energy Management Committee, contact Erin Hiatt, Senior Director, Sustainability and Innovation at erin.hiatt@rila.org.

For more information on RCC resources and tools contact Kaela Martins, Manager, Environmental Programs & RCC at kaela.martins@ rila.org.

Find more Better Buildings resources at betterbuildingssolutioncenter.energy.gov

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