

Building Controls National Retailer Case Study



LEADING THE FUTURE OF
LIGHTING + TECHNOLOGY

Building Controls: National Retailer

A national retailer sought out a smart building controls solutions provider capable of solving for an aging building controls system throughout 800 store locations. With an outdated, proprietary system this retailer knew they were losing money due to operational inefficiencies. They wanted to take a proactive approach to updating building systems and controls to help lower operating and maintenance costs, while increasing control of their own data.

The Challenge

Knowing their systems needed replacing, this retailer took a holistic approach to find a solution that would update systems and technology, drive operational efficiencies, provide a non-proprietary building management system and create larger energy savings. The solution needed to take into consideration the following outcomes:



Vendor neutral

Didn't tie them to a particular vendor



HVAC controls

Provided more control over store HVAC systems



Lighting controls

Provided more control over interior and exterior lighting



Systems analysis

Generated detailed, dynamic store building operations data



IoT futureproofing

Laid the groundwork for future IoT capabilities



Generate revenue

Create opportunities to participate in demand/response commodity programs

Given the magnitude and scope of the project the retailer partnered with EMC, a trusted, turnkey LED lighting provider who already had experience helping them with previous large-scale LED lighting upgrade rollouts.

The Solution

EMC proposed a best-in-class solution to the national retailer that achieved their goals and provided significant initial savings with opportunities for more. Applying its turnkey SmartMAXX™ approach, EMC designed, engineered, installed and deployed the software and hardware solution across the entire 800 store portfolio.

As a System Integrator of Distech Controls, EMC designed and engineered the specified hardware and leveraged their in-house, Niagara certified engineers to build the software on the Tridium framework. Utilizing EMC's dedicated incentives team, the retailer saw initial savings offered by local utility programs.

The new, non-proprietary solution includes a customized graphical user interface that allows for local and enterprise-wide functionality. Changing the lighting schedule or HVAC settings for one store or a grouping of stores would now be possible with the click of a button.

The Results

Early in its deployment, the new Distech system already significantly enhances the retailer's ability to:

- Implement global and regional-based lighting scheduling changes that take effect in two hours or less
- Generate reports the company uses to maximize energy efficiency for store HVAC and lighting and streamline route maintenance, fixing problems before units are damaged and waste occurs
- Participate in expense-saving load shedding programs and revenue generating energy capacity markets
- Properly address security protocols

The retailer saw a payback timeframe of two years with an initial \$5M in annual savings. Since the solution provided a futureproofed infrastructure, the retailer and EMC have already laid the groundwork for additional paths to savings.

Annual Savings Results = \$5M



\$2M

Customized programming
for parking lot lighting



\$500K

Bulk lighting schedule change
eliminated manual labor previously
required for annual updates



\$500K

Bulk HVAC schedule change
eliminated manually changing
each location



\$2M

Trash compactor sensors installed to
eliminate unnecessary pick ups

MAXXimize Your Building

EMC's turnkey project management approach for controls projects, SmartMAXX, has helped our customers maximize the results of each project phase—from multisite energy audits to maximizing utility savings with energy rebates and incentives—bringing an immediate and positive impact to their bottom line.



The SmartMAXX Process maximizes the results of your smart building project in each project phase:

Consult

Understand your building's energy usage

Design

Source or build the best technology to meet your goals

Engineer

Customized and scalable solutions built in-house

Incentives

Receive maximum value and drive lowest initial cost

Install

Nationwide experts complete as scheduled with a comprehensive and clear scope

Commission

Ensure your solution is operating at full strength

Service

Maximize long-term value of your new systems



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