



MID-ATLANTIC ENERGY SOLUTIONS

STORE-LEVEL LIGHTING UPGRADES ALLOW NATIONAL MATTRESS RETAILER TO REST EASY

About Mid-Atlantic Energy Solutions

Headquartered in Salisbury, MD, Mid-Atlantic Energy Solutions is a leading energy efficiency implementation specialist that works closely with commercial building spaces to improve HVAC, lighting, and refrigeration efficiencies to generate long-term energy savings. Customized strategies are developed, aligned to, and implemented with the intent of analyzing and optimizing results in the months and years to come. In most cases, project installation costs are recovered within the first 6-12 months of execution. Mid-Atlantic understands the importance of building long-lasting, enduring partnerships with each customer, so they choose to work with only the best products and systems available.

ENERGY SAVINGS

generated with the addition of occupancy/vacancy-based control.

USER SATISFACTION

through simple setup and intuitive user experience.

NETWORKED LIGHTING CONTROLS

that are scalable and easily upgradeable as future needs arise.

About the End Customer

Based on a locally owned and operated business model, this national retail chain sells multiple branded mattresses and accessories, beds, and bed furnishings. The company started small with a single store but has grown to serve hundreds of locally operated stores located throughout the United States. This growth is directly attributed to not only providing a high-quality product at a reasonable price but also to delivering it at the highest industry standards of customer service, including the in store experience.

The Challenge

The mattress retailer converted their retail stores from fluorescent to LED lighting but felt there were still additional energy savings opportunities still on the table so they reached out to energy efficiency specialist, Mid-Atlantic Energy Solutions. During an initial energy consultation, it was discovered that a typical business day experienced long periods of time where store traffic dropped off considerably or was focused exclusively on certain sections of the store. No matter the proposed solution, it could not come at the cost of affecting their customer's store experience.

Our Solution

Toggled iQ® networked lighting controls (NLC) provide the ability to install a user centric, occupancy-based lighting system that's capable of generating substantial energy savings behind the scenes without the risk of sacrificing the store's aesthetics or customer and employee comfort levels. The system is designed to automatically turn lights off/on in areas that aren't in use for extended periods of time, even if it's during standard business hours, without being noticeable or disruptive.

A free downloadable mobile-phone based **Toggled iQ app** provides an intuitive interface to enable an easy installation and commissioning process for Mid-Atlantic Energy Solutions. After the completion of the initial setup, the mattress retailer's store management and sales team's were able to customize and control their lighting preferences as desired. Each member of the team received individual level controls where allowed by the corporate team.

Toggled iQ sensors, switches and area lighting controllers were installed to allow the store's lighting system to sync and automatically shut off certain areas whenever motion was not detected within a 30-minute period as well as implement an overall on/off lighting schedule to maximize energy savings during non-business hours. The new system proved highly effective and eliminated certain areas from being unnecessarily lit for excessive periods of time while not sacrificing store aesthetics or sales team comfort. Since the system works at the device level, storefront lights were commissioned to remain permanently on during business hours to limit the risk of customers potentially thinking the store was closed.

Toggled iQ area lighting controllers provided a switching and dimming interface between the existing 3rd party LED fixtures and the Toggled iQ platform. This allowed for considerable cost savings because it allowed the existing LED fixtures to be repurposed and seamlessly integrated into the Toggled iQ platform.

Toggled iQ sensors enabled customizable occupancy/vacancy-based control. The sensors were installed and commissioned so that each of the store's retail sections had the ability to turn the lights off at customized intervals of motion detection and back on at different durations of non-activity time frames. This provided smoother light transition periods, so that it wasn't noticeable that the lights were going on and off throughout the day. Note: Additional sensing and data analytics capabilities (light output levels, temperature and humidity conditions) are available using the same sensors in tandem with an available Toggled iQ gateway, if the customer has interest in the future.

Toggled iQ switches only require AC power (120-277 VAC) to enable wireless control of any Toggled iQ device or group of devices. The switch allows for on/off, dimming, scene creation/selection, and scheduling. This capability provides the system the ability to turn on/off as commissioned to accommodate business and non-business hours customization.

Results

Adding Toggled iQ networked lighting controls achieved the customer's goal of generating additional energy savings beyond just the fluorescent to LED upgrade. During the first few months of implementation, the system saved over 30% in overall store lighting energy costs.

Toggled iQ area controllers and sensors seamlessly provided the ability to turn select areas of the store off when not in use without any notice from customers or sales associates.

Overall installation costs were kept to a minimal since Toggled iQ is a wireless networked lighting control system that does not require expensive new wiring to be run along with the associated labor installation fees. System commissioning was completed in just 20 minutes per store compared to multiple hours which allowed the commissioning team to complete up to 5 stores per day instead of just one.

Best of all, Toggled iQ is designed to add features easily and seamlessly at any point in the future, so when the team is ready, it can even implement a component that provides store level traffic monitoring.