



CASE STUDY

By Larry J. Cohen, CAPP

LANCASTER PA

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Budgets for parking organizations across the nation have been strained from declining or flat patronage, steadily rising operating expenses, and increasing maintenance costs. Raising rates can alienate long-time customers, especially in a struggling economy. But that doesn't leave parking professionals without options to improve the bottom line. One place to look for savings is the lighting system.

In facilities with older, yellow light, high-pressure sodium (HPS), T-12 fluorescent lamps (obsolete in June), or even newer metal halides (MH), a more efficient system can cut electric and maintenance costs considerably. Tie in a new electricity supply contract (in deregulated states), utility rebates, and low-interest financing options, and the picture gets even brighter. Done right, the result is not just curtailed operating expenses and a healthier bottom line, but better lighting quality for improved safety and customer comfort, and environmental benefits as well.

For all these reasons, the Lancaster Parking Authority (LPA) recently made a smart investment in its lighting system and energy spending. Vendors were asked to provide plans for a new lighting system with a turnkey process, along with an electricity supply contract and innovative financing options. Because the power market fell since our current agreement was

signed a few years before, LPA sought to accomplish two goals with a single contract: to provide for a lighting upgrade, and strike a new multi-year electricity deal. The plan was to keep our total expenses nearly constant and end up with newer, better lighting with no cash outlay; we essentially wanted a free lighting system. At the end of the payback period, all the ongoing energy savings would accrue to LPA.

LPA's five garages contained more than 1,800 fixtures made up of several different systems that included MH, HPS, and old T-12 tubes. Annual energy and maintenance costs were around \$200,000. Some facilities were over-lit and others were under-lit; both situations diminished our customers' experiences.

The winning bidder for our retrofit, BlueStar Energy Solutions, proposed replacing most of the MH and HPS fixtures with a fixture designed specifically for parking applications housing the latest, highly-efficient, long-



life T-8 fluorescent lamps. In addition to speeding up installation and cutting project costs, this approach lowers long-term maintenance costs and throws out more light. The fixtures will enhance the garages by providing better illumination, which we feel contributes to our customers' safety and enhances their experience in our garages.

Because of product warranties, initial maintenance costs will be zero. The total system wattage was reduced by more than 40 percent and energy costs were cut by nearly half. BlueStar worked closely with PPL Electric Utilities, the local energy provider, to maximize the value of their rebate. The company also offered a combined supply contract and leasing option in which LPA's flat monthly fee for electricity and lighting project repayment was less than our previous monthly electric bill.

In the end, the LPA chose BlueStar's three-year fixed rate energy option that provided significant savings, and decided to pay cash for the project out of existing funds.

One option LPA considered was LED. "LED gets a lot of publicity, but for a garage, it's not there yet," said board member and lighting expert Brian Reynolds.

Wayne Callham, BlueStar's vice president of light-

ing and efficiency, agreed. "At this point in time, LEDs don't necessarily last longer or improve efficiency over the latest fluorescent technology, and will cost more up front," he said. "Further, one has to make sure to work with manufacturers that will be around to service their warranties."

Because the project is reducing energy consumption, fewer electrons need to be generated from coal and other sources, so there are significant environmental benefits. Environmental estimates include more than 600 tons of CO₂ avoided annually, along with several tons of SO₂ and NO_x—the same as taking more than 100 cars off the road or planting more than 15,000 trees.

BlueStar's holistic approach, which included several options packaged in a complete turnkey process, gave the board different options to consider. BlueStar took all the risk on labor, material, the rebate, and project execution. They finished on time and delivered what they promised.

LPA Chairman Mark Vergenes is also pleased with how it turned out. "A turnkey project smoothly executed that cuts operating costs, improves safety, provides a better customer experience, and benefits the environment—what's not to love?"



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