

Sustainability Supports the Bottom Line at LBT

BY KYLE BELL
 APTA Program Manager-
 Environment and Infrastructure

In Long Beach, CA, host city for the 2012 APTA Bus & Paratransit Conference, Long Beach Transit's (LBT) commitment to sustainability has paid dividends, both financial and environmental.

Through its recent project to retrofit and replace lighting fixtures at its Anaheim Street and 68th Street bus facilities, LBT has not only reduced the environmental impact of its operations, but also improved the bottom line of its maintenance division.

Rolando Cruz, LBT executive director and vice president, has placed a priority on environmental measures because they mirror the desire of the community to lessen overall impacts on the environment, and they make business sense as well. As the bus facility upgrades show, an upfront investment often leads to quantifiable long-term savings.

Key to this success was patient compliance to grant requirements and identifying staff with a passion for sustainability issues: in this case, Maintenance Analyst Jobel Rentino, who was "instrumental in connecting all the dots and keeping the project on task."

In July 2009, LBT conducted an energy audit through Southern California Edison, the local electric utility, and determined that it could replace its aging lighting fixtures, improving efficiency and achieving a return on investment in a relatively short time.

As of March 2012, the agency has replaced metal halide fixtures and aging magnetic-ballast fluorescent lighting with modern, efficient electronic-ballast T-5 high output (HO) and T-8 and fluorescent fixtures at its Anaheim Street facility.

A final cost of \$16,906 for the Anaheim Street overhaul, with an energy incentive of \$12,406 from the utility, has led LBT to an estimated \$19,864 annual savings. These energy efficiency measures are expected to earn a return on investment (ROI) in nine months, with a savings of more than 200,000 kilowatt-hours (kWh) per year.

The retrofit and replacement process at the 68th Street facility is expected to be complete by July 2012 with an ROI of 10 months, an annual savings of \$18,232, and more than 250,000 kWh in avoided electricity usage. For each



LBT's Anaheim Street bus facility, before (left) and after a retrofit of its lighting.

kilowatt-hour saved, LBT realizes 15 cents in savings and avoids one pound of carbon dioxide emissions.

When asked for advice to APTA members looking to pursue similar energy efficiency projects, Cruz suggested that they begin by requesting a free energy audit from the local electric utility; he added that he was surprised at the programs available and the time the utility is willing to spend looking at usage and making

recommendations. LBT then used these recommendations to create an energy plan and multiple capital projects with positive ROIs.

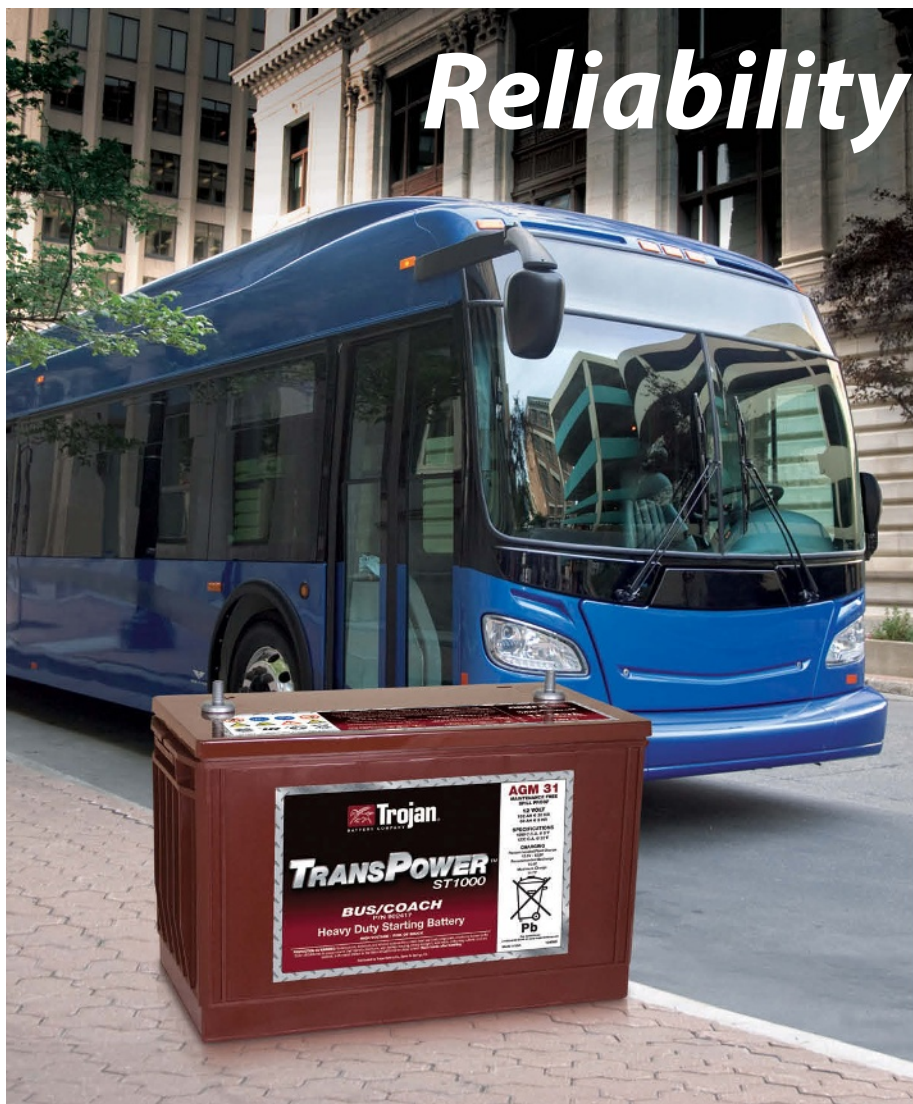
LBT is a signatory of the APTA Sustainability Commitment, which asks public transit agencies and businesses to make sustainability a part of strategic objectives, identify a champion, create an

outreach program, and measure environmental metrics. The commitment has moved LBT to "take a hard look at ourselves and our practices," said Cruz.

He added: "As more and more employees get involved through our employee green team, the employee sustainability pledge, and implementation of an Environmental Sustainability Management System, the concept of doing right for our environment becomes second nature."

Long Beach Transit Shop Lighting Replacement—Return on Investment (ROI)

Location	Description	Cost	Rebate	Net Cost	Annual Utility Savings	ROI
68 th St. Shop	replace metal halides and wall mounts	\$ 29,163	\$ 15,379	\$ 13,784	\$ 18,232	9 Months
Anaheim Facilities	replace metal halides and wall mounts	\$ 29,312	\$ 12,406	\$ 16,906	\$ 19,864	10 Months
Totals		\$ 58,475	\$ 27,785	\$ 30,690	\$ 38,096	9.5 Months



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