

Boston: Grants and/or Rebates

Many utilities offer energy conservation grants and rebates to their industrial, commercial, and residential customers. An increasing number of utilities are now also offering similar incentives to their street lighting customers.

For example, the City of Boston owns 64,000 electric streetlights, including 42,000 mercury vapor and 22,000 high-pressure sodium units. Prior to installing LED streetlights, the city spent \$8 million annually on electricity (along with another \$1.3 million on gas for its popular historic gaslights). Boston implemented its first LED pilots in 2009, with a goal of eventually replacing all of its electric streetlights with LED. The National Environmental Policy Act encouraged Boston to phase out its mercury vapor streetlights, and in 2010 the city reached an agreement with NSTAR, its investor-owned utility, to provide rebates for this effort. The incentive provided \$0.20/kWh saved (an average incentive of \$142 per luminaire), and covered more than 27 percent of the project cost. The City of Boston provided the remaining \$13.7 million of the project costs. With a projected annual energy cost savings of \$3.4 million overall, Boston is expecting to recover its entire investment through cost savings in about 5.6 years. From NSTAR's perspective, the efficiency gains from supporting conservation measures was determined to be a lower-cost alternative to new generation.



LED Retrofit Financial Summary	<u>Boston, MA</u>
Population	625,000
Total costs:	\$18,865,000
NSTAR incentive*:	\$5,162,540
Net project cost to City of Boston:	\$13,702,460
Total LED fixtures in project:	38,000
Monthly kWh savings:	2,151,060
Monthly energy cost savings:	\$280,000
Annual kWh savings:	25,812,700
Annual energy cost savings:	\$3,355,660
Estimated lifetime energy cost savings [†] :	\$50,334,900
Simple return on investment (ROI):	2.7
Estimated payback period ^{**}	5.6 years ^{††}

Financial figures rounded to nearest \$10

NSTAR Incentive: \$0.20/kWh saved

**Financial analysis period is 15 years*

***Energy & maintenance*

†† Whole project