Massachusetts Residential Lighting Market Assessment

The goal of this study was to update in-service rates, hours-of-use (HOU), and estimates of lighting saturation and other critical market indicators in Massachusetts and portions of Upstate New York. Based on market indicators, it is clear the MA programs continue to have a strong impact on the market. LED saturation rates in the comparison area (NY) continue to lag behind the rates measured in MA, though penetration is now equal in both states. ENERGY STAR LEDs (the only LEDs supported by the programs) continue to account for the majority of the difference in LED saturation between the two states - with more than twice as many ENERGY STAR LEDs found in use in MA compared to NY.

Impact Factors

HOU Update

Lifetime In-service Rates

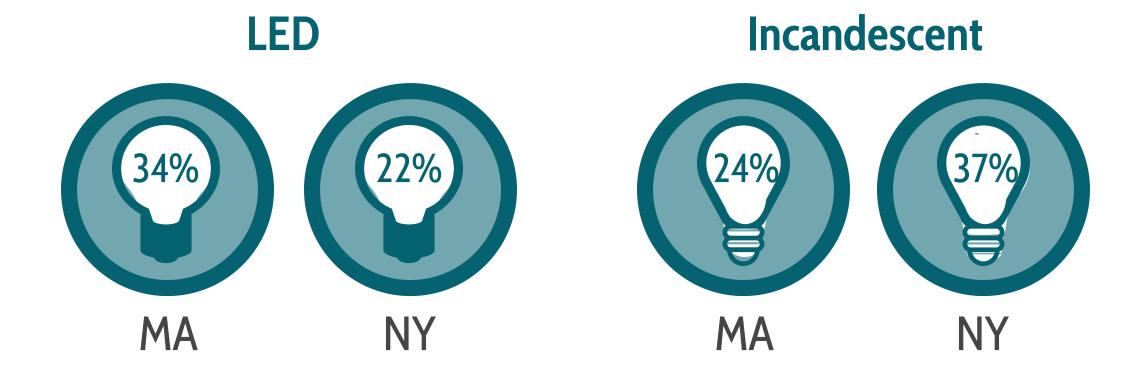


In Massachusetts, HOU for all LEDs installed through 2018 is 3.0 hours per day.



2019 Saturation Rates

Differences in LED Saturation by Shape

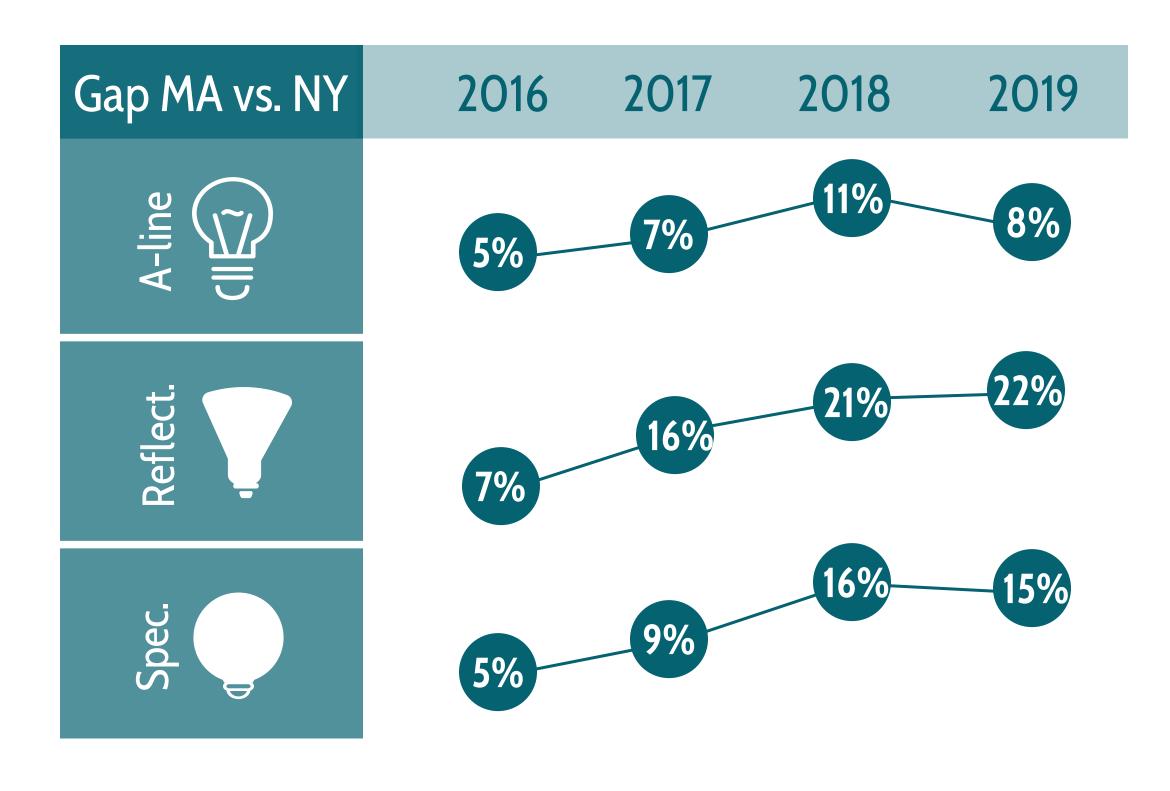


In 2019, LED saturation (the percentage of sockets filled with these bulbs) was significantly higher in Massachusetts than in New York and incandescent saturation was significantly lower in Massachusetts.

Saturation of ENERGY STAR LEDs in Massachusetts (22%) was more than twice that observed in New York (10%), and accounted for the entirety of difference in LED saturation between the two areas.

This is strong evidence that the Massachusetts programs (which exclusively support ENERGY STAR LEDs) are driving increased adoption.

The gap in LED saturation between Massachusetts and the comparison area continues to widen for reflectors and was maintained for other specialty bulbs. The gap increased from 7% in 2016 to 22% for reflectors and increased from 3% in 2016 to 15% for other specialty.



Newly Installed Replacement Bulbs (%) 2018-2019

Massachusetts

LED bulbs (55%) were the most common replacement bulb, followed by inefficient bulbs (25%).

One-fifth (21%) of all replacements came from storage compared to two-fifths (38%) of inefficient replacements.

New York

LED bulbs (43%) were the most common overall replacement bulb, followed by inefficient bulbs (34%).

Despite this, inefficient bulbs were the most common choice to replace other inefficient bulbs.