



- EXECUTIVE SUMMARY -
NORTHEAST RESIDENTIAL LIGHTING STRATEGY
PRESENTED BY NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS
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EXECUTIVE SUMMARY

KEY FINDING

Even with new minimum federal lighting efficiency standards, energy efficient lighting products continue to offer a major opportunity to cost-effectively reduce household energy use over the next 8-9 years. As a result, high efficiency products offer an important role to assist New England and New York to realize the capture of all cost-effective energy efficiency as articulated in their policy goals and provide broad energy, economic and environmental benefits. To realize the full measure of cost-effective savings, efficient lighting products should continue to play a major role in residential energy efficiency programs across the region with the goal of full market transformation.

REGIONAL GOAL

Maximize cost effective energy savings by the end of the decade by filling at least 90 percent of lighting sockets with an efficient light source

Maximize cost effective energy savings by the end of the decade by filling at least 90 percent of lighting sockets with an efficient light source (45 lumens/watt or greater). Doing so in New England and New York would reduce household lighting consumption by 47 percent and save on average 636 kWh per year or \$111 per household¹. At the regional level, the cumulative annual savings by 2020 will amount to 43,800 GWH hours and cumulative first year demand savings of 837 MW, and reduce projected carbon

emissions by over 25 million metric tons. The annual energy savings in 2019 would be equivalent to the energy usage of nearly 1.2 million households (Nine percent of the households in the Northeast). The demand savings is comparable to displacing more than two 500 MW combined cycle power plants at an assumed 75 percent capacity factor. Finally, the projected carbon emissions would equate to removing almost five million cars from the road for a year².

While efficiency Program Administrator (PA) costs to promote a broader range of new efficient lighting products will be higher than current programs costs, increased market adoption of a broader array of efficient products will provide significant costs savings compared to reliance on products that minimally meet new federal lighting standards - providing cumulative cost savings net of efficiency program incentive costs of over \$6.8 billion through the end of 2019.

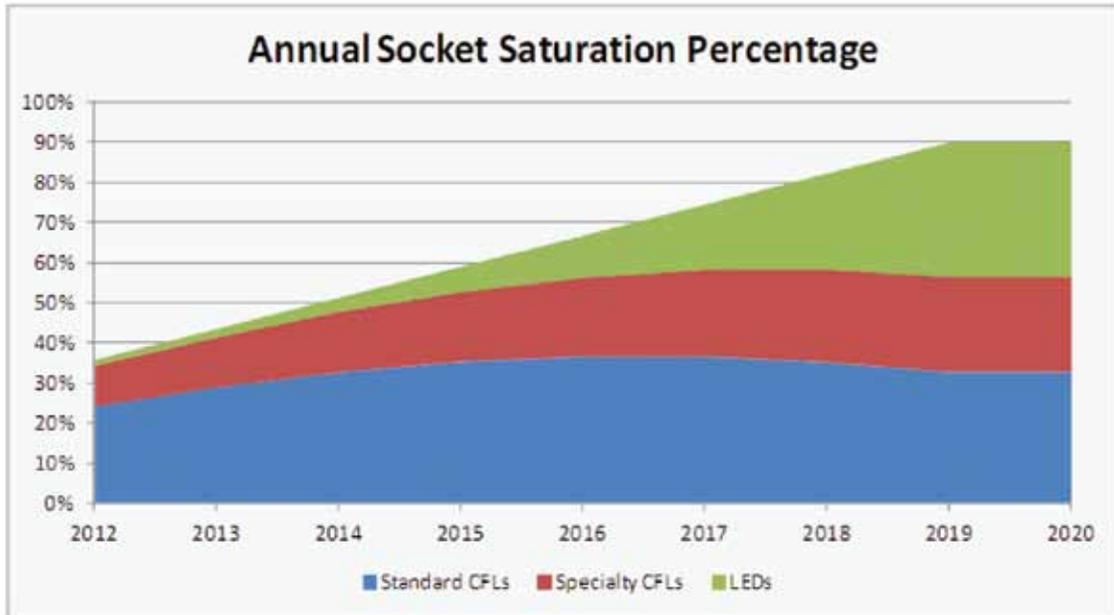
1 Based on a \$0.175/kWh regional average residential rate. Average Price by State by Provider, 1990-2010. Energy Information Agency

2 <http://www.epa.gov/cleanenergy/energy-resources/refs.html#vehicles>



To achieve this transformation of the residential lighting market continued promotion of compact fluorescent lamps (CFLs) and growing support of light-emitting diode (LED) lighting technology by the region’s efficiency program administrators, retailers and manufacturers is necessary. By the end of the decade the typical household will have a mix of CFLs, LEDs and linear fluorescent lamps. Figure ES-1 provides a projection of what the residential socket saturation of lighting technologies might look like.

FIGURE ES-1



REGIONAL STRATEGY

To achieve this, NEEP’s recommended regional strategy for New England and New York calls for:

1. A continued strong role for ratepayer funded energy efficiency programs to support consumer adoption of energy efficient lighting products with a near-term focus on ENERGY STAR® CFLs, 2x halogens³ and other specialty lighting solutions with a growing focus on white-light LEDs as products improve and prices become more competitive.
2. A strong commitment to build consumer knowledge of and satisfaction with high efficiency lighting products including implementation of clear and consistent consumer messages from programs and industry.
3. Continued vigilance to maintain a high level of lighting product quality and performance to meet or exceed consumer expectations.
4. Regional collection of key market data to inform ongoing program planning, implementation and assessment of impacts and progress towards outcomes

³ Halogen lamps that are twice the efficiency of standard (pre-EISA) incandescents and twice the lifetime, e.g., 100W→ 50W; 1000 hours→2000 hours

5. Continued input to federal processes to set future lighting standards that reflect the market adoption of lighting products in the Northeast as well as integration of lighting efficiency into national model building energy codes, and, eventually, state building energy codes.

6. Regulatory support for a multi-year strategy to transform the residential lighting market with flexible programs responsive to market developments and new approaches to program evaluation, particularly with regard to cost-effectiveness.

MARKET LIFT

“Market lift” is an upstream market transformation strategy, whereby an energy efficiency program administrator pays incentives to participating retailers during a pre-determined program delivery period (“lift duration”). The incentives are based on pre-arranged terms that allow participating retailers to receive payment for sales of certain efficient lighting products over and above pre-determined baseline conditions.

CONTACT:

Please reach out anytime with questions, comments, or requests for additional information

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