

CITY OF PORTSMOUTH



PRESS RELEASE

**FOR
IMMEDIATE
RELEASE**

March 9, 2017

Portsmouth Installing LED Street Lights Citywide

PORTSMOUTH, NH – Last year, the Department of Public Works conducted a successful pilot program installing Light Emitting Diode (LED) street light technology in several areas of the City that demonstrated reduced energy consumption and financial benefits. After evaluating the pilot program, working with Eversource and conducting extensive research, the City has selected Affinity LED Lighting to assist in converting all of its high pressure sodium (HPS) street lights to LED lights. With this citywide implementation, the City will experience further reductions in energy consumption, costs and light pollution, along with improved visibility and safety on the roads.

“The wide spread industry adoption of LED lights presents an important opportunity to improve energy efficiency while providing tangible upgrades to the City’s infrastructure,” said Jacob Levenson, Solid Waste and Sustainability Coordinator for the City. “We’re excited to officially have this project underway and further elevate our status as an eco-municipality.”

Eversource Collaboration

The City has been coordinating with Eversource throughout this process to identify and repair non-working streetlights. The NHPUC Tariff states that Eversource must perform all maintenance of lighting fixtures. Bulb or ballast replacements are included in the monthly rate the City pays Eversource; however, the entire fixture head replacement is a separate additional charge to the City. In preparation of the full LED streetlight conversion, Public Works has replaced 27 broken cobra head streetlights with new Affinity LED cobra heads and installed LED retrofits in 42 unique streetlight fixtures along the

Newington Street entrance to Pease International Tradeport. Rebates totaling \$7,425 were secured to repair and/or replace these existing streetlight fixtures with LED lights.

Public Works has also successfully secured Eversource rebates totaling \$100,000 for the conversion of existing streetlight fixtures to LED lights. With the rebates secured, Public Works anticipates a two and a half year net payback once all 1,610 streetlights have been converted to LED. By converting streetlights to LED equipment, the City will save \$120,000 in annual cost, 494,000 kWh of annual electricity consumption, and prevent over 300 metric tons of CO2 emissions per year.

Health Outlooks

While reduced energy consumption and CO2 emissions bring significant benefits, Public Works has also paid close attention to ensure the new lights comply with emerging American Medical Association (AMA) guidelines regarding best practices for LED street lighting and how to minimize potentially harmful effects. According to the AMA, LEDs that are rated above 4,000 Kelvin (K), using the temperature measurement by which light color is measured, should be avoided. The problem isn't brightness so much as wavelength, light that appears white to the naked eye contain larger amounts of blue light. Our eyes treat "white" blue-heavy light, such as the glow of a smartphone, like the midday sun. The science is still evolving, and recent studies have postulated a link between blue light and our bodies' responsiveness that set our daily circadian rhythm.

LED lights are typically hailed as a positive for the environment because they consume much less electricity and last much longer than high pressure sodium lights. While the AMA welcomes the reduced emissions and energy efficiency benefits of LED lights, they encourage proper attention to optimal design and engineering features to minimize potential health and environmental effects caused by too much "white" blue light. The City's LED lights will shine at warm 3,000K, are Dark Sky compliant and will provide more accurate color rendering. By correctly reproducing the colors of objects in comparison to the light source, improved color rendering makes it easier for drivers to recognize potential road hazards, crosswalks, pedestrians, etc.

Project Details

Affinity will begin installations this month. For cost efficiency, this project will be split into two years with an anticipated completion in early 2018. During installations, residents may notice a bucket truck and a support vehicle with a team of three workers to install the new cobra light head fixtures which are produced by Affinity-employed U.S. veterans in Dover. Once installations begin, Public Works will have a real-time map displaying targeted and completed light replacements at www.cityofportsmouth.com

so residents can track the progress of this project. For more information, please contact Jacob Levenson at 766-1412 or jalevenson@cityofportsmouth.com.