

Municipal Solid-State  
**STREET LIGHTING**  
**CONSORTIUM**  
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# The Light Post

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## From the Director

Welcome to another new year, everyone! As things became comparatively quiet around the holidays, here at MSSLC headquarters we took the opportunity to look back at the numerous advancements made over the past year, as well as ahead to tasks planned for 2015. The street lighting arena has progressed considerably in the last 12 months; the implementation of LED streetlights has accelerated, as their benefits continue to be confirmed across real-world installations and their costs continue to descend (we're hearing about recent purchase prices in the low \$100s for smaller residential LED units designed to replace 70-100 W cobraheads). Given the rapidly disappearing incremental cost and demonstrated reliability from hundreds of thousands of units installed to date, the growing rate of installation is no surprise. Ready availability of product and increased familiarity on the part of lighting departments have also contributed to this. The City of Detroit, for example, began a complete replacement of its street lighting system last year and is now motoring along at an installation rate of 1,000 units per week. This pace has enabled an accelerated schedule that aims to replace more than 60,000 lights by the end of 2015.

In contrast with all the ongoing progress, however, a significant number of municipalities and locales are still largely waiting on the sidelines, due to one or more barriers remaining in their way. We discuss a few of these in the Southeast Michigan Regional Energy Office (SEMREO) Convening and the High-Performance Outdoor Lighting Accelerator (HPOLA) articles below, including how a few enterprising municipalities are successfully moving the ball on their own initiative.

I hope everyone had a chance to put down the work for a bit and spend some quality time with their families and friends, remembering what we do all this for – and that we do it not just for those we know, but perhaps even more for those we'll never know. Here's to another great year in our world of street and outdoor lighting.

### **Sharing Experiences at the SEMREO Convening – Nov. 14, 2014**

MSSLC and SEMREO jointly convened an in-person half-day meeting of SEMREO member municipalities on November 14 in Detroit, following the DOE Solid-State Lighting Market Development Workshop there, to hear experiences from other public lighting agencies engaged in transitioning to LED outdoor lighting. SEMREO is an HPOLA partner, and this meeting was designed to bring together partners and others who could share information and experiences of relevance to the rest of the attendees. Speakers included Dr. Georgia Nesselrode of the Mid-America Regional Council, who spoke about that organization's consortium-based approach to working with its investor-owned utility on a street lighting initiative, complete with examples from the Kansas City region. Dana Harvey of Detroit's Public Lighting Authority provided details on that city's ongoing overhaul of its street lighting and related electrical infrastructure. Kevin Schronce of the City of Flint, MI, discussed the approach that city is taking in an effort to purchase its streetlights from the local investor-owned utility, by beginning with a complete inventory of the street lighting infrastructure in preparation for the upcoming negotiation. MSSLC gave a presentation on the information resources and tools available on its website to help plan for a street lighting transition. Among the attendees were a number of representatives of small municipalities located in southeastern Michigan, as well as staff from the Michigan Public Services Commission and DTE Energy. Some of the municipal staff members expressed keen interest in advancing their own street lighting replacement efforts through collaboration, in hopes of convincing their utilities to offer a more progressive set of product and pricing options.

### **HPOLA Partner Update**

HPOLA/MSSLC staff are in the process of gathering input from HPOLA partners pertaining to their current and planned street lighting efforts and identification of remaining barriers to moving forward. Some strong trends are already becoming evident and suggest some of the remaining gaps the program may be able to help address.

A number of partners have reported that the lack of utility tariffs that give credit for high-performance source technologies continues to be a major impediment to moving forward, since a return on the street lighting investment cannot be

obtained in the absence of such tariffs. Even more challenging is the occasional situation where a new tariff represents an *increase* over that of the standard product being replaced. Such issues are heightened when the municipality does not own its streetlights.

These challenges are not insurmountable, however, and some partners have reported success in working with their utilities to achieve a positive resolution. In a few cases, negotiations (sometimes litigious) have resulted in the utility selling streetlights and related ancillary infrastructure back to the municipality. This process often involves education on the part of the municipality as to what equipment and other responsibilities accompany the streetlights, sometimes followed by additional negotiation on such points as future maintenance access to equipment that will now be located in utility territory (e.g., in below-grade service tunnels). Once the full scope of the transfer is agreed to, the municipality may partner with a third party to bring financing and additional street lighting expertise to the table.

In other situations, a municipality may share the first cost of the replacement products or even purchase them outright and simply give them to the utility. In these cases, the cost-effectiveness makes the municipal investment worthwhile, even without the municipality owning the products, as long as the serving utility's associated tariff is sufficiently lower than the standard tariff.

Owners of outdoor lighting are engaged in a wide variety of approaches around the nation to improve their lighting service while saving energy and money. The best approach in any given situation depends on the combination of factors particular to that situation. MSSLC is continuing to gather information and case studies on the various approaches, and is developing related decision tools as we continue to support the HPOLA effort.

### Specification Update

Three product specifications of relevance to users are being either developed or updated over the next few months. The Better Buildings Alliance [Parking Lot Lighting Specification](#) and [Parking Structure Lighting Specification](#) are both due to be updated and reissued by March 2015. The modifications will include changes due to the newly revised IES RP-20 (illuminance, uniformity, etc.) and updated elements related to warranty, among others.

MSSLC will also be developing a Post-Top/Decorative Street Lighting Specification that is targeted for publication by June 2015. Post-top and decorative luminaires represent a large niche application for street and area lights around the U.S., often involving many older designs that owners wish to retain for their historical significance. Such applications thus usually call for use of a retrofit LED product that fits inside the existing fixture, rather than an integrated unit that replaces the entire assembly. Specifying appropriate retrofit products across sometimes multiple globe/fixture styles can present a number of challenges, such as achieving adequate thermal management and lumen distribution, which this document is intended to facilitate.

If you are interested in participating in the development of any of these documents or would like to offer your services for peer review of prerelease drafts, please send a brief note to that effect to [MSSLC@pnnl.gov](mailto:MSSLC@pnnl.gov). Please remember that MSSLC's intent is to produce resources of maximum utility to owners of these lighting systems, free of commercial bias or other concerns judged to be of lesser direct relevance to the immediate applications. All feedback to improve the documents and garner widespread consensus around them is welcome, but MSSLC retains ultimate decision authority in terms of their final content.