Gaining Perspective: DLC Requirements, QPLs, and Efficiency Programs
Moderators

Gabe Arnold
DLC

Irina Rasputnis
DLC
DLC Technical Workplan
DLC Technical Workplan

• Continually updated 12-18 month implementation plan on DLC technical activities and requirements

• Schedule and Milestones published to DLC website in August 2017

• Provide greater transparency and predictability to DLC activities and future requirements
SSL Workplan*

*Dates are approximate
Networked Controls Workplan*

*Dates are approximate
SSL QPL Update
SSL QPL Product Update

V4.0

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The Next Big Revision?

• DLC is developing a predictable major revision schedule
• Published on DLC website (soon)
• Significant advanced warning of upcoming revision and focus areas
Considerations

• Focus on efficacy?
  – Trajectory of efficacy improvements
  – Cost and market implications
  – Lighting quality impacts

• Focus more on controls integration? Bridge QPLs?

• Focus more on lighting quality and system capabilities?

• Something else?

Source: DOE Solid State Lighting R&D Plan, June 2016
Networked Controls
QPL Update
Version 2.0 Requirements now Live!

- **Feb 2**: Draft 1 Released
- **Mar 8**: Draft 1 Comments Due
- **Mar 23**: Controls Summit
- **Apr 12**: Draft 2 Released
- **May 17**: Draft 2 Comments Due
- **June 1**: Final V2.0 Requirements Published
## Required Interior System Capabilities

- Networking of Luminaires and Devices
- Occupancy Sensing
- Daylight Harvesting
- High-End Trim
- Zoning
- Luminaire and Device Addressability
- Continuous Dimming

## Reported Interior System Capabilities

- Control Persistence
- Scheduling
- Energy Monitoring
- Device Monitoring / Remove Diagnostics
- Type of User Interface
- Luminaire Level Lighting Control (LLLC, integrated)
- Personal Control
- Load Shedding (DR)
- Plug Load Control
- External System Integration
- Emergency Lighting
- Security
- Color Changing / Tuning
- Start-Up and Configuration Party
Exterior

“Required” Exterior System Capabilities

• Networking of Luminaires and Devices
• Occupancy Sensing AND/OR Traffic Sensing
• Photocell Control
• High-End Trim
• Scheduling
• Zoning
• Luminaire and Device Addressability
• Continuous Dimming

“Reported” Exterior System Capabilities

• Control Persistence
• Energy Monitoring
• Device Monitoring / Remove Diagnostics
• Type of User Interface
• Load Shedding (DR)
• External System Integration
• Emergency Lighting
• Security
• Color Changing / Tuning
• Start-Up and Configuration Party
## Networked Lighting Control QPL: Qualified Systems by Capability

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<td>nLight Air®</td>
<td>Yes</td>
<td>Minimal</td>
<td>Yes</td>
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### 19 Systems Qualified

- Acuity nLight Air
- Acuity nLight
- Acuity Xpoint Wireless
- Autani Energy Center
- Cree Smartcast
- Crestron DALI
- Daintree GE Controlscope
- Digital Lumens Lightrules
- Eaton LumaWatt Pro
- Enlighted
- Ideal Audacy
- Lutron Quantum
- Lutron Vive
- Magnum OPUS
- Nedap Luxon
- OSRAM Encelium
- Philips SpaceWise
- Philips EasySense SNS200
- RAB Lightcloud
### Programs that Require Networked Controls to be DLC Qualified

<table>
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<th>With Special Promotions</th>
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<td>Baltimore Gas &amp; Electric (BGE)</td>
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<td>Efficiency Nova Scotia</td>
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<td>Efficiency Maine</td>
<td>Eversource (CT)</td>
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<td>Efficiency Vermont</td>
<td>FortisBC</td>
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<td>Eversource (MA)</td>
<td>Hydro-Québec</td>
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<tr>
<td>National Grid (MA, RI, NY)</td>
<td>New Hampshire Saves</td>
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<td>Southern Maryland Electric Cooperative</td>
<td>Public Service Company of New Mexico</td>
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<td>United Illuminating Company</td>
<td>Sacramento Municipal Utility District</td>
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<td>Wisconsin Focus on Energy</td>
<td>SaskPower</td>
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<td>Idaho Power (starting 2018)</td>
<td>Xcel Energy (Colorado)</td>
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<td>Pacific Gas &amp; Electric (starting 2018)</td>
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<td>Xcel Energy (South Dakota)</td>
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<td>Reading Municipal Light Dept. (MA)</td>
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*Based on survey data from approximately 45% of DLC Members*
Where to Find Program Information

- Incentive types/amounts
- Incentives for DLC Premium
- Current and planned use of Networked Lighting Control QPL
Q&A with Efficiency Programs
Panelists

Kyle Hemmi
CLEAResult

Peter Jacobson
Con Edison

Jeffrey Schwartz
ICF
What are the key challenges and opportunities within your programs right now with respect to commercial lighting?
DLC’s Networked Lighting Control QPL is now well established with V2.0 requirements completed and 19 systems listed. Could you share your perspective on the role of advanced lighting control technologies within your programs now and into the future?
Lighting is evolving from simple widgets to full systems that offer increasing benefits and capabilities that extend beyond lighting, including productivity, light and health, asset tracking, wayfinding, traffic management, and more. Utilities often refer to these benefits as “NEBs” or Non-Energy Benefits. How is this evolution of lighting impacting you, and what do you see as the role of NEBs in Efficiency Programs now and in the future?
Thank You!

Irina Rasputnis
Moderator

Gabe Arnold
Moderator

Kyle Hemmi
CLEAResult

Peter Jacobson
ConEd

Jeffrey Schwartz
ICF
TLEDs currently represent the single largest product category on DLC’s SSL QPL and many Efficiency Programs report widespread use on projects. With concerns about safety and performance, missed opportunities, and following a handful of recalls, efficiency programs have mixed opinions on this technology. What is your perspective on the current and future role of TLEDs in your programs?