



2016

STAKEHOLDER MEETING

Networked Lighting Control Specification Development 2017

Agenda

- Context
- Overview of 4 topics to explore today
- Discussion time at each table, w/ scribe & presenter
- Report out from each group, & brief room discussion



Demonstration Projects

5 in progress, 4 more starting



Spec & QPL

QPL published Q2, growing Q3



Training Programs for Designers and Installers

- Draft Curriculum for Installers Q3
- Deployed by select member utilities Q3-Q4



Control Savings Calculator

- BETA V3 progress in Q4
- Phased deployment to DLC Members 2017
- Wider market in 2017 and beyond



Nationally-Adopted EE Program Offerings

- Initial offerings Q3
- Deployed by select member utilities Q3-Q4

'Required'

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

'Reported'

- *Type of User Interface*
- *Luminaire Level Control*
- *Integrated Luminaire Level Control*
- *Localized Processing/Distrib. Intelligence*
- *Scheduling*
- *Personal Control*
- *Load Shedding (DR)*
- *Plug Load Control*
- *BMS/EMS/HVAC Integration*
- *Energy Monitoring*
- *Device Monitoring / Remote Diagnostics*

'Required' System Capabilities

- *Networking of Luminaires & Devices*
- *Occupancy Sensing*
- *Daylight Harvesting*
- *High-End Trim*
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Networked Lighting Controls Revision Cycle

Specification Revised Annually every
June 1

Revision process begins every February
to allow time for stakeholder input

One Year Grace Period



Annual Updates with 1 Year Grace Period

- Revision in Spring 2017 (today's session is kick-off)
- June 2017
 - meet new 2017 spec
 - Or, if already qualified w/ 2016 spec, renew once for 1 year
- June 2018
 - meet new 2018 spec
 - Or, if already qualified w/ 2017 spec, renew once for 1 year

System Capabilities vs. Individual Projects

- The product must support each required capability, to be listed on the DLC NLC QPL
- How each individual project implements each capability (or not) may vary by utility program
- DLC may develop guidance with recommendations

4 Tables, 4 Topics

- Introductions to all 4 topics
- Discussion time at each table, w/ scribe & presenter
- Report out from each group, and brief room discussion

Potential New “Required” for 2017

- Luminaire Level Control (LLC), &(?) Integrated LLC
- Localized Processing / Distributed Intelligence
- Energy monitoring (GUI, API, CSV, other...)

Other Potential Changes for 2017

- Develop requirements for Exterior applications?
- Security? (e.g. GSA GPG)
- Others?
- (Note, other potential changes include these topics being addressed by other sessions today)
 - Color tuning?
 - Attributes of DC / POE lighting?

Require LLC Capability?

Why?

- **Simpler:** Design, Installation, Commissioning, Code compliance for daylight and occupancy, Rezoning, etc.
- Potential additional energy savings

Integrated?

- Luminaires available with integrated controls plus sensors (daylight & occupancy)
- Gateway to Non Energy Benefits from networked sensor data, to drive market transformation

Issues to Address?

- Capability vs. individual project
- Bank of lights with a single sensor-control point, e.g. tracklights
- Power over Ethernet (PoE)
- Cost: higher per luminaire vs easier per system

Require Localized Processing / Distributed Intelligence Capability?

Why?

- Better system performance with lower latency
- Improves reliability / persistence of savings
- Requests from some utilities

Issues to Address?

- Exceptions for downlights, POE, etc.?
- Cost: higher per luminaire vs easier per system

Require Energy Monitoring Capability?

Why?

- Ongoing incentives for reliable energy savings
- ASHRAE 90.1-2013 Code
 - Some energy monitoring requirements
 - 5 states now, more coming in 2017

Issues to Address?

- Standby power
- System capability vs. individual project installation (per utility)

Considerations for 2017 “Required”

- Pros and cons of Requirement?
- Priority for utility programs?
- Can be clearly defined, tested, documented, sold?
- Affordable?
- Enough products are available by June 2018?
- Exceptions and/or precise definitions needed?
- System capability vs. individual project installation (per utility)

Add exterior applications?

Why?

- Some interior control systems include outdoor area lighting
- Need expressed by some utilities and manufacturers

Issues to Address?

- Smart city standards are evolving rapidly
- Most exterior occupancy sensors do not meet exterior pole spacing
- Include site and parking but not roadway?

Discussion

- Scribe to record key points for each group
- Presenter to report out to larger group

Report Out

- 2 minutes per group
- A few minutes for group discussion

Thank you



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