



Energy · Quality · ControllabilitySM

Program Planning Working Group

Thursday April 24, 2025

Agenda

- **Welcome**
- **Survey topic result & next steps with committees**
- **NLC Implementation:**
 - *Connecticut NLC Program – Ryan Esthus, Eversource*
 - *Illinois NLC Program – Haley Burton & Shane Perry, Ameren Illinois*
 - *Open Discussion & Identify Best Practices*
- **DLC NLC Tools & Resources**
- **Next steps**

Participants update:

- Please welcome:

- Kirsty MacMichael from Efficiency Nova Scotia



- Tim Fagan from PSEG New Jersey



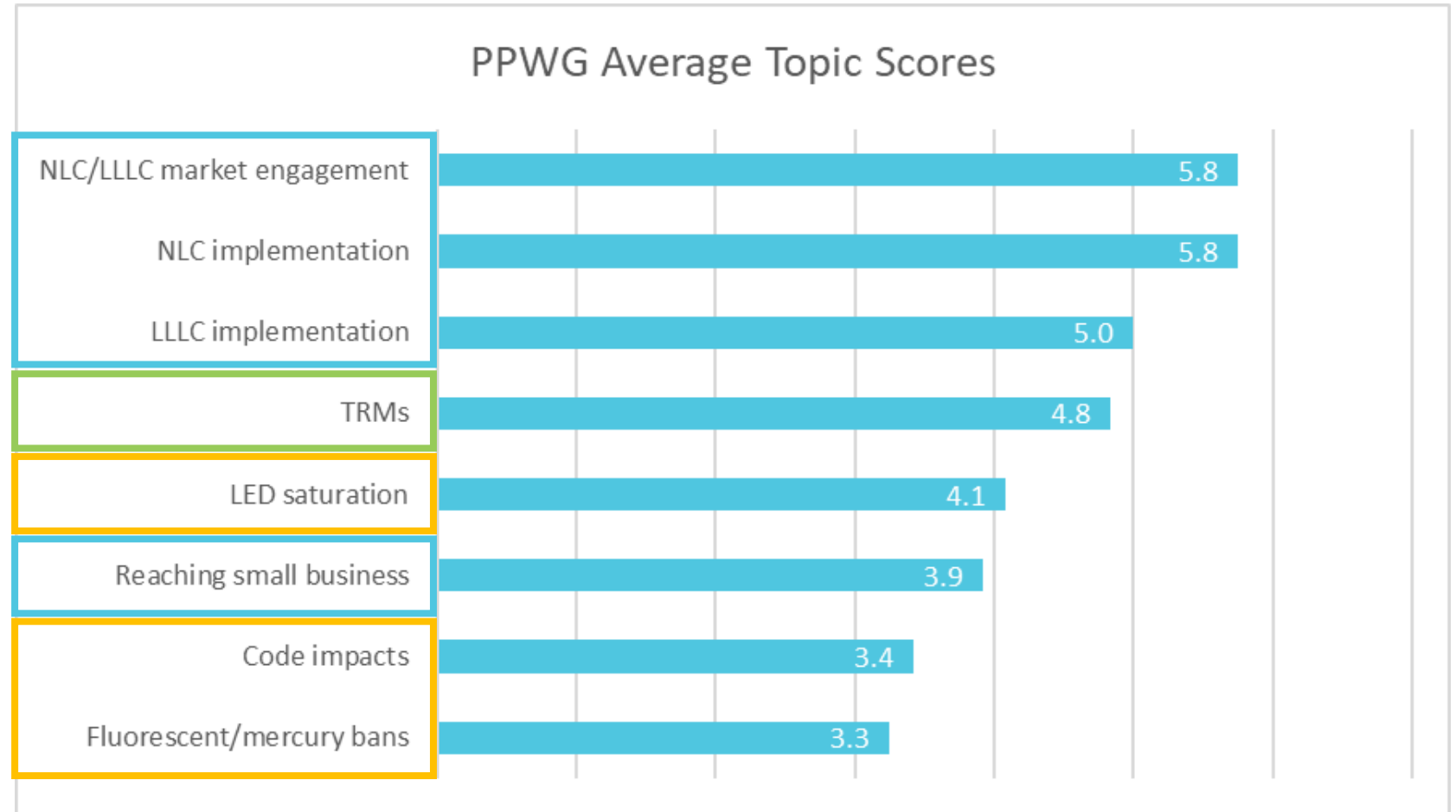
Program Name	Name	State/Province
BC Hydro	Cristian Suvagau	British Columbia
Cape Light compact	Briana Kane	Massachusetts
Efficient Technology Accelerator	Ed McGlynn	Minnesota
Efficiency Nova Scotia	Kirsty MacMichael	Nova Scotia
Eversource	Ryan Esthus	Connecticut
Fortis BC	Bryce Millman	British Columbia
Hawaii Energy	Eileen Stewart	Hawaii
Idaho Power	Shelley Martin	Idaho & Oregon
IESO	Mohammed Yousif	Ontario
MidAmerican	Scott Drake	Iowa & Illinois
MidAmerican	David McCammant	Iowa & Illinois
Missouri River	Darlene Weber-Scott	Iowa, Minnesota, N. Dakota, S. Dakota
National Grid	Erika Miyajima	Massachusetts
National Grid	Amy Dickerson	New York
Nebraska Public Power	Cory R. Fuehrer	Nebraska
NEEA	Anne Curran	ID, MT, OR, and WA
NJ Clean Energy	Rebecca Lynskey	New Jersey
PSE&G	Tim Fagan	New Jersey
Rhode Island Energy	Travis Jenks	Rhode Island

The background of the slide features a low-angle, upward-looking view of a modern glass skyscraper. The building's facade is composed of a grid of dark metal frames and large glass panels, some of which reflect the sky and others showing interior lights. A large, white, stylized arrow shape points from the left towards the right, framing the central text. The arrow has a thick, dark grey outline.

Topic Survey Results

Topic Scores

- Scheduled Topics
- Resources Under Development
- Subcommittees



Topic Schedule

- 1. NLC Implementation** **April 24, 2025**
Challenges with NLC Programs, incentives, best practices, cost - effectiveness, etc.
- 2. NLC/LLLC market engagement** **June 26, 2025**
Training, outreach, trade ally networks, increasing awareness
- 3. Reaching small business** **September 4, 2025**
Challenges reaching small business customers
- 4. LLLC Implementation** **October 30, 2025**
Challenges with LLLC programs, incentives, best practices, cost - effectiveness, etc.
- 5. TBD** **December 11, 2025**

Subcommittees

- Topics that were ranked at the bottom by one-third or more of the Working Group participants will be addressed in subcommittees.
- Please indicate your interest in participating in subcommittees using the following form: <https://forms.office.com/r/RuybV58B09>

5. LED Saturation

Limited remaining opportunities, declining participation, low net-to-gross

6. Code Impacts

Decreased ability to claim lighting and/or control savings on new construction projects

7. Fluorescent/mercury bans

State laws that prevent the sale of fluorescent products, which therefore make LED products baseline

NLC Program – Connecticut

EVERSOURCE

CT Lighting Program and Implementation Strategy

Pathway	Basic Sensors	LLLC	NLC
Midstream Rebate ¹	\$	\$\$	\$\$
Downstream Rebate	\$	\$\$	\$\$\$ ²
Custom	\$	\$\$	\$\$\$ ²

1. Non-controlled lighting is not incentivized in the Midstream pathway.
2. Commissioning / Energy Reports are required.

CT LLLC & NLC History

Date	LLLC	NLC
July 2017	Must include a minimum of 1 control strategy per fixture and 2 different control strategies at the project level .	Customer must provide control narrative and three months of energy monitoring data subject to 20% incentive holdback.
2024	No changes	Three months of data.
2025	No changes	Two weeks of hourly data.

CT NLC

NLC Implementation Barriers	Solution
Lack of knowledge /Complexity	Training
Cost	Higher Incentives
Energy Reports – Lack of consistent format between mfgs	Reduce # of months of data

CT NLC

NLC Successes

High level of interest and projects
(But not as high as LLLC)

DLC NLC savings

Good Solution for energy savvy customers

Enables our program to have a wide range of solutions for customers

CT NLC - Future

NLC Future

Maintain focus on controls

Offer incentives for HVAC integration (New 2025)

Encourage NLC customers to engage with our demand response programs

NLC Program – Illinois



Ameren Illinois NLC Program Overview

NLC

- Standard and Small Business Direct Install
 - Interior and Exterior
 - Standard: \$0.50/Watt Controlled
 - SBDI: \$0.60/Watt Controlled
 - LLLC (Interior Incentives)
 - Standard: \$1.50/Watt Controlled
 - SBDI: \$1.75 Watt Controlled
- Cap: \$75/Fixture

Eligibility

- New Install Only (No NLC Replacement Measures)
- Must Enable 3+ Control Strategies
 - Exterior Must Include:
 - Occupancy and/or Scheduling
 - Daylight Shutoff
- Must be DLC Qualified
- Garage/Covered Parking & Green Houses Ineligible

Implementation Challenges & Successes

Barriers

- Installer Buy-in
 - Unfamiliarity
 - Lack of Controls Knowledge
- Technically Complex
 - Sensor installation
 - Multiple components

Barrier Solutions

- Training and Workshops
- Resource Connections
- NLC Marketing
 - Customers
 - Installers

Program Evolution

- Focus on LLLC
- In-person and Online Training (LLLC focused)
- Exploration of HVAC Integration

Future Plans

01

PROGRESSIVE TRAINING &
TRADE ALLY ENGAGEMENT

02

CONTINUED INCLUSION OF
INCENTIVES/MONITORING
LEVELS TO MEET INCREASING
DEMAND

03

CONSIDERATIONS FOR
MEASURE INTEGRATION WITH
OTHER SMART TECHNOLOGIES



A low-angle, upward-looking photograph of a modern glass skyscraper. The building's facade is composed of a grid of dark metal frames and large glass panels. Several windows are illuminated from within, showing a warm yellow light. The perspective creates a sense of height and architectural scale. The image is partially framed by dark, diagonal geometric shapes in the corners.

NLC Implementation Discussion

A low-angle, upward-looking photograph of a modern skyscraper with a glass and steel facade. The building is partially obscured by a large, white, stylized arrow shape pointing towards the right. The arrow has a thick, dark grey outline. The text is centered within the white area of the arrow.

DLC Tools & Resources

(focus on NLC)

2 places to find DLC Resources

The image shows a web browser window displaying the DesignLights (DLC) dashboard. The browser's address bar shows the URL `designlights.org/dashboard/`. The dashboard header includes the DLC logo and navigation links: [FIND PRODUCTS](#), [ABOUT US](#), [OUR WORK](#), [Resources](#) (highlighted with a red circle), [EVENTS](#), and [JOIN US](#). A user profile for Levin Nock is visible in the top right corner.

The main content area is titled "Welcome to The MyDLC Dashboard". On the left, there is a sidebar menu with the following items: [Dashboard](#), [QPL Search](#), [Connect with DLC](#), [News & Updates](#), [Events & Webinars](#), [Application Pre-submission](#), and [Tools](#). The [Resources & Tools](#) link is highlighted with a red circle.

The main content area features several sections:

- Find Qualified Products**: A yellow box with a search input field labeled "By Model or Manufacturer" and a "Select a QPL" dropdown menu.
- Quick Links**: A blue box containing three links: [Request DLC Data Access Subscription](#), [Product Submission Instructions](#), and [DLC Resource Hub](#).
- News & Updates**: A section with a "News & Updates" title, a "thways to Connected Light" image, and a "Kickstarting Connected Lighting in Energy Efficiency Programs: New DLC Playbook" article dated Jan 29, 2025. Filter buttons for "DLC NEWS", "DLC PERSPECTIVES", and "NLC" are also present.
- Upcoming Events**: A section with a date "Apr 23, 2025" and an event titled "Amber Specifications in SSL V6.0 and LUNA V2.0 Draft1 Webinar" dated Apr 23, 2025.

2 places to find DLC Resources

The screenshot shows the 'MyDLC Dashboard' interface. The browser address bar displays 'designlights.org/dashboard/'. The top navigation bar includes links for 'FIND PRODUCTS', 'ABOUT US', 'OUR WORK', 'RESOURCES', 'NEWS & EVENTS', and 'JOIN US', along with a search icon and a user profile for 'Levin Nock DLC'. The main content area is titled 'Welcome to The MyDLC Dashboard'. On the left, a sidebar menu lists 'Dashboard', 'QPL Search', 'Connect with DLC', 'News & Updates', 'Events & Webinars', 'Application Pre-submission', 'Tools', and 'Resources & Tools'. The 'Resources & Tools' item is highlighted with a red circle. The main content area features a 'Find Qualified Products' section with a search bar, a 'Quick Links' section with links to 'Request DLC Data Access Subscription', 'Product Submission Instructions', and 'DLC Resource Hub', and a 'News & Updates' section with a featured article titled 'Kickstarting Connected Lighting in Energy Efficiency Programs: New DLC Playbook' dated Jan 29, 2025. An 'Upcoming Events' section lists a webinar titled 'Amber Specifications in SSL V6.0 and LUNA V2.0 Draft1 Webinar' dated Apr 23, 2025.



Member-Only Resources



- Dashboard
- QPL Search
- Connect with DLC
- News & Updates
- Events & Webinars
- Application Pre-submission Tools
- Resources & Tools
 - Tools
 - Resources
- QPL Data Access
- Profile Settings

Resources

Please note that these resources are developed for the exclusive use of DLC Member Programs. We ask that you do not share them outside of your organization.

Filter By Category

▼

Pathways to Connected Lighting

A playbook for how energy efficiency programs can realize additional savings and improve customer satisfaction with lighting controls.



2024 TRM Research

This research provides a jurisdictional overview of TRMs throughout the U.S. and Canada in 2024. The findings include the prevalence of networked lighting control measures and the range of assumptions used in the calculation of energy savings.



QPL Dashboard

The QPL dashboard will provide you with a snapshot of the SSL Qualified Products List (QPL).



Outdoor Lighting Ordinances

The maps show states, provinces, and cities/towns throughout Canada and the U.S. with an outdoor lighting ordinance.



Member-Only Resources



- Dashboard
- QPL Search
- Connect with DLC
- News & Updates
- Events & Webinars
- Application Pre-submission Tools
- Resources & Tools

Tools

Resources
- QPL Data Access & API
- Profile Settings

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Member-Only Resources

- 🏠

Dashboard
- 🔍

QPL Search
- 👤

Connect with DLC
- 📢

News & Updates
- 📅

Events & Webinars
- ⚙️

Application Pre-submission Tools
- 🔧

Resources & Tools
- 🔧

Tools
- 🔧

Resources

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ABOUT

GOALS

HOW TO

PLAYBOOK

FINDINGS

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RESOURCES



Pathways to Connected Lighting

Pathways to Connected Lighting

2024 TRM Res



View All

View All

LUNA

Whitepapers

Hort

NLC

SSL

SSL V5 Support Resource

Statewide

74

Unknown/Not...

25

Regional

4

Utility Specific

4

2024 TRM Research



Resources

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NLC



Pathways to Connected Lighting

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2025 Program Overview and Membership Information

An overview of offerings, tools, and services provided to Members in 2025.



2024 TRM Research



2022 Program Overview and Membership Information

2022 Program Overview and Membership Information



Resources

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NLC



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2024 TRM Research



2022 Program Overview and Membership Information

2022 Program Overview and Membership Information



2025 Program Overview and Membership Information

An overview of offerings, tools, and services provided to Members in 2025.

2025 PROGRAM PLANS

Catalyze the Adoption of Connected Lighting

Goal: Deploy networked and connected lighting at scale in buildings across North America.

The DLC's focus for connected lighting in 2025 will be to find effective strategies for deploying connected lighting and overcoming the multiple barriers to adoption in buildings of all sizes. For small and medium buildings, this will require simplifying product selection to enable midstream offers. For large buildings, installing integrated lighting solutions successfully is a complex problem that requires the cooperation and commitment of multiple groups with competing priorities. At the same time, it represents a major opportunity for decarbonization. NLC and HVAC integration provides a cost-effective way to achieve whole-building energy savings of over 20%.

Planned Activities:

- Improve product selection functionality between the SSL and NLC QPLs to allow for easier connected lighting system (LED + controls) product identification for contractors and trade allies, resulting in more NLC opportunities in both large and small buildings.
- Facilitate a new, member-exclusive program planning working group for members to share challenges and test new concepts for energy efficiency program administrators.
- Provide members with a "how-to" guide on ways to assess and advance their programs to maximize savings via networked lighting controls. This guide will include examples of successful NLC programs and best practices that include building out trade ally networks and developing accurate measures for technical reference manuals that can be used to get NLC measures approved and into programs.
- For NLC projects in large buildings, we will publish and promote a collection of documents that enables successful lighting controls integration with HVAC and other building systems. These resources are intended to inform building operators and decision makers and promote collaboration between various trade professionals to help integration projects move forward successfully.
- For NLC projects in small and medium-sized buildings, we will identify development requirements that validate energy savings to support a midstream luminaire level lighting controls (LLLC) incentive program.

Member Only

Public

Member-Only Resources

Resources

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NLC



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The DLC Resource Hub

Welcome to the DLC resource hub! DLC resources are based on thorough industry research and rooted in our team's extensive expertise. As a leader in energy efficient lighting, it's our mission to achieve energy optimization by enabling controllability with a focus on quality, people, and the environment. Use the DLC's resources to see how you can save energy, improve costs, and reduce your climate impact.



Research and Reports

The DLC publishes research and develops resources to help communicate important lighting topics in each program area.

RESEARCH AND REPORTS



Events and Webinars

The DLC regularly holds webinars and events to engage with our Members, lighting manufacturers, and other important lighting industry stakeholders. See what the DLC has planned and register today.

FIND UPCOMING EVENTS



Technical Resources

The DLC maintains a library of technical resources related to key lighting topics and the understanding and implementation of our Technical Requirements.

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The DLC records all webinars we present and host, so you'll always have access in the event you were unable to attend – or just want to re-watch a webinar for a refresher.

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28

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Levin Nock

The DLC Resource Hub

Commercial lighting is constantly evolving – and it can be hard to keep up. Access the DLC's cutting-edge industry programming, reports, and research to train your organization on the latest commercial lighting best practices.

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10 High Street, Suite 10
Medford, MA 02155
info@designlights.org
781-538-6425

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Trainings

Unfamiliarity with how to design, install, and commission networked lighting controls is a key barrier that prevents widespread adoption and increases the cost of the technology. To address this barrier, the DLC has developed training programs for the design and installation of networked lighting controls.

[MORE INFORMATION](#)



The DLC Blog

The DLC blog is intended to educate, inform, and provide a platform for discussion for the DLC's many stakeholders. We post technical and non-technical content, perspectives related to LED lighting, networked lighting controls, utility programs, the DLC mission, and other relevant industry developments.

[READ THE BLOG](#)



Case Studies

In partnership with the US Department of Energy (DOE) and DLC Member utilities, the DLC developed a series of case studies to showcase networked lighting controls, results, and lessons learned.

[VIEW CASE STUDIES](#)



How-to Guides

Reference the DLC's quick guides for easy step-by-step instructions and tips and tricks on the QPL features, your MyDLC account and more.

[VIEW GUIDES](#)



Video Tutorials

Watch video tutorials on a wide variety of topics like navigating the new DLC website, searching the QPLs, networked lighting control education, and application portal information.

[WATCH VIDEOS](#)



Frequently Asked Questions

Find answers to common questions on SSL/LED Lighting, Horticultural Lighting and Networked Lighting Controls (NLCs).

[VIEW FAQS](#)

The DLC Resource Hub

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Industry Reports and Research


Search Resources 




 INDUSTRY REPORTS AND RESEARCH  NLC










NLC-HVAC Integration Toolkit

The NLC-HVAC Integration Toolkit will help energy efficiency programs, integrators, and market actors successfully identify, pursue, and implement NLC-HVAC integration projects. Download the toolkit (zip file) for a decision tree, a handbook, case studies, and templates that will set your project up for success.



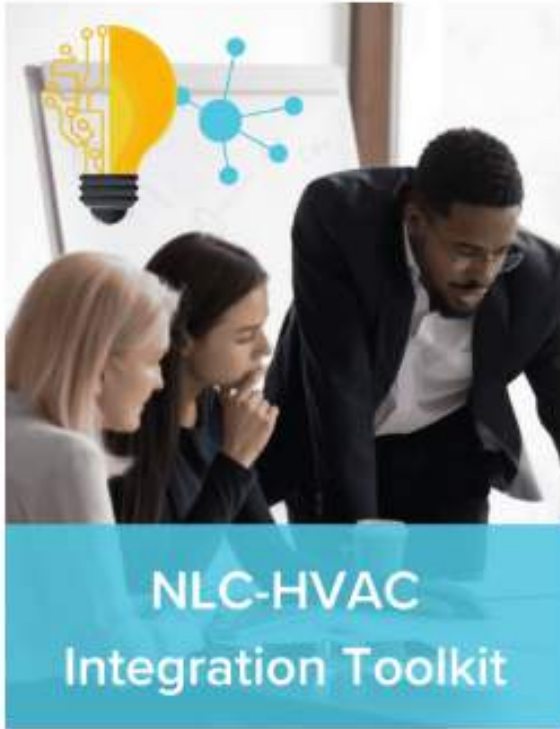
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-  LUNA
-  Technical Requirements Resources
-  Whitepapers
-  Member Exclusive
-  LED Lighting
-  Horticultural Lighting
-  **Networked Lighting Controls**
-  Industry Reports and Research

through a list of published case studies searchable by building type

✓ See recommended best practices for integration and use an example construction integration specification



NLC-HVAC Integration Toolkit

This toolkit was created to improve connected lighting implementation between networked lighting controls (NLC) and heating, ventilation, and air conditioning systems (HVAC) in large commercial buildings. The NLC-HVAC Toolkit will help energy efficiency programs, integrators, and market actors successfully identify, pursue, and implement [NLC-HVAC integration projects](#).

Please enter your information below to download the zip file for this toolkit, which includes a decision tree, a handbook, a list of case studies, a project template, and a responsibility matrix.

First Name

Last Name


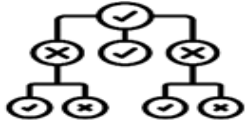
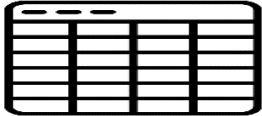

Email Address

Company

Position



Toolkit Files

1	Handbook	PDF	
2	Decision Tree	PDF	
3	Case Studies	Excel	
4	Responsibility Matrix	Editable Excel	WHAT? ?WHO!
5	Project Template	Editable Word	



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INDUSTRY REPORTS AND RESEARCH • NLC

Excerpt – Pathways to Connected Lighting

An excerpt of our playbook, "Pathways to Connected Lighting", that helps energy efficiency programs meet target savings goals with NLC and HVAC integration with lighting controls.



INDUSTRY REPORTS AND RESEARCH • MEMBER EXCLUSIVE • NLC

Pathways to Connected Lighting – a DLC Playbook

A playbook for how energy efficiency programs can realize additional savings and improve customer satisfaction with lighting controls.



INDUSTRY REPORTS AND RESEARCH • LED • NLC

Memo: Clarifications to the 2020 Report: "Energy Savings from Networked Lighting Control (NLC) Systems With and Without LLLC"

This memo provides clarity on interpreting the presented information and further elaborates on key points in the 2020 Savings Report.

DOWNLOAD MEMO

KEY TAKEAWAYS

- ✓ Decide if a project is a good candidate for integration and avoid projects where success is unlikely
- ✓ Learn about successful integrations through a list of published case studies searchable by building type
- ✓ See recommended best practices for integration and use an example construction integration specification

KEY TAKEAWAYS

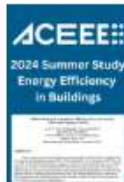
- ✓ Learn what is included in the playbook
- ✓ Learn how to assess your program and about strategies to level up savings from connected lighting.

KEY TAKEAWAYS

- ✓ Assess your current EE program
- ✓ See how other EE programs have successfully added NLC and integrated controls with HVAC
- ✓ Insights from more than 25 successful member programs and discussions at the 2024 DLC Controls Summit

KEY TAKEAWAYS

- ✓ The control savings factors (CSFs) in the 2020 report represent average savings across a diverse set of projects, which include both optimally and sub-optimally programmed systems. Energy efficiency programs that implement mechanisms to specify or verify proper NLC system programming can expect higher savings, as CSFs are influenced by system setup and optimization.
- ✓ High-end trim and other control strategies deliver distinct savings. While high end trim reduces the lighting load first, other strategies save energy from the remaining load. To maximize savings, EE programs can incentivize and measure these strategies separately, using the CSFs provided in the updated report for independent assessment.



INDUSTRY REPORTS AND RESEARCH • NLC • WHITEPAPERS

ACEEE Summer Study: 2030 Goals Require Long Term Energy Efficiency Plans that Specify Networked Lighting Controls



NLC

Lighting Controls Best Practices

This resource explains the following basic networked lighting control strategies: dimming, high end trim, occupancy/vacancy sensing, scheduling, and daylight harvesting, and gives an overview of how to implement them to maximize energy savings.

DOWNLOAD RESOURCE



INDUSTRY REPORTS AND RESEARCH • MEMBER EXCLUSIVE • NLC

Economic Potential of Networked Lighting Controls in Commercial Buildings: Tapping the Added Value of HVAC Connections

This potential study was commissioned by the DLC and conducted by NVS. It provides insights into scenarios when network lighting controls are a good investment for energy efficiency programs and provides guidance for future integrations and incentive structures.

DOWNLOAD REPORT



INDUSTRY REPORTS AND RESEARCH • NLC

Future-Proofing Energy Efficiency with Networked Lighting Controls

This is a summary of the potential study commissioned by the DLC titled "Economic Potential of Networked Lighting Controls in Commercial Buildings: Tapping the Added Value of HVAC Connections."

DOWNLOAD SUMMARY



INDUSTRY REPORTS AND RESEARCH • NLC

Evaluating the Non-Energy Benefits of Advanced Networked Lighting Controls

This resource, which summarizes research commissioned by the DLC and conducted by Skumatz Economic Research Associates, Inc. (SERA), identifies non-energy benefits (NEBs) specific to NLC usage and develops a methodology for assigning them quantitative values.

DOWNLOAD RESOURCE

KEY TAKEAWAYS

- ✓ NLC integrated with HVAC can save 30% of the HVAC load through occupancy control, at a small fraction of the cost of HVAC replacement.
- ✓ Incentives for uncontrolled LED lights destroy opportunities for these deep, cost-effective energy savings, because each new LED locks out these opportunities over the 10+ year product lifetime.

KEY TAKEAWAYS

- ✓ Describes five basic networked lighting control strategies: dimming, high end trim, occupancy/vacancy sensing, scheduling, and daylight harvesting.
- ✓ Explains how to apply each strategy effectively to maximize energy savings.

KEY TAKEAWAYS

- ✓ In the NLC replacement scenario, 2030 electric energy consumption by commercial buildings is reduced by nearly 10% in Connecticut and 5% in Arizona.
- ✓ Action items for regulators and energy efficiency programs based on the new data.

KEY TAKEAWAYS

- ✓ Learn how integrating HVAC and NLC systems can enhance energy efficiency, increase ratepayer savings, and lower carbon emissions.
- ✓ Action items for regulators and energy efficiency programs based on the new data.

KEY TAKEAWAYS

- ✓ "Non-energy benefits" of NLCs can enable inclusion of anticipated savings from productivity gains, safety and security enhancements, extended equipment lifecycles, and more in cost-benefit calculations.
- ✓ Developing a methodology for assigning quantitative values to NEBs will enable utility incentive program staff and others to use an expanded set of metrics for measuring the cost-effectiveness of NLC implementation.
- ✓ Research showed statistically significant non-energy benefits from NLCs for both lighting decision makers and building occupants.



NLC

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- ✓ Explains how to apply each strategy effectively to maximize energy savings.



● INDUSTRY REPORTS AND RESEARCH

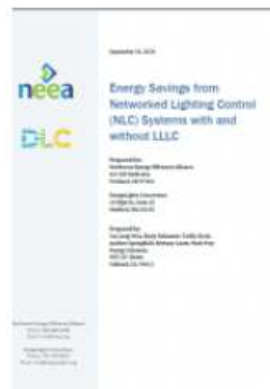
● LED

● NLC

Memo: Clarifications to the 2020 Report: “Energy Savings from Networked Lighting Control (NLC) Systems With and Without LLLC”

This memo provides clarity on interpreting the presented information and further elaborates on key points in the 2020 Savings Report.

DOWNLOAD MEMO 



● INDUSTRY REPORTS AND RESEARCH

● NLC

Report: Energy Savings from Networked Lighting Control (NLC) Systems with and without LLLC

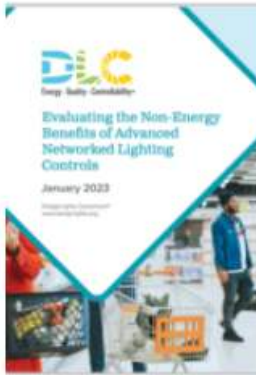
2025 Update with clarifications available - click title for full description and link. Completed in partnership with the Northwest Energy Efficiency Alliance (NEEA), this research builds upon the DLC's 2017 study, Energy Savings from Networked Lighting Control (NLC) Systems. The results not only improve existing NLC energy savings estimates, but also provide more in-depth savings analyses, such as savings estimates from NLC systems with and without luminaire level lighting control (LLLC), and savings estimates from high-end trim compared to other control strategies.

DOWNLOAD THE REPORT 

KEY TAKEAWAYS

- ✓ The control savings factors (CSFs) in the 2020 report represent average savings across a diverse set of projects, which include both optimally and sub-optimally programmed systems. Energy efficiency programs that implement mechanisms to specify or verify proper NLC system programming can expect higher savings, as CSFs are influenced by system setup and optimization.
- ✓ High-end trim and other control strategies deliver distinct savings. While high-end trim reduces the lighting load first, other strategies save energy from the remaining load. To maximize savings, EE programs can incentivize and measure these strategies separately, using the CSFs provided in the updated report for independent assessment.





INDUSTRY REPORTS AND RESEARCH NLC

Evaluating the Non-Energy Benefits of Advanced Networked Lighting Controls

This resource, which summarizes research commissioned by the DLC and conducted by Skumatz Economic Research Associates, Inc. (SERA), identifies non-energy benefits (NEBs) specific to NLC usage and develops a methodology for assigning them quantitative values.

DOWNLOAD RESOURCE 

KEY TAKEAWAYS

- ✓ “Non-energy benefits” of NLCs can enable inclusion of anticipated savings from productivity gains, safety and security enhancements, extended equipment lifecycles, and more in cost-benefit calculations.
- ✓ Developing a methodology for assigning quantitative values to NEBs will enable utility incentive program staff and others to use an expanded set of metrics for measuring the cost-effectiveness of NLC implementation.
- ✓ Research showed statistically significant non-energy benefits from NLCs for both lighting decision makers and building occupants.



NLC TECHNICAL REQUIREMENTS RESOURCES

NLC5 Cybersecurity Overview

UPDATED 12/21/2022 - CSA/ANSI T200 updated from a service to a standard. Through research and outreach, the DLC has identified several cybersecurity standards and services that satisfy the cybersecurity criteria in the NLC5 Technical Requirements. To help manufacturers and other users find an appropriate standard and/or service for their networked lighting control system, this resource provides additional information on each standard and service and summarizes their application.

KEY TAKEAWAYS

- ✓ Summaries of cybersecurity services and standards recognized by the DLC (updated 7/14/22 to include PSA standard)
- ✓ Descriptions of the primary application and timeline for certification of the cybersecurity standards listed in Tables CS-1 & CS-2 of the DLC NLC5 Technical Requirements

Read

Reports and Research

Technical Resources

How-to Guides

DLC Blog

Glossary

NLC Case Studies

Watch

On-Demand Webinars

Video Tutorials

Participate

Trainings

Upcoming Events



Research and Reports

The DLC publishes research and develops resources to help communicate important lighting topics in each program area.

[RESEARCH AND REPORTS](#)



Events and Webinars

The DLC regularly holds webinars and events to engage with our Members, lighting manufacturers, and other important lighting industry stakeholders. See what the DLC has planned and register today.

[FIND UPCOMING EVENTS](#)



Technical Resources

The DLC maintains a library of technical resources related to key lighting topics and the understanding and implementation of our Technical Requirements.

[TECHNICAL RESOURCES](#)



On-Demand Webinars

The DLC records all webinars we present and host, so you'll always have access in the event you were unable to attend – or just want to re-watch a webinar for a refresher.

[FIND A WEBINAR](#)



Trainings

Unfamiliarity with how to design, install, and commission networked lighting controls is a key barrier that prevents widespread adoption and increases the cost of the technology. To address this barrier, the DLC has developed training programs for the design and installation of networked lighting controls.

[MORE INFORMATION](#)



The DLC Blog

The DLC blog is intended to educate, inform, and provide a platform for discussion for the DLC's many stakeholders. We post technical and non-technical content, perspectives related to LED lighting, networked lighting controls, utility programs, the DLC mission, and other relevant industry developments.

[READ THE BLOG](#)



Case Studies

In partnership with the US Department of Energy (DOE) and DLC Member utilities, the DLC developed a series of case studies to showcase networked lighting controls, results, and lessons learned.

[VIEW CASE STUDIES](#)



How-to Guides

Reference the DLC's quick guides for easy step-by-step instructions and tips and tricks on the QPL features, your MyDLC account and more.

[VIEW GUIDES](#)



Video Tutorials

Watch video tutorials on a wide variety of topics like navigating the new DLC website, searching the QPLs, networked lighting control education, and application portal information.

[WATCH VIDEOS](#)



Frequently Asked Questions

Find answers to common questions on SSL/LED Lighting, Horticultural Lighting and Networked Lighting Controls (NLCs).

[VIEW FAQS](#)

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Levin Nock
DLC

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TECHNICAL REQUIREMENTS

NLC
5.1

EFFECTIVE
AUG 2024

NLC
5

EFFECTIVE
AUGUST 1,
2020

GET UPDATES ↗

NETWORKED LIGHTING CONTROLS



Lighting Controls Case Studies

For any new technology to take off, we need real-world examples and lessons learned from people with experience. Here we have gathered case studies from our partners and manufacturers on the Networked Lighting Controls qualified products list.



Energy · Quality · Controllability[®]

Case Studies From BetterBricks (NEEA)

BetterBricks is a commercial resource of Northwest Energy Efficiency Alliance (NEEA) that helps building professionals stay competitive in the market. (Note: The DLC considers luminaire level lighting controls (LLLC) to be a subset of networked lighting controls (NLC).)



Resources from BetterBricks (NEEA)

The toolkit below is intended for utilities to use and the video case study shows an installation in a large commercial building.



Case Studies from Manufacturers

This case study shows the results, experience, and lessons learned for a large networked lighting controls installation.

SILVAIR



Sign up or log in to MyDLC to download the [Networked Lighting Controls Qualified Products List \(NLC GPL\)](#), which has dozens more case studies from manufacturers. Or reach out to DLC staff if you need to see a particular type of case study.

[LOG IN](#) [REACH OUT](#)

2 places to find DLC Resources

The image is a screenshot of the DesignLights (DLC) dashboard. The browser's address bar shows the URL `designlights.org/dashboard/`. The top navigation bar includes links for **FIND PRODUCTS**, **ABOUT US**, **OUR WORK**, **Resources** (circled in red), **EVENTS**, and **JOIN US**. A user profile for **Levin Nock** is visible on the right. A yellow arrow labeled **Everyone** points to the **Resources** link.

The main content area is titled **Welcome to The MyDLC Dashboard**. On the left, a sidebar contains a list of menu items: **Dashboard**, **QPL Search**, **Connect with DLC**, **News & Updates**, **Events & Webinars**, **Application Pre-submission**, and **Tools**. The **Resources & Tools** item is circled in red, with a yellow arrow labeled **DLC members** pointing to it.

The main dashboard area features several sections:

- Find Qualified Products**: A yellow box with a search input field labeled "By Model or Manufacturer" and a "Select a QPL" dropdown.
- Quick Links**: A blue box containing three links: [Request DLC Data Access Subscription](#), [Product Submission Instructions](#), and [DLC Resource Hub](#).
- News & Updates**: A section with a featured article titled **Kickstarting Connected Lighting in Energy Efficiency Programs: New DLC Playbook** dated Jan 29, 2025. Filter buttons for **DLC NEWS**, **DLC PERSPECTIVES**, and **NLC** are present.
- Upcoming Events**: A section listing an event titled **Amber Specifications in SSL V6.0 and LUNA V2.0 Draft1 Webinar** dated Apr 23, 2025.

Thank you for your participation !

We appreciate your time & contributions.

TRM webinar - May 22 @ 2:00 PM

Controls webinar – April 30 @ 2:00 PM

Next meeting:

June 26, @ 2:00 PM

Stay connected: Teams group chat or

Contact: Karla Winter