

**Illinois EE Stakeholder Advisory Group (SAG)
Network Lighting Controls Subcommittee Meeting**

Monday, September 29, 2025

9:00 – 10:30 am

Teleconference

Attendees and Meeting Notes

Meeting Materials.....1
Attendees.....1
Meeting Notes.....2
Opening and Introductions2
ComEd Network Lighting Controls (NLC) Update Presentation2
Ameren Illinois Network Lighting Controls (NLC) Update Presentation8
Closing and Next Steps.....10

Meeting Materials

Posted on the [September 29 SAG NLC Subcommittee meeting page](#):

- [September 29 SAG NLC Subcommittee Agenda](#)
- [SAG Facilitator Introduction to September 29 Meeting](#)
- [ComEd Network Lighting Controls Update Presentation](#)
- [Ameren Illinois Network Lighting Controls Update Presentation](#)

Attendees

Name	Company or Organization
Celia Johnson	Facilitator (Celia Johnson Consulting)
Zoe Knaus	SAG Facilitation Support (Inova Energy Group)
Abigail Miner	IL Attorney General's Office
Andrey Gribovich	DNV
Andy Vaughn	Leidos
Ashley Harrington	ComEd
Catherine Allen	ComEd
Channel Turbides	ComEd
Chris Wolgamott	Northwest Energy Efficiency Alliance (NEEA)
Colin Santel	Leidos
Dan Mellinger	Energy Futures Group
Ed McGlynn	Center for Energy & Environment
Elder Calderon	ComEd
Elizabeth Horne	ICC Staff
Emily Golen	Resource Innovations
Haley Burton	Ameren Illinois
Heath Heiberg	Center for Energy & Environment
Jason Jeunnette	Design Lights Consortium

Name	Company or Organization
Jeff Harris	Northwest Energy Efficiency Alliance (NEEA)
Jessica Bach	ComEd
Jim Fay	Energy Research and Analysis
John Lavallee	Leidos
Josh Roth	Ameren Illinois
Kanchan Swaroop	Resource Innovations
Mark Hamann	ComEd
Nic Crowder	Ameren Illinois
Rick Tonielli	ComEd
Ryan Wall	Guidehouse
Sanjyot Varade	Resource Innovations
Shane Perry	Leidos
Srichand Paruchuri	Resource Innovations
Will Wilson	Leidos

Meeting Notes

See **red text** for follow-up items.

Opening and Introductions

Celia Johnson, SAG Facilitator

Purpose of September 29 Meeting:

- For Ameren Illinois and ComEd to update Subcommittee participants on the progress of network lighting control measures.

Next Steps:

- The 2022-2025 individual utility EE Plan Stipulated Agreements referenced creating a new Subcommittee for Ameren Illinois, ComEd, and interested stakeholders to discuss updates on the measures associated with network lighting controls.
- September 29 is the final meeting of the SAG NLC Subcommittee. Meeting materials from NLC Subcommittee meetings held between 2022 and 2025 will remain posted on the [SAG NLC Subcommittee webpage](#).

ComEd Network Lighting Controls (NLC) Update Presentation

Elder Calderon and Rick Tonielli, ComEd; Kanchan Swaroop, Resource Innovations

ComEd EE Plan 6 Lighting Control Goals: Looking Backward to Plan 6 (2022-2025) and Forward to Plan 7 (2026-30)

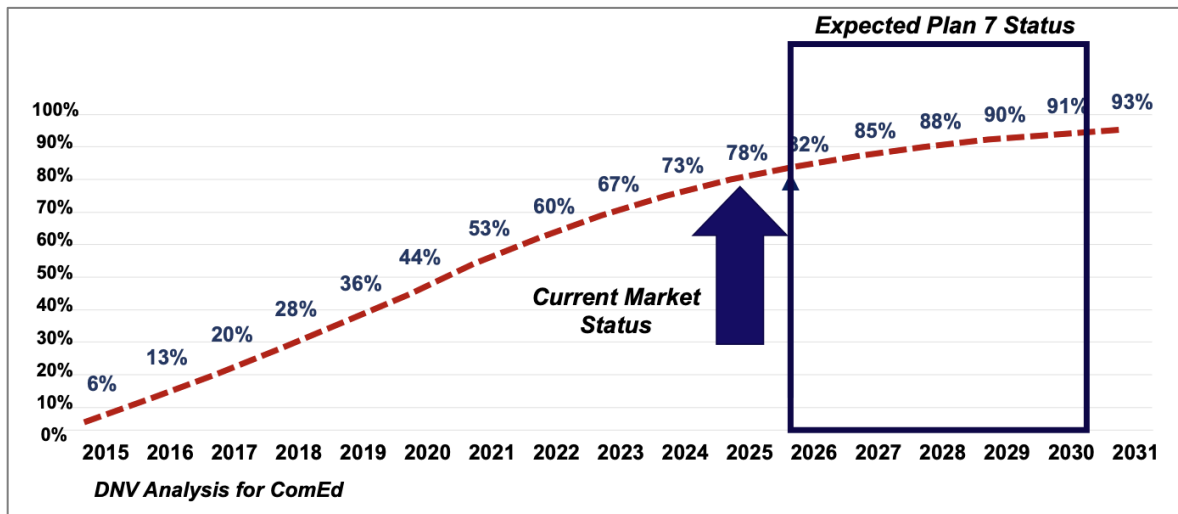
Figure 1: ComEd Plan 6 Lighting Control Goals



- Since Plan 6 (December, 2020):
 - ComEd has invested in lighting controls market development
 - Experimented with increased controls incentives
 - Kept SAG informed through NLC-targeted calls
- Observations & NLC Experience
 - Barriers remain to NLC
 - NLC savings are not as cost-effective as LED Lighting
 - As LED fixtures approach saturation, fewer opportunities to add controls

Market Saturation of Commercial Sector LED – ComEd Service Territory

Figure 2: Expected Plan 7 Market Saturation of Commercial LED

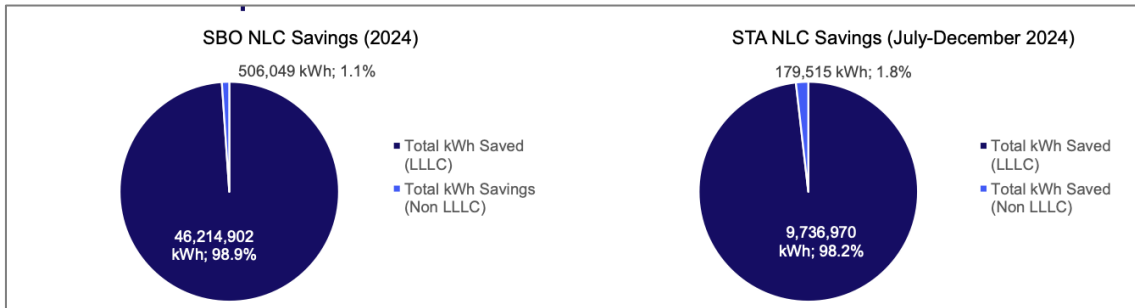


ComEd EE Program Design

- Lighting Controls Measures
- ComEd provides lighting control incentives through two main programs:
 - Standard Offering – Geared towards mid-size and large customers
 - Small Business Offering – Increased incentives for customers with peak demand below 400 kW (private and public)
- Lighting Control Measures
 - Networked Lighting Controls, baseline with controls
 - Network Lighting Controls, baseline without controls
 - Remote/Fixture mounted Occupancy Sensors and Vacancy Sensors
 - Daylighting Controls
 - Occupancy Sensors + Daylighting Controls
 - Dimming Controls
 - Photocells
 - Timeclocks
 - Photocells + Timeclocks
 - Networked Lighting Controls for LED Grow Lights (included in 2024 Standard data only)
- Lighting Controls Measures – 2025 Incentive Levels
 - Standard Offering (STA) 2025 Measure Incentives
 - Networked Lighting Controls
 - Baseline Without Controls: \$0.50/Watt Controlled
 - Baseline With Controls: \$0.40/Watt Controlled
 - Additional \$0.25/Watt Reduced if new lighting
 - Grow Lights: \$0.40/Watt Controlled
 - Occupancy Sensors, Vacancy Sensors, Daylighting Controls
 - \$0.15 - \$0.25/Watt Controlled
 - Occupancy Sensors plus Daylighting Controls
 - \$0.30/Watt Controlled
 - Time Clocks for Lighting
 - \$0.03/Watt Controlled
 - Photocells
 - \$0.08/Watt Controlled
 - Photocells plus Time Clock
 - \$0.13/Watt Controlled
 - Small Business Offering (SBO) 2025 Measure Incentives
 - Networked Lighting Controls
 - Baseline Without Controls: \$0.75/Watt Controlled
 - Baseline With Controls: \$0.60/Watt Controlled
 - Occupancy Sensors, Daylighting Controls, Dimming Controls
 - \$0.20/Watt Controlled (unit change from 2024 to 2025)
 - Occupancy Sensors plus Daylighting Controls, Occupancy Sensors with Dimming Controls
 - \$0.25 - \$0.35/Watt Controlled (unit change from 2024 to 2025)
 - Time Clocks for Lighting
 - \$0.25/Watt Controlled
 - Photocells
 - \$0.20/Watt Controlled
 - Photocells plus Time Clock
 - \$0.35/Watt Controlled

- LLLC Participation Breakdown in 2024

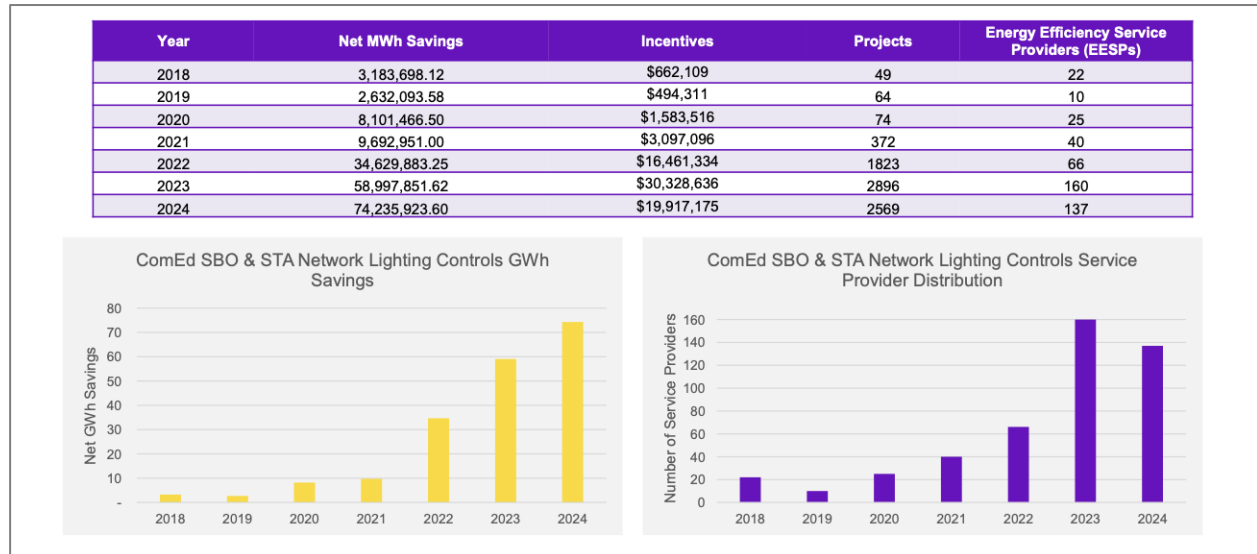
Figure 3: LLC Participation Breakdown



- Insights
 - Luminaire Level Lighting Controls (LLLCs) are a type of NLC system with integrated sensors and controls in each luminaire that are wirelessly networked
 - Energy savings from LLLCs are 61% according to the IL-TRM (compared to 35% for non-LLLC controls, and 49% for mixed/unknown NLCs)
 - Both programs found that LLLCs are a significant portion of all NLC systems implemented
 - In 2024, SBO and STA changed savings methodology to account for the number of LLLC capable controls
 - STA data collection and savings changes only began in July 2024, whereas SBO implemented the savings change for all of 2024
- Historical Participation – All Lighting Controls
 - Insights:
 - Lighting controls participation has continued to increase while spend decreased from 2023
 - Additional campaigns employed in 2024 to further promote Networked Lighting Controls measures
 - Overall lighting controls participation increased by almost 30% from 2023 to 2024
 - Overall lighting controls spend decreased by 30% from 2023 to 2024
 - Increased savings for LLLCs were captured in 2024
- Progress to Goal – All Lighting Controls
 - ~27% increase in savings from 2023 to 2024
 - 2024 Plan 6 Goals:
 - 81 GWh
 - ~\$24 Million
 - 2024 Results:
 - ~83 GWh
 - ~\$22 Million
 - Insights:
 - Achieved 103% of the savings goal
 - Under the spend goal by \$1.7M
 - Shift to NLCs continues

- Scaled back our incentive and campaign promotions to better align with Plan 6 spend goals
- Historical Participation – NLC

Figure 4: NLC Historical Participation



- Historical Participation – Lighting Control Type
 - Insights:
 - Shift in market from non-NLC controls to NLCs
 - Steady increase in NLCs until 2023, where we saw a large increase in participation, which continued into 2024
 - NLC's drove ~89% of all lighting controls savings in 2024
- Historical Participation – Lighting vs. Lighting Controls
 - Insights:
 - Year over year increase in savings achieved from lighting controls
 - Larger percentage of lighting projects also included controls
 - In 2024, savings from lighting controls represented 27% of all lighting and lighting controls project savings (increase from 20% in 2023)

Ed McGlynn (via chat): How much of the 2024 savings can be attributed to projects approved in 2023 at the higher incentive levels rolling over?

- *Kanchan Swaroop: I'm not sure if we have that data. We will look into this question.*

- Historical Participation – Projects
 - NLC project volume decreased by 11% from 2023 to 2024, which shows that we might be approaching a plateau for NLCs
 - Warehouse, Manufacturing, and Schools/Outdoor Sports Facilities are the top three participating facility types
 - Select Community Public School (SBO):
 - \$45K project to implement LED upgrades: Indoor TLED & new fixtures with networked lighting controls
 - 63,895 kWh total savings (12% energy reduction). This project highlights how public facilities in select communities can implement NLCs through the installation of NLC-ready new fixtures

- Select Community Retail/Indoor Mall (STA):
 - \$212,600 project to upgrade interior and exterior lighting to LEDs with NLCs
 - 954,820 kWh of savings, ~300,000 kWh from indoor NLCs and ~12,000 kWh from outdoor NLCs
 - Occupancy, dimming, zone control, and scheduling strategies implemented
- Tactics in 2025 – Lighting & Lighting Controls
 - Measure and Incentive Updates
 - Updated lighting product eligibility to the latest version of DLC (DLC V5.1) for both programs
 - The Small Business offering now requires LLLC capabilities for all NLC measures, whereas the Standard program reports this capability for tracking purposes
 - Both programs with our scaled back incentive/campaign promotions to align better with Plan 6 spend goals
 - ComEd Small Business offering allows LED to LED replacements since 2024 alongside Standard
 - Allows customers to upgrade older LEDs with limited control capabilities with newer LEDs and incorporate NLCs wherever applicable
 - EESP Focused Updates
 - Number of Service Providers participating in NLC measures decreased by 14% in 2024
 - Both offerings continue to provide:
 - Technical Trainings
 - Program Support including Roundtables
 - Fact sheets and case studies
 - Newsletter Spotlight
- EESP/Market Feedback
 - EESPs were not opposed to lowering incentives in 2024 to preserve budget over the full program year
 - Both offerings reduced NLC incentives mid year 2023 and later into 2024
 - EESPs anticipate LED saturation and continue to pivot towards NLCs, other lighting controls, and LED to LED upgrades
 - Outreach teams typically don't have issues "selling" EESPs on NLCs given relative ease of adoption and decrease to customer out-of-pocket costs in most use cases
 - Some EESPs still interested in additional lighting and NLC related trainings

Future Plan/Outlook

- Next Steps
 - Continued Market Education
 - Additional awareness for LLLCs with increased tracking and requirements
 - Promotion of NLCs
 - Lessons Learned & Keys to Success
 - Continuous EESP Engagement
 - Incentive design
 - Trainings
 - Feedback

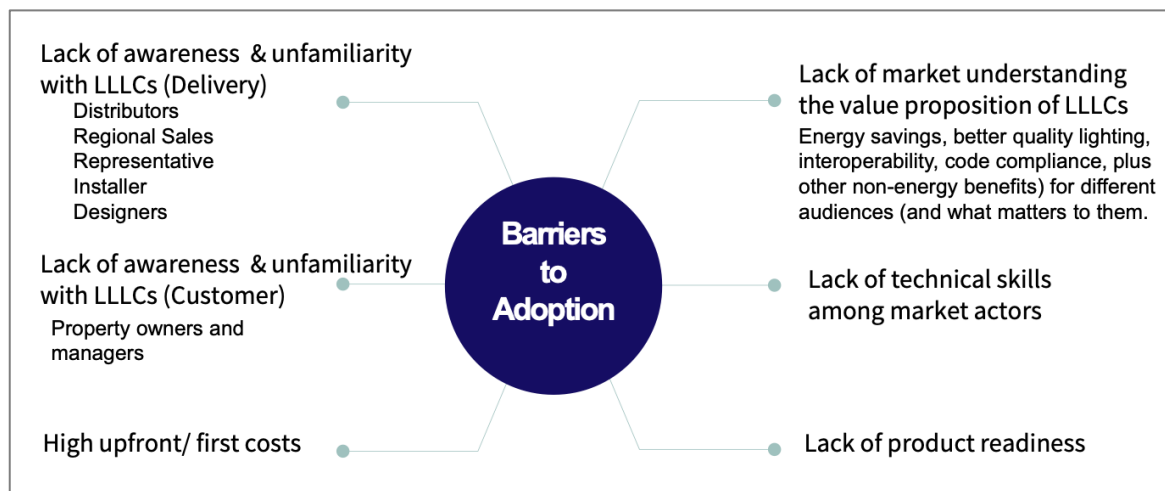
- Market Transformation for LLLCs
 - NEEA, Ameren IL, and MN CEE have all expressed high confidence that a market transformation effort can accelerate the LLLC market, and have efforts underway
 - A comprehensive MT model incorporating education, training, and awareness for key market actors can drive behavioral change both among customers and throughout the supply chain
 - An MT initiative around LLLC can complement the existing successful Resource Acquisition program by overcoming barriers to adoption throughout the value chain and complementing existing education and training efforts and financial initiatives already in place, resulting in faster program growth

Dan Mellinger (via chat): It was mentioned that NLC cost effectiveness will be challenged as LED saturation increases. Are the NLC savings bundled with LED savings (for reporting and/or cost effectiveness)?

- *Kanchan Swaroop: We have incentive options for customers. We offer a bundle for standard lightings and controls together, as well as a controls option.*
- *Dan Mellinger: On slides 15 & 16, do these NLC results include LED savings or exclusively control savings?*
- *Sanjyot Varade: These are exclusively control savings.*
- *Dan Mellinger: The opportunity to gain savings from LEDs is diminishing because fewer customers are upgrading, correct?*
- *Kanchan Swaroop: Yes.*

LLLC MT Concept

Figure 5: Market Transformation Concept



Ameren Illinois Network Lighting Controls (NLC) Update Presentation

Haley Burton. Ameren IL

Networked Lighting Controls Project Trends

- Trends
 - Trending to Exceed # of Projects from Last Year
 - Slight Decrease in AVG Gross kWh Savings by Project
- SBDI Channel

- Number of Projects Doubled since 2024
- Savings Tripled since 2024

Program Ally Participation Trends

- Total Program Allies with Completed NLC/LLLC Projects by Initiative:
 - Standard: 29 (2022 – 2025)
 - SBDI: 30 (2023 – 2025)
- Total Unique Allies with Completed NLC/LLLC Projects Across Initiatives:
 - 50
 - 12% of Network

Participation Pathways, Incentives and Eligibility 2025

- Pathways and Incentives
 - 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

Marketing and Engagement 2025

- Newsletters and Flyers
- LLLC Informational Video
- Energy Advisory Customer Engagement
- Outreach and Program Events
- Non-energy Benefits Marketing

Training and Continued Education 2025

- In-person workshops
 - 4 sessions across the service territory
 - Program Allies, Manufacturer Reps, Distributors, and Customers
 - Review of Energy and Non-Energy Benefits
 - Hands-on Interaction with Controls
 - 4 CEUs
- Continued Education
 - Continued Self-Paced Online Training
 - Hands-on Experiences and Symposium and Other Events
 - Free Personal LED with Control Features
- Resources and Support
 - Connection with Reps and Lighting Control Demo Boards

- Energy Advisor Partnership

Abigail Miner (via chat): What does CEU stand for?

- *Crowder: Continued Education Unit (or Credit) for certifications.*

Dan Mellinger (via chat): On slide 3, are savings from product incentives and market transformation?

- *Haley Burton: Savings are from product incentives; there are no market transformation incentives.*

Dan Mellinger (via chat): What percentage of LLLC savings are from product incentives vs. market transformation?

- *Haley Burton: We don't have any market transformation savings attributed so far.*
- *Dan Mellinger: A prior Ameren presentation included market transformation savings, correct?*
- *Haley Burton: LLLC is part of market transformation, but its savings are not attributed to it. Lighting controls is part of the market transformation we are focusing on this year.*

Considerations for 2026 – 2029 Plan Cycle

- Progressive Training & Trade Ally Engagement
- Continued Inclusion of Incentives/Monitoring Levels to Meet Increasing Demand
- Focus on Luminaire Level Lighting Controls
- Considerations for Measure Integration with other Smart Technologies and Building Systems
- Demo Boards Engagements

Closing and Next Steps

- September 29 is the final meeting of the SAG NLC Subcommittee. Meeting materials from NLC Subcommittee meetings held between 2022 and 2025 will remain posted on the [SAG NLC Subcommittee webpage](#).