

Illinois EE Stakeholder Advisory Group Network Lighting Controls Subcommittee

Wednesday, April 20, 2022 Meeting

2:00 – 3:30 pm

Teleconference

Attendees and Meeting Notes

Meeting Materials

- SAG Network Lighting Controls Subcommittee Webpage
- Posted on the [April 20 meeting page](#):
 - [Wednesday, April 20 Network Lighting Controls Subcommittee Agenda](#)
 - [SAG Facilitator Introduction to SAG Network Lighting Controls Subcommittee](#)
 - [Ameren Illinois Network Lighting Controls Presentation](#)
 - [ComEd Network Lighting Controls Presentation](#)

Attendees (by webinar)

Celia Johnson, SAG Facilitator

Samarth Medakkar, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support

Andy Vaughn, Leidos

Catherine Allen, ComEd

Dan Mellinger, Energy Futures Group, representing NRDC

Teri Lewand, ComEd

Ashley Harrington, ComEd

Emily Pauli, ComEd

Hameed Yusuf, Resource Innovations

Jeff Harris, Northwest Energy Efficiency Alliance (NEEA)

Jennifer Morris, ICC Staff

Jim Fay, ComEd

John Lavalley, Leidos

Keith Goerss, Ameren Illinois

Laura Pettersen, Resource Innovations

Matt Armstrong, Ameren Illinois

Michael Pittman, Ameren Illinois

Molly Lunn, ComEd

Nicholas Crowder, Ameren Illinois

Peter Brown, Lighting Transitions

Rebecca McNish, ComEd

Rita Siong, Resource Innovations

Sanjyot Varade, Resource Innovations

Will Wilson, Leidos

Opening & Introductions

Celia Johnson, SAG Facilitator

Purpose of meeting: For Ameren Illinois and ComEd to update Subcommittee participants on the progress of network lighting control measures; discuss stakeholder questions.

Introduction to SAG Network Lighting Controls (NLC) Subcommittee

- Purpose of Subcommittee is to discuss measures associated with NLC with Ameren IL, ComEd and interested stakeholders, including strategies for accelerating adoption of NLC, luminaire level lighting controls and other related measures.
- The 2022-25 EE Plan stipulated agreements between Ameren IL, ComEd and non-financially interested stakeholders referenced creating a new Subcommittee to discuss updates on NLC measures.
- Subcommittee participation is open to all interested parties.
- Feedback requested (discuss at end of meeting):
 - What month is best for future [quarterly] Subcommittee meetings?
 - What topics should be discussed related to NLC?

Ameren Illinois Presentation

Andy Vaughn, Michael Pittman and Will Wilson, Ameren Illinois

Presentation Agenda

- Historical NLC Projects
- 2020 recap
- 2021 offering
- 2022 offering
- Market Transformation Pilot – Luminaire Level Lighting Controls

Historical Projects

- Food warehouse facilities in 2018. Made significant push in 2020.
- Worked with stakeholders, including NRDC, to ramp up NLC activities. Didn't get started on many projects until 2021.
- Savings represent true savings from controls.

Updates

- Ameren IL began a push to drive adoption in 2020, including a pilot program. Marketing included new NLC content.
- Discussed marketing strategies, trainings and incentive levels
- Training received around 20+ participants
- Pilot attracted few applicants
 - Unable to put new capital projects before Ameren's deadline
 - Two applicants – turned down as the benefit didn't justify the cost
 - One applicant – bank headquarters in Champaign – was finished in 2021. Case study linked in presentation
 - Pilot succeeded in laying groundwork for 2021 and marketing for technology

2021 Offering

- Luminaire Level Lighting Controls (LLLC) is a subset of NLC that can provide greater savings potential
- Ameren's incentive level is one of the highest among utilities
- Despite impacts from COVID and supply chain, 2020 pilot benefited 2021
 - See challenges and successes from presentation
 - Most applicants are schools, industrials and warehouses
- Gauged familiarity of LLLC (70% were aware)

Program Allies Survey

- None had planned more than 4 projects over the next 5 years (few projects in pipeline)
- Interested in identifying the reason why more projects weren't being scheduled
- Identified key barriers: initial cost, lack of customer demand (they were not asking about it), unconvinced of ROI vs regular controls, skepticism of technology, perceived complexity
- Suggestions: Most importantly, customer education (customers aren't asking for it; contractor/installer incentives; program ally technical and marketing training; Incentives for customers

2022 Offering

- Continuing to market; marketing emails to program allies
- As part of pilot, hands-on LLLC training
- 2021 Incentive levels remain the same. 4 projects in the pipeline.

LLLC Market Transformation Pilot

- There will be a more in-depth discussion during the April 21 MT Savings Working Group meeting
- Soft launch in November 2021
- Two-day training in April (next week) and will continue to offer in Q3/Q4 of each program year
- Overview of incentive levels for standard NLC and LLLC pilot
- Shared future plans (see table on Slide 12)

Discussion

[Dan Mellinger] The incentives that you mentioned – are those in addition to any incentives that would apply to LED equipment?

[Michael Pittman] Yes, incentives are in addition to upgrades to light fixtures. Applicant will receive LED upgrade incentive and controls incentive in addition to that. Standard controls incentives go to customer; pilot goes to program allies. Concerns about covering their costs for additional work to learn about, teach and provide extra time with installation.

[Dan Mellinger, Energy] Any conditions on the trade-ally incentive with how they use it? Reduce project cost or just pocket it.

[Michael Pittman] No conditions listed on application. The project we have in progress now; program ally gets a higher incentive and passes it to the customer.

[Andy Vaughn] We realize the incentive level isn't sustainable – we want to generate more excitement and interest in the technologies at this stage.

[Jeff Harris] Is there a future opportunity to use other channels for incentives and deliver – manufactures direct or representatives that aren't in your trade ally network?

[Andy Vaughn] We looked into this and spoke with some manufacturers. There was initial excitement that was all before supply chain challenges. Most interested manufacturers had a supply chain issue problem. Worth revisiting.

ComEd Presentation

Jim Fay and Ashley Harrington, ComEd; Hameed Yusuf, Resource Innovations

Presentation Agenda

- Introduce topic and team
- Plan 6 lighting control goals – what we spoke about in Nov 2020
- Where we are today and current program design; review historical participation
- Finish with a forward look into the future

Shared Plan 6 NLC Goals

- Expected this would be a growth market – grow to nearly 7% of portfolio spend – we think this is optimistic but achievable
- Ameren IL presentation alluded to barriers for fully integrated NLC
- Outlook includes two programs – small business and standard – breakdown of exterior lighting and systems which includes network component

Barriers

- It's been 18 months since we last spoke about barriers in this market. We've seen that many barriers are persistent. One, previously mentioned, is basic economics. We look at it – most customers look at this as an incremental investment – they're looking at an attractive pay back with LED conversion – but a long payback – 8-10 years for NLC. Economics don't make sense.
- As described by a lighting vendor: to most customers, controls are expensive and unnecessary to their daily operation.
- We continue to see this as an important and growing market – more of a niche market.
- Other barriers on NLC solution in the marketplace where OEMs have to go out and commission a project on site is a short-term fix. It's not sustainable for a mainstream market.
- Specs for products are changing too frequently, makes it hard contractors for marketing – characteristic of a market in its infancy.
- There hasn't been a standardization in communication protocols.
- When we looked at NLC in last planning cycle, forecast from DOE showed significant expansion in mid 2020s. Notes that this could be moved up with sufficient utility incentives. Now we're observing that the uptick in market is not likely to occur in this plan horizon. Expectations in the market are not benefitting from a move to NLC. This is a market update – consistent with Ameren's results from the survey. We're trying to grow the market and have a robust program.

ComEd EE Program design

- Standard and small business offering (see slide for list of measures)
- Open to any size customer but focus on mid to large
- Customer requirements
- Higher incentives to encourage participation of small businesses (cost is a greater barrier for small businesses)

Historical Participation Data and Insights

- Two graphs show status (kWh (left) and incentives (right))
- Steady increase in lighting controls participation, new tactics and initiatives

- Big spike in 2020 and drop in 2021– due to savings and methodology changes – ComEd worked with RI to fine tune savings methodology. Same number of projects just adjusted methodology.

Progress to Goal

- We are approx. at 20% of GWh goal. In terms of budget at 30%. We are confident that we're trending in the right direction to meet goals for plan 6.
- Savings don't exactly match % of budget
 - Incentives were not sufficient so those were increased to cover greater portion of products
 - Actively pushing for more participation through promotions, campaigns and incentives.
 - Although numbers are only based on paid projects, we have a healthy pipeline – number of large projects under review on the standard side.

Historical Participation

- Chart shows savings, incentives, projects and EESP who've submitted projects for NLC. Increasing trend year over year for participation in NLC. Testament to the initiatives that were implemented.
- In terms of savings, steady increase. Expecting increase in 2022. Seeing steady growth in number of projects submitted with NLC> # of projects are steadily increasing. Starting to see uptick.
- For 2022, above 50% of 2022 overall lighting savings are from NLC systems. Seeing uptick in customers wanting control capabilities.

Tactics/Initiatives

- Incentives
 - Increased; simplified spec requirement
 - EX: small business, increased interior NLC incentives by 60% and 150% in standard
- Marketing
 - Webinars, factsheets, case studies and service provider training
- Trainings
 - In 2020 and 21, hosted two technical webinars (120+ attended)
 - Shared a case study created on a smart lighting success story. Helps customers understand benefit
 - See presentation slides for link to promotional video

Findings of interviews with program providers – EESP Roundtable Discussions

- Barriers, feedback, key takeaways

Future Plan and Outlook

- Where does this take us from here?
 - ComEd is looking at streamlining and standardizing specs to encourage easier participation
 - One of keys to success is to provide continuous training on NLC

Discussion

[Dan Mellinger] You mentioned the different NLC measures but didn't call out LLLC. Would incentive be available for an LLC project? And would it apply to both programs (small business and standard?)

[Hameed Yusuf] Yes, we grouped LLLC under general NLC. As long as system meets specs, they are eligible. Applies to both programs.

[Dan Mellinger] Question open to both ComEd and Ameren teams – one of the challenges programs face is the initial cost, including incremental cost and payback. This is legitimate. Have there been any changes to the uncontrolled LED incentive? Have there been efforts to shift money away to controls to broaden the gap of what a project would be eligible for with or without lighting controls?

[Ashley Harrington] We have increased incentives on controls compared to no-control incentives. Increased 150%, LED retrofits have gone up less than 15%.

[Dan Mellinger] Is there a way to send a signal of what measures to promote to the market? Suggest potentially lower uncontrolled LED lighting incentive.

[Jeff Harris] One of the things we've run into in the Northwest is the fixture change out requirement – LLLC requires replacement. There are drop off replacement kits, but for all practical cases it's a big decision for building owner. Has your program helped building owners understand the greater value?

[Ashley Harrington] Generally speaking, we offer higher incentives for fixture replacement vs retrofit. Primarily, pushing for NLC with fixture replacement. LLLC includes fixture replacement, but we've seen that service providers tend to replace fixture and install controls. Incentives designed to promote this method.

[Jeff Harris] Of the NLC projects, what % would be LLLC vs other strategies for NLC?

[Hameed Yusuf] We can follow-up.

[Dan Mellinger] NLC measures and their contribution to portfolio lifetimes savings and cost-effectiveness – is the impression that NLCs measures and savings beneficial to these areas? How do they compare in cost-effectiveness to tubes (which customers and contractors love) and lifetime savings?

[Jim Fay] From a lifetime savings perspective, we have CPAS measure goals – measure lifetime is important and they have a healthy lifetime. From cost-effectiveness perspective, we look at dollars invested in first year savings. NLC is at portfolio avg. Standard is more cost effective but the small business is a little above that average. We're at about that average. It's a different answer for standard vs small biz.

[Dan Mellinger] We heard from Ameren that incentive level is intended to induce market. I'm hearing from ComEd that incentive levels are sustainable given they're at portfolio average. Especially for standard, below portfolio avg. We tend to see these as something that we could increase investment in to benefit portfolio.

[Jeff Harris] Could you comment on whether ComEd has considered NLC for demand response events, like peak summer cooling?

[Jim Fay] There would be value associated from a TRC perspective. We'd include DR incremental value in the equation. We haven't looked at promoting NLC with that benefit – something to consider for us going forward.

Closing and Next Steps

Celia Johnson, SAG Facilitator

Feedback requested:

1. Planning quarterly meetings (updates for Q3 and Q4). What timing is best?
 - Q3 meeting: Second half of July
 - Program design best practices
 - Q4 meeting: Early December
 - Ameren Illinois and ComEd present updates on NLC progress in 2022
2. Feedback on topics for future meetings? We can schedule progress updates for utilities to share progress of measures in 2022.
 - Dan Mellinger suggested discussing program design best practices across the country at the next meeting. Another option is looking at room controls – contractors find this easier to install.