

Integrated Systems Coordinating Committee

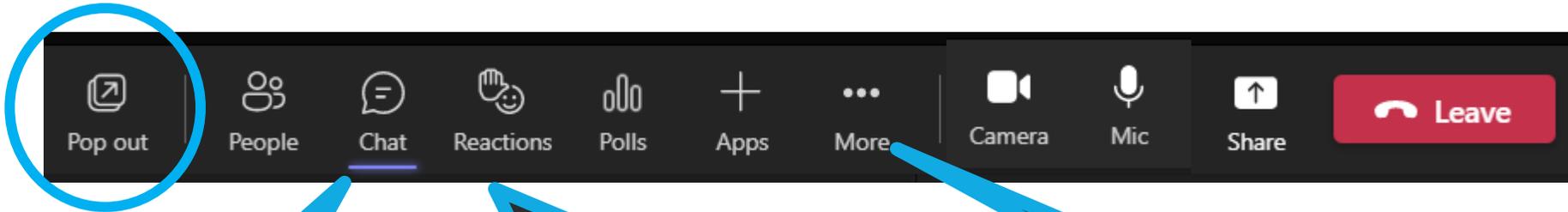
Q1 2024 Meeting

*Thursday, February 29, 2024
12:30 – 4:15 pm, Pacific Time*





Tools for Today: Engaging on Teams

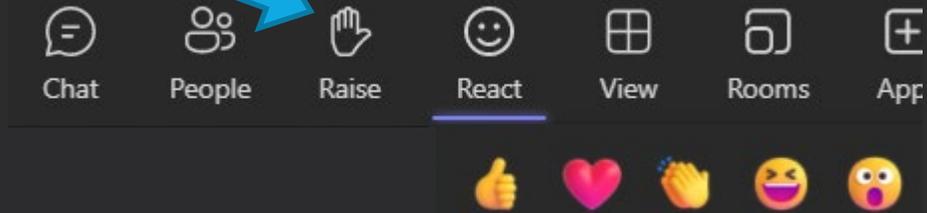


The chat is not captured in the recording.

Do you have any accessibility challenges with this technology today?

Comments/Questions?

Please raise your virtual hand or chime in
Chat & reactions also welcome



“...” More includes:

- ✓ Settings: mic & video
- ✓ Background effects

Heads up:
“Spotlighting” Speakers





Collective Role – Working Together

- **Share your organization's activities**
- **Come prepared to actively participate**
- **Be transparent**
- **Identify any potential conflicts/challenges**
- **Flag any potential opportunities to leverage**
- **Be present in the conversation and stay flexible**



AGENDA

All times Pacific

12:30 -12:45	Welcome, Agenda & Packet Review
12:45- 2:05	Introductions & Regional Roundtable
2:05 - 2:15	BREAK
2:15 - 2:55	Regional Priority Topic: Recent LLLC Market Research
2:55 - 3:10	Q2 Regional Topic Check In
3:10 - 3:20	BREAK
3:20 - 4:00	Regional Priority Topic: LLLC Regional Utility Toolkit
4:00 – 4:10	Housekeeping
4:10 – 4:15	Recap, Next Steps, Adjourn



Packet Review & Informational Updates



- Tier 1: Agenda Items

- ✓ *Luminaire Level Lighting Control (LLLC) Market Research (pg. 4)*
- ✓ *Q2 Regional Priority Topic Check In (pg. 5)*
- ✓ *Luminaire Level Lighting Control (LLLC) Regional Utility Toolkit (pg. 6)*
- ✓ *Regional Portfolio Advisory Committee (RPAC) Updates (pg. 7)*

- Tier 2: Informational Updates

- ✓ *Coordinating Committee Assessment (pg. 8)*

- Tier 3: Additional Resources *(links on pg. 2)*

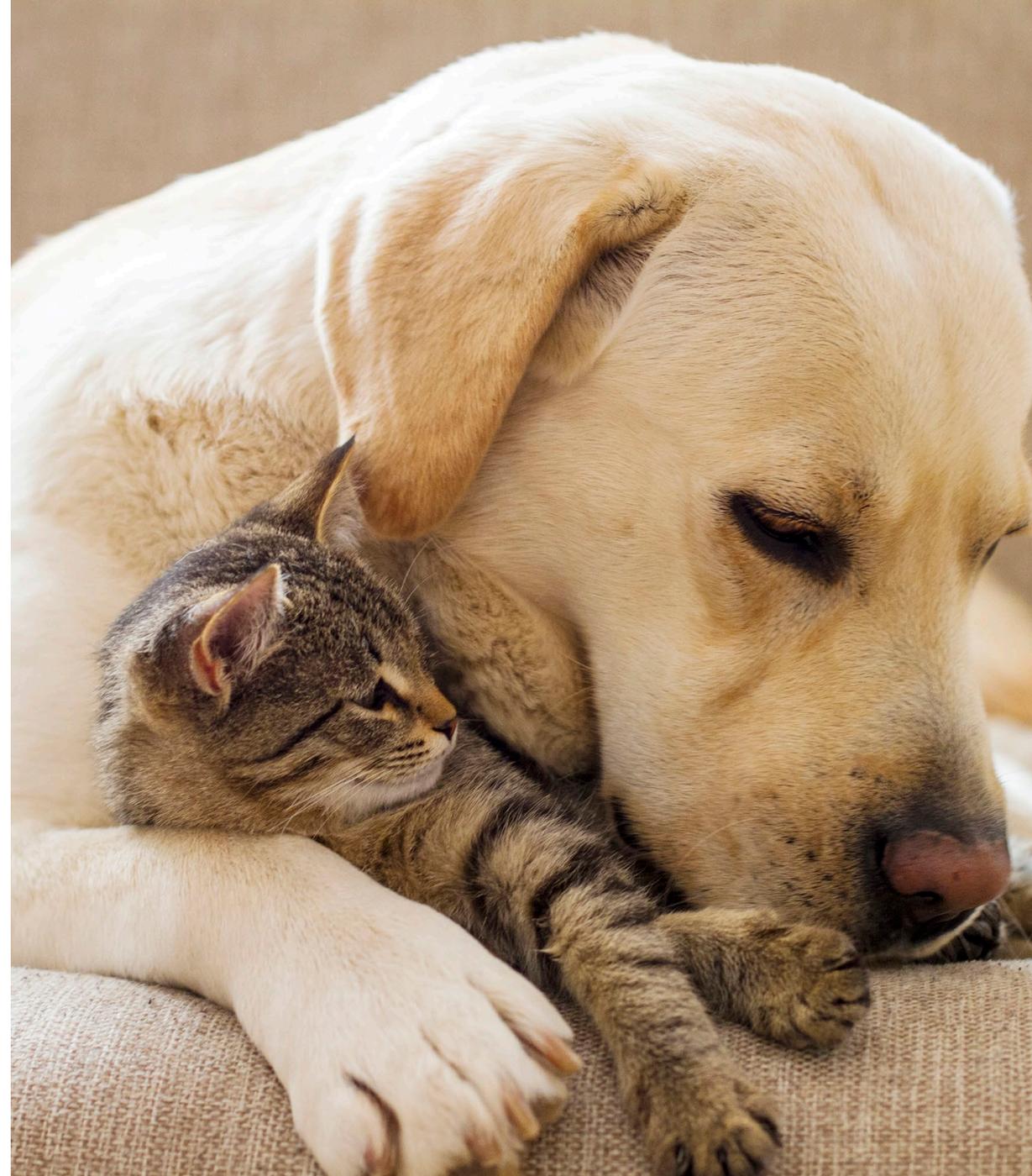
Committee materials (charters & recent meeting resources, functional newsletters (Market Research & Eval, Emerg Tech, Codes + Standards + New Construction)





ISCC Members Update

- Welcome to ISCC!
 - Andrew Paul (Avista)
 - Drew Thompson (Chelan)
- Thank you for your contributions!
 - Michael Lane (PSE)



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Introductions + Committee Roundtable



Introduction Prompt (All)

- Name
- Organization
- *And...*

XXX



Roundtable Focus (NEEA PMs & PCC members)

- Highlights since August
 - Programmatic updates
 - Organizational updates

Please aim for 3-5 min max, thanks!



⇒ *Break!*

Please return at 2:15pm PDT



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Recent Luminaire Level Lighting Control (LLLC) Market Research

Zdanna King

Market Research & Evaluation (MRE) Scientist, NEEA

2/29/2024





LLC Market Research: Agenda

- Methods & Sample
- About the study
- Market research insights
- Discussion

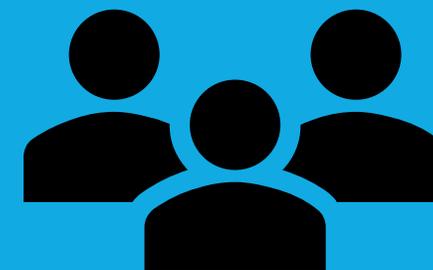
Follow [link to report](#), if you'd like to learn more.



Methods & Sample

Participant Summary

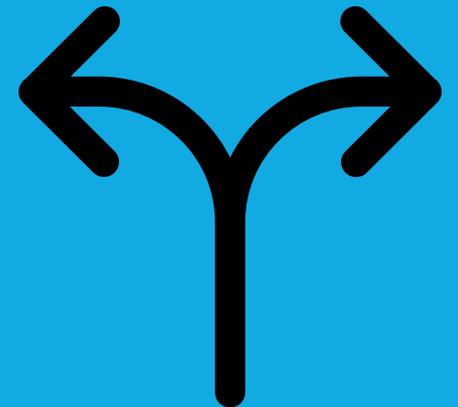
Method	# of Participants
Market Actor Surveys:	
Manufacturers	4
Manufacturer Representatives	7
Distributors	1
Design/Specifying Company Reps	27
Installation Company Reps	30
Decision-maker Interviews	8
Alliance Utility Program Managers	5
NEEA LLLC Program Staff	3





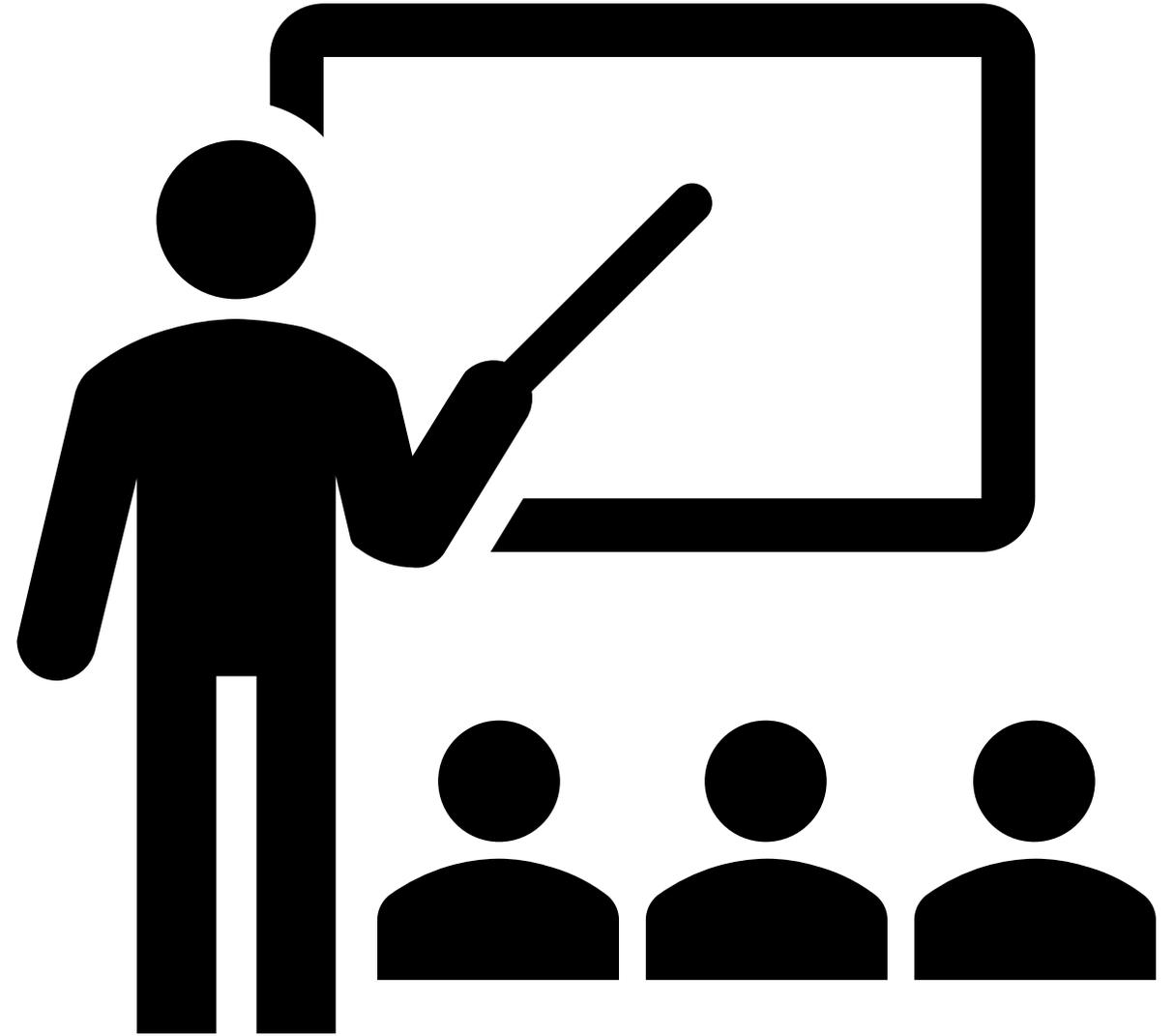
A few words about the study and sample

- This study wasn't designed to provide statistically significant results
- Smaller sample sizes → good for indicating directions, but specific & fully representative results would require a great deal more resources
- So, pay attention to ideas and directional shifts, and less to specific numbers



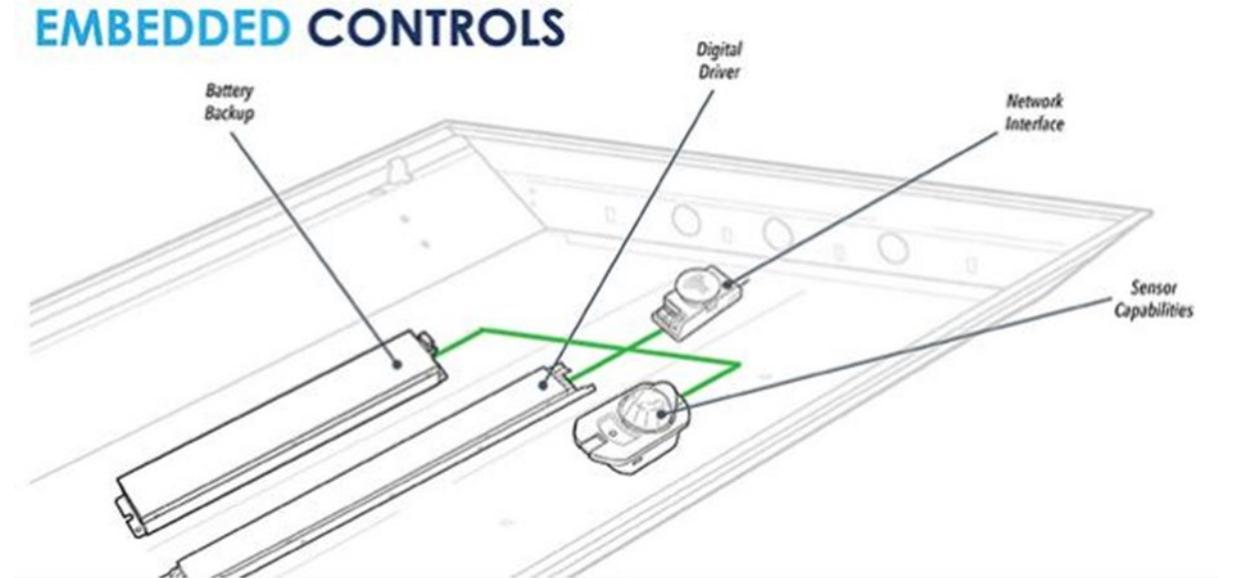


Like the previous study, all manufacturers the contractor spoke with were incorporating LLC into their trainings.



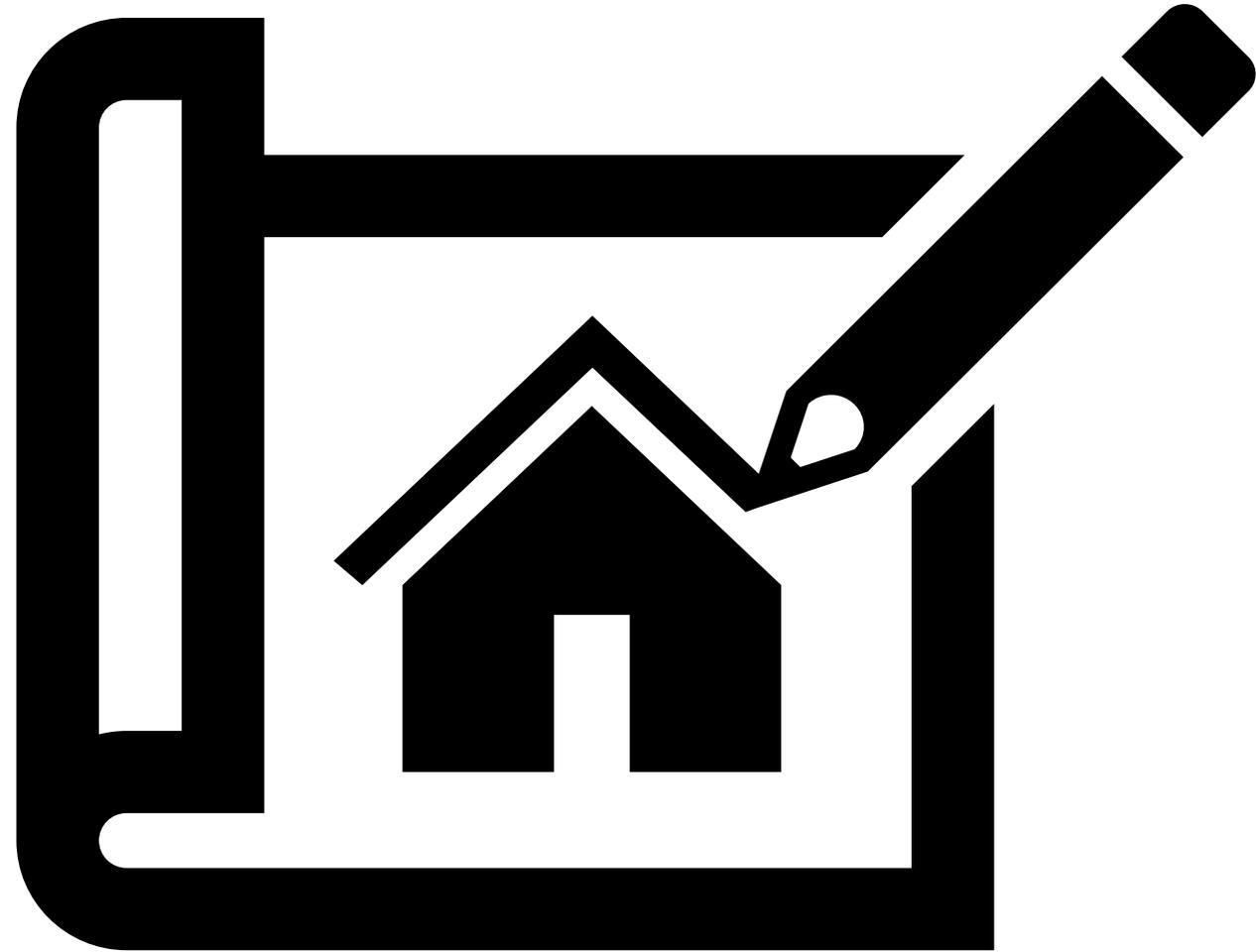


Most lighting installers were aware of LLC, similar to last year.





However, there was slight growth in the awareness or designers' and specifiers' awareness, bringing it more in line with installers.



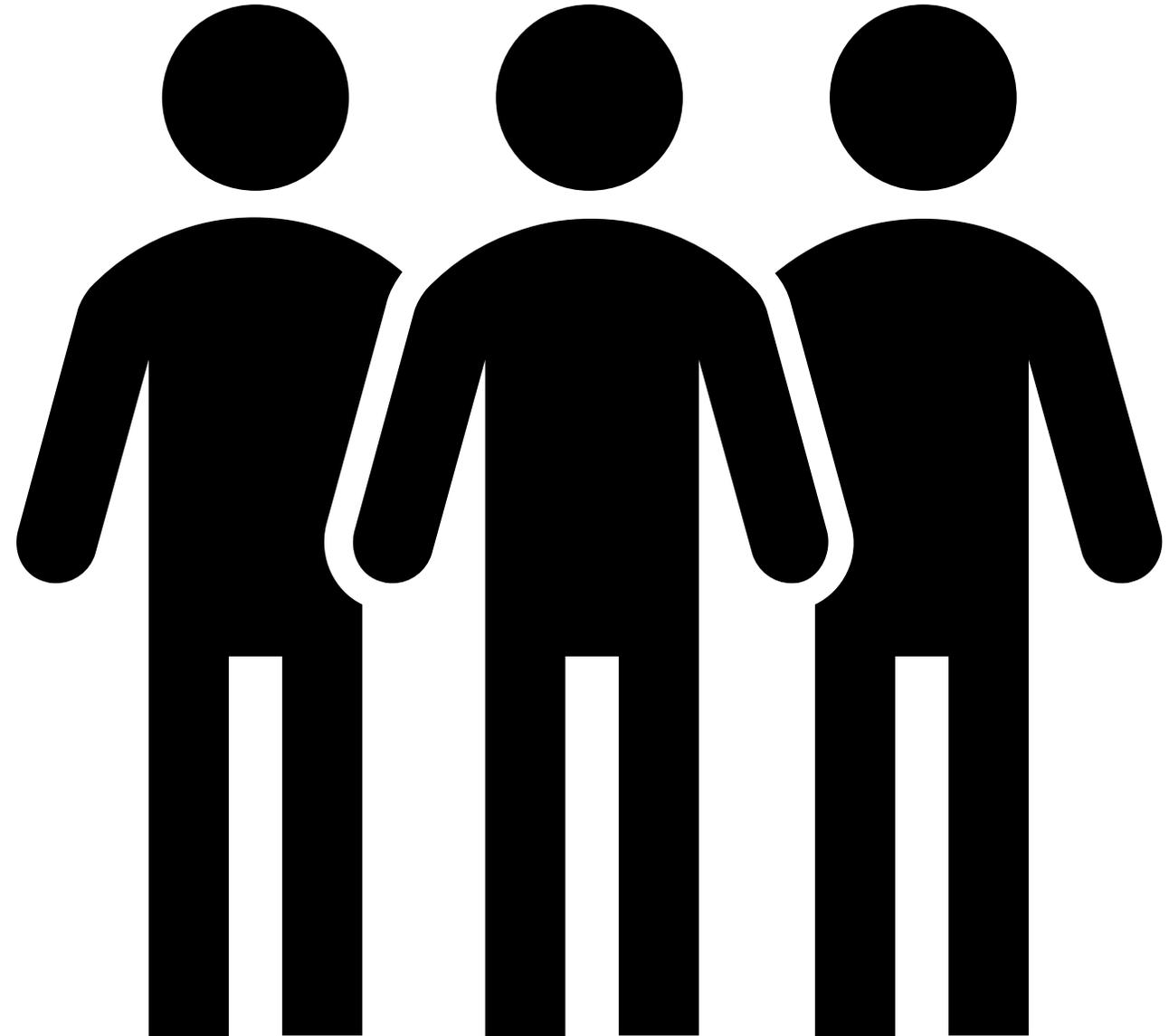


Almost all installers felt confident selling networked connected lighting; most felt confident selling LLC.





More installation companies reported they had staff trained in LLLC.



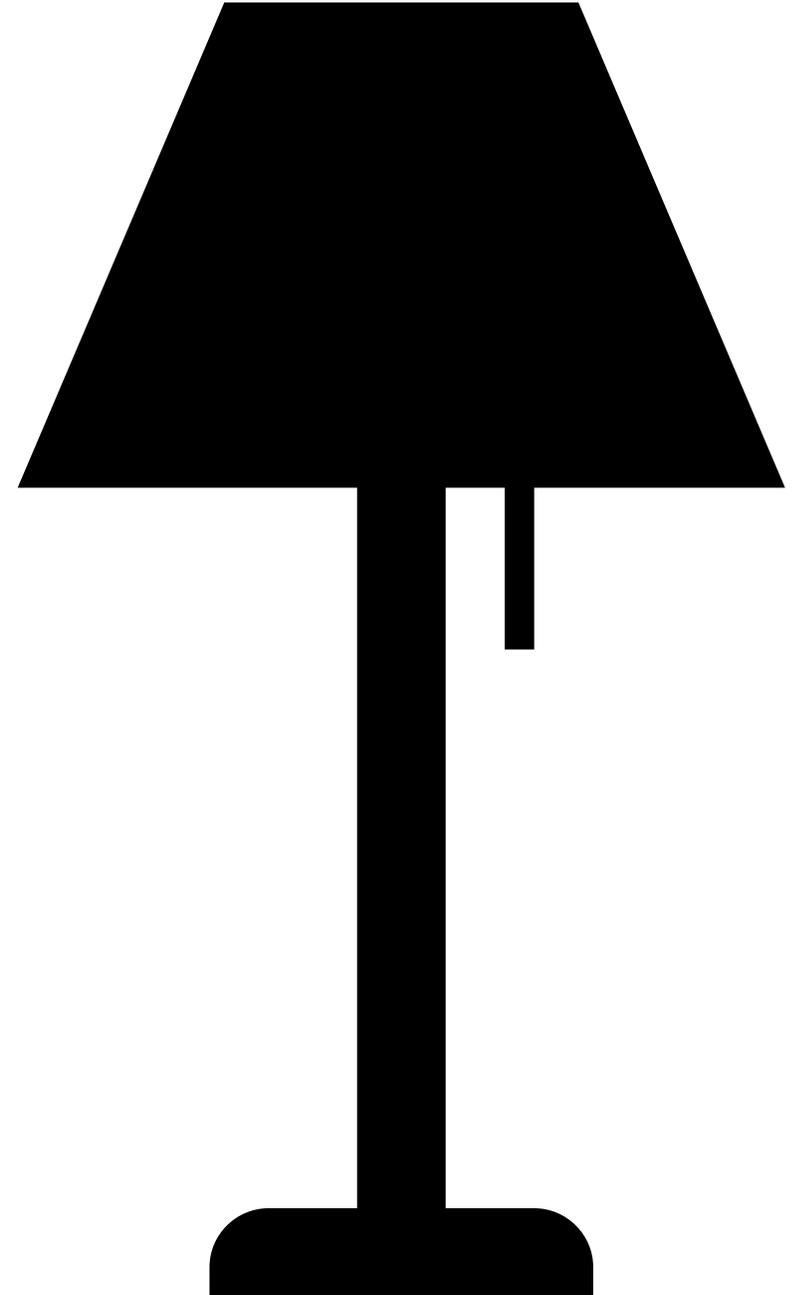


More lighting designers recommended LLC and included it in at least one project plan.



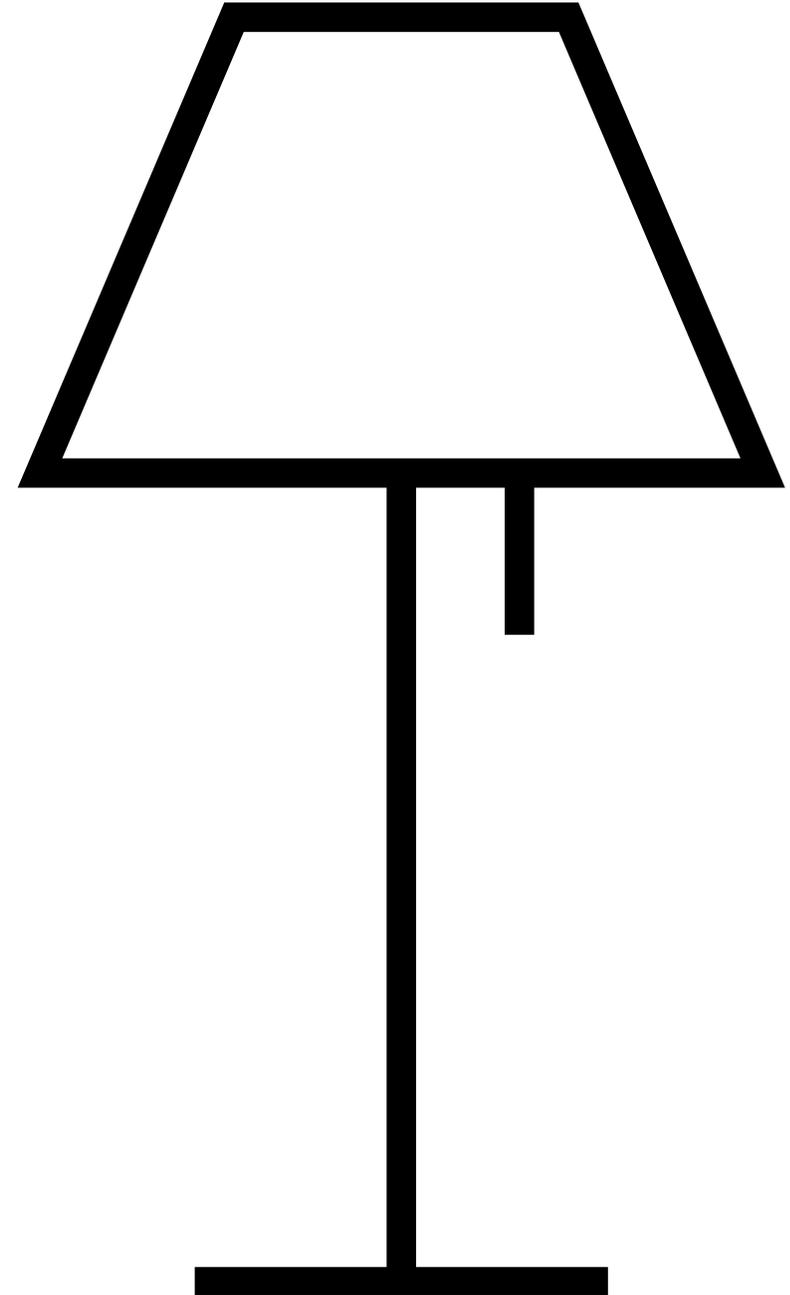


All manufacturers surveyed shared that they were producing more LLC fixture types compared with the previous year.



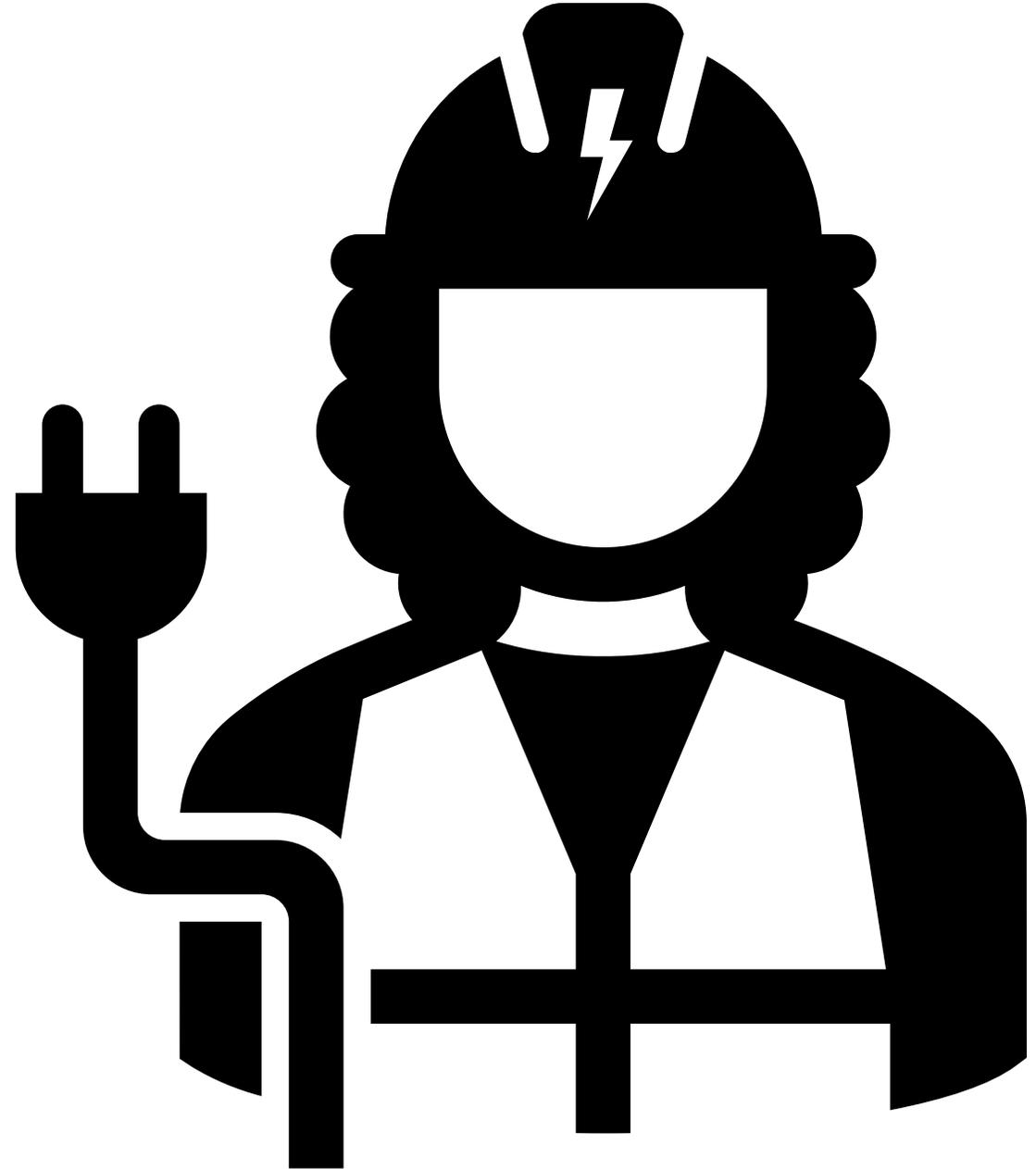


Most manufacturer representatives shared that there were enough varieties of LLC fixture types and styles to meet customers' needs.



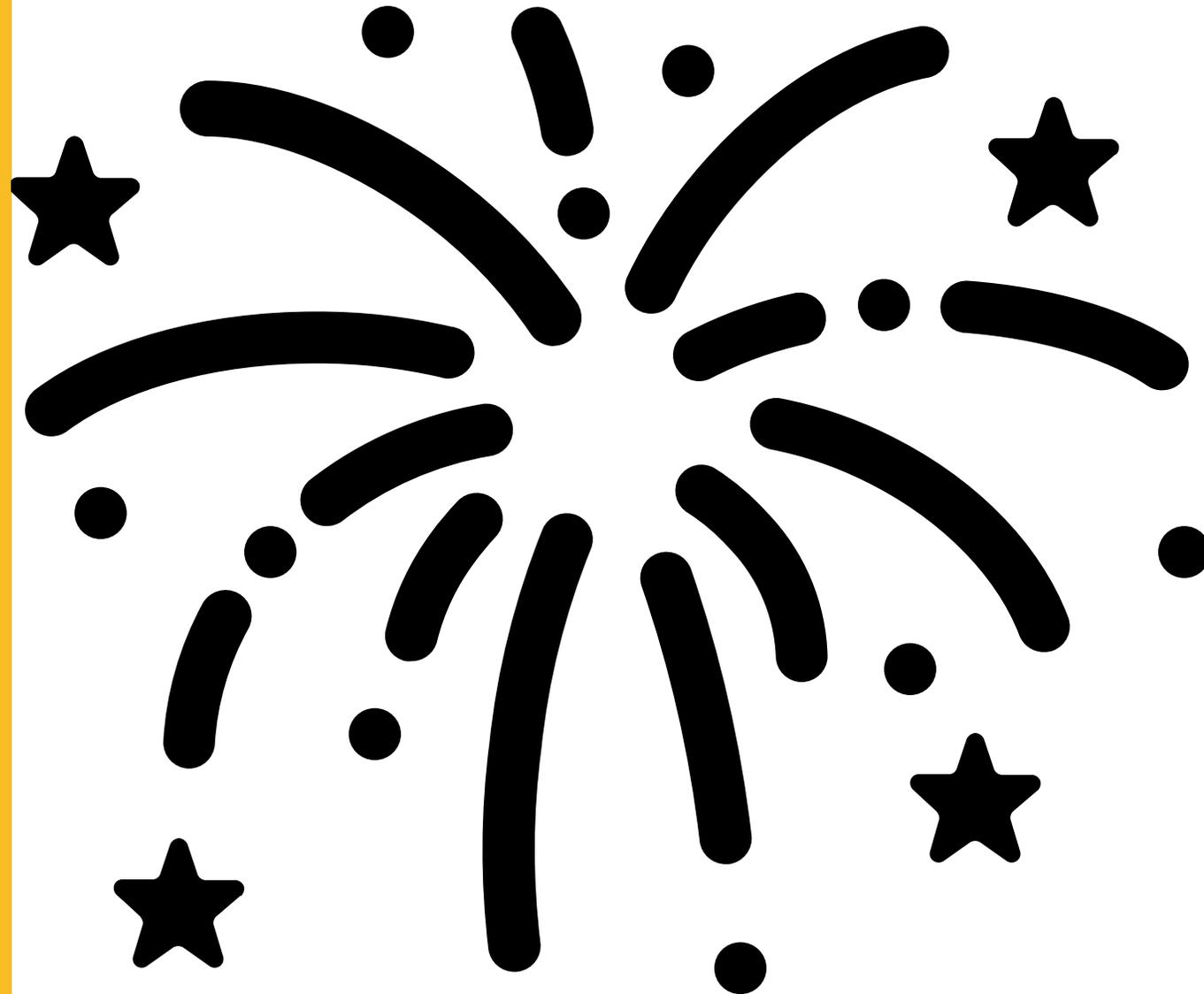


About the same percentage of lighting companies reported that they had installed at least one LLLC system.





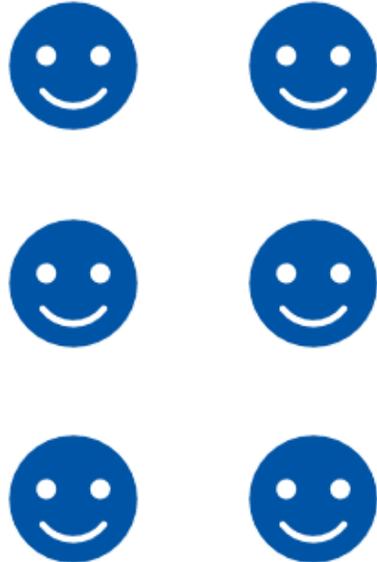
Three quarters of respondents shared that LLLC was easier to install than other networked lighting controls.





Most decision-makers we spoke with shared that their LLC systems worked “very well”.

6 of 8 decision-makers said their LLC systems worked very well



2 decision-makers encountered system issues (but have been resolved)



Issues with system programming and control

Issues with system durability and operation





Additional insights: Decision-makers

- Reasons for upgrading lighting included energy savings, improved quality of light, enhanced control, and meeting code requirements during retrofits.
- After installation, respondents were most likely to share that they valued networked capabilities, zoning, individual addressability, and occupancy sensing.





Additional insights: Market Actors

- Even though incremental costs compared with non-controlled lighting has come down by 44% since 2017, first cost is still the perceived as the first barrier by installers & designers





Discussion

How do these findings resonate with your experience in the market?

Are you seeing more interest in and comfort with LLC among your trade allies?

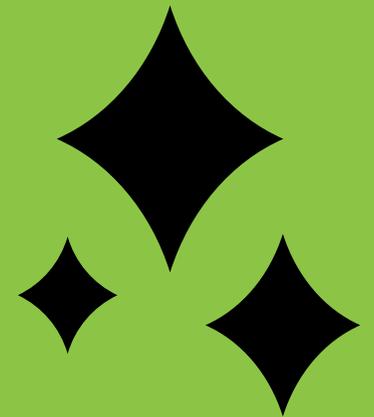
With the awareness in the market increasing, what are your thoughts on what is holding back more mainstream adoption?





What would be useful for you to know more about?

- We will be kicking off a new study later this year and sometimes we can add small research questions to help us learn more about the market while measuring outcomes. If we were able to, what is something you would like to learn more about?



» Thank you!

Zdanna King, MRE Scientist

zking@neea.org



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Q2 Regional Topic Check In



Extended Motor Products, Pumps & Circulators

- Pumps 101 presentation



Luminaire Level Lighting Controls

- Takeaways from utility incentivized LLC projects and how to leverage these insights to bolster demand.



➤ *Break*

*Please return at
3:20pm PDT*



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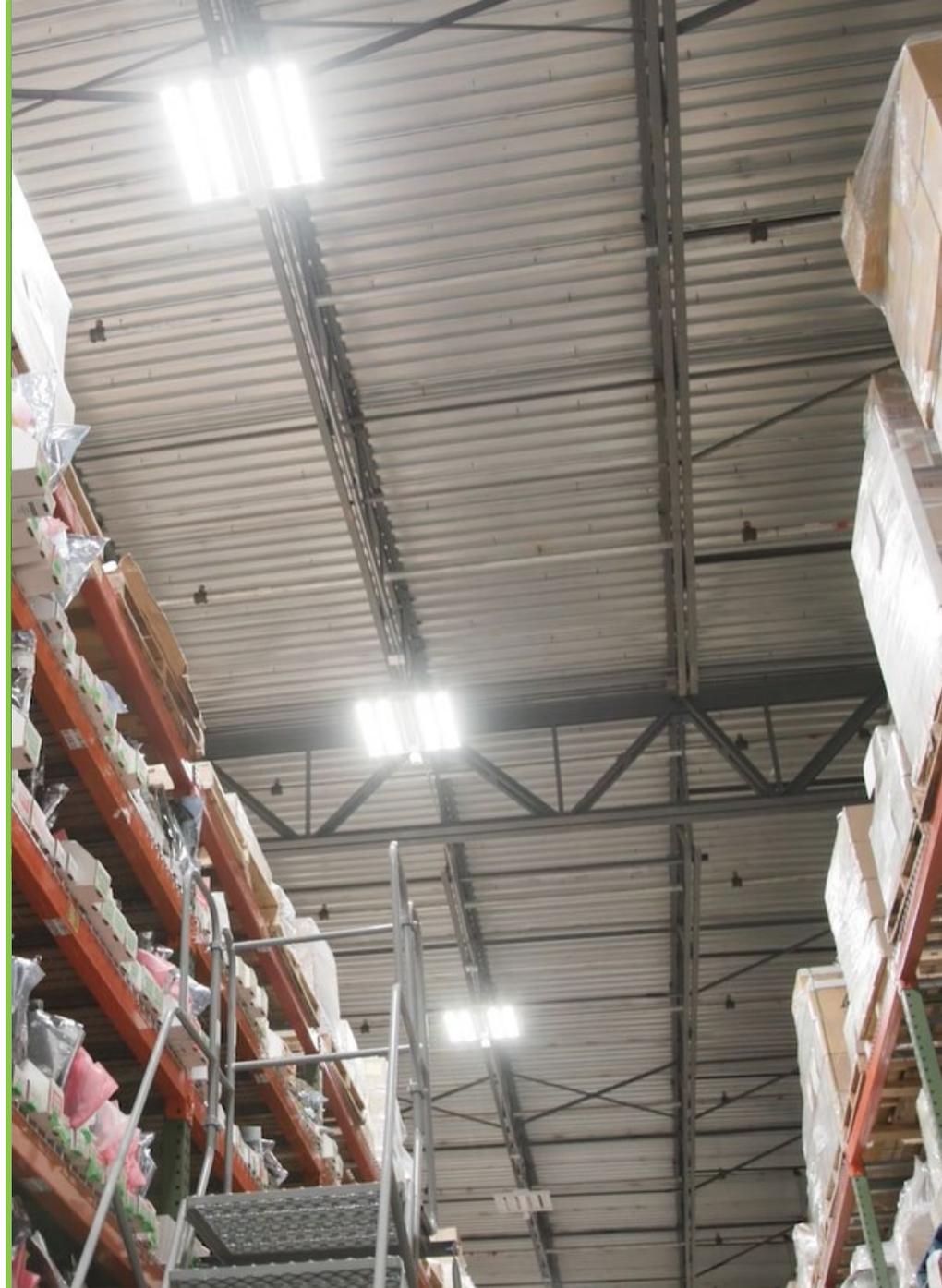


LLLC Regional Utility Toolkit

Britt Cutsforth Dawkins

Manager, Program Marketing Strategy

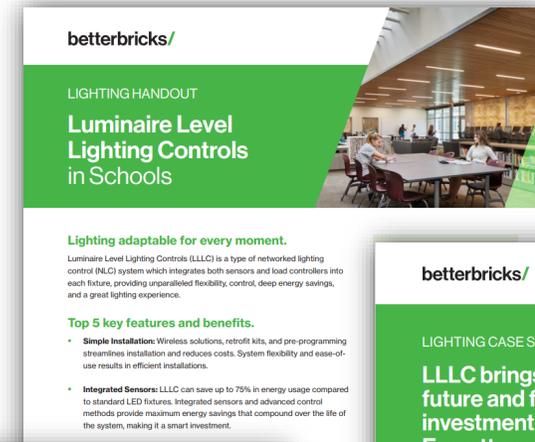
2/29/2024





LLLC + BetterBricks

- BetterBricks is the market-facing brand that supports the alliance’s commercial building programs, including LLLC
- All of the LLLC resources produced reside on [BetterBricks.com/LLLC](https://www.betterbricks.com/LLLC)
- The BetterBricks Industry Voices concept came from the LLLC team—with additional “voices” coming in 2024



betterbricks/

LIGHTING HANDOUT

Luminaire Level Lighting Controls in Schools

Lighting adaptable for every moment.

Luminaire Level Lighting Controls (LLLC) is a type of networked lighting control (NLC) system which integrates both sensors and load controllers into each fixture, providing unparalleled flexibility, control, deep energy savings, and a great lighting experience.

Top 5 key features and benefits.

- **Simple Installation:** Wireless solutions, retrofit kits, and pre-programming streamlines installation and reduces costs. System flexibility and ease-of-use results in efficient installations.
- **Integrated Sensors:** LLLC can save up to 75% in energy usage compared to standard LED fixtures. Integrated sensors and advanced control methods provide maximum energy savings that compound over the life of the system, making it a smart investment.
- **Enhanced and Secure:** Rather than becoming obsolete as technology advances, LLLC systems can be upgraded to meet future needs. Spaces can be reconfigured for different uses without costly rewiring. Remote management capabilities of LLLC systems allow for real-time adjustments to be made from anywhere.



betterbricks/

LIGHTING CASE STUDY

LLLC brings bright future and futureproofs investment to Everett warehouse

After seeing a darkened manufacturing plant in Everett, Vision Profile Extrusions' new owner tasked the Maintenance and Facility Manager, Rusty Fenrich, to replace the first-generation LED lighting system. Fenrich reached out to a lighting expert to learn more about his options.

Vision Profile Extrusions makes specialized building products like custom-sized doors and window frames, and their company ethos is based on a sustainable approach to technologies that recycle and preserve natural resources. The solution that met their lighting needs, green mission, and budget? Luminaire Level Lighting Controls (LLLC), a system comprised of a combination of sensors, network interfaces, and controllers that affect not just the light output but how lights operate throughout the day.

Getting the 'Light Right'

In 2016, Vision Profile Extrusions had invested in first-generation LED high bays for its 122,000-square-foot facility and T-LEDs for its 3,000-square-foot office space, given it was then a cost-effective approach to move away from fluorescent bulbs. However, the previous facilities management team did not evaluate the long-term performance of the fixtures in a facility that operates 24 hours a day, seven days a week. Within just five years of the investment, the LEDs had lost their luster.

Fenrich contacted Ryan Herron, a lighting consultant and co-founder of PNW Energy Group, and they went room by room to determine the best product to brighten up the facility, but improving the light levels was just one piece of the puzzle. Fenrich needed to find a solution that would also qualify for a rebate.

CLIENT NAME:
Vision Profile Extrusions

PROJECT LOCATION:
Everett, WA

PROJECT OBJECTIVE:
Install a flexible and easy-to-use lighting system to improve light levels for workers.

86%
Cost-rebated materials through Snohomish County PUD

82%
ROI through a simple payback of 1.2 years



betterbricks/ **article**

BetterBricks Industry Voices: Aprille Balague

A Q&A with Aprille Balague, Engineer and Principal, TFWB Engineers, Seattle, WA, about the advantages of specifying LLLC.



What is your experience in the lighting industry?

I am an electrical engineer and a lighting designer. I migrated here from the Philippines after earning my engineering degree and began my career with TFWB Engineers. I've worked here for 14 years, starting out as a drafter/designer and working my way up to where I am now. They taught me everything there is to know about how to apply the engineering design concepts I'd learned back home. I knew from the beginning that lighting was my favorite part of electrical engineering, because it adds beauty and function to a space. It's something people can see and can relate to right away. Ever since then, I've been the lead lighting designer for most of our school, hospitality, and civic projects.

What is a project where you specified LLLC?

I was working with the design team on a project at Madrona School, and we were trying to figure out how to fit all the elements in the ceiling space during the coordination process. The idea of integrating the sensors in the lighting fixtures emerged, and we realized this would eliminate the occupancy sensors and the daylight sensors on the ceiling while creating a cleaner aesthetic. This also saved money on the additional labor for installation of these devices, and ultimately made it an easier system to commission and calibrate. Budget is a central concern for many of the projects I work on, and LLLC offers the most value over time.

What were the barriers with specifying LLLC in the Madrona School project and how did you overcome them?

Some of the barriers were related to the system itself. It's not always clear what the system is like when you come out of the box. It's not always clear how to integrate it into the existing system. It's not always clear how to integrate it into the existing system. It's not always clear how to integrate it into the existing system.

Why are you using Luminaire Level Lighting Controls (LLLC)?

Lighting control goes hand in hand with the lighting itself. It's a critical part of the design for a comfortable environment. On our newer jobs, we're primarily specifying LLLC—not just because of the clean appearance, but also because of the end-user flexibility and the rebates utilities provide for this feature. There are so many options for the types of sensors you can integrate into LLLC fixtures. They're easier to hide and make invisible, making them just appear part of the fixture.





LLLC Regional Utility Toolkit tour

The screenshot shows a web browser displaying the 'Luminaire Level Lighting Controls Toolkit' page on the betterbricks website. The page has a green header with navigation links for 'Events', 'Blog', 'Contact', and a search icon. Below the header, the 'betterbricks/' logo is on the left, and 'Energy Solutions', 'Resources', 'Utility Programs', and 'About' are on the right. A 'Share' button is located in the top right corner of the content area. The main heading is 'Luminaire Level Lighting Controls Toolkit' in green, with a sub-heading 'ARTICLE' below it. The introductory text states: 'This resource page is for NEEA members and program partners to assist with promoting the benefits of Luminaire Level Lighting Controls, or LLLC. Marketing and educational resources include:'. A bulleted list follows, detailing various resources like marketing materials, technical guides, case studies, Q&As, video series, and a YouTube playlist. Below the list is a section titled 'Customizable Marketing Collateral' with two items: 'Luminaire Level Lighting Controls Overview' and 'Luminaire Level Lighting Controls FAQ'. A right-hand sidebar contains a 'Table of Contents' with links to 'Customizable Marketing Collateral', 'Technical Guide Series', 'LLLC Case Studies', 'LLLC Industry Voices', and 'LLLC Educational Video Series'. A small blue chat icon is in the bottom right corner of the page.

Events Blog Contact

betterbricks/ Energy Solutions Resources Utility Programs About

Share

Luminaire Level Lighting Controls Toolkit

ARTICLE

This resource page is for NEEA members and program partners to assist with promoting the benefits of Luminaire Level Lighting Controls, or LLLC. Marketing and educational resources include:

- Customizable marketing materials
- Technical guides with education about networked lighting controls
- Case studies highlighting LLLC success stories from the Northwest (video and written)
- Q&As with lighting influencers (video and written)
- The Benefits of Luminaire Level Lighting Controls video series, including an 8-minute overview and four 2-minute, topic-specific demonstrations
- A Lighting Solutions playlist on the BetterBricks YouTube channel, including LLLC expert interviews, educational videos, and case studies ([view here](#))

Customizable Marketing Collateral

- Luminaire Level Lighting Controls Overview
High level benefits of LLLC systems and why they are the next generation of efficient lighting
 - [View PDF](#) or [download zip file](#) with customizable InDesign files (1.82 MB)
- Luminaire Level Lighting Controls FAQ
Detailed description of what LLLC is and why it is the future of commercial lighting solutions. Contains examples of LLLC systems and details about when LLLC systems are the right fit
 - [View PDF](#) or [download zip file](#) with customizable InDesign files (800 KB)

Table of Contents

- Customizable Marketing Collateral
- Technical Guide Series
- LLLC Case Studies
- LLLC Industry Voices
- LLLC Educational Video Series



Other LLC resources



What resources do you currently find helpful, on BetterBricks or elsewhere?



What other types of resources would you find useful?



Our asks of you

- Keep the conversation going!
- Ongoing feedback on these resources—or any ideas about new resources—is welcome!
- LLLC projects in your territory are exciting!
- Let us know if you have a BetterBricks Industry Voices candidate in mind!



» Thank you!

Britt Cutsforth Dawkins

bdawkins@neea.org



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Announcements & Housekeeping



Housekeeping & Looking Ahead

- RPAC Updates
- Announcements
 - Efficiency Exchange May 14-15
 - Stakeholder Engagement
- Upcoming NEEA Meetings



RPAC Updates

- Charter Review
- Federal Funding Workgroup Update
- 2024 Stakeholder Engagement Activities





Efficiency Exchange 2024 – Registration Open



EFX24 Early Bird Registration

February 15 – April 12

neea.org/EFX

EFX24 Hybrid Conference
May 14-15 in Coeur d'Alene

In-person + Virtual



Stakeholder Engagement Activities

- 1) Stakeholder Satisfaction Survey (complete)
- 2) In-person stakeholder visits (2024-2025)

Goals:

- Solicit feedback on stakeholders' experience working with NEEA staff; participating in NEEA forums
- Build understanding of stakeholder needs
- Discuss marketing coordination as needed
- Continue socializing Cycle 7 Business Plan



Stakeholder Engagement Activities (cont.)

Coordinating Committee Review

- Focus on structure, process, timing, agendas, etc.
- Goals:
 - Identify areas for improvement and support transition to Cycle 7
 - Ensure regional value delivery and effective resource allocation.
- Recommendation coming to you in Q3

2024 ISCC Meetings



Q1

- Thursday, February 29

Q2

- Wednesday, May 22
- Thursday, May 23

Q3

- Thursday, August 15

Q4

- Wednesday, November 6
- Thursday, November 7

HYBRID @
SeaTac



Upcoming NEEA Meetings

March

- 6th Cost Effectiveness & Evaluation Advisory Committee
- 12th Q1 Board Meeting (Seattle)
- 21st Products Coordinating Committee
- 28th Regional Emerging Technology Advisory Committee

April

- 24th Natural Gas Advisory Committee
- 30th Cost Effectiveness & Evaluation Advisory Committee



***Other Upcoming Events or
Announcements?***

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A piece of brown paper with a string tied in a bow around it. The string is a light brown color and is tied in a simple bow around the center of the paper. The paper has a slightly textured appearance.

Let's wrap it up!



Action Items | Any Final Qs?



- Action Items

Thank you ISCC! ➤ Till we meet again...

Q2 ISCC – 2 Day Meeting
Wednesday, May 22 and Thursday, May 23, 2024 (virtual)

