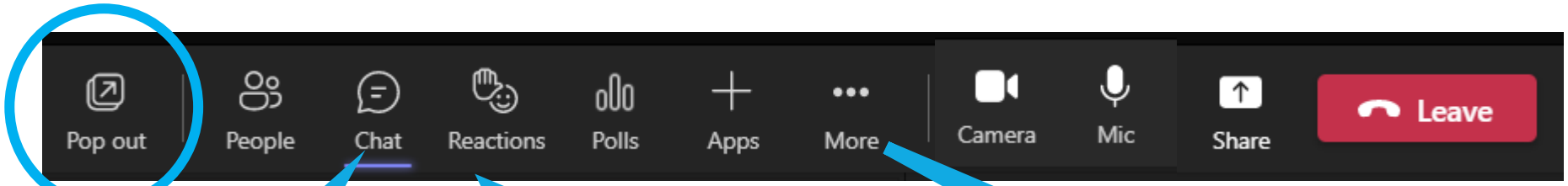
Q2 Commercial Industrial Coordinating Committee Meeting

Wednesday, May 27, 2026

This meeting will be transcribed for notes

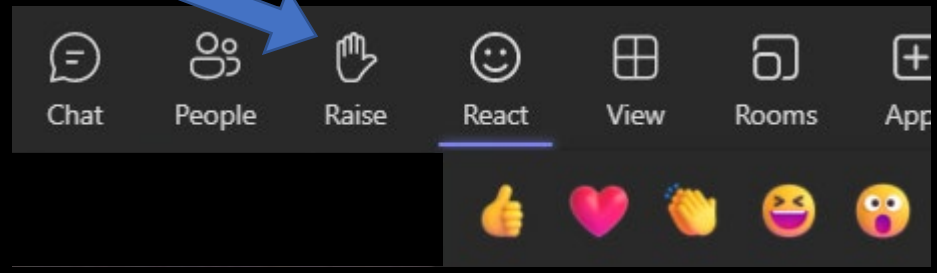
Tools for Today: Engaging on Teams



The chat is not captured automatically.

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)

9:00 - 9:10	**Welcome, Agenda, Packet Review, & Housekeeping**
9:10 – 9:15	**Q4 Topic Check In** • **Efficient Fans**
9:15 – 10:25	**Introductions & Regional Roundtable**
10:25 – 10:35	***BREAK***
10:35 – 11:55	**Regional Priority Topic** • **Luminaire Level Lighting Control – Panel Discussion on LLLC education**
11:55 –12:00	**Recap, Next Steps, Adjourn**

Packet Review & Informational Updates

Tier 1: Agenda Items

- Memo: Efficient Fans Q4 topic check in *(pg. 4)*
- Memo: Regional Priority Topic, LLLC Education *(pg. 5)*
- Memo: 2027 Annual Planning *(pg. 6)*

Activity Reports

- Luminaire Level Lighting Controls *(pgs. 10-12)*
- Advanced Performance DOAS *(pgs. 13-14)*
- Extended Motor Products Pumps *(pgs. 15-17)*
- Efficient Fans *(pgs. 18-19)*
- BetterBricks *(pgs. 20-21)*

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)

HOUSEKEEPING

Housekeeping

- Announcements & Reminders
  - Upcoming Meetings & Events
  - Annual Planning Reminder
  - Stakeholder Satisfaction Survey Inform

CICC DATES

Q1 (Hybrid)	• Wednesday, February 25th • Thursday, February 26th
Q2 (Virtual)	• Wednesday, May 27th
Q4 (Virtual)	• Wednesday, November 4th • Thursday, November 5th

Upcoming meetings

Q2 2026

- June 2nd – Natural Gas Advisory Committee (NGAC)
- June 16th – Residential Coordinating Committee (RCC)
- June 17th – Regional Emerging Tech Advisory Committee (RETAC)
- June 23rd & 24th – Q2 NEEA Board Meeting

Q3 2026

- August 26th – Cost Effectiveness & Evaluation Advisory Committee (CEAC)
- September 1st – Regional Portfolio Advisory Committee (RPAC)
- September 16th – Regional Emerging Tech Advisory Committee Meeting (RETAC)
- September 17th & 18th – Q3 NEEA Board Meeting

Snapshot of Annual Workplan

Commercial & Industrial Coordinating Committee (CICC) 2026 Annual Workplan				
Q1 Meeting Day 1 – 25th February, Wednesday (HYBRID)	**Q1 Meeting Day 2 – 26th February, Thursday (HYBRID)**	**Q2 Meeting – 27th May, Wednesday (VIRTUAL)**	**Q4 Meeting Day 1 – 4th November, Wednesday (VIRTUAL)**	**Q4 Meeting Day 2 – 5th November, Thursday (VIRTUAL)**
COMMERCIAL HVAC: High Performance HVAC Topic: NEEA Inform & Coordination Opportunity – Developing messaging regarding program benefits to target building owners and facility/operations staff (60 -90 minutes) Desired Outcome: TBD during topic buildout	**MOTOR-DRIVEN PRODUCTS: Pumps & Circulators (XMP)** Topic: NEEA Inform & Coordination Opportunity - Update on Hydraulic Institute (HI) efforts to promote energy efficient pumping 60-90 minutes Desired Outcome: TBD during topic buildout **MOTOR-DRIVEN PRODUCTS: Efficient Fans** Topic: Program Updates 30 minutes Desired Outcome: TBD during topic buildout	**COMMERCIAL LIGHTING: Luminaire Level Lighting Controls (LLLC)** Topic: Coordination Opportunity – Panel Discussion on LLLC Training 60 -90 minutes Desired Outcome: TBD during topic buildout	**COMMERCIAL LIGHTING: Luminaire Level Lighting Controls (LLLC)** Topic: Coordination Opportunity – Panel discussion on market segments and applications adopting LLLC 60 -90 minutes Desired Outcome: TBD during topic buildout **MOTOR-DRIVEN PRODUCTS: Efficient Fans** Topic: NEEA Inform & Coordination Opportunity - Optimizing fan selection software to highlight FEI and influence specifier decision-making; lessons from early pilots and feedback from the field	**2027 ANNUAL TOPIC PLANNING**

 |

MEMO on Pg 6

CICC Annual Topic Planning Session

- Survey being sent 23rd of September
- Annual Planning Process - Q4, November 5th
- Mural platform (visual guide only for discussion)
- Focus = topic development (review/discuss topic survey results)

 |

2026 Stakeholder Satisfaction Survey

- ***Goals:***
  - Solicit feedback on stakeholders' experience working with NEEA staff; participating in NEEA forums
  - Build understanding of stakeholder needs
  - Timeframe: Q3 2026

Other regional / industry events or announcements?

[Check out the EFX26 photo highlights here!]

Lisa Grow

CEO & Pres., Idaho Power

EFX 2026, Boise

AGENDA

(All times Pacific)

9:00 - 9:10	**Welcome, Agenda, Packet Review, & Housekeeping**
9:10 – 9:15	**Q4 Topic Check In** • **Efficient Fans**
9:15 – 10:25	**Introductions & Regional Roundtable**
10:25 – 10:35	***BREAK***
10:35 – 11:55	**Regional Priority Topic** • **Luminaire Level Lighting Control – Panel Discussion on LLLC education**
11:55 –12:00	**Recap, Next Steps, Adjourn**

Efficient Fans Q4 Topic Check In

- Topic
  - Optimizing fan selection software to highlight FEI and influence specifier decision-making
  - Questions? Comments? Feedback?
- Milestone Vote in Q3 Inform

 |

AGENDA

(All times Pacific)

9:00 - 9:10	**Welcome, Agenda, Packet Review, & Housekeeping**
9:10 – 9:15	**Q4 Topic Check In** • **Efficient Fans**
9:15 – 10:25	**Introductions & Regional Roundtable**
10:25 – 10:35	***BREAK***
10:35 – 11:55	**Regional Priority Topic** • **Luminaire Level Lighting Control – Panel Discussion on LLLC education**
11:55 –12:00	**Recap, Next Steps, Adjourn**

INTRODUCTIONS & REGIONAL ROUNDTABLE DISCUSSION

- Name
- Organization
- And…

- Highlights since Q1
  - Programmatic updates
  - What's new? What are you hearing?
  - Organizational updates
  - Any questions for other committee members?

3 to 5 mins please!

BREAK

AGENDA

(All times Pacific)

9:00 - 9:10	**Welcome, Agenda, Packet Review, & Housekeeping**
9:10 – 9:15	**Q4 Topic Check In** • **Efficient Fans**
9:15 – 10:25	**Introductions & Regional Roundtable**
10:25 – 10:35	***BREAK***
10:35 – 11:55	**Regional Priority Topic** • **Luminaire Level Lighting Control – Panel Discussion on LLLC education**
11:55 –12:00	**Recap, Next Steps, Adjourn**

Luminaire Level Lighting Controls:
Panel Discussion on Education

May 27, 2026

Topics for Today

- Reminder of regional resources
- Quick roundtable of committee members
- Beth Littlehales of Energy Trust of Oregon
  - Share out: Lessons Learned - Where we've been and where we are going
  - Discussion: Program design - Small Business Direct Install offer and outreach staff training
- Walker Dodson of Seattle City Light
  - Share out - Success stories to educate and motivate
  - Discussion - Advantages of expanding educational opportunities beyond trade allies
- John Petosa of Snohomish PUD
  - Share out: Training approach thus far
  - Discussion: Looking ahead at how AI might be leveraged for LLLC education
- Wrap Up

LLLC Education Resources

- NXT Level training platform
- Support for training that you would host
  - Curriculum
  - Demo Boards
  - Regional LLLC Program Implementors available to present
- Curriculum for your program to customize and use
- Demo boards for your program to use at events and training
- Resources on Better Bricks to link to (also listed in CICC Activity Report)
- Resources in Toolkit for you to rebrand and post

Curriculum on a Wide Variety of Topics Beyond Intro

- Installation, Programming & Technical Training
- Value Proposition, Sales & Market Education
- Smart Building Systems Design
- Applications & Market Sectors
- Operations, Maintenance & Facility-Focused Training

Examples of Recent Training Sessions

- Hands-On Guide to Smart Lighting Controls
- Making Controls Simple
- From Setup to Savings: Programming, Optimization & Best Practices
- The Future of Lighting Controls is Mesh
- The Benefits of BACnet Integrated Systems
- Data Analytics: Turning Information into Action for Facilities Managers
- Beyond the Fixture: Leveraging Controls for Long-Term Building Benefits
- LLLC Applications & Sales Tips
- Delivering Project Value with LLLC
- Selling Lighting Controls for Retrofits
- LLLC: Unlocking Energy Savings
- Maximizing Efficiency: Value Engineering with Wireless Controls
- Better Data, Better Energy Savings: Benefits of Integrated Building Controls

Committee Roundtable Discussion

- Focus on LLLC Education for roundtable and discussions
- Brief 1-2 minute context setting share out
  - How long have you been focused on LLLC?
  - Have you done any customer or trade ally training in last two years?
- Please bring your experience and insights into discussions led by Beth, Walker and John

Energy Trust of Oregon

Beth Littlehales

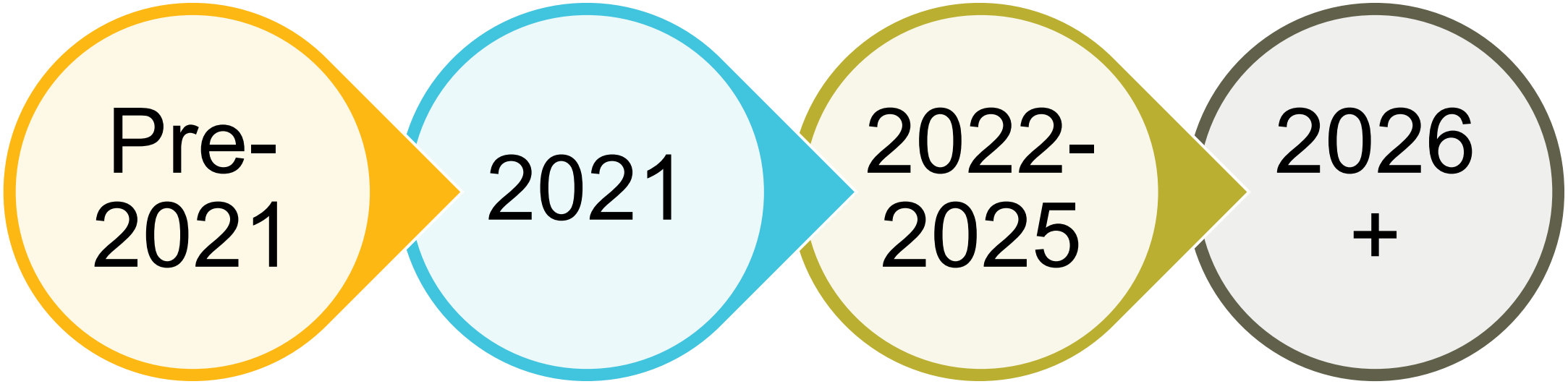
Luminaire Level Lighting Controls

Past, Present, Future of Training

May 27, 2026

EnergyTrust of Oregon

LLLC Incentives: How We Got Here



- Custom pathway only — no dedicated LLLC measures
- Dedicated LLLC measures launched (standard + midstream channels)
- Steady uptake growth, but LLLC still a small share of total lighting savings
- Interior Fixture incentives now require LLLC pairing (OR fluorescent ban response)

LLLC Training: What We've Done and What's Changing

2021 - 2025

- LLLC sessions at biannual Trade Ally seminars (Portland, Medford, Bend)
- 1–2 blog posts per year — limited reach, not enough depth

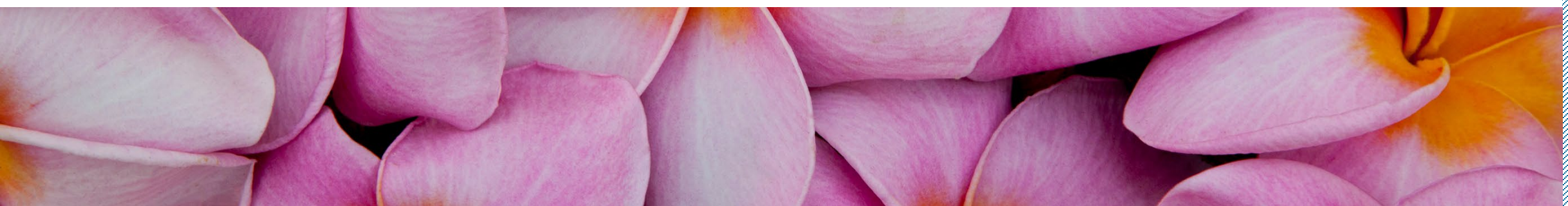
2026 +

- Keeping biannual seminars
- 6-part LLLC blog series as ongoing reference for trade allies
- Adding 10 hands-on workshops in 2026, prioritizing rural/underserved areas

Discussion

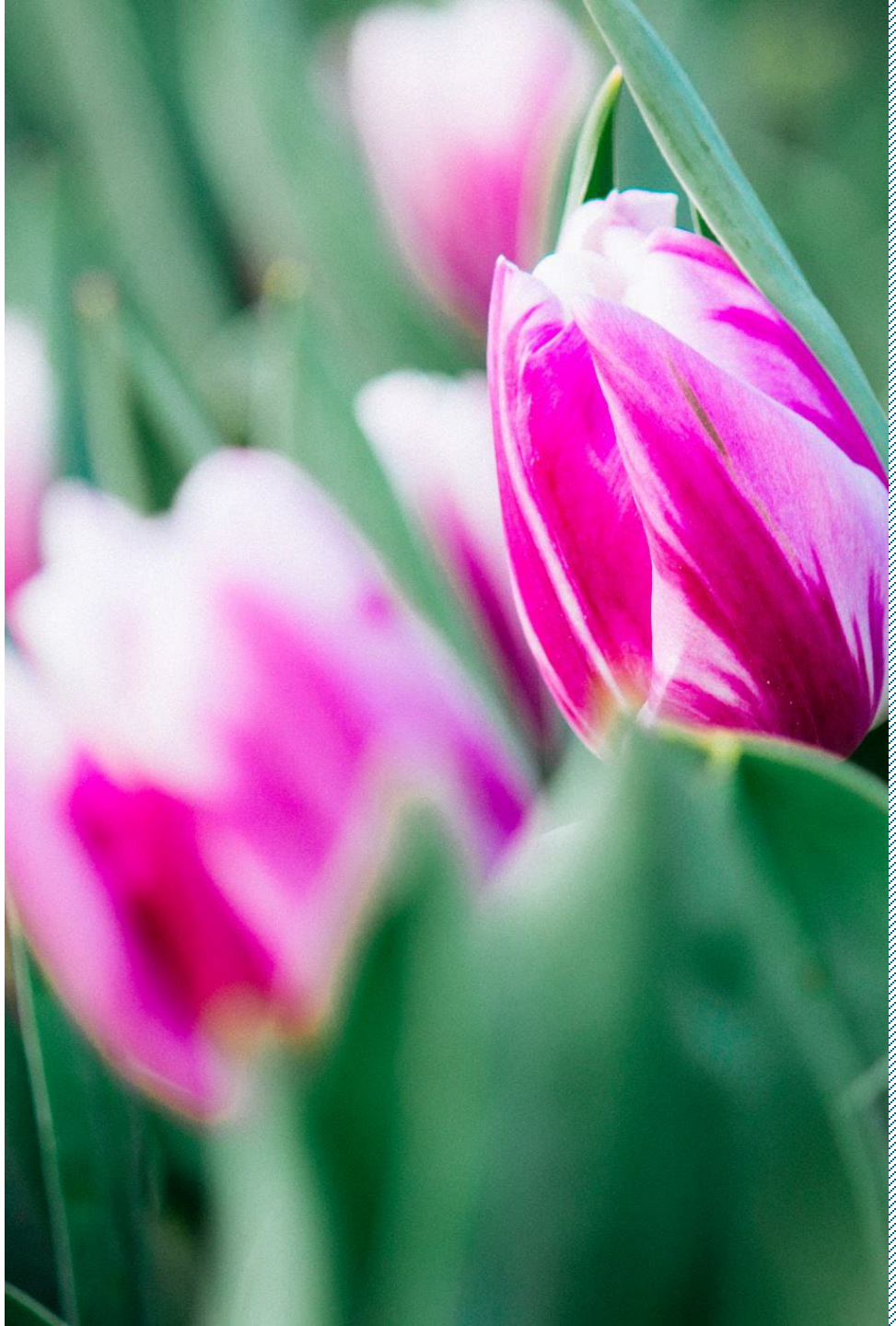
Case Study: Direct Install – Where Training Hits the Ground

- **The program**: Our Small Business Direct Install outreach staff assess the site and scope the LED upgrade. Program works with a select group of participating installers to coordinate installs and manage the project at no cost to the customer.
- **The goal**: Increase controls installations.
- **What we did**: End of 2025, we ran a hands-on LLLC training specifically for outreach staff. Simultaneously, we rolled out LLLC configuration requirements to installers.
- **Result**: Controls installations account for 55% of projects in 2026 so far. Early signal that targeted training moves the needle.



Group Question

Are there program designs or training approaches that have worked especially well (or not)?



Thank you!

Beth Littlehales, Commercial Sector Lead
Beth.Littlehales@energytrust.org
503-233-6720

EnergyTrust of Oregon

Seattle City Light

Walker Dodson

Lighting Design Lab: 1990

LIGHTING Design LAB

New Resource for Good Lighting Opens in Seattle

…

The goal of the Lab is to help transfer exciting new developments in energy efficiency, control technology, and lighting quality to both designers of systems and the users of those systems.

LIGHTING Design LAB NEWS

Winter - 1990 Volume I, Issue 1

NEW RESOURCE FOR GOOD LIGHTING OPENS IN SEATTLE

On December 11, 1989, Grand Opening ceremonies were held for the Lighting Design Lab at 400 E. Pine St. in Seattle. Guest speakers for the ceremony included Randall Hardy, Superintendent of Seattle City Light; Jim Jura, Administrator of the Bonneville Power Administration; Marc Sullivan, Executive Director of the Northwest Conservation Act Coalition; Roger Williams, Architect; J. Michael Davis, Assistant Secretary of Energy for Conservation and Renewable Resources; and Ralph Cavanagh, Senior Attorney for the Natural Resources Defense Council.

The goal of the Lab is to help transfer exciting new developments in energy efficiency, control technology, and lighting quality to both designers of systems and the users of those systems. With the advent of these new advances, there is no reason for users of commercial buildings to have either inefficient lighting systems, or bad lighting. Advances in lighting efficiency in the past decade have been dramatic.

The Lab consists of different types of spaces and rooms that might commonly be found in commercial buildings, such as meeting and board rooms, classrooms, office space, task work areas, reception areas, retail displays and libraries. Each space has different lighting strategies installed, so that visitors can easily preview contrasting designs. In addition to lights, the Lab exhibits a variety of energy efficient ballasts, occupancy sensors and daylighting controls. A 1200 square foot mock-up facility, with movable ceilings makes it possible for lighting designers and architects to preview lighting solutions before having to purchase the system. Natural and artificial light color boxes help with specification when good color rendition is a design factor. Computers are available with lighting design software to speed up calculation of various designs and costs. Finally, a resource library is available to help research codes, specifications, design ideas and case studies. The Lab is a cooperative effort of BPA, Northwest utilities, regional and national energy and environmental groups, and is operated for the Pacific Northwest by Seattle City Light. The purpose of the project is to provide an educational showcase for energy efficient commercial lighting design. The services of the Lab are free to any commercial lighting customer in the BPA service area, which includes the states of Washington, Oregon, Idaho and western Montana.

The Lab will be used in several different ways. Lighting designers may research product catalogs, or use software to determine new designs for peak energy efficiency. Architects may visit to keep abreast of new products and designs. Contractors may call to get updates of new product specifications. Business owners may use the Lab when remodelling or expanding existing space. Developers can call upon the Lab when they need ideas to help surpass local energy code requirements.

(Continued Page 2)

INSIDE

Lighting designer Michael Lane (left) discusses daylight modelling with Assistant Secretary of Energy J. Michael Davis

Lighting Design Lab: 1990-2008

lighting® design lab

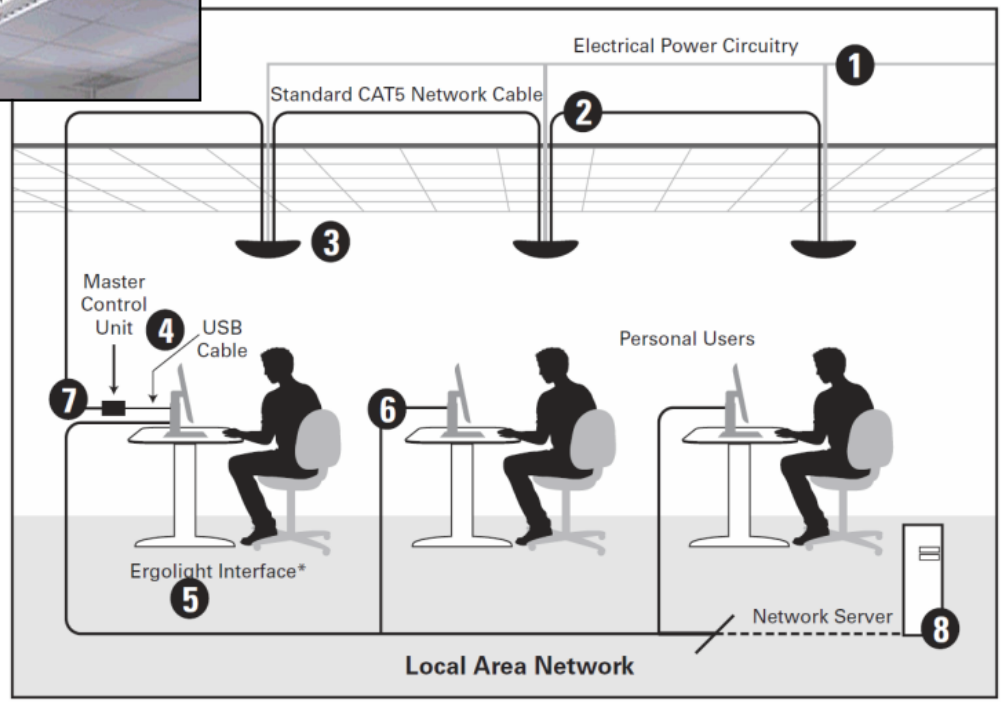
1990
14 classes, 11 mock-ups, 132 consults

2006
56 classes, 19 mock-ups, 221 consults

Totals over 16 years
1409 classes, 387 mock-ups, 4533 consults

Controls Demonstration at SCL / LDL

- In 2002 LDL installed two Ledalight Ergolight luminaires for demonstration.
- Key Design Flaw: It didn't integrate with any other controls requiring at least two different controls systems per project.



- Dimming to 20%
- Three T8 Lamps
- Occupancy Sensor
- Photocell
- Dimming
- Desk top control
- DALI Control Protocol

- Lumen Maintenance
- Scheduling
- Data Logging
- Load Shedding
- Task and Ambient Control

LLLC with a different name

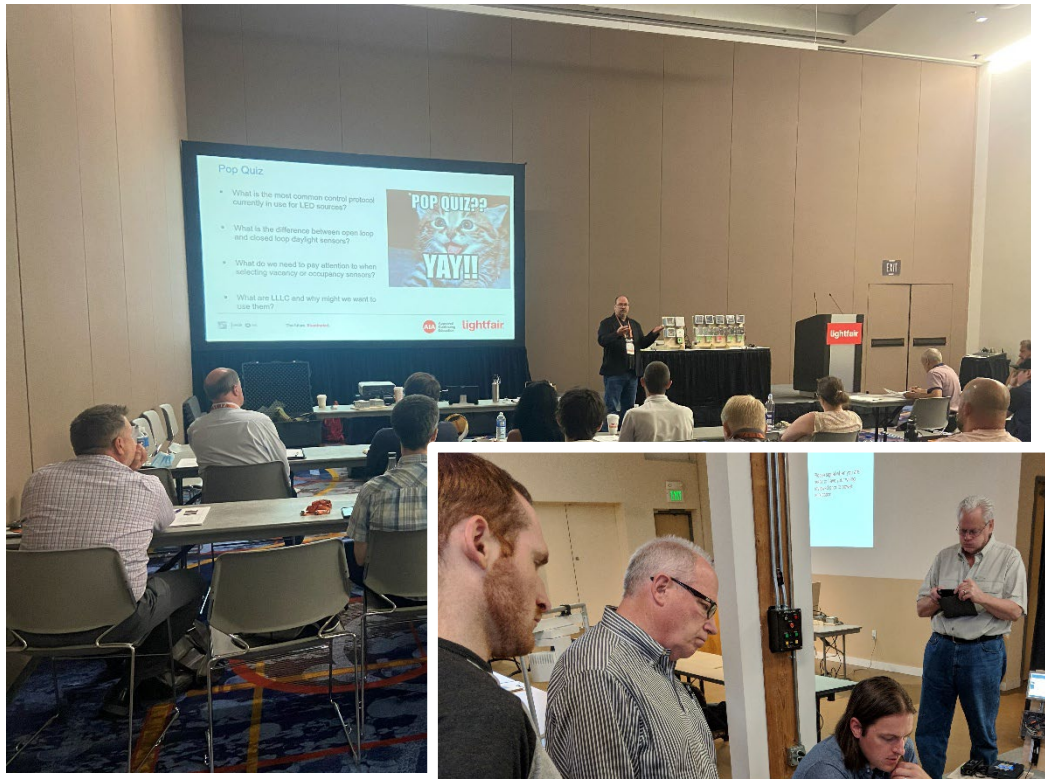
Controls Demonstration at SCL / LDL

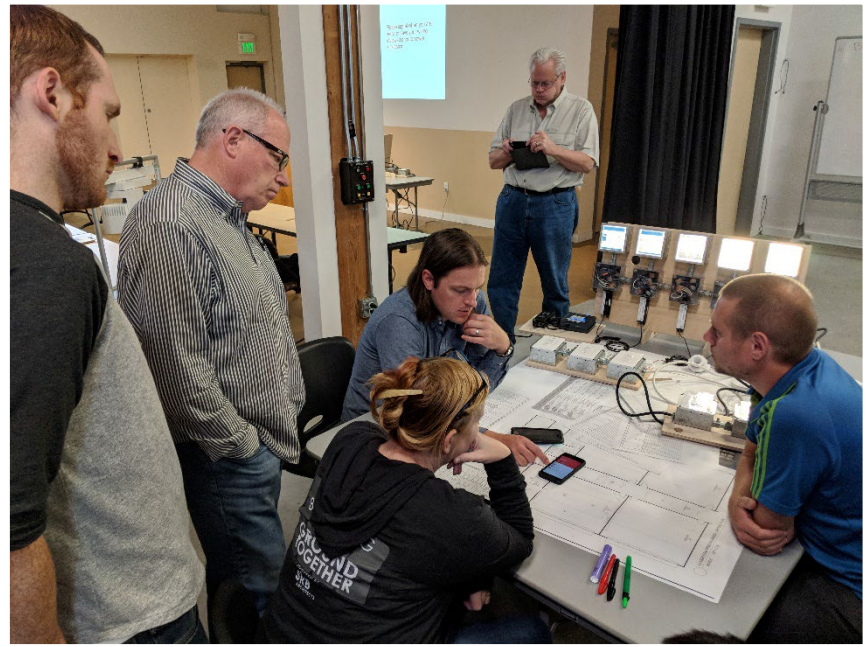
- In 2004 LDL added an early distributed digital control system demonstration.
  - Dimming to 5%
  - T5 Lamps
  - Occupancy Sensors
  - Photocell
  - Proprietary Digital Control
  - Lumen Maintenance
  - Scheduling
  - Data Logging
  - Load Shedding
  - Integrated Automated Shades

  - Each luminaire controlled separately.
  - Required a very expensive computer server and software package.

Controls Education at SCL / LDL

- In 2017 LDL developed a new series of hands-on networked controls curriculum.
- One and two day options designed for trade allies and specifiers
- Customized gear to demonstrate system installation and programming.
- Control system agnostic – eight different systems were used.
- Classes taught numerous times in Washington, Oregon, Idaho, Montana, and British Columbia.
- LLLC taught as critical subset of NLC.





Leverage The Power of Show and Tell

What is it?

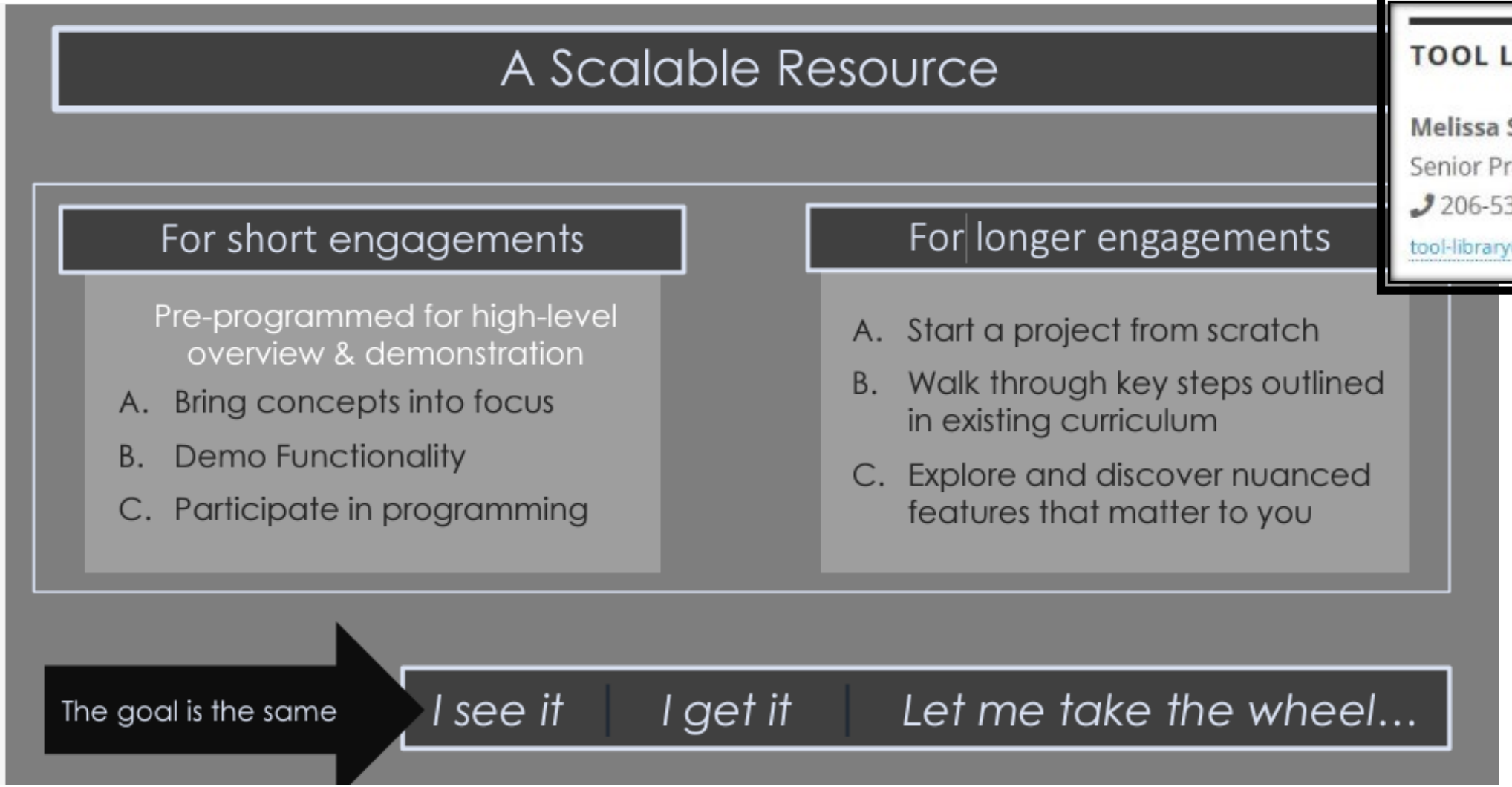
Hands-on
resource for

- utility programs
- the lighting industry
- facility operators
- And more…

Showcasing

- Modern NLC system benefits
- App based configuration tool ease of use
- lighting control strategies & key concepts

Leverage The Power of Show and Tell



TOOL LIBRARY CONTACT

Melissa Sokolowsky
Senior Project Manager
206-538-0685
tool-library@smartbuildingscenter.org

LLLC Retrofit Class?

- Focus on comprehensive nature of LLLC systems and benefits to end users and implementers.
- Demonstrate simplicity of one for one replacement for existing spaces.
  - 3 wires – load/neutral/ground
  - Wireless programming
  - Wireless manual controls
- Provide real world case studies.
- SCL walked the walk installing LLLC system in Seattle Municipal Tower.
- Provide evaluation criteria to aid students in choosing systems wisely.

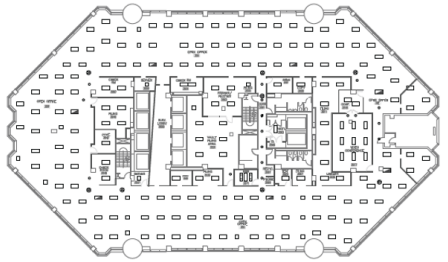
SMT Relight

Seattle Municipal Tower General Lighting

- High performance recessed troffer
- Fluorescent T8
- Minimal Lighting Controls
- Replacement luminaires no longer available

LDL hosted a mockup to review alternatives

LLLC Options selected in 2019 as the best choice moving forward



SMT Relight

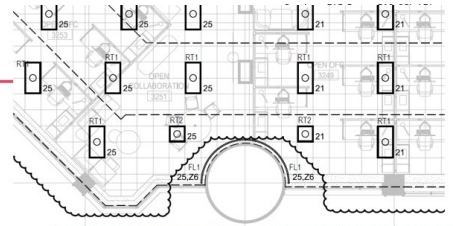
Luminaire Replacement

- High performance recessed troffer
- LED Based
- LLLC Control System

Existing Luminaire: 2T8 56 W
Retrofit Luminaire: LED 32 W

Luminaire savings: 43%

Estimated LPD: ~ 0.4 W / SF

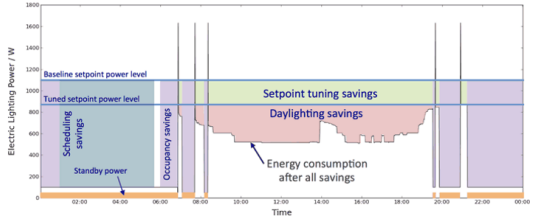


Courtesy: DLR Group, FAS, SCL, LDL

Controls

Existing:
- Large area relay; several per floor
- Time of Day 12 HR with over-ride
- Analog daylight control at perimeter

Retrofit:
- LLLC with central control
- Occupancy Sensing
- Daylight Sensing

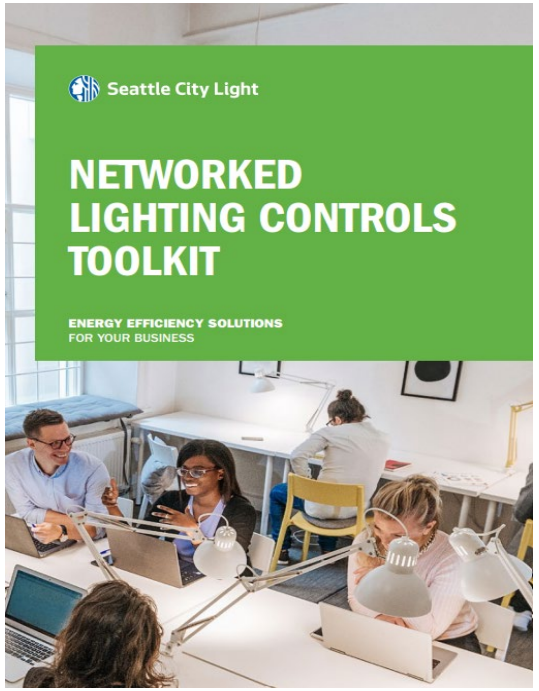


- Estimated Controls Savings: ~60%
- Estimated overall savings per floor: 29,000 kWh / Yr
- SMT has 57 floors.....

Courtesy: LBNL, DLR Group, FAS, SCL, LDL

Resistance and Support for LLLC in Midstream

- LLLC is often viewed as complex
- Callbacks
- Start-up / commissioning
- Manufacturer specific systems
- Manufacturer specific education a must
- Incentives have helped push LLLC
- Pricing more reasonable now
- Systems are getting easier to install and start-up



lighting® design lab | The Lab at City Light

LLLC Now Available - Here and Here and Here!

- 129,628 listed fixtures that are LLLC capable on DLC SSL QPL
- 87 LLLC capable control systems listed on the DLC NLC QPL
- Some LLLC systems can be added to almost any fixture.

Integral Control Capability

- [ ] Energy Monitoring
- [ ] Networked Replacement Lamp
- [ ] High End Trim
- [x] LLLC

Training Needed for Installers and Distributors

- Installer not comfortable = No LLLC
- Distributors and installers must be trained
- Not all LLLC systems are created equal

Training Ideas

- Manufacturer specific training days
- Large regional training events at The Lab at City Light
- On-demand resources listed on the program webpage

The Future of Lighting Efficiency Programs

- Controls will be critical for the 2029 program year
- LLLC to HVAC direct integration
- DLC and NEEA studies showing good savings

Illuminating a Labyrinth – McCaw Hall Back of House

- Large theatre with back-of-house technical and rehearsal areas; troffers throughout with no switches
- No daylight; lights remain on during occupancy
- Thick walls and winding corridors make centralized sensors impractical
- “Dark periods” leave sections unused with no automated sweep-off

Illuminating a Labyrinth – McCaw Hall Back of House

- LED retrofit kits easily installed into existing fixtures
- Wireless switches can be operated by any occupant – performers, costumers, other staff as needed
  - Replaced 238 fluorescent Fixtures with LLLC-enabled LEDs
    - Lighting was previously on 24/7, no operable switches in back-of-house
    - $11,900 bonus under 2026 funding*
  - Total estimated energy savings 39,000 kWh annually & $27,600 paid in incentives

Illuminating a Labyrinth – McCaw Hall Back of House

- A practical project in a novel location provided a unique opportunity to capture the project as a video case study
- City Light frequently uses this video as an efficient way to demonstrate LLLCs to customers who may be unfamiliar with the technology

Case Study Video Link

Marion Oliver McCaw Hall at Seattle Center

Thank You!

Walker Dodson

Seattle City Light

Walker.Dodson@seattle.gov

Snohomish PUD

John Petosa

- Share out
  - Training approach
- Discussion
  - Looking ahead at how AI might be leveraged for LLLC education

Thank You!

John Petosa

Snohomish PUD

jfpetosa@snopud.com

Wrap Up

Thank You!

AGENDA

(All times Pacific)

9:00 - 9:10	**Welcome, Agenda, Packet Review, & Housekeeping**
9:10 – 9:15	**Q4 Topic Check In** • **Efficient Fans**
9:15 – 10:25	**Introductions & Regional Roundtable**
10:25 – 10:35	***BREAK***
10:35 – 11:55	**Regional Priority Topic** • **Luminaire Level Lighting Control – Panel Discussion on LLLC education**
11:55 –12:00	**Recap, Next Steps, Adjourn**

 |

Wrapping Up…

 |

Action Items / Recap / Final Qs?

Public Comments?

 |

Meeting Feedback

- One thing you learned / appreciated?

Thank You!

See you in November