Commercial Advisory Committee



DATE: July 31, 2018

LOCATION: NEEA – 421 SW 6th Ave, 6th Floor (Cedar Conference Room)

TIME: 10:00 am – 3:30 pm Pacific

WEBINAR: http://neea.adobeconnect.com/cacjuly2018/ (includes phone option)

DIAL-IN: 1-877-890-9502, Participant Code: 7702378329 (for those dialing in directly)

| AGENDA | | | Packet Page# |
|----------------|---|--|-----------------|
| 10:00-10:30 am | Welcome, Introductions, Housekeeping, Packet Review <u>Desired Outcome</u> : CAC member alignment on preparation materials and meeting objectives. | Maria Alexandra Ramirez | 1-3 |
| 10:30-11:00 am | Commercial Portfolio Update, and review of Business and Operations Planning processes <u>Desired Outcome</u> : Awareness of key updates on commercial programs, as well as, current NEEA Business & Operations planning | Emily Moore | 4-7 |
| 11:00-11:45 am | Midstream Commercial Lighting Pilots <u>Desired Outcome</u> : Awareness of pilot activities leveraging the Distributor Platform | Elaine Miller Seattle City Light Snohomish PUD | 8-9 |
| 11:45-12:00 pm | Market Opportunities Follow Up - Part A <u>Desired Outcome:</u> CAC member alignment on top priorities to inform future CAC agenda topics and panel discussions | Debbie Driscoll | 10-11 |
| 12:00-12:45 pm | Lunch (provided) | All | |
| 12:45 -1:00 pm | Market Opportunities Follow Up - Part B <u>Desired Outcome:</u> CAC member alignment on top priorities to inform future CAC agenda topics and panel discussions. | Debbie Driscoll | 10-11 |

Commercial Advisory Committee neea



AGENDA

| 1:00-2:00 pm | CAC Member Share Out/Round Robin <u>Desired Outcome</u> : Awareness of current activities and issues within the region | All | |
|--------------|--|----------------------------|-------|
| 2:00-2:15 pm | Break | All | |
| 2:15-3:00 pm | BetterBricks Platform and proposed consolidation with Commercial Real Estate infrastructure in Cycle 6 <u>Desired Outcome</u> : Awareness of proposed change in NEEA's draft 2020-24 Business Plan and discussion on value of the BetterBricks Platform and resources, to support Alliance commercial program opportunities. | Natalie Fish | 12-13 |
| 3:00-3:20 pm | Demonstrate New SEM Hub Energy Management Assessment (EMA) Tool <u>Desired Outcome</u> : Awareness of ways utilities can leverage the EMA tool (<u>longer demo webinar 8/22/18 from 2-3pm</u>) | Warren Fish | 14 |
| 3:20-3:30 pm | Opportunity for public comment and adjourn | Maria Alexandra Ramirez | |

Memorandum – Agenda Item (Tier 1)

July 31, 2018



FROM: Maria Alexandra Ramirez, Stakeholder Relations Manager

SUBJECT: Meeting Packet, Informational Updates, Additional Details

MEETING PACKET APPROACH

This packet continues the "tiered" approach:

- Tier-1 memos for active agenda items;
- Tier-2 memos for informational updates on items not currently requiring agenda time;
- Tier-3 materials provided as additional detail for those interested, accessible via links in the Tier-1 and Tier-2 memos.

This approach helps keep packets concise and digestible. Any input for improvement is appreciated.

INFORMATIONAL UPDATES

Enclosed please find Tier-2 informational updates on the following:

- Page 15: CAC Conference Coordination
- Page 16: Organizational Change for CCE Program
- Pages 17-18: Washington Commercial Code Evaluation Study
- Page 19: MRE Newsletter & CBSA Update
- Page 20: Emerging Technology Update
- Pages 21-24: Codes & Standards Update
- Pages 25-26: C&I Lighting Regional Strategic Market Plan & Newsletter

ADDITIONAL DETAILS (Tier 3)

Tier-3 materials related to the agenda items and informational updates listed above will be accessible through links in those memos. Additional Tier-3 details are available here:

- Q2 2018 <u>CAC Meeting Notes</u>
- Q2 2018 Marketing Newsletter
- Q3 2018 Market Intelligence (MI) Newsletter

Memorandum – Agenda item (Tier 1)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Emily Moore, Senior Manager, Commercial/Industrial

SUBJECT: Commercial Portfolio Updates

Our Ask of You:

In the CAC meeting, NEEA staff will provide a brief review and update on the commercial program portfolio. Please review the program highlights from the last quarter and bring any questions or comments you may have to the meeting.

PROGRAM HIGHLIGHTS:

Lighting

Reduced Wattage Lamp Replacement (RWLR)

- LW Market penetration: 2018 has seen a steady increase in low wattage market penetration from 29% cumulative in 2017 to 49% in Q2. With all June data in, the program reached a monthly market penetration of 47%. This is largely driven by the two largest partners, Platt and CED, exceeding their targets for the program and allowing branches to only stock LW lamps. Eight of our 14 participants are above 50% LW market penetration in 2018.
- Program Touch: As of Q2, a total of 14 distributors are enrolled in RWLR Program touching 264 branches across the region. We estimate that this represents roughly 43% of all linear lamp sales in the region.

Luminaire Level Lighting Controls (LLLC)

- To support market delivery capabilities for LLLC, the program continued its rollout of installer focused training with BPA hosting three of these Advanced Lighting Controls Trainings, educating 31 of their trade allies plus utility staff. The LLLC program is collaborating with the Lighting Design Lab to bring additional training on controls to the region in Q4 and in 2019.
- Seattle City Light finalized its incentive for LLLC, which will roll out in Q3. Snohomish PUD is rolling
 out an Advanced Lighting Controls pilot. Combined with incentives already in place at Puget Sound
 Energy, Tacoma Power and many BPA utilities, the greater Seattle area has compelling incentives in
 place for LLLC.
- The LLLC program outreached to top manufacturers in Q2 to share information about utility customer incentives in place and to encourage additional sales focus in the Northwest.

Top Tier Trade Ally (TTTA)

- In Q2, 8 individuals and 3 companies earned the NXT Level designation, for a total program to date of 137 individuals and 44 companies. The program expects to increase designations significantly in the next two quarters, having received 133 applications thus far in 2018. Four in person Jump Start sessions were held in conjunction with utilities, reaching 66 trade allies.
- The program rolled out a marketing toolkit for trade ally designees to use to differentiate themselves in the market and an ambassador toolkit for use by utility staff who have been designated.

- The rollout for Level 2 has been tentatively set for Q4 in the Seattle area. Detailed planning is underway, including collaboration with Seattle area utilities. Level 1 designated trade allies have expressed strong interest in taking Level 2.
- Discussions continue with utilities on the best ways to incorporate NXT Level in to their programs.
 Utilities have been active in promoting NXT Level to their trade allies. To date though, utility
 interest in integrating NXT Level in program design to strengthen the value proposition for trade
 allies has been low. The program is focusing on broadening the base of Level 1 designees and
 planning for the rollout of Level 2.

Lighting Resources

• No new updates to share.

C+I Lighting Regional Strategic Market Plan Implementation

See C+I Lighting Quarterly Newsletter for updates (on pages 25-26 of packet).

Building Envelope

Window Attachments

- RENOVATE by Berkowitz, Wausau, Apogee, Allied, Thermolite and My Smart Blinds are in discussion concerning joining AERC. This will increase membership to 33 manufacturers and 53 overall organization members. The fees collected from manufacturer certifications and membership are planned to fill the 33% budget shortfall left by the DOE grant sun-setting on January 1, 2019. Since 2015, AERC membership has almost doubled and continues to grow.
- AERC certification and labeling of products to include Low-e Storm Windows has been accepting
 enrollment applications from product manufacturers. AERC certification is a necessary precursor to
 ENERGY STAR labeling. The testing metadata from AERC certification is used to certify, rate and
 label ENERGY STAR products. ENERGY STAR labeling, as planned, is currently underway for Larson's
 qualified low-e storm (LES) products. Larson is now certifying 27 products with testing provided by
 Westlab, Intertek, and UL. NEEA provided funding in 2017 to train and certify these 3 labs as
 independent certifying agencies.

Pumps

Extended Motor Products

- XMP Technical Workgroup launched, with meetings held in April and June. Next meeting is scheduled for August 22nd.
- Executed contract for and kicked-off work on the XMP Pumps Research Plan. Actively partnering with data owners, such as utilities, municipalities, nonprofits, and private companies, to obtain pump characteristics and pump operational data.
- XMP Product Manager, Geoff Wickes, spoke to an audience of 530 people at a manufacturer sponsored forum about the Hydraulic Institute (HI) label and the value of using it for procurement of energy efficient pumps. The meeting was attended by specifiers, engineers, procurement, commercial property owners, building operators, and other pump users.
- Participated in the CEE pumps program design working session in June, continuing conversation about midstream pump program opportunities with PG&E, Xcel Energy, VEIC, Eversouce Energy, and National Grid.

HVAC

High-Performance HVAC

- High-Performance HVAC initiative was added to the portfolio in the Q2 RPAC meeting on May 14th.
- Awarded contract to begin market characterization work in late June. The first phase of the market characterization will enable NEEA to 1) better estimate the market opportunity, 2) assess market barriers and 3) begin mapping HVAC purchase and replacements decision-making processes within targeted building types.

• Recruiting for 3 additional pilot projects to gather additional data on a school, big box and strip retail facility in specific climate zones. Ideal pilot candidates are electrically heated, less than 50,000 sq ft (could be a zone or two within a building) and have simple, ducted HVAC systems. For more information on pilot criteria, or if you have a possible VHE DOAS project outside of these criteria and would like technical support, please contact Maria Murphy at mmurphy@neea.org or 503-688-5486.

Commercial New Construction

Commercial Code Enhancement (CCE)

- Finalized and delivered State Coordination Plans (SCP) for Washington, Oregon and Idaho. Held the
 first planning meeting with Montana and began development on the Montana SCP that will
 continue into Q3. SCP's provide information on the current code landscape in each state and
 identify opportunities for CCE to work code stakeholders and utilities in preparing for future code
 cycles. SCP's will be living documents that will be updated as code conditions change.
- Held the first bi-annual webinar of 2018 with 9 utilities and 14 code stakeholders in attendance.
 The agenda included an update on CCE state specific and regional activities and utility share outs.
 Deeper conversation was held on the current Washington Code cycle and reviewing emerging code ideas for future consideration. CCE will continue state specific engagement in Q3 and hold the second bi-annual meeting of 2018 in Q4.
- Supporting material for CCE's two proposals for the current Washington code were developed in Q2. Both proposals will go through the Washington State Code Technical Advisory Group (TAG) review in July. The Washington proposals are the first supported by CCE and if successful, could also be considered for adoption into the next IECC revision.

Cross-cutting Infrastructure

Distributor Platform

• See Tier 1 memo for update (on pages 8-9 of the packet).

Commercial Real Estate (CRE)

- In collaboration with Energy Trust, developing "stories" of moving commercial buildings from benchmarking to action. Currently, one story is under development to showcase how the building management was better equipped to monitor the energy use through benchmarking and eventually complete a whole-building, deep energy-efficiency retrofit.
- In Washington, working with the City of Bellevue, NEEC and BOMA King County to deliver four, one-hour training sessions on benchmarking and the business case for tune-ups and retro-commissioning. Tentative dates have been set for October with the (1) Bellevue Downtown Association, (2) Seattle Eastside Collaborative, (3) BOMA Education Committee and (4) Building Operator Certification (BOC) members.
- Continuing support of the City of Seattle's Building Tune-up Accelerator (TUA) Program. Only six weeks post-launch of the TUA, Spark reports have been created for four participating buildings; it is estimated that 30 Spark reports in total will be completed by the end of 2018.
- In 2017, the CRE program launched CREHub, a unique way for building owners to quickly find only the most relevant information on the BetterBricks website relating to their buildings. So far this year, CREHub has seen 148 visitors who have downloaded 52 customized reports on best practices for energy efficiency in commercial buildings.
- Supported SGS at the Envelope Technology show case on May 17 and will once again support SGS at a networking breakfast & presentation for Seattle 2030 at the Smart Buildings Center this September. Coordination is also underway with BOMA Oregon on a late Summer/Fall 2018 LLLC training.

Strategic Energy Management (SEM)

- See Tier 1 memo for tee up on demo of SEMHub and tools that will be provided in the CAC meeting (on page 14 of the packet).
- Northwest SEM Hub Energy Management Assessment (EMA) tool has been rebuilt onto a NEEAowned platform integrated with the SEM Hub.
 - Cost-share agreement executed with national industry partner, Global Cold Chain Alliance (GCCA), for a white-label version of the EMA tool to support GCCA's Energy Excellence program.
 - O Demonstrated the newly rebuilt EMA tool for three NEEA funders, who are now considering how they might incorporate the tool into their SEM programs.
- Conducted 50001 Ready workshops in Seattle and Portland with NW SEM stakeholders as part of a LBNL/DOE grant-funded project.
- Worked with Idaho Power and two Idaho school districts on energy data visualization as part of a NREL/DOE grant-funded project supporting Community SEM.
- Held a NW SEM Collaborative Breakfast Roundtable at Efficiency Exchange.
- Kicked off event planning for the 8th annual Fall Workshop of the NW SEM Collaborative.

Memorandum – Agenda item (Tier 1)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Elaine Miller, Senior Program Manager

SUBJECT: Distributor Platform – Midstream Commercial Lighting Pilots



Our Ask of You:

NEEA staff, Seattle City Light and Snohomish PUD will share an update on recent midstream commercial lighting collaboration and seek CAC input on level of interest in the activities and outcomes of the newly-developed midstream pilots, as well as opportunities for further regional coordination. Review this memo, and bring your questions for the discussion.

Overview:

NEEA is collaborating with Seattle City Light and Snohomish PUD on two midstream commercial lighting pilots leveraging NEEA's experience, systems, and distributor relationships – the Distributor Platform – to support an accelerated launch *and* test market transformation strategies for LED replacement products. This effort is an outgrowth of the Reduced Wattage Lamp Replacement (RWLR) Program, which was the first effort to help build a Distributor Platform for the region.

In addition to collecting full category data for seven new product categories, the pilots will test the effectiveness of market transformation strategies, such as market penetration bonuses and special pricing agreements, used with great effect in the RWLR Program. This approach has the potential to accelerate midstream measure sales, cast a broader net to capture savings that are missed by current downstream and midstream programs, and cost-effectively transform the market for LED replacement lamps.

Over the next 12-18 months, City Light and Snohomish PUD pilots will help the region better understand the potential and consider questions such as:

- Can the region reach a greater share of lamp maintenance market, with a lighter touch?
 - Can the region develop a possible path for how "commodity" lighting products could transition to more streamlined channels as prices decline, technologies mature, and market penetrations increase? Can the region develop a system where products move from high touch, lower volume to lower touch, high volume? (e.g., Incentive -> Market Transformation -> Sunset)
- Is there a viable midstream model for other Northwest utilities who are interested?
- Can the region continue to build and leverage a Northwest Distributor Platform so we can touch products beyond lighting?

Brief Pilot Overviews:

Seattle City Light Pilot:

- Targets 7 LED product categories with strategically low point-of-sale incentives (aligned with PSE's Lighting To GO) and branch market penetration bonuses across categories.
- Phase 1 includes 9 distributors, who have participated in the RWLR Program, and covers 12 branches. Phase 2 (January 1, 2019) will invite additional distributors to participate.

• Timeline: launch is August 1, 2018-December 31, 2019.

Snohomish PUD Pilot:

- Targets only TLEDs at 3-4 branches in Snohomish territory that are also RWLR participants.
- Will use MT strategies like market penetration bonuses to see how this compares to branches that receive only per lamp incentives from Snohomish programs.
- Timeline: tentative launch is January 1, 2019 but still TBD and planned to be 12-month pilot.

Please contact Elaine Miller at emiller@neea.org if you have questions about the RWLR Program and the Distributor Platform.

Memorandum – Agenda item (Tier 1)

July 31, 2018

TO: Commercial Advisory Committee (CAC)



FROM: Debbie Driscoll, Market Strategy Manager, Commercial and Emily Moore, Senior Manager,

Commercial/Industrial

SUBJECT: Market Opportunities Follow Up: Q2 Discussion Synthesis & Next Steps

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Our Ask of You:

Please review the synthesis of the trends below and be prepared to prioritize these topics on July 31, for further exploration in future CAC meetings.

Background

At our last CAC meeting, members discussed trends, challenges and changes we foresee and potential preparations for our organizations. The purpose of the discussion was to share perspectives that could help inform and inspire members on their future planning activities within their organizations.

Since our last CAC meeting, we have synthesized this information into the seven points below. The results offer inspiration for future meeting discussions topics that we could explore in greater depth, by sharing thoughts and ideas on ways we might address these future challenges in our individual organizations or as a region.

1. Shifting baselines and the need to aggregate smaller slivers of savings across many loads will continue to make it more and more challenging to cost effectively capture savings.

This is the most often mentioned challenge. It's clear that we're already feeling the impact of shrinking savings opportunities and see this trend continuing into the future.

Many are focusing on customer and trade ally engagement as a first strategy. Specifically, encouraging comprehensive/deep retrofits through one-on-one engagement and programs that support depth, including whole building offerings and SEM programs. Utilities are also looking to extend their customer reach by engaging and educating trade allies.

Other strategies include looking underserved markets for new sources of savings; more focus on operations and maintenance offerings; and streamlining program engagement by simplifying program processes, including leverage of aggregated sales data to replace application processing.

2. New measure opportunities on the horizon

A variety of emerging measures may have significant implications for load profiles and energy efficiency opportunities:

- Smart buildings and automation of facility operations
- Data centers
- Cryptocurrency
- Indoor horticulture beyond cannabis
- Plug load management
- Electric vehicles

The challenges will be to understand savings and effective ways to influence efficiency for these new measures as they evolve. Where possible, programs hope to identify UES values to makes the measures as simple and quickly adoptable as possible. But some new opportunities, such as smart building systems and plug load management, may call for fundamental changes to program strategies.

3. Training and Workforce - within utility and trade ally communities

Multiple trends are intersecting to create a significant challenge for implementation of the most efficient new technologies: high rate of retirements in utility, trade ally and building operator workforce, and high demand for new skills to support networking and automation.

This trend points to a rising need for recruitment, training and education in the workforce. Utilities are also looking to streamline in-house processes to make work easier and more efficient – aiming to do more with less.

4. Demand Management will change the rules of the game, adding time-of-use and two-way communication components to our work

Many utilities are long on power, but short on capacity – or heading in that direction. So many are beginning to look to efficiency measures that can have an outsized impact during peak demand times. The 7th Power Plan identifies a large role for demand management to meet our energy needs in the coming decades.

5. Municipal and corporate priorities for de-carbonization and resilience are driving a strong interest in distributed energy resources

City and state carbon and resilience targets are driving electrification, tune-up requirements and other measures to aggressively meet targets. Corporations are being driven by the investors to do the same. There is a role for energy efficiency to help reduce investments in onsite generation and storage. How to best communicate and capture this opportunity, and what other utilities implications may result from these drivers is still in question.

6. Building systems data brings the possibility of new services, but confusion and concern on how to engage

Utility meter data, building management systems, and networked controls for lighting, HVAC and more will offer a sea of energy data. Utilities see a glimmer of opportunity to utilize the data to offer new insights and services to customers. But concerns over cybersecurity and data ownership, and challenges around data collection and identifying specific ways data can be turned into valuable services make the path forward unclear.

7. Collaboration – with each other and with trade allies – is an essential tool to addressing the challenges ahead

At multiple points, members pointed to the need for a collaborative approach. Specifically, members cited tighter relationships with trade allies and collaborative discussions/efforts such as those happening through the C+I Lighting Regional Strategic Market Planning work as of growing importance when considering the changes and challenges ahead.

Memorandum – Agenda item (Tier 1)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Natalie Fish, Marketing Manager and Stacy Blumberg, Senior Manager, Marketing

SUBJECT: BetterBricks platform and proposed consolidation with Commercial Real Estate

infrastructure in Cycle 6

Our Ask of You:

In NEEA's draft 2020-24 Business Plan, currently being reviewed by Board members, a proposed change is to consolidate the existing Commercial Real Estate (CRE) infrastructure program resources under the BetterBricks platform. In the CAC meeting, NEEA staff will highlight existing BetterBricks and CRE resources and seek member input on what resources would be most valuable in supporting your commercial program work.

Background

BetterBricks

The BetterBricks brand and website have existed for nearly 20 years as the Alliance's market facing commercial brand. It is used to promote the current and future commercial building programs, such as High-performing HVAC, Luminaire Level Lighting Controls, Extended Motor Products, etc. Research in 2012 found the brand had over a 90% recognition rate among commercial building audiences in the Northwest. A smaller, qualitative study from December 2015 suggests brand recognition remains high among target audiences.

BetterBricks provides awareness and education about efficient, high-performing products and practices to its target audience of building professionals, e.g. building owners, property managers, and building operators. Use of a single brand, rather than having to create and invest in a unique brand for each commercial program, creates cost efficiencies.

<u>CRE</u>

The Commercial Real Estate (CRE) infrastructure program originally focused on encouraging Strategic Energy Management (SEM) practices in CRE portfolios across the region. Under the CRE program, relationships with CRE member and trade organizations, such as BOMA Oregon and Seattle 2030, were developed. In Cycle 5, the CRE program combined with the Existing Building Renewal (EBR) program, which promoted deep energy retrofits of large, leased commercial office buildings, and became an optional infrastructure program.

The CRE program provides resources and tools to the CRE audience, including the Spark Tool and CRE Hub, both of which are accessed through the BetterBricks website. The CRE program targets CRE building professionals, particularly property managers and building owners, also key audiences for BetterBricks.

Vision for the Future

By incorporating CRE resources, BetterBricks becomes a comprehensive platform for market engagement that better serves the target audience, Alliance programs and utility programs.

Value to target audience and those who influence their decision making:

- Information and tools from a trusted, third party resource to inform immediate system or technology needs
- Resources for whole building solutions and long-term energy management, such as demand response, SEM, and pay-for-performance
- Relevant findings from the Alliance's and partners' emerging technology, market intelligence, and market research to help prepare them for new technologies, practices and trends

Value to Alliance and Funder Programs:

- Ability to direct customers interested in consultation and project implementation to utility websites and programs
- Reduced costs by leveraging the platform across the Alliance's commercial programs to increase target market awareness and education, a key market transformation barrier that exists in nearly all programs
- Centralized planning and communication with trade, member and efficiency organizations, e.g. Seattle 2030, Better Buildings, Institute for Market Transformation
- More opportunities for joint outreach between Alliance programs and utility programs
- Market feedback and audience insights, such as emerging trends and unrealized market levers, because of the information exchange enabled by the relationships and digital channels
- Ability to direct customers interested in consultation and project implementation to utility websites and programs.
- A recognizable, market facing brand used to do promotions with manufacturers during early program stages

Please contact Natalie Fish at nfish@neea.org if you have questions.

Memorandum – Agenda item (Tier 1)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Warren Fish, Program Manager - C&I SEM Infrastructure

SUBJECT: SEM Hub Demo

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Our Ask of You:

Please review this memo and bring any questions you may have to the CAC meeting. Be aware that there will be a more in-depth webinar regarding this, on August 22, 2018. See details below.

Background:

You may already be familiar with the region's SEM Hub – an easily searchable resource library of Guides, Tools, Videos and other resources related to Strategic Energy Management. But many of you may have not yet seen its newest features. These include the following tools which Northwest utility programs can customize for use in their programs:

- 17 online SEM courses available through our Learning Management System (LMS) platform
- A new and improved, customizable online Energy Management Assessment (EMA) tool

During the CAC meeting, we will provide a brief demonstration of these tools and showcase how some NEEA funders have already set up and begun using customized versions with their SEM program participants.

Following this brief demonstration, we invite you and any members of your SEM implementation team to join us for a more in-depth demonstration this summer. You have several options for participating:

- Join us for a 1-hour webinar on August 22, 2018 from 2-3pm
 - o Join the live webinar: https://neea.adobeconnect.com/ a1100903420/r7iofzxuifgs/
 - We will also make a recording of the webinar for anyone unable to join. Contact us afterwards to receive a link.
- Contact us to set up an online or in-person demonstration at your convenience

If you have questions about specific functionality, please let us know so that we can be sure to discuss these during the demonstration.

More information:

Take a look at the SEM courses available <u>on semhub.com</u> and the new <u>EMA tool here</u>. Other questions? Please reach out at any time.

We look forward to supporting you in taking advantage of SEM Hub's new features and tools.

Memorandum – Agenda item (Tier 2)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Maria Alexandra Ramirez, Stakeholder Relations Manager

SUBJECT: Conference Coordination

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Our Ask of You:

Please review the recent and upcoming event topics linked below and email me (maramirez@neea.org) if you'd like to coordinate with NEEA staff in advance of the event, and/or if there are any specific topics/breakouts you'd like to hear about during our next CAC meeting.

List of Conferences:

| Date | Conference | Report |
|-----------|--|-------------------------|
| 7/9/2018 | Design Lights Consortium (DLC) Stakeholder Meeting | Conduit Posting |
| 8/8/2018 | Illuminating Engineering Society (IES) | Conduit Posting |
| 8/12/2018 | American Council for an Energy Efficiency Economy (ACEEE) Summer Study on Energy Efficiency in Buildings | Brown Bag (Internal) |
| 9/5/2018 | ENERGY STAR Products Partner Meeting | Conduit Posting |
| 9/19/2018 | Consortium for Energy Efficiency (CEE) Annual Industry Partners Meeting | Conduit Posting |

Background

In response to a NEEA Board discussion last year about conference/event attendance, NEEA developed a

- (1) Tracking system to improve its management of who is attending what event
- (2) Criteria that improves NEEA's ability to manage to its annual operations plan and budget

There is a coordination opportunity here to ensure that we're connecting as appropriate in advance and sharing out key relevant takeaways afterwards with the region. This is a standing housekeeping item for this Advisory Committee.

Memorandum – Informational (Tier 2)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Julia Harper, Director, Market Strategy & Execution

SUBJECT: Organizational Change for Commercial Code Enhancement (CCE) Program

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Our Ask of You:

Please review the memo and bring any questions, recommendations, feedback, or concerns to the Q3 CAC meeting on July 31.

CCE Program Organizational Change

The Regional Portfolio Advisory Committee (RPAC) advanced the Commercial Code Enhancement (CCE) Program into the Market Development phase, when they approved the Scale-up milestone in May 2017. Emily Moore, Senior Manager of NEEA's Commercial/Industrial/Agriculture team, has been providing management oversight for the CCE Program, which is led by Neil Grigsby as the program manager.

As the team has progressed in their work, it has become more and more evident that there are significant synergies with the efforts and activities of our Codes and Standards team. Thus, we will be transferring oversight for the CCE program to Bing Liu, Senior Manager of Codes and Standards. The CCE program will continue to be managed as a regional program, separate and distinct from the more general codes work. At this time, we don't anticipate significant changes in the program strategy or plan that was approved by RPAC in 2017. This organizational change will allow Bing to gain additional visibility and insights from leading both efforts, that can better capitalize on synergies and optimize our work for both.

Neil will report to Bing, effective August 1, 2018. CAC members will continue to receive regular updates on the progress of the CCE program via CAC communications and meetings.

If you have any questions about this change, please reach out to Julia Harper at 503-688-5434 or jharper@neea.org.

Memorandum – Informational (Tier 2)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Steve Phoutrides

SUBJECT: Washington Commercial Code Evaluation – Q3 Request

Our Ask of You:

Please review this request for participation in the Washington Commercial Code Evaluation Work Group, and let us know if you or someone else within your organization would like to volunteer.

Background & Purpose

This study is one in a planned series of state commercial code evaluation studies we will conduct in order to better understand how commercial buildings are being built, the degree to which they comply with code, and how well the buildings actually perform. The purpose of this Work Group is to assist with the design and implementation of the Washington Commercial Code Evaluation Study and ensure our stakeholders' viewpoints are integrated into the study's key protocols.

Work Group Objectives

The Work Group is needed to provide input into the following study tasks:

- Sample Design align sample size and sample makeup to study goals
- Data Collection establish protocol for contacting and working with building owner, managers and building officials including how to collect billing data
- Reporting ensure research focuses on results and is presented in relevant and useful ways.

Roles & Responsibilities

This Work Group will provide the guidance necessary to advance the implementation of an effective and efficient evaluation. The Work Group members will be responsible for:

- 1. Reviewing materials provided by the contractor on each of the three objectives above.
- 2. Providing feedback on the materials
- 3. Reaching consensus on optimal sample design, customer contact and data collection protocols

Estimated Time Commitment and Sunset Date

We would like to have the Work Group formed by mid-August and the work completed by mid-November 2018. Members will be asked to meet 2-3 times per study task, for up to 2 hours per meeting, plus additional prep time. Meetings will be held at NEEA offices. Conference call-in will be available.

NEEA Staff Participants

Bing Liu, John Jennings and Steve Phoutrides

Stakeholder Participants

NEEA is seeking 3-5 interested individuals, preferably with sample design experience and familiarity with the commercial new construction codes market.

Shared Commitment

Work Group members and NEEA Staff share a commitment to communicate and coordinate with the intent of operating with no surprises.

Please contact Steve Phoutrides sphoutrides@neea.org if you have questions about this request.

Memorandum — Informational (Tier 2)



July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Dulane Moran, Market Research & Evaluation

SUBJECT: MRE & CBSA Update – Q2 2018

Our Ask of You:

Please review this memo and its link to the MRE newsletter, and contact me at my email below if you have any questions.

Market Research & Evaluation (MRE) Q3 Newsletter

This newsletter provides a snapshot summary of projects in planning or underway for a variety of NEEA initiatives. Brief descriptions of research scope and contact information for the MRE project manager are also provided. To access, please click <u>here</u>.

Commercial Building Stock Assessment (CBSA)

The CBSA team is finalizing all protocols and testing data collection tools, while working closely with stakeholders to ensure the project's two stage design is executed well.

One innovative component of this CBSA is the use of a "virtual catalog" of the entire region's commercial floor space using algorithms that combine information from Census, Google Maps, SMR (a packaged data provider that integrates assessor data), and a variety of quality review steps. This catalog will be used to select census blocks and sites for field audit. Recruitment is expected to begin by late August. Utilities will be provided lists of sites randomly selected for recruitment and will have an opportunity to review those lists prior to contact.

The first quarterly webinar was held in June and the next will be scheduled for late September. These webinars provide an update on project activities for all regional stakeholders.

If you are not receiving information on the CBSA (and expected to) please contact Dulane Moran (dmoran@neea.org).

Memorandum — *Informational (Tier 2)*



July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Mark Rehley, Senior Manager, Product Management & Emerging Technology

SUBJECT: Summary of Emerging Technologies – Q3 2018

Our Ask of You:

Review our emerging technology report and let us know if you have any questions or suggestions for new technologies. The report format continues to evolve as we explore ways to display this information. We welcome any ideas or questions you have. Thank you!

Click here for a copy of the full Q3 2018 Emerging Technology Report posted on NEEA.org (all sectors).

Memorandum – Informational (Tier 2)

July 31, 2018

TO: Commercial Advisory Committee (CAC)

FROM: Bing Liu, Sr. Manager, Codes and Standards

SUBJECT: 2018 Q1-Q2 Codes and Standards Update



Our Ask of You:

Please review the memo and bring any questions, recommendations, feedback, or concerns to the Q3 CAC meeting on July 31.

Codes and Standards Update

I. Staff Update

 NEEA hired Bing Liu, P.E., as Senior Manager of Codes and Standards. Before joining NEEA, Bing was the group leader and program manager of Building Energy Codes Program of the Pacific Northwest National Laboratory.

II. Codes Update

A. National/Regional Level

- NEEA and its contractor developed a white paper on the Whole Building Energy Efficiency Program Incentives. As a follow up, NEEA and its contractors plan to convene a regionally representative group to begin a discussion on whole building incentive programs. The expected outcome is a regional roadmap that will assist in utility and regional decision making on whole building programs. This anticipates a future where measure by measure savings become more difficult to document.
- o Contractors continued to develop a white paper to look at decision points connected with establishing a common regional baseline for measuring code and other program savings.
- NEEA staff and its contractors contributed to the planning of DOE's National Energy Codes
 Conference by identifying the session topics, lining up the speakers and chairing three technical
 sessions. The topics focus on the codes education, training, and implementations. DOE's codes
 conference will be held on July 15-18, 2018 in Austin Texas.

B. State Level

1) Washington

- The 2018 Washington Commercial Energy Code development is underway. NEEA and its contractors submitted 42 proposals (19 of these proposals were most clean up). A total of 171 proposals were submitted. WA Building Energy Codes Technical Advisory Group will conduct a series of public meetings to review the proposals in Q2 and Q3.
- Two code proposals for the 2018 Washington Commercial Energy Code provide additional code compliance paths with more flexible design options, including
 - 1) a new performance path using ASHRAE 90.1 Appendix G with fixed-baseline modeling ruleset, and
 - 2) an HVAC system equalizer approach that will provide efficiency correction factors based on system selection.

Code & Standard staff worked with NEEA's gas team on several code proposals for the 2018
 Washington Commercial Energy Code.

2) Oregon

- O The 2017 Oregon Residential Specialty Code (residential energy code) goes into effect on January 1, 2018. NEEA's contractor conducted an analysis to estimate the energy savings and cost effectiveness over the previous code (2014 edition). The analysis shows that the overall site energy saving from the 2017 edition is 6.1% by comparing to the 2014 edition, including single family homes and low-rise multifamily buildings across the state of Oregon.
- The 2019 Oregon Structural Specialty Code (commercial energy code) development is underway. The 2019 OSSC Code Review Committee conducted a series of all-day meetings in May and June to review the public code proposals. After the final public codes meeting, the committee will make a recommendation to the Building Codes Structures Board. The Board then will review the committee's findings and make a final recommendation to the Building Code Division for adoption.
- There were 31 proposals submitted, including 12 proposals submitted by NEEA and the Oregon Code Collaborative. Among 12 submitted proposals, 8 proposals were advanced to the next stage or expect to be advanced at the June 12 meeting. Below is the list of proposals from us that passed through the Committee and will have reasonable energy savings:
 - 1. Receptacle load control for 50% of open office, removed copy and print room provisions.
 - 2. Two additional efficiency packages in addition to base code required instead of one.
 - 3. DOAS requirements enhanced with essential best practices for the Additional Efficiency Package.
 - 4. Optimum stop on boilers.
 - 5. Efficient Kitchen equipment.
 - Indoor Ag Specifies exception to having economizers in lieu of adding equipment that is 20% more efficient than federal standards, and specifies minimum performance requirements for standalone dehumidifiers.
 - 7. Parking ventilation controls Reduces exception threshold for installing parking garage ventilation controls from 25,000 sf down to 8,000 sf.

3) Idaho

Idaho Energy Code Collaborative is planning to host a one-day energy code conference in Q4.
 The conference plans will focus on the energy code training geared to code officials, designers and builders. The conference will be organized by the Idaho Association of Building Officials.

4) Montana

- The Building Codes Bureau has prepared adoption recommendations for all codes but the energy code. The adoption process is stalled because the Governor has not established the current membership of the Building Codes Advisory Council. Listening sessions for the energy code have not yet been scheduled.
- NEEA's contractor developed two issues of Energy Codes Best Practices newsletters this year. The primary topic was roof insulation with an emphasis on the unvented assemblies. The digital newsletter was distributed to building departments, the MT DEQ, and the local home builder associations. These entities are in turn asked to distribute the newsletter through their email contact lists.

III. Standards Update

A. Federal Level

The administration has continued its course of inaction in the first and second quarter. The
comment periods for rulemaking process that started near the end of 2017 were extended, and
there is no evidence of any further steps to be taken after the period closes.

- o In February a federal district court found in favor of the plaintiffs in lawsuits filed against DOE by thirteen states (including New York and California) and efficiency and consumer advocacy organizations for its failure to publish four Final Rules that entered the 45-day "error correction" period just prior to the change in administrations. DOE was ordered to publish the rules within 28 days. They also had the right to appeal. At this report writing, we're not aware of the rules having been published. The rules were new equipment standards for portable air conditioners, uninterruptible power supplies, air compressors, and commercial packaged boilers.
- The only significant activities at the federal level in Q2 have been a flurry of test procedure waivers for HVAC and refrigeration equipment, and the very beginning of a test procedure rulemaking for VRF-type systems. In general, the waivers are being granted, but often with caveats with regard to alternative test and rating procedures. DOE is planning to host a working group meeting in August on the VRF test procedure proceedings. NEEA staff plans to attend this working group meeting per invitation from DOE.

B. State Level

1. California

- California Energy Commission's 2018 agenda was set up to consider standards for a number of different products or categories that are not yet regulated at the federal level. The ones for which an RFI has been issued so far include:
 - Hearth Products
 - Commercial and Industrial Fans and Blowers
 - General Service Lamps (Expanded Scope)
 - Spray Sprinkler Bodies
 - Irrigation Controllers
 - Commercial and Industrial Air Compressors
- Ones that will have a lower priority and be addressed later are:
 - Tub-Spout Diverters
 - Set-Top Boxes
 - Low-Power Modes and Power Factor
 - Solar Inverters
- NEEA submitted data and comments in response to the CEC's RFI for high-CRI fluorescent lamps (typically 4-foot and 8-foot T8 and T12 lamps with a CRI greater than 87). The next step will be a Commission decision on beginning a rulemaking to establish standards for them. If the CEC establishes standards, it's likely that other states will also adopt the standards. Vermont has already passed standards for these lamps (see below).

2. Vermont

o In May, the Vermont legislature passed a bill that set or updated standards for sixteen products including air compressors, commercial dishwashers, commercial fryers, commercial hot-food holding cabinets, commercial steam cookers, computers and computer monitors, faucets, high color rendering index fluorescent lamps, portable air conditioners, portable electric spas, residential ventilating fans, showerheads, spray sprinkler bodies, uninterruptible power supplies, urinals, and water coolers. On May 21st, Governor Scott signed the bill. Vermont thus became the first state to establish standards for air compressors, high CRI lamps, portable air conditioners, residential ventilating fans, and spray sprinkler bodies. The air compressor and portable air conditioner standards are subjects in the Ninth Circuit law suit mentioned above, and if DOE is forced to publish its standards, those products will be pre-empted in the states. Vermont's action makes it more likely that other states will follow suit. There are similar bills in

the legislature in Massachusetts and Rhode Island yet to be decided upon, and the CEC in California is working on a few of these products, as noted above.

3. Oregon

o In Oregon, the Oregon Department of Energy (ODOE) began public meetings late in the quarter to consider a legislative concept that would give ODOE somewhat more initiative and authority in the processes for setting efficiency standards for the state. Today, the legislature has to set new standards, while ODOE can administratively update existing standards, followed by a bill being introduced for legislative review in the subsequent session. That process will conclude this summer. If the new procedures in the legislative concept aren't submitted to the legislature for the next session, ODOE will have to use its existing authorities to move state standards forward.

4. Washington

The house bill that would have set or updated standards for several products passed in the House but did not make it through the Senate. The products include commercial fryers, air purifiers, pool pump replacement motors, uninterruptible power supplies, portable air conditioners, high color rendering index (CRI) fluorescent lamps, computers and monitors, faucets and showerheads. The coalition of standards advocates that supported the bill will likely reintroduce some or all of these standards again in the next legislative session in 2019. If the CEC successfully enacts new standards in 2018, one or more of those might be added to the bill.

C. Other Non-federal News

- NEEA staff Bing Liu has been invited by the Canadian Standards Association (CSA) Steering Committee to present NEEA's Codes and Standards Program overview and strategy. During the meeting, CSA and NEEA have discussed the potential collaboration opportunities on standard and testing methods.
- o NEEA, as part of CSA Task Group, has submitted new test and rating procedures for heat pump and air conditioning systems to CSA for final editing and promulgation (expected in the third quarter). The resulting standard will be a stable technical draft to be used by test laboratories (including manufacturer labs) to test and rate a number of "systems of interest" to programs. Over the next year, a consortium of interested parties, including NRCan, NEEA, NEEP, CA utilities, and others, will test and rate approximately 30 systems while gathering technical feedback on the test procedures themselves. After receiving feedback from labs through mid-2019, CSA intends to upgrade the standard and publish it as a voluntary Annex to C656 (the Canadian equivalent to DOE's Part 430, Appendix M test procedures for these products). Program operators and others can use the standard and its resulting ratings to much more reliably identify which systems perform best in which climate zones. The standard provides seasonal COP ratings for heating and cooling in 8 climate zones, including sub-Arctic.
- Work has now begun on new test and rating procedures for split system air-to-water heat pumps used for the domestic hot water end use.

Please contact Bing Liu (BLiu@neea.org) if you have questions about the Codes and Standards Program.

COMMERCIAL + INDUSTRIAL LIGHTING REGIONAL STRATEGIC MARKET PLAN

Q2 2018 Progress Update

WHO WE ARE

The C+I Lighting Regional Strategic Market Plan (RSMP) was originally developed in 2015 through collaboration between the NEEA Regional Portfolio Advisory Committee (RPAC), Commercial Advisory Committee (CAC), utility program leads and planners, NEEA, state energy offices, and market experts. NEEA continues to facilitate the RSMP effort, the region's Commercial Lighting Program Manager Work Group drives progress on strategies, and updates to the strategy are driven by a five-member Steering Committee with input from the collaborative.

OUR PURPOSE

The purpose of the RSMP is to align the region on longer-term goals in the commercial and industrial (C+I) lighting market, improve coordination in the region, and maximize cost-effective, long-term energy efficiency opportunities. The Vision, Mission and Goals identified at the outset still guide our collaboration:

VISION

Our customers choose quality, adaptable lighting that uses every kWh to its best advantage.

MISSION

As a result of our collaboration, we maximize cost effective, long-term commercial and industrial lighting energy efficiency opportunities, prevent conflicting overlap of roles and improve coordination in the NW.

GOALS

- The most efficient, quality lighting system products and services are readily available the market.
- Customers choose the most appropriate, efficient lighting system solution for their needs.

2018 PRIORITY STRATEGIES & ACTIONS

With input from all RSMP collaborative (C+I Lighting Program Manager Work Group members, RPAC, CAC and market experts), the Steering Committee updated the RSMP for 2018 to focus efforts on the following two priority strategies. Both address top-of-mind concerns across the region, and are anticipated to grow in importance and relevance in the coming years. Participation in actions is voluntary and open to all funders.



PRIORITY STRATEGY 1: INCREASE ADOPTION OF ADVANCED LIGHTING CONTROL SYSTEMS

Action 1: Address Barriers

The Lighting PM Work Group will identify the key barriers keeping advanced control systems from being installed and going through programs in the NW, and collaboratively discuss and identify what programs can do to address these barriers and what customers and market partners need to support adoption.

Q2 Progress: Michelle Lichtenfels (BPA) and Anne Curran (NEEA) clarified objectives of addressing barriers and gathered information from various sources to inform a discussion at the next Work Group meeting (on July 24, 2018).

Action 2: Leverage motivations

Later in 2018, the Work Group plans to identify what motivates customers to purchase. Collaborative discussion will help identify how programs can leverage these motivations to increase adoption



PRIORITY STRATEGY 2: INFORM PROGRAM PLANNING FOR COMMODITY LAMPS (TLED, HID-LED, ETC.)

Action 1: Inform program strategy with market data

As we become more sophisticated with our price and sales collection and tools, the region aims to utilize available data to inform incentives & program strategy, with the objective of creating repeatable methodologies that allow program managers and planners to keep program strategies/incentives in line with market shifts.

Q2 Progress: Nancy Goddard (Pacific Power), Sheri Miller (Snohomish PUD), Debbie Driscoll (NEEA) and Elaine Miller (NEEA) worked together to discuss current data needs and discuss opportunities for NEEA to support. NEEA's Market Intelligence team is developing a prototype for Program Manager feedback that combines available sales and pricing data to create a dashboard to inform program manager decision making.

Action 2: Promote quality lamps

Last Updated: July 17, 2018

Replacement lamps vary tremendously in their quality, configurations and light distribution. Program managers have seen many examples of inappropriate LED lamps being specified for replacement applications. In this action, the region's program managers aim to identify lamp characteristics or specifications our programs/region should promote.

Q2 Progress: We are seeking a co-lead to partner with Karla Haman (PSE) and subject matter experts at the Lighting Design Lab. At the next Work Group meeting on July 24, we will discuss the level of effort and objectives the region is willing and able to address this year.



ONGOING STRATEGIES & ACTIONS

The following strategies and actions were identified in previous iterations of the RSMP. We continue to monitor new developments and support key ongoing actions where needed.



ONGOING STRATEGY 1: IMPLEMENT A DATA PLAN FOR THE REGION

Action: Collect and communicate timely and granular lamp pricing data to inform utility programs

In an increasingly data-driven world, programs often miss opportunities to leverage data to adjust strategies, drive uptake, and provide greater value to customers. In 2017, a data user group – composed of program managers, planners and representatives from BPA, NEEA and the RTF – developed use cases and requirements for a lamp and fixture pricing data dashboard, and then reviewed NEEA's first prototype in Q4 2017. A second prototype with expanded functionality was completed in Q1 2018.

Q2 Progress: NEEA's Market Intelligence group refined the <u>lamp and fixture pricing data dashboard</u> prototype based on user group feedback. The dashboard uses webscraping technology to collect LED lamp prices from three major distributors/retailers. A first draft for regional use is slated for release in July.



ONGOING STRATEGY 2: CREATE AND LEVERAGE TOOLS AND RESOURCES TO BUILD CUSTOMER DEMAND

Action: Customer guidance

In response to the lack of consistent information to inform the customer decision-making process, the region prioritized guidance development for 2017. A group of Program Managers and lighting experts from across the region, led by Michael Lane of PSE, recently completed good, better, best guidance for common LED retrofits to inform customer purchase decisions. The guidance is live on the Northwest Lighting Network, including access to the source code. This enables any utility to embed the tool on their branded site and directly inform customers on the many aspects of LED retrofits and options available.

Q2 Progress: A discussion is planned with the Work Group in late 2018 to identify other whether guides are needed to support the region.



ONGOING STRATEGY 3: IDENTIFY SYNERGIES AND COMPLEMENTARY APPROACHES TO ALIGN UPSTREAM AND COORDINATE MIDSTREAM AND DOWNSTREAM INTERVENTIONS

Action: Midstream coordination

Last Updated: July 17, 2018

Multiple midstream programs operate in the region simultaneously, at times resulting in misaligned incentives, mixed market signals, overlapping efforts and administrative complexities. Since 2016, the region has prioritized midstream coordination, particularly as new midstream programs launch.

Q2 Progress: Two pilots in development aim to inform new midstream program models for the region: Seattle City Light is working on a midstream LED replacement lamp pilot that leverages the region's Distributor Platform; and Snohomish PUD is developing a pilot that will engage distributors and leverage sales data to influence the TLED market, drawing on the approach and best practices of region's Reduced Wattage Lamp Initiative. SCL, Snohomish PUD and NEEA will coordinate details and share results of these program designs via the Lighting Program Manager Work Group.



ONGOING STRATEGY 4: COORDINATE EFFORTS TO PRIORITIZE, ADVANCE & PROMOTE EMERGING TECH

Q2 Progress: The Regional Emerging Technology Advisory Committee (RETAC) is continuing to leverage the <u>regional ET database housed</u> on <u>ConduitNW</u> to identify priority emerging technologies in our region and drive regional alignment on next steps.



ONGOING STRATEGY 5: COORDINATE ADVANCEMENT OF CODES (DEVELOPMENT, ADOPTION & COMPLIANCE)

Q2 Progress: In May, NEEA and its contractors submitted 42 of 171 total proposals for 2018 Washington Commercial Energy Code development. The Technical Advisory Group will conduct a series of public meetings to review the proposals in Q2 and Q3. The 2019 Oregon commercial energy code is also underway; the Code Review Committee conducted a series of all-day meetings in May and June to review 31 public code proposals, including 12 submitted by NEEA and the Oregon Code Collaborative. In Q3, the committee will make a recommendation to the Building Codes Structures Board and then the Board will make a final recommendation to the Building Code Division for adoption. For additional codes and standards updates, see the 2018 Q1-Q2 Codes and Standards Update memo.



ONGOING STRATEGY 6: DEVELOP A POOL OF COMMITTED, HIGHLY TRAINED MARKET ACTORS

Q2 Progress: 8 new individuals and 3 companies earned the NXT Level designation, for a total program to date of 137 individuals and 44 companies. The program expects to increase designations significantly in the next two quarters, having received 133 applications thus far in 2018. Four in person Jump Start sessions were held in conjunction with utilities, reaching 66 trade allies. BPA co-hosted three ALCS trainings with public utilities for a combined 31 trade allies. To date in 2018, ALCS training has been provided to 102 trade allies plus utility staff.