

Meeting Notes
Q4 2023 Integrated Systems Coordinating Committee
November 6th, 2023
Day 1
Webinar Only



Attendees:

Bill Hibbs – Clark Public Utilities (Clark)	Eric Mullendore – Bonneville Power Administration (BPA)
Michele Drake – Avista Utilities (Avista)	Bill Hough – Eugene Water & Electric Board (EWEB)
Michael Lane – Puget Sound Energy (PSE)	Patrick Urain – Energy Trust of Oregon (ETO)
Nancy Goddard – Pacific Power (PacifiCorp)	Tyson Schmitt – Puget Sound Energy (PSE)
Walker Dodson – Seattle City Light (SCL)	Phil Jordan - CLEAResult
Natasha Houldson – Tacoma Power	
Shelley Martin – Idaho Power	
Sheree Willhite – Idaho Power	
Mattias Jarvegren – Clallum County PUD (Clallum)	
Sinh Tran – Snohomish County PUD (SnoPUD)	
John Petosa – Snohomish County PUD (SnoPUD)	
Whitney Jurenic – NorthWestern Energy (NWE)	

NEEA Staff:

Alexa Hujik, Alisyn Maggiora, Anne Curran, Anouksha Gardner, Britt Cutsforth Dawkins, Stephanie Quinn, Stephen O’Guin, Suzi Asmus, Tamara Anderson.

Resources -

Agenda packet on neea.org: [Northwest Energy Efficiency Alliance \(NEEA\) | Q4 2023 ISCC Agenda...](#)
Master slide deck on neea.org: [Northwest Energy Efficiency Alliance \(NEEA\) | Q4 2023 ISCC Meeting...](#)
Meeting Recordings: Day 1, Part 1 - <https://vimeo.com/885303950>
Day 1, Part 2 - <https://vimeo.com/885306139>

[Welcome, Agenda, Packet Review, Housekeeping, Introductions](#)

If you have questions about this section, contact Anouksha Gardner (agardner@neea.org)

Upcoming NEEA Events:

- Q4 PCC Meeting – November 15-16
- Leadership in Energy Efficiency Awards – December 4
 - o In-Person and virtual event. In-person RSVP’s are due by November 17. Event to be held at [Avenue Event Space](#).
- Q4 NEEA Board Meeting – December 5
- Regional Emerging Technology Advisory Committee (RETAC) Meeting – December 14

- Efficiency Exchange Conference 2024 – May 14-15, Coeur d’Alene, Idaho

Q1-Q2 Stakeholder Engagement Activities:

Stakeholder Satisfaction Survey – launches January 16, 2024

- 2-3 Weeks to complete, individual responses encouraged
- *Q from Michelle* – is it possible to only fill out parts of the survey that pertain to each individual's expertise?
 - o Alisyn: Most of the questions are broad topics and not technology specific, so this should not be an issue with this year's survey.
 - o ACTION: Alisyn to check in and see if all survey questions are mandatory to answer or if there are options to not fill out each piece of the survey.

In-Person Stakeholder Visits – March/April built with the results of the survey.

2024 ISCC Meeting Dates:

- Q1 – Thursday, February 29
- Q2 – Wednesday, May 22 and Thursday May 23
- Q3 – Thursday, August 15
- Q4 – Wednesday, November 6 and Thursday, November 7

ISCC Annual Workplan Check-in –

Annual Topic Planning – November 7, 2023 –

- 9:15 am – Noon (*assuming we will be finished before this time*)
- Mural Platform – Visual Guide only for discussion
- Focus will be topic development and reviewing/discussing the topic survey results

Regional Roundtable Updates –

Update on November 17 BPA event from Suzi in Chat - Hello Everyone - I've reviewed our event confirmations and all of your organizations have received the invitation to the November 17 event. For those orgs on the call today: 6 have confirmed attendance, 3 declined, 3 are unconfirmed.

Natasha Houldson – Tacoma Power

- CPA complete for 2024-25; overall target will be similar to current biennium target (although some measures will be different - home energy reports program added and decrease in industrial).
- C&I sector side will look similar, with some program offering improvements and expansions on some deemed offerings on commercial side.
- Org updates - new engineer, occupational engineer intern (organizing and visualizing data around buildings data and applicability to new buildings performance standards), vacancy for SEM program manager.

Bill Hough – EWEB

- From last meeting, the ask to the committee if they have seen a decrease in Lighting Participation in Commercial Industrial Sector

- Reduction in lighting participation, looking to bolster with a 25% kicker and coverage to up to 75% project costs as a way to help meet annual goals and contractor engagement.
- Adv HPs: Res - following thru with BPA changes, siloed efforts to only include VSHP - would like to hear from BPA on whether there's consideration for Commercial with variable capacity systems.
- Goals increased significantly, based on projected load growth - 30% increase over 2023

Mattias Jarvegren – Clallum PUD

- Met biennial EIA targets, good for a while.
- CPA with new target and potential will go to board next week - looking at 25% increase in target; hope to make that up with voltage line projects, engage SEM with 1 large industrial customer (historically only done lighting with them).
- Drop in commercial lighting program - looking to make that up with Pacific Northwest lighting to go program; learning from SnoPUD on that.
- Open position still vacant, going on 6 months now, having a hard time getting candidates to relocate

Nancy Goddard – Pacific Power

- Forecasting in WA to be short of their 22-23 target and the gap is currently too big to close by year end
- Filed their BCP for 24-25 plan on November 1st, target is down a bit from the current target, and filed their Clean Energy Plan as well.
- Staffing they have an opening for a demand response manager
- Currently have an RFP out for outsource delivery of energy savings. New contracts are expected to begin on April 1, 2024
- Challenge for 2024 is figure out how to leverage new federal & state funding, especially those that are directed to end-use customer for upgrades that align with Pac programs; want to be able to stack them for the customer.

Michele Drake – Avista

- Below Biennium target
- Same final issue as PAC. on aligning state and federal funding opportunities; struggling particularly with how much to offer from Avista
- Midstream program HVAC and commercial food service skyrocketing; having to learn to let go of the 1:1 customer support and just trust contractors
- Painpoint – there is no carrying of the customer through the rebate process, you have to trust the contractors to do it. Its been difficult but there has been a lot of growth
- Direct install model with lighting and have had great success in the small business model
- Weatherization is a common need.
- No vacancies right now.

Sinh Tran and John Petosa – SnoPUD

- Going to meet budget
- Wrapping up interviews for program manager and engineers, hoping to have them hired by EOY

- Sinh: doing well on budget. Wrapped up interviews for PM and engineer. 10% increase for 2024-25 budget. Working on midstream programs still for next biennium.
- John: moving to online platform for programs and TAs - seeing issues with lighting, but 1 big customer should help meet the target. Seeing increases for targets for next 3 bienniums.

Eric Mullendore – BPA

- Closed out fiscal year 23 and did hit goal!
- Target is higher for next rate period and lost some measures, new measures added, particularly commercial HVAC (HRV), new pump measures as well. But there is a new implementation manual available
- Added several engineers over the last 4-5 months, programs team has a new industrial program manager, currently 3-4 possible openings in the new year

Alisyn Question: Bill, you would like to hear from BPN if there has been consideration for commercial. Did you want to follow up with Eric while he was on the line?

- Re: VCHP - willing to see if there are savings to be had. Current savings are from

Anne Curran – NEEA

- Trade Ally Training for LLLC has been successful
- Video and written case study: [BetterBricks | LLLC brings bright future and futureproofs investment to Everett warehouse](#)
- Sample Industry Voices pieces: [BetterBricks Industry Voices](#)

Tamara Anderson – NEEA

- Today is her last day on this committee for High Performance Windows and tomorrow will be her first day on Efficient Fans
- Twin City Fan and NEEA is hosting a training in Seattle on Dec 5 and one in Portland on Dec 6
- Case studies on confederated tribes of grande ronde (videos), as well as a case study from 2023 project with Lennar
- Showed confederated tribes of grande ronde video
- For information on the Efficient Fans trainings, please check out BetterBricks' event page: <https://betterbricks.com/events>

Suzi Asmus– NEEA

- The upcoming charette. Hopefully all of you can participate. Please reach out to her directly if you would like to know who from your organization specifically

Shelley Martin and Sheree Willhite – Idaho

- No new updates since the last meeting
- Did roll out their multifamily program since the last meeting

Walker Dodson – SCL

- Lighting program took big hit, doing a final analysis of what else might be left Re: savings
- Just deployed a PDI - Project Dev Incentive (supplemental to encourage folks to tackle the administrative side/paperwork)

- Also deployed the Commercial Energy Project Manager, been around a while on the industrial side; BPA developed this for 200kw+ savings potential
- Downstream HVAC is also seeing a rapid decline over last couple of years; struggling to make biennium targets - at a crossroads to determine how/where we're going, how to justify existing customer segments, and work towards DR/Loadflex and other new trends impacting our business.

Whitney Jurenic– NWE

- No new updates since the last meeting

Regional Priority Topic Presentation #1 -

Advanced Heat Pumps (AHPs)

Slide 20 - Market Transformation Approach

- AHPs passed through RPAC in August 2023
- RPAC approved this new Residential HVAC program
- AHPs will be moving to the Products Committee to align with the Utility representatives that are more related to this program
- Work identified applies to a broader scope of variable speed heat pumps so we renamed it to Advanced Heat Pumps to include other HPs like PTACs, portable HPs, etc.

Slide 21 - Why this approach

- Lots going on in heat pumps in the market!
 - IRA, electrification, etc.
 - Not any heat pump is fine, some heat pumps are way better than others and we need to put in the best ones we can.
- Address barriers that fit NEEA's role
- Build greater efficiency into out-of-the-box- systems over time with little to no incremental cost

Slide 22 - Heat Pump Promotion Goes Mainstream

- Examples of organizations that are promoting heat pumps showing market place momentum

Slide 23 - Market Barriers & Opportunities

- Key part to program development - exploring barriers and leveraging opportunities
- Barriers
 - Lack of awareness of energy improvements and their value prop
 - Lack of product differentiation for improvements that impact efficiency and capacity
- Opportunities
 - Increasing end user demand, incentives and requirements for IAQ, decarbonization, and cooling (AC)

- Many other programs/orgs investing and incenting HPs for EE, debar and capacity
- Spec updates enable manufacturers to differentiate more efficient products for competitive advantage

Slide 24 - Market Transformation Vision

- Pie charts showing estimated savings opportunity and where they will come from today and where we are headed for 2030
 - Using improved ratings, test procedures and federal standards PLUS equipment performance improvements will take us from today to 2030.
 - Focusing on shifting behavior based savings and build them into the system to make savings more reliable

Slide 25 - Improvements

- List of residential heat pumps the program is pursuing
 - Some of the improvements standalone, some overlap, some are exclusive of others
 - E.g. Low Load efficient, Cold Climate Capable, Connected Commissioning, etc.
- Big opportunity for the Northwest
 - Low load efficient - system runs at a lower output and efficiency rather than kick on and off or short cycle.
 - Good for our region west of the cascades
 - Cold Climate Capable - system has enough output to meet almost all of the load to reduce the need for backup heat
 - Good for our region and in cold climates
 - Connected Commissioning - report that the machine can generate to indicate that the machine was setup properly

Slide 26 - Intervention Approach

- Part of logic model and building a program is to ID interventions
 - Make qualified products for each improvement identifiable in the market
 - Important to point people to the right product and build demand for the most efficient systems
 - Build adoption among manufacturers and efficiency program partners
 - More improvements in more product lines
 - Influence spec. and standards bodies to include improvements
 - Get these improvements added and references for various standards
- Questions: Nancy G.- For demand response for res heating/cooling, we're going at it via the smart thermostat. Will the heat pump DR elements you're working on be compatible with that?
 - For the DR improvements, need to determine where we can work with the thermostat and where we need to work on the system. Working with NEEA team that works on DR. Longer term improvement. Will continue to work with NEEA team and incorporate this as we move forward

Slide 27 - Regional Collaboration

- Venn Diagram showing NEEA and Local Program work and how they interact
 - Shared collaboration includes
 - Partner on and share results of field research, pilot case studies
 - Support RTF measure development
- This program is different from the Ductless Heat Pump program - where we worked downstream as it was a new technology

- Now we are focusing more upstream since this technology exists.
- Want to allow utility flexibility to run your programs and coordinate as we learn more about improvements how to incorporate specific improvements into your programs
- NEEA would be interested in partnering with organizations that have field studies or pilots to check in to see if there are partnership opportunities
- November 17th - regional meeting with RTF and BPA - all day charette to envision and plan for RTF measures that could be identified for the region for the future of residential heat pumps in the region
 - If you are unaware if your organization is aware and or has been invited, Suzi to double check for you
 - Mattias - confirms invites sent out to BPA

Slide 28 - General Themes from RPAC Members

- High level themes from RPAC members that approved this program
- Questions
 - How do we mitigate the back-up/auxiliary/electric resistance heat problem?
 - Christopher Dymond, NEEA Product Manager, is closely working with national organizations to work on this
 - Contractor training is still needed for the other pieces of the savings pie: better sizing, installation, back-up heat -today
 - NEEA not doing this as part of this program
 - Lots of contractor program happening - many utilities running trade ally program
 - Why do we expect manufacturers will expand availability of these improvements?
 - Building partnerships with Utilities and partners in the NW and beyond to put pressure on mfrs to adopt these. We are also working with other Extra regional and energy efficiency orgs. AS we work on this, those that come first will gain a competitive advantage
 - How does the program approach benefit rural or lagging markets?
 - Focused on all heat pumps going in that are greater than 2 stage
 - Will these improvements need broader alignment with other regions outside the NW?

Yes
 - How is NEEA prioritizing the improvements?
 - Starting with Low Load Efficient and Cold climate based on impact and savings
 - Also using market opportunity to help justify which improvements are important
 - Using an internal NEEA process - savings, market baseline, etc. but also will use market factors to be nimble
 - Will keep funders updated regularly to share out on progress and focus

Slide 9 - What's Next?

- Advanced Heat Pumps move to Products Coordinating Committee
- No Questions!

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Regional Priority Topic Presentation #2-

High Performance HVAC (HP HVAC)

Maria Murphy, Program Manager

Slide 38 HP HVAC Topic Review

- Closing loop on an HVAC topic
- 2022 - request from committee member to review VHE DOAS measure
- Q1 2023
 - Clarification to address regional sharing and leveraging to define baselines for VHE DOAS measures
- Sent out to Energy Trust, Puget Sound and BPA DOAS related measures for review
- Will be revisiting coordination on these measures as programs are rolling out their own measures
- Today - guest speakers from PSE, BPA and Energy Trust
 - 3-5min Share out an overview of their measure target applications and market uptake of VHE DOAS measures, where applicable

Tyson Schmitt, PSE

- 2018 - doing custom analysis for VRF and DOAS systems
- 2019, should include custom rebate analysis was challenging due to cost effectiveness
- Currently a downstream incentive - \$2-\$4 per square foot
 - Basis for analysis - retrofit comes from Red Car Analysis
 - New constructions come from WA code
 - Schools, Offices and Retail
- Only 3 applications in the program to date - 2 VRFs and 1 ERVs
- Not the most successful measure
 - Turnover in contractors, turn over with HVAC program managers
 - Is it worth it to maintain it.
- Questions?

Phil Jordan, Energy Trust (CLEAResult)

- New buildings program - filling in for Shelly Carlton, Program Manager for Energy Trust
- Overview of HE DOAS measure
 - Measure option as an add on for VRF - DOAS pairs nicely with HVAC system
 - Created a HE option with at least 75% Energy recovery
 - Min fan efficiency is 65%
 - From NEEA system summary and Red Car Analytic reports
 - School and office target market due to cost effectiveness
 - Anything under 25k sq ft is ineligible
 - Incentive basis - square foot per sq ft = \$1.00
 - Uptake
 - VRF measure has been around, launched HE DOAS option in 2020.
 - Have had only 2 projects complete it
 - Working to update and expand to more building types
 - Want to include buildings under 25k sq ft

Eric Boyer- Not on the call. Eric Mullendore covering

- BPA
- VRF measure since 2018

- Has not been a large measure
- Baseline requires electric resistance heat which could reduce participation
- Focusing on the Recovery ventilation portion of the DOAS unit
 - Two tiers
 - 1 at 72% sensible recovery
 - Lower tier came from market intel based on a comm building stock assessment - have seen units going in at 50% percent so wanted to offer a step in the direction of the higher tier
 - 1 at 82% sensible recovery (matches NEEA's spec)
 - Incentive per CFM
 - Started October 1, 2023
 - No projects yet - excited to see where this goes
- WA code 2021 - big struggle
 - Do not have this measure for new construction in WA state.
 - Did not feel comfortable with UES approach for this measure applying in WA state.
- Is mechanical code changing in the short term that will reduce the uptake of VRF? Any piping including refrigerant will include a shaft that goes to the exterior for ventilation in the event of leakage
 - Has an increased cost implication for commercial HVAC systems
 - Has more to do with which refrigerants are able to be used
 - The remaining refrigerants are flammable which will push us to more hydronic systems instead of more piping
 - Believes this is more federal level for states to adopt - IECC/ EPA
 - Maria can do some more research, check in with the codes folks, bring back more information to Eric and Tyson and anyone else interested
 - Planning to do more utility outreach in early 2024

Meeting Notes

Q4 2023 Integrated Systems Coordinating Committee, Day 2

Annual Planning Session

November 7, 2023

Webinar Only

Attendees:

Bill Hibbs – Clark Public Utilities (Clark)
Michele Drake – Avista Utilities (Avista)
Michael Lane – Puget Sound Energy (PSE)
Nancy Goddard – Pacific Power (PacifiCorp)
Walker Dodson – Seattle City Light (SCL)
Natasha Houldson – Tacoma Power
Shelley Martin – Idaho Power

Bill Hough – Eugene Water & Electric Board (EWEB)
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Whitney Jurenic – NorthWestern Energy (NWE)

NEEA Staff:

Alexa Hujik, Alisyn Maggiora, Anne Curran, Anouksha Gardner, Britt Cutsforth Dawkins, Stephanie Quinn, Stephen O'Guin, Suzi Asmus, Tamara Anderson, Warren Fish

Resources -

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Welcome, Icebreaker, Annual Planning Overview-

Icebreaker: What would brighten your day?

Answers: Endless cup of coffee/tea, sunshine, getting outside and staying dry on a walk, if USC stayed home this weekend, end of Portland Teachers Strike, no more Microsoft Teams hiccups, and a puppy or kitten pile

Annual Planning Overview:

6 regional topics over the course of 4 meetings. The results of this meeting will be compiled and sent out to the committee members with notes and information.

The weighted average of the survey is based only on the 11 individuals who took the survey, so this is the opportunity for the other members to have input.

Based off of the survey rankings: (2) LLLC and HVAC topics and (1) XMP and Fan topics

Annual Planning (4 Topics)-

LLLC:

4 topics suggested, 2 topics need to be chosen to move forward.

Topic 1: Recent LLLC Market Insights – progress evaluation coming out from NEEA in December.

Desired Outcome: Discussion of recent research and if each utility is seeing the same

Lead/Speakers: Donna King, NEEA (NEEA Inform)

Topic 2: Regional Utility Toolkit – walkthrough of the toolkit and how are folks leveraging it.

Toolkit as it currently exists: [BetterBricks | Luminaire Level Lighting Controls Toolkit](#)

Desired Outcome: Sharing understanding of regional resources and how utilities are or could be leveraging it.

Lead/Speakers: Britt Cutsforth Dawkins, NEEA (NEEA Inform)

Topic 3: Insights into types of LLLC projects that utilities are seeing. – Significant utility prep and discussion needed.

Background: This topic was discussed a number of years ago with the lighting work group. Michael Lane, Eric Mullindore at BPA, and Madeline at Seattle City Light used data from their existing projects and shared out their information. It has not been done for several years so we are hoping to do it again and see if we can gain any market insights as to what is happening now and where we are moving forward. Michael – We saw a dramatic shift from what we thought was happening (offices and classrooms) to warehouse and other opportunities. Currently we are seeing LED saturation and knowing where we are going and where LLLC fits in the future is very important. *(RETIRING APRIL 3RD; WOULD NEED ADDITIONAL PEOPLE OUTSIDE OF MICHAEL TO PARTICIPATE)*

Whitney: What do you mean by Types of LLLC projects?

Anne: I mean all of it, large and small projects with all different types and styles of fixtures. Everyone has different capabilities, so its whatever you can glean out of the data. Examples would be: Space types, end use customer types, size of project, trade allies doing repeat projects or a new project, wattage, fixture type, etc. Whatever is in the data is what we are looking for to

Whitney: If there is a little bit more clarity that might work. NWE is implementing a new pilot and we will have all that data available, but I feel like we need a little more information. We are not strict to LLLC so Im hesitant to provide data since it wont be ONLY LLLC specific.

Anne: Understandable. The hope is that the individuals who volunteer will bring their data together before the meeting and discuss exactly what is it that the data is showing and how they want to share out with the committee. They will be figuring out the topic and the group dynamics will inform how this gets crafted.

Walker – We haven't seen LLLC take off the way we anticipated, but I would be happy to share information from our company. This feels like a lead in to Topic 4, and I would love to see how we actually promote this and what the arguments we could make to those facilities and how we can use them in the future.

Anne – So this is more data driven and how we are currently using LLLC and then using that information to inform Topic 4 so we can see the application and how we can use these as stage 1 and stage 2 of these topics.

Alisyn – Based off the way Walker proposed this, we could possibly take one day and combine these two topics.

Anne - So we would share the insights in a session or have more in-depth conversations on what implications that has for demand. Could be a bigger topic on “what do we do with this?”

Whitney – I think it’s a good idea to combine them. You wanted a coordinated effort between people who have LLLC projects and share data and create opportunities through that.

John – Look at strong points and weak points. When we talk about updates, none of this happens without the contractors, so if we want to grow it we have to do it through them and that needs to be a priority. Some contractors in our territory have really embraced working with controls. So I think we, as utilities, need to be more open to where this is moving in the future. If we don’t educate our customers on changes that are coming, they cannot adjust in the future. The sooner the industry can talk about the direction we’re headed, the easier it will be to coordinate these technologies. Things slowed down considerably during COVID and any momentum we had was lost over the last 3 years.

In Agreement to make this ONE TOPIC: Whitney Jurenic, Michael Lane, Shelley Martin, Natasha Houldson, John Petosa, Walker Dodson, Bill Hibbs

Desired Outcome: Share data and glean insights on LLLC while incorporating discussion of trade allies.

Lead/Speakers: Bill Hibbs – Clark PUD, Nancy Goddard – PAC, Michael Lane volunteering Andrew Pultorak (would put together a data set for him before retiring), Bill Hough volunteered Eric Mullendore for data sharing in a larger region through BPA, Walker Dodson

Alisyn – Timing for this could be anywhere between Q2-4. Question to the committee, is there any specific timing that feels beneficial to all of you?

Whitney – Earlier than later. As its darker, people are looking at their lighting a lot more. So if we want to influence the industry we should look at it while people are ignoring the topic (summer)

Nancy – Agree with earlier in the year. By sept 1 we are going to be sharing our plans moving forward.

John – If you want to make changes with your program moving into 2025, we should be earlier. So Q2 is the best time for this conversation. If we want to react to the data we should be as early as possible.

Bill Hough: I concur, earlier is better.

Walker - Prefer later in Q2 or early in Q3 so we don't rush the analysis.

Consensus: Q2 (day 2?) Meeting

Topic 4: Coordination opportunities to bolster demand – How do we work together to increase customer acceptance of LLLC value proposition?

Desired Outcome: n/a – this has been combined into topic 3

Lead/Speakers: n/a – this has been combined into topic 3

LLC CONSENSUS: Topics 1 and 2 should be NEEA share outs at the beginning of the year (Q1) in place of Ad-Hoc timing. Topics 3 and 4 should be combined into one opportunity for the committee to share data and glean insights on LLLC while incorporating discussion of trade allies.

HVAC:

Topic 1: Coordination opportunities – activities being undertaken jointly and brainstorming others based on utility goals/needs.

Steph – Any activities that we’re coordinating on and any additional activities that we could partner on as a committee. Recommendation is to have this topic early in the year so we can recap 2023 and plan for 2024 and see where coordinated efforts can happen. Any reactions? The two topics were very closely rated via the survey that was taken, so please let us know if something is or isn’t resonating with you.

Whitney – I am just stepping in for Tucker right now, but initially I am not seeing a lot for us to jump into on this topic. I am fully admitting that hearing a bit about it to get me and any other new members up to speed is not a bad idea.

Walker – Looking at both of these topics, I would like the opportunity to take this to my implementation team and get some feedback from them since they are working in the projects. We have been slow setting up “core teams” for this program, so I haven’t had much engagement. I would want to take these topics in a summary email and share it with my team to gain feedback.

Whitney – I would almost move this to a later quarter, since this is just feedback or summaries and change the LLLC discussion in Q1.

Nancy – I shared this info with the folks who do the measurements for us and I want to see how they are reacting and the measures that people have already put out there haven’t had an uptick yet. We want to move beyond lighting and this could be an area to do something, so I would want this information.

Bill Hough – Discussing on both topics, BPA just rolled out a new measure, so Q2 works for us since we can get information from that by then. This should be interesting, but it should move to later in the year. Its important, but we cannot put the cart before the horse here.

Anne – What I am hearing is that a lot of folks are still getting into this and forming their teams, etc. Is there anyone currently in the region that is a little further ahead who might be able to co-facilitate or present alongside Maria.

ACTION: Ask Maria if there is a committee member or utility partner who is further along with their implementation who might be able to share success/failures with the committee.

Desired Outcome: (suggested by Maria) discuss ongoing coordination throughout the region and highlight successes and/or failures for other utilities to leverage and/or learn from DOAS related activities or events.

Lead/Speakers: Maria Murphy, NEEA and possible second co-presenter from utility

Topic 2: Discussion about ERV incentives – traction being gained?

Natasha – It seems like this was introduced in yesterday’s discussion. We might be able to circle back on this topic a little later on in the year.

Stephanie – Both of these feel like a “wait and see” topic for Q3-4, but I wanted to check in and see what the consensus was.

Natasha – One more thought, since this is an HVAC related topic, some kind of continuous check ins would be valuable. They have increasing value propositions to utilities. I only throw that out there because I think its important to keep as a recurring topic.

In Agreement: Bill Hough, Walker Dodson,

Stephanie – Might be worth keeping on a priority topic check in and see WHEN they are ready to have this discussion as opposed to putting it on the schedule just in case there is not information to be shared

or there is information available earlier. Not to volunteer Eric, but we should see when timing works for BPA as well since they are driving a portion of the change. Also, these are closely related, so we could discuss with Maria the benefit of combining these topics.

I have also sensed a lot of energy around LLLC and there is much less regarding HVAC. What is the barrier that we aren't addressing for committee members with regards to engagement?

Anne – The attendees on the meeting have worked in LLLC for a long time, so that could have an impact.

Walker – Seattle has its own version of an energy code, so these topics are heavily impacted by new code cycles, which is why I need to check in with my team. Since I am not sure how impacted by the code they are currently, I don't have a lot of information right now. It would be helpful to have an update on that, but it would be mostly self-serving.

Alisyn – The survey stated that there wasn't a lot of interest in HVAC topics, so I wanted to make sure that these are relevant to you all and how you're working.

Anouksha – Giving the summaries to everyone and sharing them with your experts might be

Whitney – We aren't getting questions on it or projects with HVAC information submitted. So we might need a little more information from NEEA rather than a committee discussion.

Anouksha – When we do the check-ins we can see if there is interest and just to a quick inform from Maria and NEEA so we aren't forcing a topic that doesn't have massive current engagement.

Desired Outcome: (suggested) Hear from utilities offering DOAS-related incentives, what are you seeing?

Lead/Speakers: Maria, NEEA and Stephanie has volunteered Eric from BPA

HVAC CONSENSUS: Present ad-hoc Q1-4 share outs/education pieces from NEEA Team and continue to give space for check-in's with the committee to see if there is opportunity/want/need to create a discussion topic later in the year. If HVAC topic is chosen Q3-Q4, include both topics suggested as a combined piece.

XMP (Extended Motor Products) Pumps:

Topic 1: Pumps and flow control: Drives v. Valves, options for customers, and the top 10 reasons why drives or Smart Pumps are the best choice.

Warren – Actually a lot more exciting than people realize! There is a lot of energy in those systems, and we have had significant changes and regulations in clean water pump federal standards that all pumps sold in the US need to now comply with. NEEA has been working on this a long time. This wasn't an essential topic, but we are excited to chat through this and see if there is an opportunity to share information you might already know or see different applications for pumps that you use.

Bill Hough – Looking forward to the conversations that we have. Hoping to see increased exposure and application for the measures that BPA has put out, including 1 for adding drives rather than valves.

Alisyn – Should Warren consider making this topic more educational rather than discussion?

Natasha – I think that would be helpful to see some of the nuances here. As a smaller utility, we don't have a lot of examples to share, but we would like to have the information for when those occasional projects do show up.

Whitney – I am wondering if you wouldn't consider doing a Pumps 101 conversation with an application conversation and possibly adding some irrigation information. Less technical and more "what to look for". We have a pretty solid irrigation program in Montana, so we have interest if there is any information or studies happening at NEEA.

Warren – So, make it more education focused so everyone is starting at the same place. Correct application, what we should be looking for, pumps 101, etc. I am flexible on timing, Q2 or Q3 works best for my schedule with regards to presentation.

Walker – This is general pumps and drives, not strictly agricultural applications?

Warren – That is correct. This is an all over application of pumps and drives in both residential and agricultural applications.

Nancy – How does this fit in with our programs and what we're doing, speaking for myself only. And my recollection is that Warren is taking care of pump sales while they are happening with the distributors already. So I see this as, I don't need to have an application because Warren is taking care of it (which could be out of date). We have pump and fan measures and we are continuing to do that on the larger equipment, so I see this as you're in the market and taken care of.

Warren – This is true. We are working with a significant part of the market and influencing and affecting their sales and emphasizing smart pumps in that. We would like more pumps to include pump, motor, and drive at time of sale and are heavily involved in that. So you're right, and I appreciate your vote of confidence in what NEEA is doing in the region.

Whitney – I think differentiating all pieces early so when changes come, we can determine whether or not it fits for our market. So more educational piece and what NEEA is doing and who you are reaching out to would be totally helpful to see what the opportunity is for us as a utility and our market. So an education piece that is the best value for my customer and how we can package that.

Sheree and Michele – I want to take this topic back to our engineers on the implementation side. We are interested, but there is not a lot to offer right at this moment.

Bill Hough - the majority of EWEBs ag is indoors, so not much from us but willing to listen and learn.

Nancy – we have people focused on irrigation and think they have it covered.

Desired Outcome: Educational basics from NEEA as well as highlighting opportunities/role for utilities so they can better affect their market as projects come up.

Lead/Speakers: Warren Fish, NEEA

Topic 2: Irrigated agriculture pumping

Warren – We at NEEA will be delving into research for this topic this year, but there didn't seem to be a lot of interest in this topic in the survey, so we should focus on Topic 1 for now.

Whitney – Montana has a large agricultural program, so please reach out to us with information.

Desired Outcome: n/a

Lead/Speakers: n/a

Additional Notes on XMP:

New test procedure that all US pumps need to comply with
Program focus is on clean water pumping

Topic 1: Pumps and Flow Control: Drives vs. Valves, option for customers, and the top 10 reasons why Drives or Smart Pumps are the best choice (Q2)

- FYI: BPA has rolled out a set of efficiency measures for pump upgrades and adding drives to pumps

Topic 2: Irrigated Agriculture Pumping (Q4)

1. Does ranking align with your thinking?
2. What about this resonates with you or your organization?
3. Are there any additional timing considerations to keep in mind?

Bill Hough

- Important as part of larger HVAC
- Hoping to see increased participation and exposure

Alisyn

- Educational focus more helpful?

Natasha

- First step is education for this group, then start collaborative work. Helpful to see nuances and hear more about uptake and experiences

Whitney

- Application conversation, pumps 101 could be helpful, may be able to include irrigation in this conversation
- Exciting stuff going forward, less technical, more "what to look for"
- Would help level the playing field a little bit
- Want to be in the loop on anything related to irrigation

Warren

- Q1 is not preferred, but flexible knowing we are not the committee's priority
- Busiest time of the year
- Q2 or Q3 would be good

Dodson, Walker

- Not much agriculture in Seattle
- the majority of EWEBs ag is indoors, but willing to listen and learn

Warren

- Hydronic heating/cooling, very relevant in cities like Seattle

Nancy Goddard

- How does it fit in with our programs and what we're doing?
- "I don't need to have a measure because Warren's taking care of it" with sales at the distributor level
- You're in the market, operating and taking care of an opportunity

Whitney

- Helpful to differentiate the difference between and applications of a pump/circular/valve/drive
- What is the NEEA work that is happening, how does it affect the market
- Ultimately want to understand the value to my customer
- Education will lead to us being able to better take out the nuggets that are important to us and how we can contribute to MT in this area as utilities

Sheree & Michele

- Taking question about what do we want to learn about ag pumping back to their utilities

Nancy

- We have people focused on irrigation and think they have it covered.

XMP CONSENSUS: NEEA Educational piece (Pumps 101) presented by Warren, suggested Q2 or Q3. Topic 2 should be touched on, but is not necessary as its own topic of discussion for the committee as a whole.

Efficient Fans:

Topic 1: Why fan energy index matters and what we're doing to promote it with fan selection software with manufacturers.

Tamera – I am wondering if some of the conversation we just had regarding pumps is still applicable here. Do you want a complete project overview? There is a lot of work we will be doing before Q2, so we will have a what we know, what we don't know, and what we need to learn before moving forward. Recently I worked with SR to find out who the best people are to chat with regarding Fans and they are not on this committee. So, I'm asking if this should be a meeting which you invite individuals in your utilities who are more subject matter experts?

Walker – I would like to learn more about Fans, so I agree we should have an educational piece to this meeting.

Tamera – the lack of response is unsurprising since we are currently shifting from one committee (PCC) to another, so I think an educational piece is the best option.

In agreement: Walker, Nancy, Natasha, Michele, Whitney

Desired Outcome: Share what NEEA is doing in Efficient Fans space.

Lead/Speakers: Tamera Anderson, NEEA (NEEA Inform)

Additional Notes from Efficient Fans:

Topic #1: Why Fan Energy Index matters and what we're doing to promote it (Q2)

Desired Outcome: inform from NEEA, share out what we're doing in the fans space - high level overview
How FEI is different from other efficiency measures, talk about opportunities/barriers, what we're learned so far & what we're still investigating

Nancy

- Sounds good

Tamara

- Program Dev check-in in Q1, by Q2 team will have done a lot of critical thinking, ideal timing
- Curious if this topic would be one you want to invite your SEM at your utility involved in custom projects around drives/fans/fan adjacent fan equipment? Folks on this call are not primary contacts Tamara

Dodson, Walker

- Agree

EFFICIENT FANS CONSENSUS: NEEA Educational piece presented by Tamera, suggested Q2.

Next Steps for 2024 Planning, Final Thoughts-

Next Steps:

- We will be taking this input and putting together a strawman work plan to work out topic timing etc. and will be sending out via email to see your feedback.
- Please give feedback on possible highlights, contributions, and timing changes based on your work projects.
- Within the next 2 weeks you should be given the plan and ask for feedback before board meeting on Dec 5.

Final Thoughts:

LLC CONSENSUS: Topics 1 and 2 should be NEEA share outs at the beginning of the year (Q1). Topics 3 and 4 should be combined into one opportunity for the committee to share data and glean insights on LLC while incorporating discussion of trade allies in Q1 or Q2 so we can implement changes we need to make to marketing strategies by end of year.

HVAC CONSENSUS: Present ad-hoc Q1-4 share outs/education pieces from NEEA Team and continue to give space for check-in's with the committee to see if there is opportunity/want/need to create an additional discussion topic later in the year. If HVAC topic is chosen Q3-Q4, include both topics suggested as a combined piece.

XMP CONSENSUS: NEEA Educational piece (Pumps 101) presented by Warren, suggested Q2 or Q3. Topic 2 should be touched on, but is not necessary as its own topic of discussion for the committee as a whole.

EFFICIENT FANS CONSENSUS: NEEA Educational piece presented by Tamera, suggested Q2.

Suggested Timing:

Q1 – LLC Toolkit and Market Insights; HVAC Check-In

- **Market Insights:**
 - o **Desired Outcome:** Discussion of recent research and if each utility is seeing the same.
 - o **Lead/Speakers:** Donna King, NEEA (NEEA Inform)
- *Regional Utility Toolkit*
 - o **Desired Outcome:** Sharing understanding of regional resources and how utilities are or could be leveraging it.
 - o **Lead/Speakers:** Britt Cutsforth Dawkins, NEEA (NEEA Inform)

Q2 – Day 1: LLC Topic Discussion:

- **Desired Outcome:** Share data and glean insights on LLC while incorporating discussion of trade allies.
- **Lead/Speakers:** Bill Hibbs – Clark PUD, Nancy Goddard – PAC, Michael Lane volunteering Andrew Pultorak (would put together a data set for him before retiring), Bill Hough volunteered Eric Mullindore for data sharing in a larger region through BPA, Walker Dodson

Q2 – Day 2: Efficient Fans 101; HVAC Check-In

- **Desired Outcome:** Share what NEEA is doing in Efficient Fans space.
- **Lead/Speakers:** Tamera Anderson, NEEA (NEEA Inform)

Q3 – XMP Education: 101 and discussion; HVAC Check-In

- **Desired Outcome:** Educational basics from NEEA as well as highlighting opportunities/role for utilities. Possible outreach to utilities we know have existing XMP projects/information.
- **Lead/Speakers:** Warren Fish, NEEA

Q4 – Day 1: HVAC Topic

- **Desired Outcome:** (suggested by Maria) discuss ongoing coordination throughout the region and highlight successes and/or failures for utilities to leverage and/or learn from DOAS related activities or events. Hear from utilities offering DOAS-related incentives, what are you seeing?
- **Lead/Speakers:** Maria Murphy, NEEA and possible second co-presenter from utility; Stephanie Q has volunteered Eric from BPA

Q4 – Day 2: Either NEEA End of Year update on each program and the success/failures of 2024 or additional topic found during Q1-Q3 meetings.

DRAFT