

INDUSTRIAL ADVISORY COMMITTEE MEETING



DATE: July 25, 2018
 TIME: 10:00 am – 3:00 pm
 LOCATION: Cedar Conference Room, NEEA Office, 421 SW Sixth, Suite 600, Portland
 DIAL-IN: 1-877-890-9502
 Enter the participant code: 770-237-8329
 WEBINAR: <http://neea.adobeconnect.com/iacjuly2018/>

DESIRED OUTCOMES:

- Robust discussion, feedback and advice on agenda items
- Impart relevant, pertinent information to each other

AGENDA

Time	Topic	Lead	Packet Page
10:00 – 10:20	WELCOME AND INTRODUCTIONS	Eugene Rosolie	
10:20 – 10:50	<p>PORTFOLIO OVERVIEW UPDATES</p> <ul style="list-style-type: none"> • Industrial Portfolio Update • NEEA 2020-24 Business Planning Update • 2019 Operations Planning Update <p><i>Desired Outcome: Awareness of key updates on industrial programs, as well as current NEEA Business & Operations planning.</i></p>	Emily Moore	p. 4-5
10:50 - 11:20	SEM HUB ENERGY MANAGEMENT ASSESSMENT DEMO	Warren Fish	p. 6
11:20 – 12:05	<p>UTILITY SHARE OUTS/ROUND ROBIN</p> <p><i>Desired Outcome: Members share their what their working on, ideas, and highlights from their organization.</i></p>	All	
12:05 – 12:45	<i>Lunch (provided)</i>		
12:45 – 1:30	<p>EMERGING TECHNOLOGY SCANNING UPDATE</p> <ul style="list-style-type: none"> • Short updates on emerging technologies NEEA staff are assessing for industrial applications. <p><i>Desired Outcome: Inform and discussion</i></p>	Mark Rehley	p. 7
1:30 – 2:45	<p>Continued Discussion from Q2 Meeting: Industrial Sector Trends, Changes, Opportunities</p> <ul style="list-style-type: none"> • Water and Wastewater Treatment • Interest and value in utilizing the IAC forum in the future to explore other themes or topics <p><i>Desired Outcome: Identification of future collaboration and role of IAC</i></p>	All	p. 8-11
2:45 – 2:50	OPPORTUNITY FOR PUBLIC COMMENT		
2:50 – 3:00	NEW FOLLOW-UP ACTIONS & FEEDBACK/ADJOURN	Eugene Rosolie	

	<ul style="list-style-type: none">• Meeting feedback• Next meeting: topic desirables, location		
3:00	Adjourn		

Memorandum



July 18, 2018

TO: Industrial Advisory Committee (IAC)
FROM: Eugene Rosolie, Stakeholder Relations Manager
SUBJECT: IAC Packet Appendices – Q3 2018

PACKET APPROACH

This packet continues the “tiered” approach:

- Tier-1 memo for items on the agenda
- Tier-2 memos for informational updates on items not requiring agenda time
- Tier-3 materials provided as additional detail for those interested.

INFORMATIONAL UPDATES

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

- Page 12: Conference Coordination

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 [IAC meeting notes](#)
- Q2 2018 [RPAC meeting notes](#)

Memorandum – *Agenda item (Tier 1)*



July 18, 2018

TO: Industrial Advisory Committee (IAC)
FROM: Emily Moore, Senior Manager, Commercial & Industrial
SUBJECT: Industrial Portfolio Updates

ASK:

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

PROGRAM HIGHLIGHTS:

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, Eversource Energy, and National Grid.

Cross-cutting Infrastructure

Strategic Energy Management (SEM)

- Northwest SEM Hub Energy Management Assessment (EMA) tool has been rebuilt onto a NEEA-owned 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.
 - Demonstrated the newly rebuilt EMA tool for three NEEA funders, who are now considering how they might incorporate the tool into their SEM programs.
- Launched a PSE-branded customized learning branch of the SEM Hub, which PSE has rolled-out to its Commercial SEM customers.
- 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.

Industrial Technical Training (ITT)

- Per the 2018 Operations Plan, the ITT program is aiming to deliver 10 training courses to 180+ individuals in 2018. The program is on track to complete this, with 5 trainings delivered so far to 102 individuals, and 5 more scheduled in the second half of 2018.
- Specifically in Q2-18, the following four trainings were delivered:
 - 4/19/18, Energy Efficiency for Industrial and Commercial HVAC Systems, Bellevue WA
 - 4/26/18, Compressed Air Challenge - Level 1, Longview WA
 - 5/17/18, Best Lighting Retrofits Now and Future Impacts, Billings MT
 - 6/27/18, Pump System Optimization, La Grande OR
- 84 individuals took ITT courses in Q2-18, and the program is on track to meet attendee and utility host sponsor satisfaction rate targets of 95%+ satisfaction for the year

Memorandum – *Agenda item (Tier 1)*



July 18, 2018

TO: Industrial Advisory Committee (IAC)
FROM: Warren Fish, Program Manager - C&I SEM Infrastructure
SUBJECT: SEM Hub Demo

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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 IAC 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**
 - 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 [on semhub.com](http://on.semhub.com) and the new [EMA tool here](#).
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 1)*



July 18, 2018

TO: Industrial Advisory Committee (IAC)

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

SUBJECT: 2018 Quarter 3 Emerging Technology Update

ASK OF YOU

Review our quarterly emerging technology report ([located here](#)), and bring any questions or suggestions for emerging technologies that could benefit our region.

Q3 Update

At the Q3 IAC meeting on July 25, 2018, NEEA staff will provide a brief update on the following three technologies. We look forward to your questions.

1. Compressed Air Saver Unit

The Air Saver Unit by Parker Hannifin is a variable control air nozzle for compressed air open blowing applications. We started assessing this product over a year ago. A savings potential study was completed. After a delay due to the launch of program development for Extended Motor Products (XMP), NEEA staff are back on this technology. We are moving forward with a savings field study of approximately 10 units. This data along with the savings potential study will be presented to the RTF for consideration. Estimated presentation to the RTF is Q1 2019

2. Extended Motor Product beyond Pumps

ACEEE is continuing to coordinate national efforts for testing and rating motor products including pumps, fans, blowers, and compressors. NEEA staff are developing a program for motor pump products, and in parallel we are continuing to work with ACEEE, manufacturers and relevant associations as the fan and compressor test methods and specifications are established. NEEA is working closely with California and PG&E on Fan Energy Index (FEI) and estimated savings potential.

3. Switch Reluctance Motors

A Switched Reluctance Motor (SRM) is a type of stepper motor, an electric motor that runs by reluctance torque. It is easier to control and has greater efficiency at part load conditions. QM Power and Software Motor Corporation offer these types of motors in small sizes <15hp. We know of two active studies around the country assessing these products. By the end of 2018 both should be completed. NEEA staff are developing a scope of work to better understand the benefits and limits from this technology. By the end of 2018, we should have a good understand if this technology warrants continued study.

Memorandum – *Agenda item (Tier 1)*



July 18, 2018

TO: Industrial Advisory Committee (IAC)
FROM: NEEA Staff
SUBJECT: Market Opportunities Follow Up to IAC Q2 Discussion

Our Ask of You

Please review this document with special attention to the Q3 Meeting Focus section below.

Background

At the April IAC meeting, members participated in a brief brainstorm about the challenges and opportunities in the industrial sector. The purpose of the discussion was to share perspectives that could help inform members in their planning efforts in their organizations, and identify any critical areas where more regional collaboration may be needed.

Five top themes, or needs, emerged from the discussion:

1. Training and workforce development; e.g., baby boomer retirement and lack of back-up/back-fill
2. Regional collaboration on water and wastewater
3. Shifting baselines and needs/opportunities for new sources of savings; e.g. underserved markets
4. New loads in the region; e.g. data centers and cryptocurrency
5. Customer engagement strategies; e.g., more interest in O&M and SEM

(A more detailed synthesis is Attachment A to this memo.)

In preparation for the Q3 IAC meeting, IAC members were asked to respond to a survey on their level of interest in these topics. The results of that survey (attachment B) helped inform the agenda for this Q3 meeting.

Q3 Meeting Focus

Water and wastewater rose as an area of common interest for discussion at the upcoming IAC meeting. Following are a few discussion questions for you to consider prior to the meeting:

- What is the current level of interest and program activity in water and waste water at your organization?
- What technologies or products are you supporting and/or interested in?
- In what specific ways could better regional collaboration on water and waste water support your organization?

Additionally, IAC members should also consider their level of interest and the value in utilizing the IAC forum in the future to explore other themes or topics in greater depth, by sharing thoughts and ideas on ways we might address these future challenges in our individual organizations or as a region.

Synthesis of IAC Q2 Meeting Discussion

1. 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.

2. Regional Collaboration on water and waste water

In the Q2 discussion, several IAC members raised a need or opportunity for better regional collaboration on water and wastewater.

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

This is an 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 (see number 5 below). Other strategies include looking at underserved markets for new sources of savings; more focus on operations and maintenance offerings; and streamlining program engagement by simplifying program processes.

4. New loads and 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

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 make 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.

5. Customer engagement strategies

Many utilities are more focused on customer and trade ally engagement; 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.

Survey Results

Q1. Rank order these five topics based on your level of interest, need, and relevance to near-mid term planning for your organization (1 = highly interested)

Topic	Score
Shifting baselines and needs/opportunities for new sources of savings; e.g. underserved markets	4
Regional collaboration on water and wastewater	3.5
Customer engagement strategies; e.g., more interest in O&M and SEM	3.5
Training and workforce development; e.g., baby boomer retirement and lack of back-up/back-fill	2
New loads in the region; e.g. data centers and cryptocurrency	2

Q2 Please explain your ranking preference above.

Responses

1. With reduced budgets and mature industrial programs, BPA is looking for new sources of savings.
2. Our SEM efforts are growing, and it's a complex topic. New sources of savings will become increasingly important as LEDs become mainstream.
3. For the IAC, a focus on current large opportunities seems most relevant, thus water and wastewater. Data centers and cryptocurrency don't really fall under industrial, but new loads and growth provide opportunities. Expanded O&M offerings, such as CDA system optimization, could help drive other projects. The last two are interesting, but less interesting to me.
4. After the surge in LED savings we will need to find the next "LED" in order to continue to hit regional goals in the future

Q3. Rate your level of interest in using meeting time in the July IAC meeting for further discussion on any or all of these topics.

Answer Choices	Responses
Very interested	1
Somewhat interested	3
Neutral about it	0
Not interested	0

Q4. Please explain your rating above.**Responses**

1. The information sharing is always helpful.
2. Worth revisiting these challenges and hearing from others.
3. The IAC could be used to identify broader opportunities in the region through discussions like these.
4. Nice to network and share thoughts. Not sure on NEEA's role.

Q5. How would you like to engage on these topics?

Answer Choices	Responses
NEEA staff presentation	0
Group discussion	4
Subject matter expert	0
Other option or comment	2

Q6. Are there other topics, not mentioned here, related to industrial sector challenges and opportunities that are of high interest and need to you?**Responses**

1. A quick update on XMP efforts might be helpful, or maybe just a written summary in the packet.
2. According to BPA data and our experience, industrial custom projects are still coming in, but more often hitting the upper cost cap resulting in more expensive saving. Perhaps a topic could explore ways utilities are integrating the trend (if that are) into program planning.
3. The ever-changing topic of measure life for behavioral programs and show savings are claimed year over year.

Memorandum – Agenda item (Tier 2)



July 18, 2018

TO: Industrial Advisory Committee (IAC)
FROM: Eugene Rosolie, Stakeholder Relations
SUBJECT: Conference Coordination

BACKGROUND

In response to a NEEA Board discussion last year about conference/event attendance, NEEA developed a tracking system to improve its management of who's going to what, and criteria that improves NEEA's ability to manage to its annual operations plan and budget.

There is a coordination opportunity here, to ensure we're connecting as appropriate in advance, and sharing out relevant takeaways after, ensuring that the value of these events is shared with the region. This will be a standing Housekeeping item for this Advisory Committee moving forward.

OUR ASK OF YOU

Please review the Upcoming Event agenda(s) linked below and email me (erosolie@neea.org) if you'd like to coordinate with NEEA staff in advance of the event, and/or if there are specific topics/breakouts you'd like to hear about at our next IAC meeting.

UPCOMING EVENTS

Date	Conference	Report
7/9/2018	Design Lights Consortium Stakeholder Meeting	Conduit Posting
7/15/2018	2018 National Energy Codes Conference	Brown Bag (Internal)
8/8/2018	Illuminating Engineering Society	Conduit Posting
8/12/2018	ACEEE Summer Study	Brown Bag (Internal)
9/5/2018	Energy Star Partner Meeting	Conduit Posting
9/18/2018	CEE Industry Partners Meeting	Internal Report