

INDUSTRIAL ADVISORY COMMITTEE MEETING



DATE: April 11, 2018
 TIME: 11:45 am – 3:30 pm
 LOCATION: Cedar Conference Room, NEEA Office, 421 SW Sixth, Suite 600, Portland
 DIAL-IN: 1-877-890-9502
 Enter the participant code: 826-779-0855
 WEBINAR: <http://neea.adobeconnect.com/iacapr2018/>

DESIRED OUTCOMES:

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

AGENDA

Time	Topic	Lead	Packet Page
11:45 – 12:15	<i>Lunch (provided)</i>		
12:15 – 12:30	WELCOME AND INTRODUCTIONS	Eugene Rosolie	p. 1-3
12:30 – 1:15	UTILITY SHARE OUTS/ROUND ROBIN <i>Desired Outcome: Members share their what their working on, ideas, and highlights from their organization.</i>	All	
1:15 – 2:15	Emerging Technology Guest Presentations <ul style="list-style-type: none"> • Chris Jostol, Armstrong Pumps Rep • Trinity Persful, Twin City Fans <i>Desired Outcome: Share motor and fan innovations from companies who have a history of supporting energy efficiency.</i>	Geoff Wickes	p. 4-5
2:15 – 3:15	Brainstorm: Industrial Sector Trends, Changes, Opportunities <ul style="list-style-type: none"> • What industrial changes are you excited or worried about? • What changes are exciting or worrisome to your customers? <i>Desired Outcome: Gain insight from committee members about macro issues that threaten or provide opportunity for energy efficiency in the industrial sector and the future role of the committee.</i>	All	p. 6
3:15 – 3:20	OPPORTUNITY FOR PUBLIC COMMENT		
3:20 – 3:25	NEW FOLLOW-UP ACTIONS & FEEDBACK/ADJOURN <ul style="list-style-type: none"> • Meeting feedback • Next meeting: topic desirables, location 		
3:25 – 3:30	<i>Break</i>		
3:30 – 5:00	50001 Ready – US DOE’s New Effort to Support SEM <i>Desired Outcome: Interactive workshop for SEM program managers who want to help customers get ready for 50001</i>	Warren Fish / Stillwater Energy	p. 7

Memorandum



April 4, 2018

TO: Industrial Advisory Committee (IAC)
FROM: Eugene Rosolie, Stakeholder Relations Manager
SUBJECT: IAC Packet Appendices – Q2 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 8: Conference Coordination
- Page 9: NEEA Portfolio Overview: 20 Year View

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 [Market Research & Evaluation Newsletter](#) (includes RBSA update)
- Q1 2018 [Emerging Technology Report](#)
- Q1 2018 [RPAC meeting notes](#)

Memorandum – *Agenda Item (Tier 1)*



April 4, 2018

TO: Industrial Advisory Committee (RAC)
FROM: Eugene Rosolie, Stakeholder Relations Manager, NEEA
SUBJECT: IAC Charter Review and RAC Workplan for 2018

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This memo covers two Housekeeping items on the Advisory Committee’s agenda for April 11th.

Industrial Advisory Committee Charter Review

The IAC charter is reviewed by the advisory committee once a year to assure it remains consistent with the operation of the committee. There is only one minor revision to the Charter that reflects a change NEEA made over the year to the composition of sector advisory committee membership. Following is the section of the Charter with the change in bold:

Membership

The Executive Director will delegate the option to appoint a member to any Advisory Committee to each direct funder. In addition, the Executive Director may appoint member(s), such as **Indirect Funder**, Northwest Power and Conservation Council, public utility commission, and state energy office staff.

The complete Charter can be view on Conduit [here](#).

Memorandum – Agenda item (Tier 1)



April 4, 2018

TO: Industrial Advisory Committee (IAC)
FROM: Mark Rehley, Senior Manager, Technology and Product Management
SUBJECT: Emerging Technology Quest Presentations

Two guest presenters will join the IAC meeting on April 11th. They include a presentation by Chris Jostol about Armstrong Intelligent Pumps and Trinity Persful about Twin City Fans monitoring and control system. These presentations will be short introductions to each company’s newest innovation. They won’t be sales presentations.

Our Ask of You:

1. **Review the summaries of Armstrong and Twin City Fans:** Come with questions about their products and the potential EE benefits.

Presentation #1: Intelligent Pumps by Armstrong. Improve, Energy Performance, Reliability, Maintenance and Quality.

Speaker: Chris Jostol – Mechanical Sales – Seattle, WA – Territory is OR, WA, ID and Alaska. Mechanical Sales, Incorporated in 1971, has been representing mechanical cooling and heating equipment manufacturers in the Pacific Northwest for over 40 years. A major equipment supplier with four offices in the region providing:

- Comprehensive design resource for the consulting engineer community
- Complete design fabrication of UL certified control panels
- System integration
- Start-up and commission service

Markets: Industrial and Commercial – Fractional - 1500 hp – integrated and built up systems

Description: The Armstrong Intelligent pumps allows users to configure, manage and monitor the performance of the pumps performance directly from their phone. Wireless controls eliminate the need for sensors, wires, and time-consuming commissioning. Built in software emulates typical sensor base pumping control systems. High performance motor and drive system optimizes pump performance for every application if improperly sized. Pumps are direct flange to flange replacements for existing equipment.

Armstrong was one of the strongest and early adopters of the Pump Energy label. Mechanical Sales Chris Jostol will walk through how the “Intelligent Pumps” install commission, update and inform during operation.

Hydraulic Institute Energy Rating Label description link: <http://er.pumps.org/ratings/home>

Armstrong is a world leader in the development of innovative fluid-flow solutions for more than 80 years. The company develops products for customers in commercial, residential and industrial markets, and serves those customers in countries around the world. Product offering includes Circulators, Valves and Fittings, Suction Guides, Circuit Balancing valves, Vortex Air separators, Horizontal and Vertical pumps,

Sump and Sewage pumps, Pressure Booster systems, Fire pump packages, Instantaneous Water Heaters, Heat Exchangers and Expansion tanks.

Estimated regional savings value: This is part of the XMP initiative and savings values have been estimated by different pump types and markets. As part of XMP all pump savings will be validated for Industrial, commercial and agricultural applications.

Presentation #2: Built-in Fan Performance Monitoring: Power, Energy, Performance, Reliability, Maintenance and Quality.

Speaker: Trinity Persful – Twin City Fans – Minneapolis, MN

Markets: Industrial and Commercial – 5 – 1500 hp – integrated and built up systems

Description: This internet of things (IOT) device will display critical fan health parameters (power consumption, bearing temp, vibration index,) via a Bluetooth Low Energy (BLE) network. The information will be accessible through a cloud network and/or a wired connection. The monitor will work on both single phase and three phase systems, up to 600Volts. The power meter is a utility grade power meter with an accuracy of 1%. The market is for both commercial and industrial fan systems. The goal is to empower stakeholders (Sales channel, Distribution, owners and utility operators) to make decisions that make and manage fans that are tailored to reduce energy, increase reliability, and lower customer's system/process costs. For example it can inform service crews of:

- Energy performance of fans to accelerate the EM&V phase of a Utility incentive process,
- Impellers that are wearing out, and when will they need to be changed,
- Bearings in need proactive servicing to improve up time and reliability,
- Monitor drive connections- Fan belts too tight, too loose, and
- Electrical service voltage imbalance persistently, shortening the life of motors.

This product can be either retrofit and or new installation

Estimated regional savings value: Not defined as of this point – early exploration.

About Twin City Fans is comprised of a diverse group of fan companies that manufacture a full spectrum of air moving equipment. The list of applications that utilize their products ranges from heavy duty custom fans for industrial applications to custom OEM fans to a wide variety of HVAC supply and exhaust fans for the commercial plan and spec market. Twin City Fan Companies have completed thousands of successful installations across the globe and have a proven track record for tackling the most technically complex applications within the global fan industry.

Memorandum – *Agenda item (Tier 1)*



April 4, 2018

TO: Industrial Advisory Committee (IAC)
FROM: NEEA Staff
SUBJECT: Discussion on trends affecting the industrial sector

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All of us spend a lot of time thinking about individual programs and products. At the April 11th, IAC meeting, we'd like to take a broader view and discuss the industrial sector overall. Our hope is that this will help us think more strategically about future opportunities and how the region's work in the industrial sector can be maximized.

To get us started, here are a few examples of impactful changes happening in the commercial and residential sectors.

- 2020 Federal standard for bulbs
- Commercial building benchmarking
- Significant new multifamily construction
- Connected / smart devices
- The rise of electronic currency

When you think about the industrial sector, what trends, changes and opportunities do you think will most impact energy efficiency? Specifically,

- What changes are you excited about?
- What changes cause you to worry?
- What changes do you want to know more about?
- What are your customers excited / worried about?

Our Ask of You:

- **Bring any trends, changes, opportunities, etc. that you think could impact regional EE efforts.**

Memorandum – *Agenda item (Tier 1)*



April 4, 2018

TO: Industrial Advisory Committee (IAC)

FROM: Warren Fish, Program Manager

SUBJECT: 50001 Ready

In conjunction with the NEEA Q2 IAC meeting on April 11th, NEEA, with support from Stillwater Energy, is convening a 50001 Ready workshop. We expect this workshop will be of interest to industrial and commercial SEM stakeholders running SEM programs or considering running them. The goal of the workshop is to help stakeholders gain insights on the 50001 Ready Program, including program resources that may relate to your SEM efforts. Your participation and your insights will help us shape future regional strategies and ideas for potential integration of 50001 Ready tools with various Northwest SEM efforts.

PREPARATION: In advance of the workshop, please consider your organization's:

- Future vision for SEM
- Familiarity or experience with DOE's new 50001 Ready program
- Barriers or challenges with the 50001 Ready program
- How the 50001 Ready program could be improved
- How 50001 Ready could be integrated into your SEM efforts

We will be holding the second workshop on this subject on April 23rd from 10:00am to 11:30am at the Smart Buildings Center in Seattle. We encourage IAC members to attend these workshops and provide us with their key insights on the potential value of 50001 Ready today, and how it may be leveraged for customer benefit going forward.

Funding and inspiration for these workshops came from a U.S. Department of Energy and Lawrence Berkeley National Lab grant that NEEA received to help support the DOE 50001 Ready program. In addition to the two workshops, the grant award is funding a project to analyze and assess the 50001 Ready Navigator suite of online tools, and to select a subset of those tools to host on the SEM Hub

NOTES:

- a) You can attend one or both workshops; with the second workshop having deeper discussion informed by the first workshop.
- b) The workshops will be 90 minutes of high impact activities designed to gather your perspective, whether you are on the phone or in person.
- c) Feel free to forward the invitation to others related to your program; please keep us informed if you do so.
- d) Optional no-host happy hour to follow the Portland workshop at Bailey's Taproom 213 SW Broadway (upstairs).

If you have any questions or feedback about this project, please reach out for me at: wfish@neea.org or at 503-688-5402.

Memorandum – Agenda item (Tier 2)



April 4, 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
4/17/2018	Getting to Net Zero	Brown Bag (Internal)
4/25/2018	38th Annual Utility Energy Forum	Conduit Positng
5/6/2018	LightFair 2018	Conduit Positng
7/9/2018	DesignLights Consortium Stakeholder Meeting	Conduit Positng
8/8/2018	Illuminating Engineering Society	Conduit Positng

NEEA Portfolio Overview: 20 Year View

Portfolio Status as of April 2018

Red text: recent advancement

concept development		program development		market deployment	
SCANNING & CONCEPT IDENTIFICATION	CONCEPT OPPORTUNITY ASSESSMENT	MARKET & PRODUCT ASSESSMENT	STRATEGY TESTING & FINALIZATION	MARKET DEVELOPMENT	LONG-TERM MONITORING
Consumer Products		Heat Pump Water Heater Split System	Retail Product Portfolio Super Efficient Dryers	Heat Pump Water Heaters Ductless Heat Pumps	TVs Residential CFLs White Goods
New Construction (Commercial & Residential)		Manufactured Homes	Next Step Home	Commercial Codes Enhancement <i>Integrated Design Lab</i>	Efficient Homes
Commercial Lighting			Luminaire Level Lighting Control	Reduced Wattage Lamp Repl. <i>Top Tier Trade Ally</i>	
Other Markets	<i>Air Nozzle</i> <i>Dedicated Outdoor Air System</i>	Window Attachments (Comm and Res) <i>Industrial Motor Product Labeling/ XMP</i>	.	Codes & Stds <i>Ind. Tech. Training</i> <i>Comm Real Estate</i> <i>Comm & Ind. SEM</i>	RETA CRES Refrigeration Operator Cert Drive Power BldgOp Cert/Exp Commissioning 80Plus

