



INDUSTRIAL ADVISORY COMMITTEE MEETING

DATE: August 3, 2017
 TIME: 10:00 am – 3:30 pm
 LOCATION: Cedar Conference Room, NEEA Office, 421 SW Sixth, Suite 600, Portland
 DIAL-IN: 1-866-398-2885
 Enter the participant code: 520-479
 WEBINAR: <http://neea.adobeconnect.com/iacaug2017/>

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 – 10:15 | WELCOME AND INTRODUCTIONS | Eugene Rosolie | |
| 10:15 – 11:45 | RETA CRES <i>Desired Outcome: IAC input and support for moving forward with program transition.</i> | Warren Fish | 3 |
| 11:45 – 12:15 | <i>Lunch (provided)</i> | | |
| 12:15 – 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 – 2:00 | EXTENDED MOTOR PRODUCTS LABELING (EMPL) <i>Desired Outcome: Inform committee and gather input</i> | Geoff Wickes | 4 |
| 2:00 – 2:15 | <i>Break</i> | | |
| 2:15 – 2:30 | PUMP SYSTEM ASSESSMENT PROFESSIONAL CERTIFICATION <i>Desired Outcome: Inform committee and request for participation</i> | Geoff Wickes | 5-8 |
| 2:30 – 3:15 | INFRASTRUCTURE TOOLS, INTEREST BEYOND THE REGION <i>Desired Outcome: Inform committee and gather input</i> | Sepideh Rezania | 9 |
| 3:15 – 3:20 | OPPORTUNITY FOR PUBLIC COMMENT | | |
| 3:20 – 3:30 | NEW FOLLOW-UP ACTIONS & FEEDBACK/ADJOURN <ul style="list-style-type: none"> • Meeting feedback • Next meeting/location | Eugene Rosolie All | |

Memorandum

July 27, 2017



TO: Industrial Advisory Committee (IAC)
FROM: Eugene Rosolie, Stakeholder Relations Manager
SUBJECT: Packet for Q3 2017

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:

- Web link: [Emerging Technology Report](#)
- Page 10: 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:

- May 17, 2017 [RPAC](#) meeting notes

Memorandum – Agenda Item (Tier 1)

July 25th, 2017

TO: Industrial Advisory Committee (IAC)

FROM: Warren Fish

SUBJECT: RETA CRES Initiative Update



RETA CRES Initiative – Transition Complete Milestone:

We believe the region's investment in the RETA CRES certification program via NEEA is ready to sunset at year end 2017; therefore, we are formally moving the RETA CRES effort through the Transition Complete milestone, with the NEEA Director team voting to approve that on September 12th, 2017. In the August 2017 IAC meeting we will review our accomplishments on RETA CRES to date, status of the certification, our remaining activities through year end 2017, and plans for the long term monitoring and tracking phase. We seek our stakeholders' agreement with our decision to sunset the initiative at this time, and are eager to hear your ideas and input about the full range of work contained within the CRES initiative. We have a wealth of written material on CRES including a Transition Complete ILC Milestone document which IAC stakeholders are invited to review if they'd like to. The powerpoint slides and our discussion at the August 3rd IAC meeting may cover this in enough depth for most of you though, but if you are interested in understanding where we are on CRES in more detail, please let me or Eugene know and we'll gladly share our 14 page Business Case document and appendices with you.

We believe now is the right time for NEEA to transition out of the CRES initiative at year end because:

- 1) RETA is ready for ownership of CRES, and RETA has CRES on the path to achieving ANSI accreditation in 2018.
- 2) We have a robust tracking system in place which will allow for proper accounting of CRES energy savings between local utility programs and NEEA.
- 3) The supporting infrastructure around CRES at RETA and among other market actors is now sufficient to sustain the growth of CRES over time.

CRES By The Numbers:

23 people are CRES Certified nationally, up 4 from our January update. 11 people are CRES Certified in the Northwest, up 1 from our January update. Our stretch goal for 2017 is to achieve 20 CRES Certified individuals in the Northwest by 2017. While we have a good number of people in the pipeline, we need your help if we are to achieve this ambitious goal. NEEA is ready to assist you all with outreach/marketing/technical support for CRES. Please do encourage your customers to attend the upcoming CRES Review Courses in [Tacoma](#), [Boise](#), or at RETA National in Pennsylvania this September.

Partnerships with other Trade Organizations:

We completed a formal educational session at the Global Cold Chain Expo event this past June in Chicago, where we presented alongside RETA's Executive Director and an Executive from Henningson Cold Storage on the management value proposition for CRES. The Global Cold Chain Alliance also recently included an update on CRES in their *Cold Connections* blog and posted CRES information to their website.

Memorandum – Agenda Item (Tier 1)

July 26th, 2017

TO: Industrial Advisory Committee (IAC)
FROM: Geoff Wickes
SUBJECT: XMP – Extended Motor Products Update



Energy labeling for pumps is here! But why is that such a big deal? With the 2016 DOE Pumps Rule Making taking effect in 2020, and outlawing the sale of the least energy efficient pumps (<200 HP),, the bottom 25% of which will not be able to be sold -- ,pump manufacturers are serious about differentiating their products by energy performance. This means a new metric, testing standard, and a label!

Key partners on this effort and the potential savings it will unlock include: Hydraulic Institute, ACEEE, US DOE, NEEA, PG&E, National Grid, NEMA, AMCA, CAGI, RTF, CTF, and leading pump manufacturers.

Working in close partnership with our Northwest utility funders and others, NEEA is in the process of approving and creating an XMP platform that will accelerate the adoption of more efficient products to underserved, challenging markets with significant savings potential. **This work will first focus on small pumps (25 HP and lower clear water pumps) and circulator pumps**, which are relatively untouched by local utility programs and will include:

- The creation of a local utility incentive for customers' purchases of efficient equipment and pump systems at the midstream level
- A low-cost and easy to use online transaction platform
- Collection of collect a robust set of data and analytics from this platform to help utilities, distributors, manufacturers, and trade associations promote more efficient pump products to their customers

After there is a functional system in place for small pumps and circulators, we may include other motor driven systems for which the same platform and relationships could achieve similar results.

In our August 3rd, 2017 IAC presentation, we will share details on the key elements of this platform and burgeoning program. During the presentation we will elicit your input with the objective of laying the groundwork for a more in-depth presentation at our Q4 IAC meeting. At that meeting we will look for your final input and approval to carry this forward for an RPAC vote for Initiative Start (IS) at its Q4 meeting in November, 2017.

Please come prepared to roll-up your sleeves and give us insights, desires and requests on how best to shape this initiative.

Memorandum – Agenda Item (Tier 1)

July 26th, 2017

TO: Industrial Advisory Committee (IAC)
FROM: Geoff Wickes
SUBJECT: Pump System Assessment Professional Certification Opportunity



Pump Systems Matters has developed a new certification and is seeking willing participants to take ANSI validation “test” exams. PSM is seeking volunteers to “test drive” the exam and provide feedback to Hydraulic Institute (HI) to improve their exam. Individuals passing the exam will be issued a certification as a PSAP Certified Assessment Professional and listed on the HI website as an ANSI accredited professional. Test will be available end of Q3 and HI hopes to have all ANSI validation complete by end of 2018

If you are interested or your customers are interested please contact Geoff Wickes gwickes@neea.org at NEEA or Mark Sullivan at HI. msullivan@pumps.org for more information.

Who is HI looking for:

Engineers, auditors, technical sales, design engineers and anyone responsible for a pump systems

What industries:

Pulp and Paper
Food processing
Chemical and petro chemical processing and or manufacturing
Water and waste water
Process engineering
Large scale Irrigation districts
Commercial Buildings
Utility Power Plant operators

For other training opportunities please review the website below.

<http://pumps.org/Training.aspx>

Attached are the Eligibility Requirements and Terms of Use for the PSAP Credentials.

PUMP SYSTEM ASSESSMENT PROFESSIONAL Background

Eligibility Requirements

Eligibility requirements for the PSAP credential include the following.

Experience

- Applicants must have a minimum of three (3) years of professional pump/pumping system experience.
- Applicants are expected to provide information on professional experience including the name of the company/employer/client, name and title of the immediate supervisor/client, contact information for the immediate supervisor/client, and dates of employment in a professional pump/pumping system position.

Education

- Applicants are required to possess an undergraduate degree from a regionally accredited university or college in a technical/business field. Acceptable degrees can include:
 - Physics
 - Engineering
 - Chemistry
 - Science
 - Mathematics
 - Accounting
 - Finance
 - Management
 - Other degrees will be considered, but require pre-approval by the PSAP-CB

Note: This degree must be obtained from a regionally accredited college or university recognized by the U.S. Department of Education or similar entities in other countries.

- In lieu of an undergraduate degree, applicants must possess direct industrial or commercial fluid transfer and pumping systems professional experience with five (5) or more years in a field/management position and have completed a minimum of seven (7) pump systems assessments. Reports of seven of the completed pump systems assessments including the name of the company/organization and completion date must be submitted to the PSAP-CB.

HI will require submission of a photocopy of an official college transcript to demonstrate compliance with all education requirements

Domains and Exam Weighting

The table below includes the final domains and weights derived from the JTA and a review of validation survey recommendations.

| Domain | Weight |
|-----------------------------------|--------|
| I. Integration and Data Gathering | 36% |
| II. Data Analysis | 46% |
| III. Post Assessment | 18% |

Details of Domains

(36%) Domain I Integration and Data Gathering

- T-1 Assess the presenting situation and determine if it is amenable to a pump system assessment (i.e. jointly determine the value proposition/objectives).
- T-2 Obtain and analyze initial information about the pump system (i.e. perform pre-screening).
- T-3 Assemble a pump system assessment team and define roles and responsibilities.
- T-4 Make a visual assessment of the pump system or have the plant verify the accuracy of the information provided in order to confirm initial information, obtain additional information, and make a final determination of the project scope.
- T-5 Conduct a pump systems operations discussion with personnel in a position to answer questions, verify information previously obtained, and provide additional information.
- T-6 Obtain real-time pump system operation data.

(46%) Domain II Data Analysis

- T-7 Cross-validate the pump system data previously collected or obtained in order to ensure accuracy.
- T-8 Analyze the data based on the project scope and established boundary conditions.
- T-9 Interpret the results of the analyses to establish initial findings and possible options (e.g. equipment, controls, etc.) for pump system optimization.
- T-10 Evaluate the identified options to formulate specific recommendations for optimizing pump system efficiency and reliability
- T-11 Document findings and prepare a pump system assessment report that includes recommendations with costs and benefits

(18%) Domain III Post Assessment

- T-12 Present the report to the client/customer and assist in the transition from assessment to implementation.
- T-13 Perform post-implementation measurement and verification and generate a report.

APPLYING FOR AND PAYMENT SUBMISSION PROCESS

TBD (web address for application)

To apply for the PSAP certification examination, please follow these steps:

1. Complete and submit to HI the PSAP certification agreement form online at www.HI ??
2. Submit a photocopy or electronic version of your official university or college transcript to HI.
3. Provide contact information for a previous or current employer/client who can verify PSO experience.
4. Agree to the Code of Ethics
5. Remit application payment fee to HI.
6. Once accepted, choose a test site location.

Use of the PSAP Credential

Once you receive written confirmation from HI regarding your new certification status, you may use the PSAP mark after your name. Always list your designation in block (PSAP) letters. The PSAP designation may only be used in conjunction with a certificant's name. The PSAP designation should not be used in reference to a company or organization.

HI will send new certificants a packet of materials including the following:

- Letter conferring certification status
- Information on the dates of your certification cycle for renewal purposes
- Your unique certification number
- Your certification certificate

HI will publish an official list/registry of all current PSAPs on its website.

Memorandum – Agenda item (Tier 1)



July 25, 2017

TO: Industrial Advisory Committee (IAC)

FROM: Sepideh Rezania, Senior Manager

SUBJECT: Infrastructure tools used outside the region.

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In the 2015-2019 business plan cycle, NEEA has identified Infrastructure programs and resources as an integral part of our efforts to enable and expand market knowledge and capability to increase adoption of energy efficient technologies, and best practices. As a part of our infrastructure programs, we have developed new tools or packaged existing tools, resources and trainings such as SEM tools, Top Tier Trade Ally Training, and tools applicable to Commercial Real Estate. All these tools are available to be used either by Utilities or market actors who are interested employing them in their energy efficiency activities.

Over the years, there has been growing interest from outside the region in having access to the tools that have been developed by the Northwest as an alternative to developing their own tools. If the national interests choose to develop their own tools, there is the very real threat of misalignment with Northwest interests and values. If adopted nationally, these parallel non-Regional tools could ultimately end up de-valuing the Northwest toolsets and make Regional adoption more difficult as companies standardize on the national tools.

To deal with this threat, we are working directly with these national interests to adopt and support the Northwest versions of these resources. In doing this, we will need to ensure that Regional work is not impacted and that any incremental costs are covered by the extra-Regional interests. As a side benefit, we may also be able to use these engagements as an opportunity to recover some of the Northwest investment and as support for ongoing maintenance and necessary enhancements.

In a one-hour session at our IAC, we would like to seek your perspective and input on:

- 1- Concerns or suggestions about the suggested approach to dealing with this threat?
- 2- What would a successful end state look like?

Thank you,

Sepideh Rezania
Senior Manager, Commercial/Industrial/Agriculture

NEEA Portfolio Overview: 20 Year View

Portfolio Status as of July 2017

Red text: recent advancement

| concept development | | program development | | market deployment | | 20 year Total Regional Savings Potential (aMW) |
|---|---|---|--|---|--|--|
| 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 Residential Window Attachments | Retail Product Portfolio Super Efficient Dryers | Heat Pump Water Heaters Ductless Heat Pumps Codes & Stds | TVs Residential CFLs White Goods | 1000-1400 |
| New Construction (Commercial & Residential) | | Manufactured Homes | Next Step Home | Codes & Stds Commercial Codes Enhancement Integrated Design Lab infrastructure | Efficient Homes | 400-600 |
| Commercial Lighting | | | Luminaire Level Lighting Control | Reduced Wattage Lamp Repl. Codes & Stds Top Tier Trade Ally infrastructure (opt.) | | 100-150 |
| Other Markets | Air Nozzle Industrial Motor Product Labeling Dedicated Outdoor Air System | Commercial Window Attachments | RETA CRES Refrigeration Operator Cert. | Codes & Stds Ind. Tech. Training infrastructure (opt.) Comm Real Estate infrastructure (opt.) Comm & Ind. SEM infrastructure | BldgOp Cert Exp Drive Power BldgOp Cert Commissioning 80Plus | 100-300 |