

The background of the slide is a blurred industrial scene with a teal overlay. On the right side, there is a dark grey rectangular area containing text.

Energy Smart Industrial

Utility Focus Group Meeting

July 13, 2021

Facilitator:

Eric Mullendore
Industrial Program Manager
Energy Efficiency
Bonneville Power Administration

Attendees:

Name:

Alan Fraser
 Alex Ruiz
 Amy Walton
 Ashley Stahl
 Bill Hough
 Dan Kinnaman
 David Harris
 Eli Volem
 Eric Miller
 Jacob Henry
 Jason Bird
 Julie Anderson
 Kelly Haugh
 Matt Walker
 Maurilio Lopez
 Natasha Houldson
 Tara Maynard
 Tim Lammers
 Wade Carey
 Zeecha Van Hoose

Company:

Tacoma Power
 Umatilla Electric
 Lower Valley Energy
 City of Centralia
 Benton PUD
 Grays Harbor PUD
 Springfield Utility Board
 Eugene Water and Electric Board
 Benton REA
 Lewis PUD
 Idaho Falls Power
 Franklin PUD
 Big Bend Electric
 Tacoma Power
 Franklin PUD
 Tacoma Power
 Grays Harbor PUD
 Columbia River PUD
 Central Lincoln PUD
 Clark Public Utilities

Name:

Brice Lang
 Eric Mullendore
 Jess Kincaid
 Mark Ralston
 Nathan Kelly
 Nosh Makujina
 Ray Hardiman
 Shelley Layton
 Steve Martin
 Todd Amundson

Company:

BPA COTR Liaison
 BPA, C&I Sector Lead
 BPA, Acting EE Programs Mgr
 BPA, EER
 BPA, Engineer
 Cascade Energy, ESIP
 Cascade Energy, ESIP
 Cascade Energy, ESI Program Specialist
 Cascade Energy, ESI Operations Mgr
 BPA, Engineer and Industrial Tech Lead

S. Martin: Welcomed all in attendance and reviewed the agenda

Agenda

<p>BPA EE and ESI program updates</p> <ul style="list-style-type: none"> • ESIP field activity update • Custom Project pipeline • FY21 end-of-year forecast • Evaluation updates 	<p>Steve Martin Eric Mullendore Todd Amundson</p>	<p>11:00 - 11:30</p>
<p>Utility updates and project spotlight</p> <ul style="list-style-type: none"> • Central Lincoln PUD – Energy Project Manager • Lower Valley Energy – High Country Linen 	<p>Wade Carey and Ray Hardiman Amy Walton and Nosh Makujina</p>	<p>11:30-11:45</p>
<p>UFG Open Forum</p>	<p>All</p>	<p>Remaining time</p>

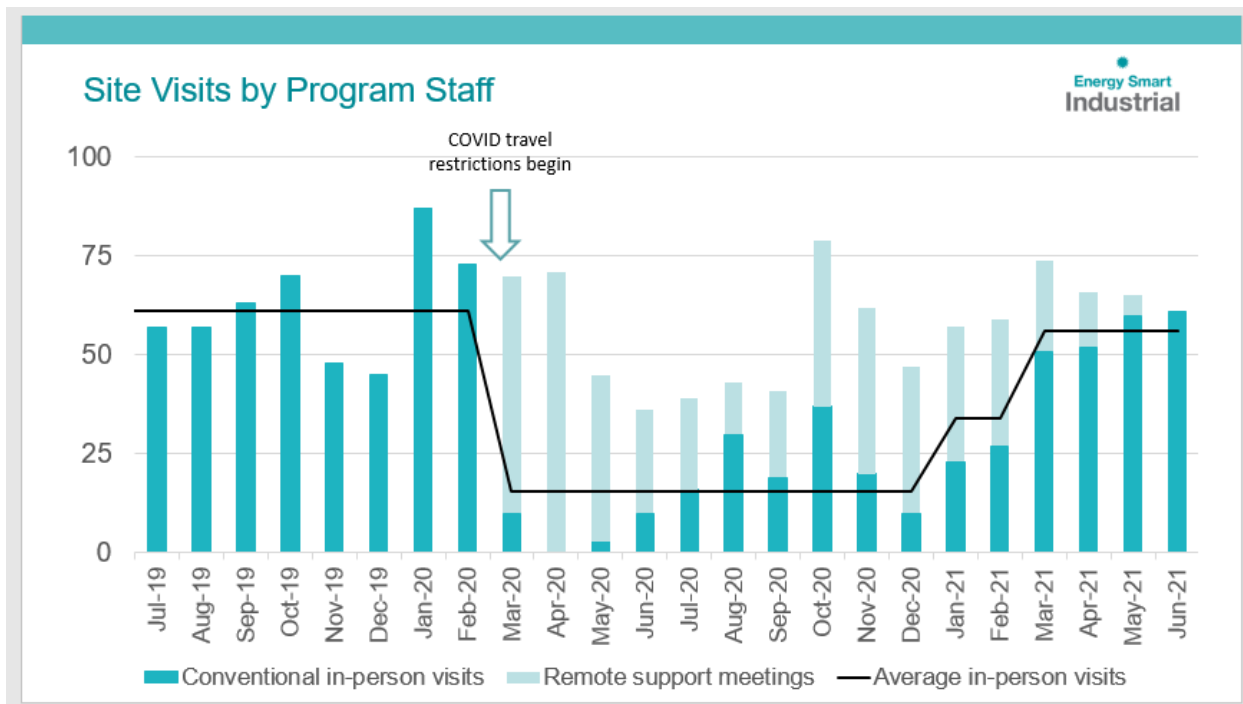
Steve M. cont'd: Reminded everyone that 16 months has passed since the ESI Program has stopped field work.

Thanks for supporting the ESI team as we've navigated this challenging time.

- We've learned a ton about communicating in new and creative ways, leveraging technology (e.g., remote data loggers, Realwear body cameras, etc.) to carry out studies.
- We've also realized that 'boots on the ground' is not going away.

The ESI team has carried out 61 site visits in June (matching the pre-COVID average).

- All performed safely in compliance with local and state laws and regulations, as well as coordinating with you and site personnel to ensure our work is carried out with full knowledge and awareness of utility and in accordance to the ESI program COVID Response decision tree.
- This ramp-up comes at a pivotal time.



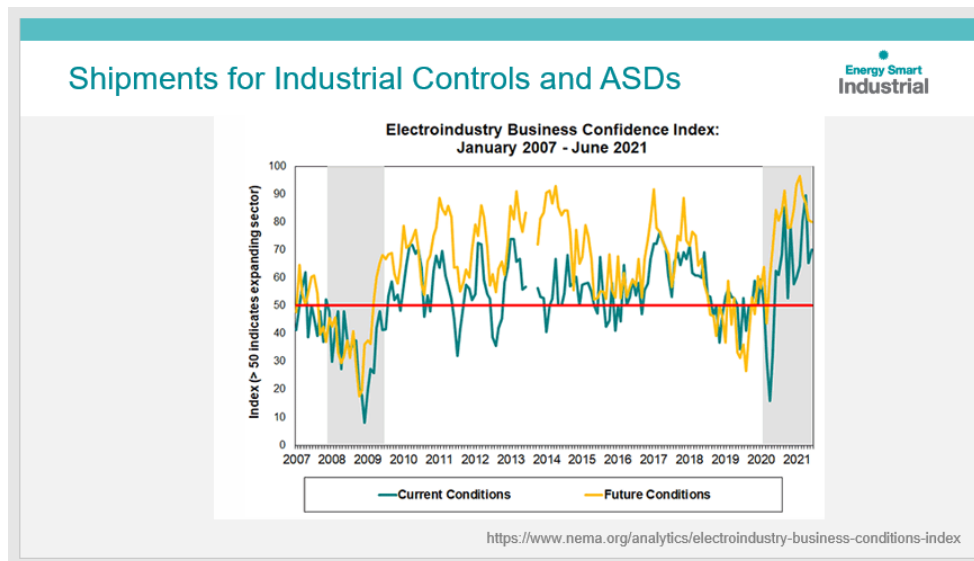
Steve M. cont'd: Here's what we've heard and seen in the field...

What are we hearing in the field?

- Most plants are approaching full capacity
- Staffing is a significant challenge
- The supply chain is flowing, but lead times are extending
- Capital budgets expected to increase in 2022

5

- National Electronics Manufacturer Association (NEMA) publishes market data that gives a pulse on the direction of capital spending.
- Electro-industry business index is a monthly survey of senior managers of NEMA member companies.
- It's not a 'perfect representation' of industrial EE projects; but it is a 'relative gauge' of business confidence for manufacturers and distributors of key components such as motor starters, programmable logic controllers, etc.



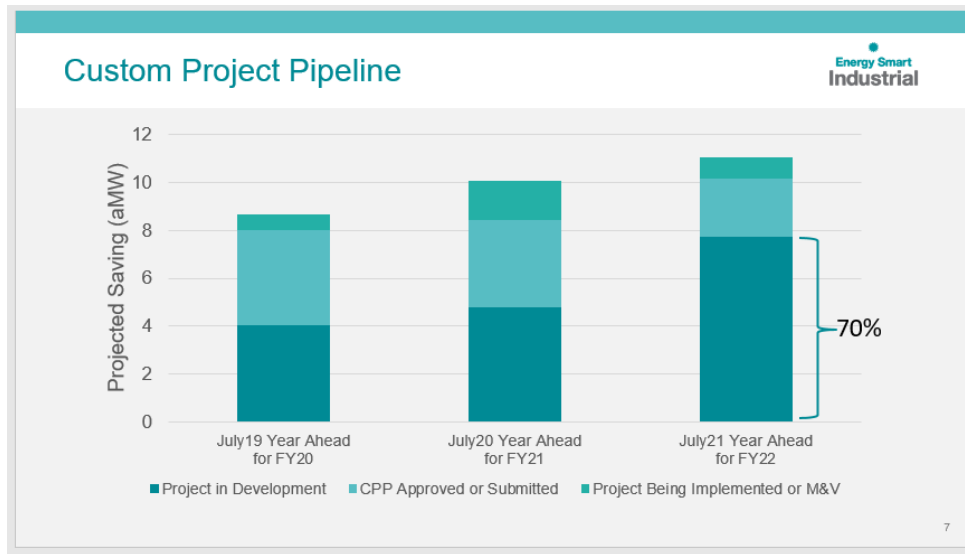
- The current conditions and future conditions indices are near record highs after a record low one year ago
- This is a good sign that industries have money to spend, and the idea that the low hanging fruit has been picked may be overstated a bit.

<https://www.nema.org/analytics/industrial-control-business-indices>

Steve M. cont'd: Here is a "Year Ahead Pipeline" view of the past three years (from the beginning of the month of July)

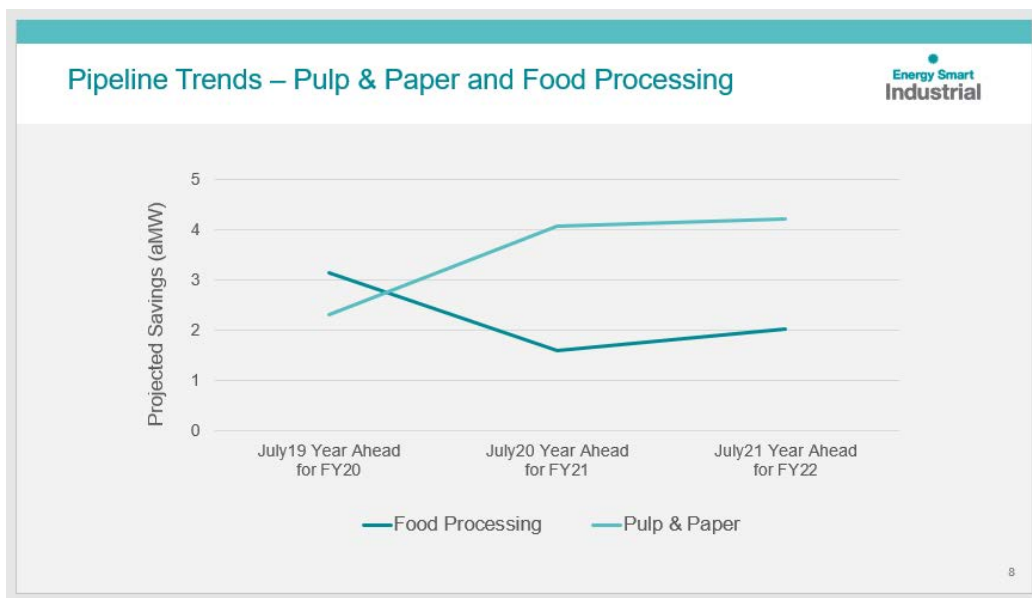
This is very encouraging that we've been able to increase the # of projects for the year-ahead

We are also seeing a higher percentage of the 'Projects in Development' category; this is an area of ESIP focus.



Steve M. cont'd: Two industry segments we watch very closely – food processing and pulp and paper.

Historically, these two have comprised approximately 50% of our savings – as a team we've developed deep expertise. We saw a significant shift last year that we expect to continue through the next biennium.

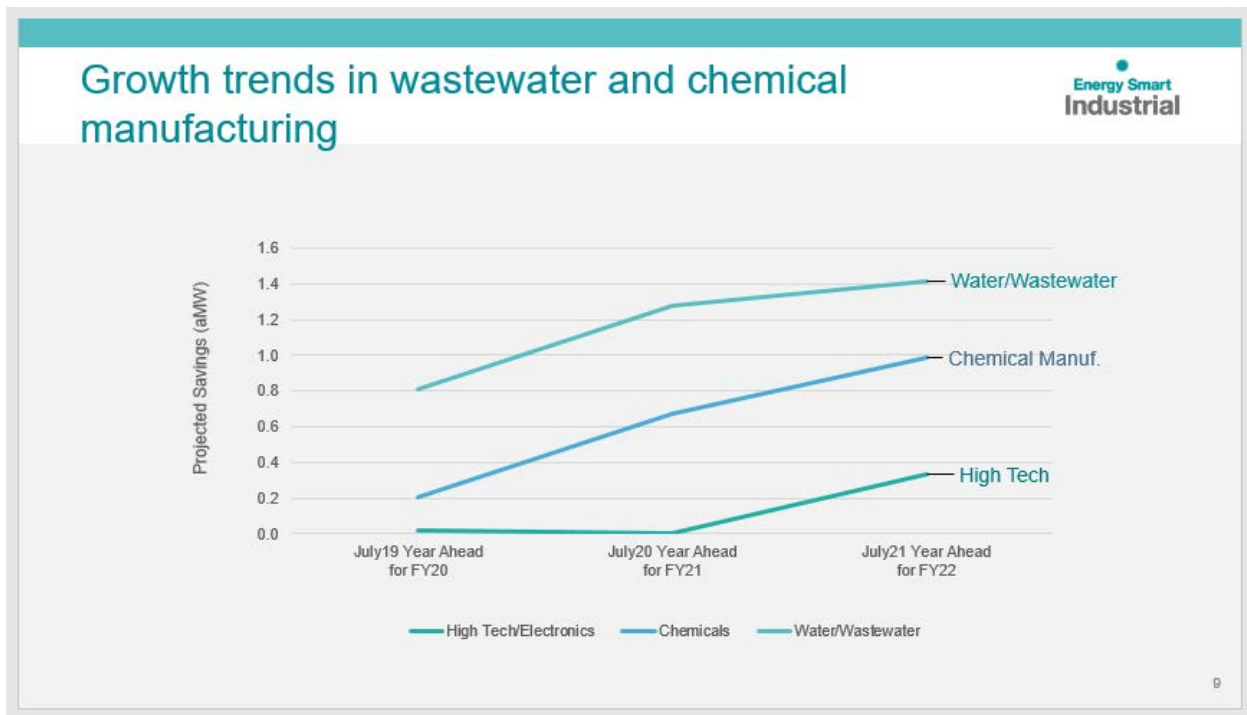


Steve M. cont'd: Some emerging segments – water/wastewater, chemical manufacturing and high tech.

What these three have in common are aging plant infrastructure and relatively healthy balance sheets

- High tech – semiconductor to circuit boards – experiencing the best business cycle since the late nineties
- Chemical manufacturing – experiencing the benefit of higher commodity prices – difficult environment for electrical EE but we seem to be making inroads.
- Water/Wastewater
 - Much of this is the natural outcome of SEM – almost all the largest plants have been through WEC.
 - American Rescue Plan Act (ARPA) funding

Collectively, savings from these segments has trended up the past three years and now represents 30% of program savings (more than 2x three years ago).

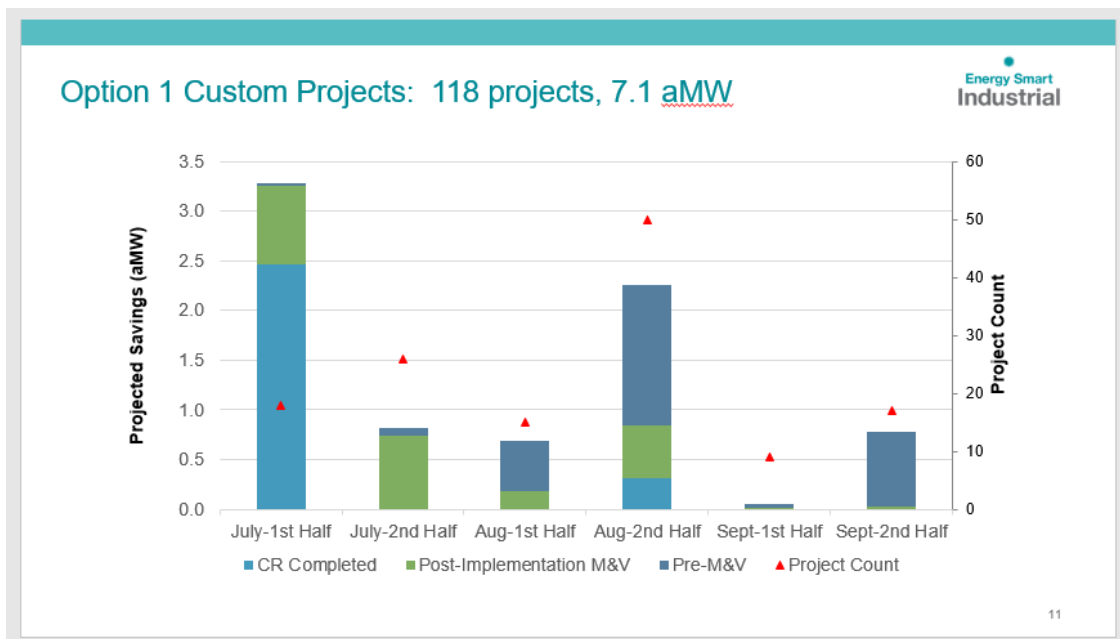


Steve M. cont'd: Obviously, the ESI program has targets we'd like to hit; and we're also very excited to help each of you achieve whatever goals you might have for this biennium's close-out. How can we do this?

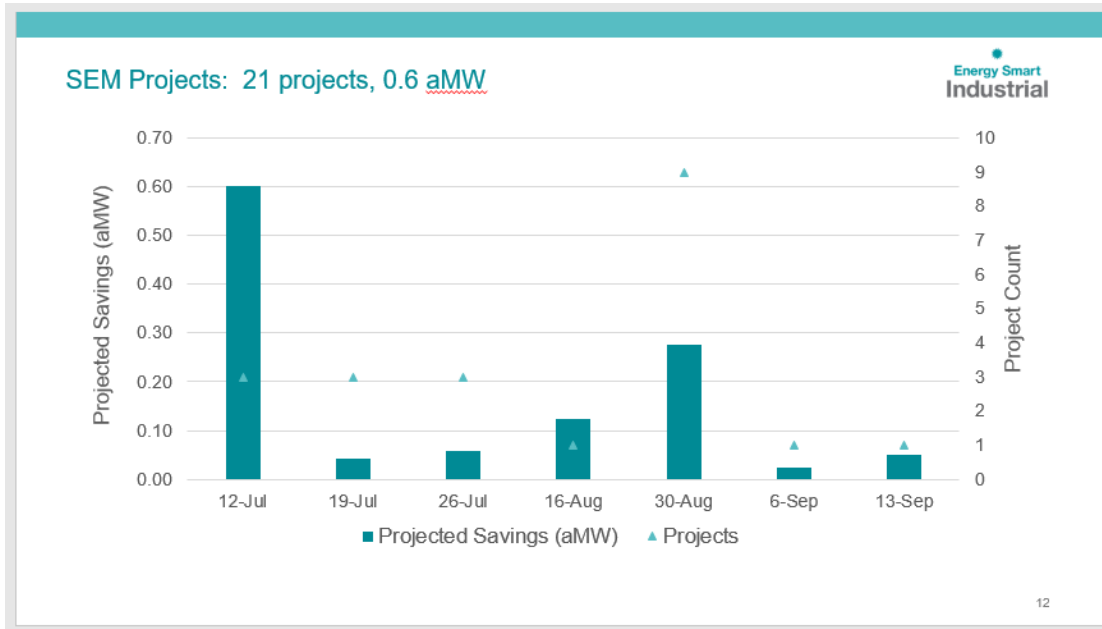
- By proactively engaging end-users in **managing** the Custom Project pipeline.
- Providing regular **updates** to utilities on project completion status and incentive forecasts.
- Minimizing the **end-of-biennium** project submittal rush.



Here is what the Option 1 Custom Project pipeline looks like (today) for the remainder of the year, based on estimated M&V dates:



Steve M. cont'd: And here is what the SEM Projects pipeline looks like (today) for the remainder of the year, based on estimated project completion dates.



There are 17 Custom Projects or roughly 0.8 aMW of energy savings that have not been invoiced/reported to BPA.



Steve M. cont'd: The ESI team would like to thank you and your customers that helped us launch two cohorts during COVID (Wastewater Energy coaching and refrigeration energy coaching in Mid-Columbia) and for all the support keeping existing cohort participants on track.

COVID delayed launch of a planned winter 2021 **clean water cohort** – we are now planning to launch workshop 1 in September.

We have five participants enrolled and are looking to recruit a few more.

We'll be applying our distance learnings to launch a (likely remote) cohort of mixed industrial customers in February next year.

We encourage you to discuss potential participants with your ESIP.

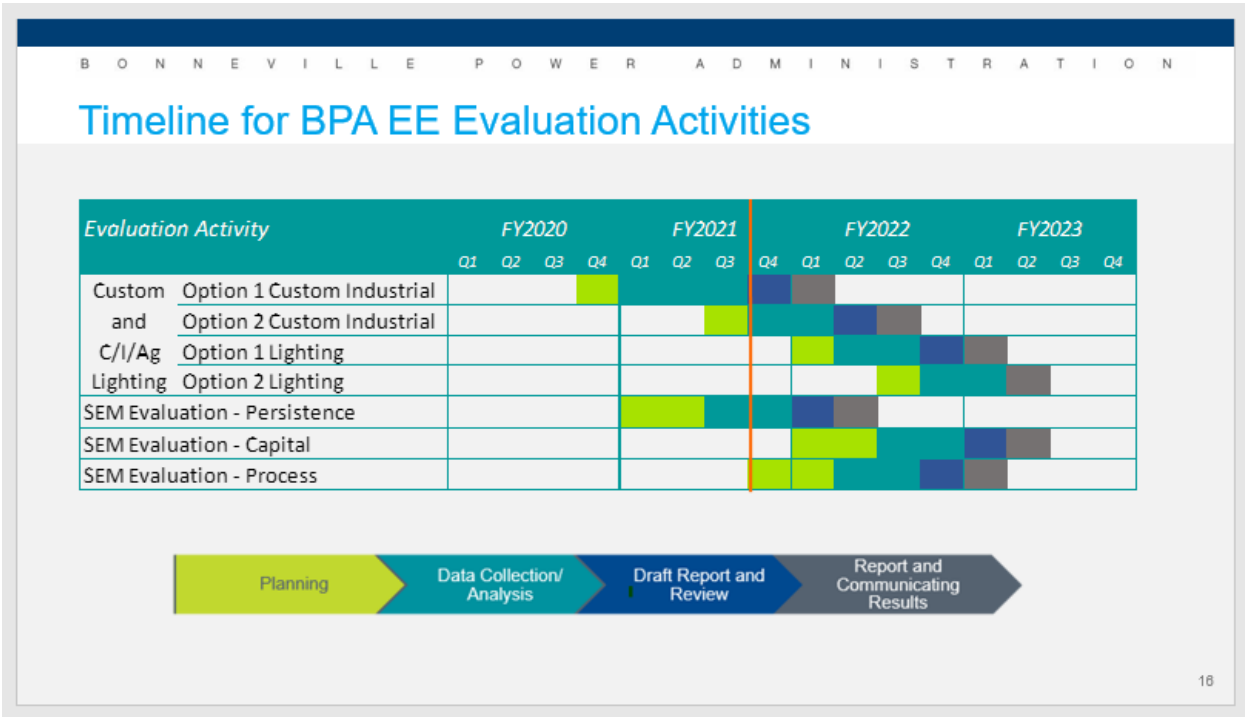
The slide is titled "SEM – Recruiting for FY2022" and features the "Energy Smart Industrial" logo in the top right corner. It displays three cohorts with corresponding icons: a water drop for "Clean Water Cohort" (Sept. 2021), a factory for "Mixed Industrial" (Feb. 2022), and a truck for "Sole Delivery" (Continuous). A call to action at the bottom reads: "Customer interested in SEM now? Let your ESIP know – Sole delivery SEM starts on their schedule!" A small number "14" is in the bottom right corner.

Here are some reminders of Custom Project Completion Report Submission Timelines

The slide is titled "End of Rate Period Timelines" and features the "Bonneville Power Administration" logo at the top. It shows a timeline with three key dates: "9/1 – Submit CR for guaranteed review", "9/15 – Last day to submit CR", and "9/23 – Last day to submit invoice". A large arrow points from left to right, with the dates marked by teal circles. A small number "15" is in the bottom right corner.

Next, Todd Amundson is going to share an update on BPA's Evaluation...

T. Amundson: Utilities will be receiving official word from your Energy Efficiency Representative



E. Mullendore: BPA created a new webpage that includes the draft Rate Period Implementation Manual language for the new Energy Project Manager, Strategic Energy Management and Performance Tracking System. A set of frequently asked questions is available for the EPM and SEM offerings.

B O N N E V I L L E P O W E R A D M I N I S T R A T I O N

Energy Management in 2022-2023

- Residential
- Commercial
- Industrial
 - ESL Program
 - Case Studies and Project Successes
 - Custom Projects
 - Energy Project Manager
 - Strategic Energy Management
 - Smart Industrial
 - Lighting
 - Compressed Air
 - Efficient Motors
 - Industrial Utility Focus Group
 - New Energy Management
- Federal
- Agriculture
- Utility Distribution

Energy Efficiency New Energy Management

BPA will expire the Energy Project Manager, or EPM, measure and release a new EPM measure that will be effective on April 1, 2022. The new EPM measure is applicable to the Industrial and Commercial sectors. BPA will also retire the Strategic Energy Management, or SEM, measure and release a new SEM measure that will be effective on April 1, 2022. The new SEM measure removes a number of documentation requirements and the higher incentive rate previously available for projects with documented costs. The optional Performance Tracking System (PTS) will be separated out to become a new measure. Check this page for updates about the upcoming EPM, SEM and PTS measures.

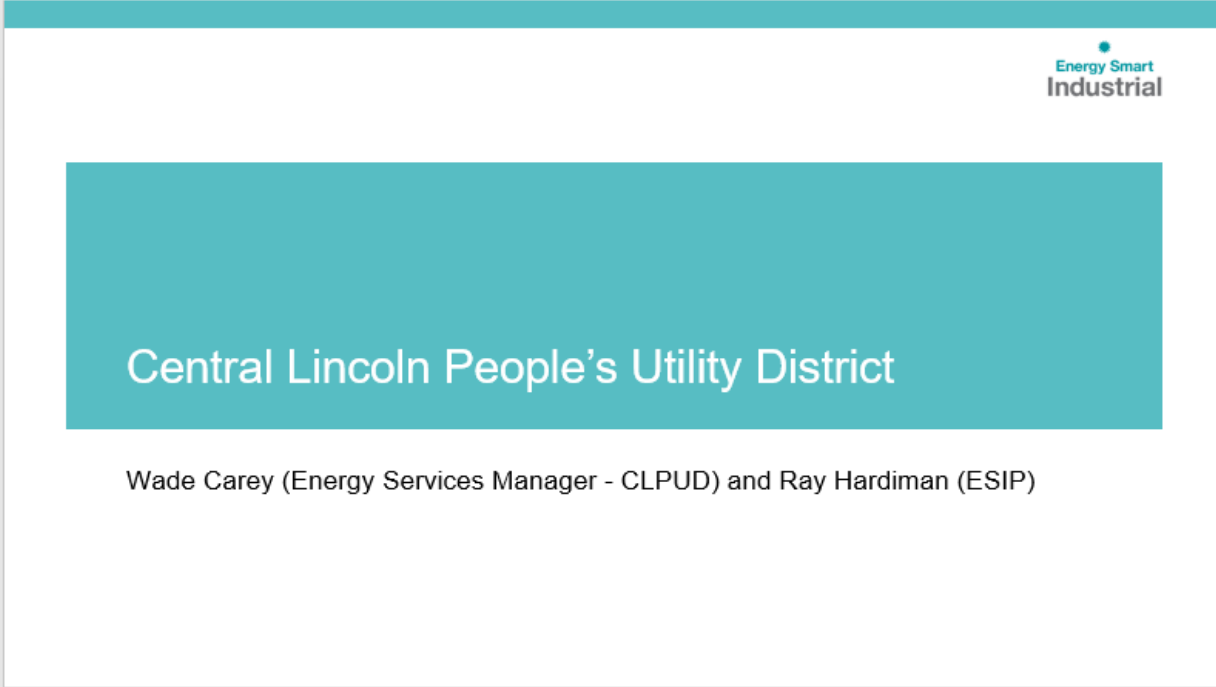
Energy Project Manager

BPA has supported a version of the EPM measure since 2009. While the details have changed over time, the core intent has remained consistent. Rather than focusing incentive payments on an equipment-upgrade project or a change in equipment operation that saves energy, the EPM measure provides milestone payments to help overcome staffing-resource barriers. The EPM measure requires the development and implementation of a Comprehensive Site Plan by a site's designated energy project manager, with the goal of achieving additional verified energy savings beyond what would have been achieved without the involvement of the energy project manager. The savings and costs for each project in the Comprehensive Site Plan are reviewed and approved through the typical process specific to each measure type, but BPA tracks projects with EPM involvement to assist in the evaluation of their impact. As described in the notice for Section 9.2.1, in the April 2021 Implementation Manual release, BPA will sunset the existing EPM measure and releasing a new EPM measure, effective April 1, 2022. The guiding principles behind the changes were to streamline the offering with reduced administrative costs and expand its use to more end-users, including smaller and non-industrial sites.

- A draft of the IM language for the new EPM measure is available
- An FAQ document is available

17

Eric M. cont'd: Now I would like to introduce Wade Carey from Central Lincoln PUD and his ESIP, Ray Hardiman...



Energy Smart
Industrial

Central Lincoln People's Utility District

Wade Carey (Energy Services Manager - CLPUD) and Ray Hardiman (ESIP)

Wade talked about the utility's perspective of the proposed next Rate Period's changes to Energy Project Manager offering and how they are preparing for the transition.



Energy Smart
Industrial

Energy Project Managers

- Utility perspective on proposed updates
- Recent opportunity at CLPUD customer
- A contract that bridges the transition
- Final thoughts

19

E. Mullendore: Now let's give our attention to Amy Walton from Lower Valley Energy and her ESIP, Nosh Makujina.

Industrial Projects Updates

Energy Smart Industrial

LOWER VALLEY ENERGY



HIGH COUNTRY LINEN SERVICE

Amy Walton (Lower Valley Energy – Conservation Specialist) and Nosh Makujina (ESIP)

20

Amy W: Although High Country Linen is one of our small customers that has been around for quite some time. Nosh will share the specifics about the project...

High Country Linen Service

Energy Smart Industrial

- Established in 1931, High Country Linen serves restaurants and hotels in the Jackson Wyoming, Star Valley Wyoming, and surrounding area.
- Existing washers used about 170 hp and upgraded Vega Smartline Tunnel washer reduced the load to 65 hp
- Significant non-energy benefits included water, natural gas, and labor

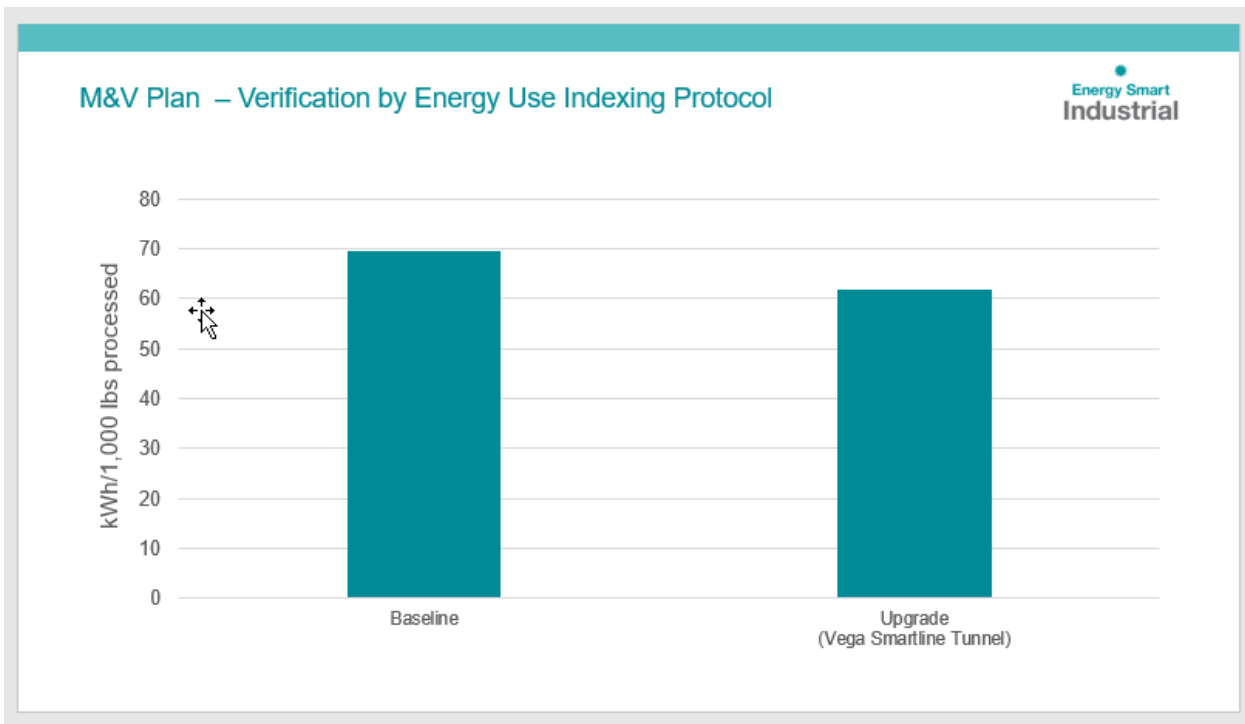


Nosh M. cont'd: Shared the project summary with savings and incentive.

Project Summary and Timeline **Energy Smart Industrial**

- High Country Linen initially approached Lower Valley Energy and ESI in July 2018
- After installation in December of 2018, numerous delays, (mainly startup problems) postponed the first attempt at M&V until late February of 2020
- Covid resulted in a sudden and major drop off in business and a decision was made to further postpone the M&V until the customer could resume a more normal production schedule
- The M&V was completed in March 2021, resulting in a savings of 67,425 kWh/yr and an incentive of \$16,856

There was an 11% improvement – plus the merits of this project's M&V strategy was it being cost-effective and unintrusive to the facility and staff.



Key Takeaways

- Regular communication through commissioning challenges and business downturn provided reassurance and demonstrates commitment
- The completion of a Custom Project is a relationship building opportunity
- Small projects have a big impact



E. Mullendore: Thank you Wade, Ray, Amy and Nosh

Utility Focus Group Open Forum

Discussion & feedback from Utility Focus Group

- Other project success stories?
- What concerns and opportunities do you foresee as we approach the end of the rate period, and how can ESI help?

Wrap-up and Reminders

- End of rate period deadlines
- Utility Account Plan updates
- Q1 Utility Focus Group meeting – October?

Thank you!

For more information, contact:

Eric Mullendore

Industrial Program Manager, Energy Efficiency

Bonneville Power Administration

ejmullendore@bpa.gov

503-230-5546