



Energy Smart Industrial

Utility Focus Group Meeting

July 14, 2020

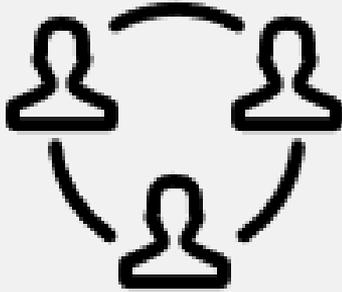
Facilitator:

Michelle Lichtenfels
Commercial & Industrial Sector Lead
Energy Efficiency
Bonneville Power Administration

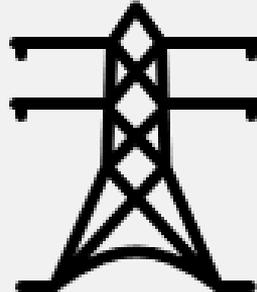
Agenda

<p>Welcome, BPA EE and ESI program updates</p> <ul style="list-style-type: none">• COVID update• Staffing changes• BPA policy on hemp processing facilities• EE promotion• IM update notifications• Proposed updates to EPM offering	<p>Michelle Lichtenfels Eric Mullendore Steve Martin</p>	<p>11:00 -11:30</p>
<p>Industrial Lighting Trends</p>	<p>Mike Hughes Eric Wilson</p>	<p>11:30 – 11:50</p>
<p>Other topics of interest to UFG</p>	<p>All</p>	<p>Remaining time</p>

BPA Priorities COVID-19 Response Period



Health and safety of
workforce and the
community



Reliable power and
transmission
services



Customer service to
utility customers

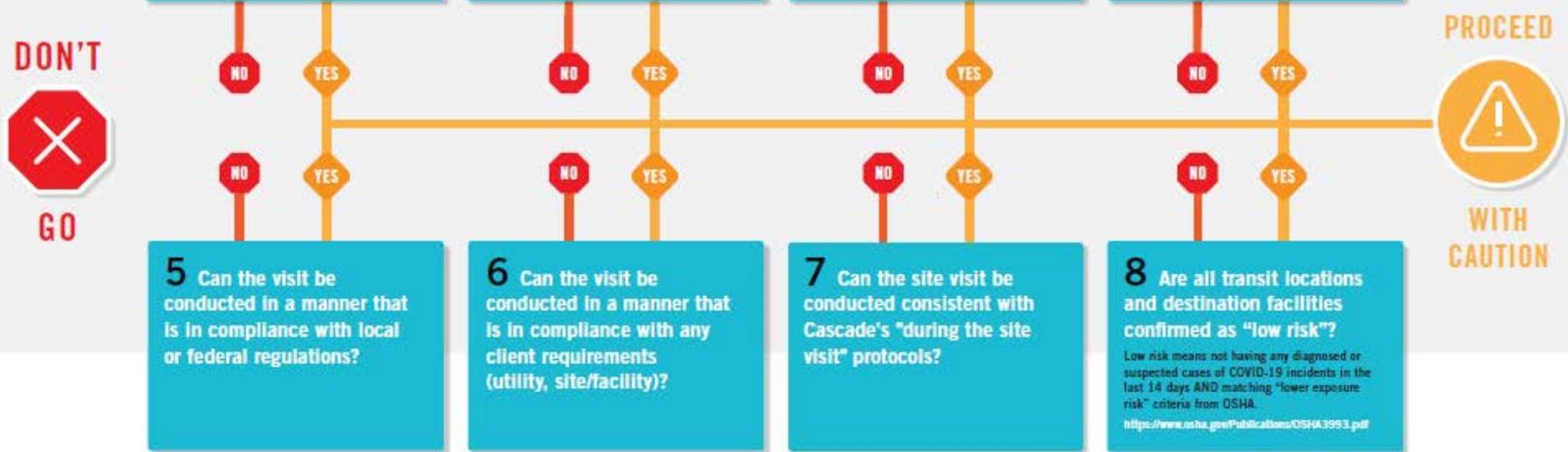
Status of BPA EE and ESI teams

- All BPA EE and ESI staff continue to work remotely
- Field work has resumed on a very limited basis
- Remote alternatives have proven effective, but requires awareness of each end user's circumstance

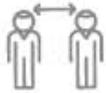


Deciding if a site visit is appropriate

Answer these 8 questions before proceeding to a site visit.



During the site visit



ENSURE a 6-foot social distancing boundary

A **6-foot social distancing boundary** should be maintained at all times while on the site visit and in transit.

Be alert for site employees who are not following proper social distancing guidelines or who are visibly showing indications of sickness.



WEAR A MASK in public areas

Face masks* should be worn when working in public areas of a facility or when working in proximity to others.

Face masks are not required when working alone in a private or low-traffic area of the facility.

Note that **face masks are a supplement to and not a replacement** for social distancing requirements.



MINIMIZE contact

Limit the number of people with whom you interact to only those who are essential.

Employee development **through on-site mentoring is still important** and may continue at this time.

Have conversations with site personnel in **quiet environments** rather than noisy equipment areas.



WASH HANDS and surfaces regularly

Wash hands as often as possible after touching site surfaces, **or use hand sanitizer*** if hand washing is inaccessible.

Use sanitizing wipes* to clean any shared surface that is touched.

Use care when sanitizing around electrical connections or circuit boards to protect any exposed electronics.

Avoid touching your face.



STOP WORK if health or safety is at risk

Cascade employees are always allowed to stop work at any time if they feel their health or safety is at risk.

Always **report anything about the site visit that made you uncomfortable** to your manager or the Safety Committee.

Transitions on ESI team



John Whitchurch will transition off the ESI team on October 1, 2020. Tony Simon will serve all the mid-Columbia utilities beginning in FY 2021.



Bob Brennand will take over for John as ESIP Manager. ESI will begin recruiting a new Puget Sound ESIP and plan a gradual transition with Bob through FY 2021.

BPA EE Staffing Updates



Michelle Lichtenfels will be transitioning to a new role as manager of the EE contracts administration team on July 20.



Eric Mullendore will assume responsibility for Energy Smart Industrial and Industrial Sector activities

BPA policy on hemp processing

- BPA will no longer exclude hemp and hemp-associated load from BPA EE programs in states with USDA approved regulatory plans.
- Energy Smart Industrial may provide program service and direct assistance to facilities engaged in hemp production and processing.
- Please reference BPA's [FAQ document](#) for more information

EE Promotion

Supports local community economic recovery efforts while meeting EE Action Plan objectives.

- Increased payment rate for commercial HVAC measures including Advanced Rooftop Unit Controls, Connected Thermostats, Ductless Heat Pumps and Air-Source Heat Pumps.
- Increased performance payments to \$0.05/kWh (non-SRR) and \$0.10/kWh (SRR).
- Effective for measures complete after July 1, 2020.

[July 9, 2020 Brown Bag Materials](#)

IM Update Notifications

9.3 VFDs for Onion and Potato Storage Facilities

- Corrected the requirement for customers to retain the equipment or contractor invoice(s).

DOCUMENTATION DESCRIPTION	RETENTION/SUBMITTAL LOCATIONS		
	BPA ENERGY EFFICIENCY REPORTING SYSTEM	EEDOCS@BPA.GOV	CUSTOMER FILE
End-user identifying information including unique site ID and address (e.g., field location, meter number, GPS coordinates, farm name or legal property description)	X		X
Equipment or contractor invoice showing: <ul style="list-style-type: none"> Equipment manufacturer Equipment model number Size (horsepower) and quantity installed or used Order or purchase date Installed cost 			X

IM Update Notifications

Corrected and simplified documentation requirements for equipment or contractor invoice(s):

- 9.5 Battery Charger Upgrade (BPA-Qualified)
- 9.6 Welder Upgrade (BPA-Qualified)
- 9.7 Water Systems Leak Abatement (BPA-Qualified)

Proposed updates to EPM offering

- Effective October 1, 2021, the current Energy Project Manager offering will be retired (one-year notice.)
- BPA will release a new Energy Project Manager measure at that time.
 - Likely applicable to both Industrial and Commercial
 - Retire the EPM calculator
 - Reduced documentation requirements
 - Draft IM language ready for review



Industrial Lighting Trends

COVID-19
and the construction industry



Industrial Lighting Trends

Industrial Lighting Trends



Agenda



- Applications
- Controls
- Trends: Non-Energy Benefits

LED for Every Application



Lighting Controls

- Average 40% efficiency gain
- Tailored to lighting needs
- Automatic code compliance
- Flexibility

Occupancy Sensors



- Replace wall switches with occupancy switches in smaller rooms
- Use ceiling or wall mount sensors
- Fixture mount, typically factory installed

Luminaire Level Lighting Controls (LLLC)



Embedded controls in each luminaire combine presence detection and daylight dimming to save energy

- Networked sensors
- Factory integrated
- Individual fixture control
- Assignable/re-assignable
- No control wiring
- Configure via app
- Automatic code compliance

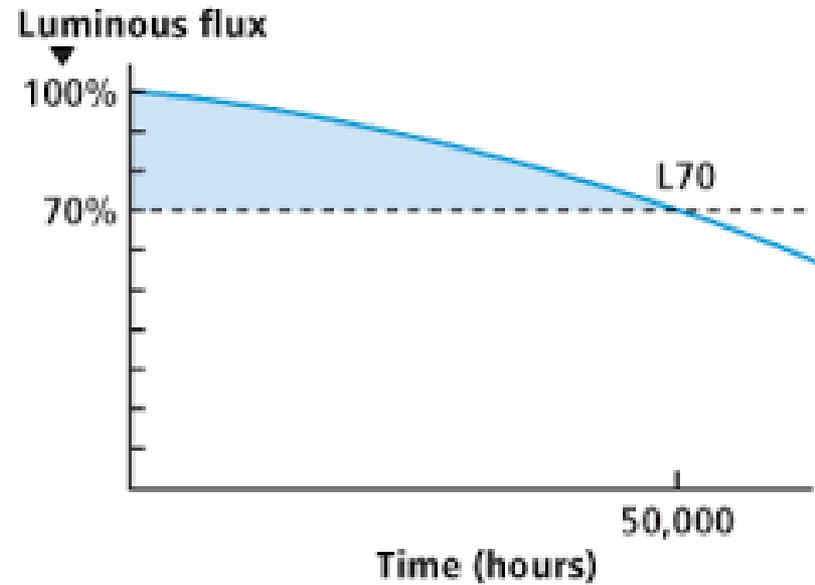
Luminaire Level Lighting Controls NEBS

- Non-Energy Benefits

- Task Tuning
- Asset Tracking
- Space Utilization
- Indoor Positioning/Wayfinding
- Room Scheduling
- Remote Diagnostics
- External Systems Integration
- Safety
- Futureproofing

Task Tuning to have the correct amount of light

Task Tuning



Asset Tracking



- **What Are the Main Advantages of Asset Tracking?**
- Loss Prevention.
- Opportunities for Easy Reporting and Auditing.
- Extends the Life of Assets.
- Enables More Efficient Resource Allocation.

Space Utilization



- Data collection informs energy optimization and provides occupancy pattern information for better space utilization
- Most companies have average space utilization rates of 60% - 70%

Indoor Positioning / Wayfinding



- Retail product location assistance
- Wayfinding assistance with app

Scheduling



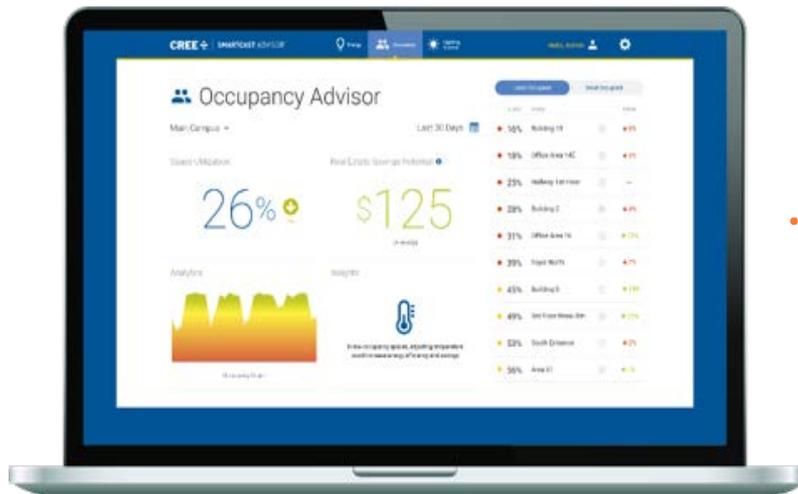
- The easiest way to save equipment energy is to turn it off
- Who's doing night-time walk-throughs?

Remote Diagnostics



- Sensing Individual Device Energy Usage
- Graphic Dashboards
- Historical Data

External Systems Integration



- Integration of BMS or HVAC System

Safety & Security



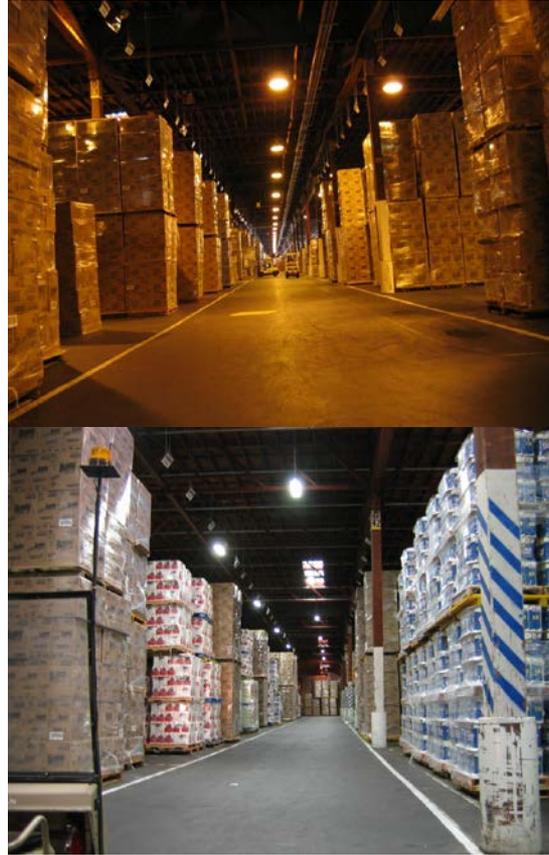
- Uniformity of Illumination
- Reduced Contrast / Shadowing / Glare
- Less Ladder / Lift Time
- Avoiding Trip Hazards

Future Proofing



- Changing Space Needs

Improved Light Quality



- Improved Task Visibility
- Color Distinction
- Reduced Eyestrain
- Visual Comfort
- Improved Work Environment

Impact on Productivity



- Addressing Critical Tasks
- Quality/Process Inspection
- Facility Cleanliness
- Reduced Process Interruptions

Thank you!



Discussion & feedback from Utility Focus Group

- What challenges are you facing?
- What are you hearing from your customers regarding energy efficiency?
- How can ESI help during this time?

Thank you!

For more information, contact:

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Potential topics for October UFG

- Approaches to forecasting EE savings
- Tools to help site staff secure capital budget approval
- Summary of past projects (systems and measure)
- SEM program results
- RTF activities related to industrial measures
- EC motors
- Demand response

