

Energy Smart Industrial

Utility Focus Group Meeting

April 14, 2020

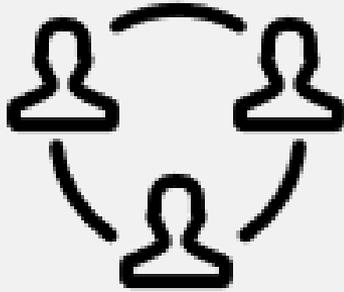
Facilitator:

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

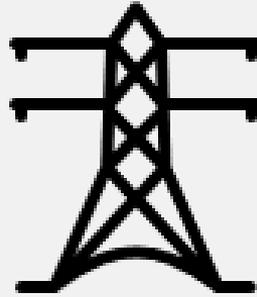
Agenda

Welcome, BPA EE and ESI program updates <ul style="list-style-type: none">• BPA COVID-19 update• Utility Focus Group open forum• Other updates	Michelle Lichtenfels, Steve Martin	11:00 -11:30
Industrial project showcase	Eric Miller, Tony Simon Dave Wimpy, Jimmy Sauter	11:30 - 11:45
Utility Focus Group survey results	Michelle Lichtenfels	11:45 – 11:50
Potential topics for next UFG Other topics of interest to UFG	All	Remaining time

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 are working remotely
- Field work has been cancelled or postponed.
- Remote alternatives have proven effective, but requires awareness of each end user's circumstance



A range of perspectives

The site
whose
business is
way down,
or shutdown

The industry
whose
business just
spiked up, or
got more
complicated

The end user
that wants to
stay engaged,
but needs IT
assistance

The energy
champion
who's still
working and
needs to
show value

The site
designated as
an "Essential
Industry"

Core operating strategies

Understand the
needs and
circumstances of
each utility and end
user

Minimize the burden
to the end user

Advance projects
using better
conversations and
less data logging

Commit to regular
communication

Recent successes

- Puget Sound Wastewater Energy Coaching (WEC) transitions to webinar format
- Compressed air project M&V study leverages mill control system
- Data loggers deployed and returned by site staff
- Conversation with EPM identifies large custom project

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?

Other Updates

- 2021 Power Plan
- BPA EE Tracking System (BEETS)
- Next Rate Period Implementation Manual
- Impact Evaluation Update

Project Showcase: Darigold (Benton REA)



Darigold Sunnyside

Energy Savings Projects 2011-2019



Projects implemented

- 2019 Dry Milk Plant Expansion**
Installed variable frequency drives (VFDs) for improved process control on pumps, refrigeration, and fans
- 2018 Refrigeration Panel Upgrade & Lighting**
Installed compressor microprocessors on ammonia refrigeration systems for better control and updated lighting
- 2014 Boiler Fan VFDs**
Installed VFDs to optimize combustion control on the steam system
- 2013 Condenser Fan VFDs**
Installed VFDs for improved refrigeration performance
- 2011 New Chiller and Lighting**
Upgraded chiller plant for process quality improvement and energy performance



+9,200,000

kWh Annual Energy savings



\$423,000

Annual avoided cost



836

of Pacific Northwest homes' energy use



Our Project Team

What ideas do you have
to save energy?

CONTACT

Eric Miller Benton REA Energy Services Manager
Tom Rouleau Darigold Technical Manager
Tim Voegtli Darigold Project Engineer
Tony Simon ESI Program Delivery Manager

Project Showcase: Darigold (Benton REA)

Benton REA
@bentonrea

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Benton REA
April 7 at 1:01 PM

Since 2011, Darigold Sunnyside has improved efficiencies so much they're saving more than 12 million kilowatt hours each year. That's enough to power 665 average residential homes. Darigold's most recent energy-efficiency project earned the farmer-owned dairy co-op a \$45,000 rebate from Benton REA. Read about it here: <https://bentonrea.org/darigold-achieves-energy-savings-and-...>

BENTONREA.ORG
Darigold Achieves Energy Savings and \$45,000 Rebate - Benton REA

- [Newsletter](#)
- https://bentonrea.org/wp-content/uploads/2020/03/04_April_2020_BREA-MemberNewsletter_web.pdf
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HIGH-VOLTAGE NEWS
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Darigold Achieves Energy Savings and \$45,000 Rebate

Since 2011, Darigold Sunnyside has improved efficiencies so much they're saving more than 12 million kilowatt hours of energy each year. That's enough to power 665 average residential homes.

Darigold's most recent energy-efficiency project earned the farmer-owned dairy co-op a \$45,000 rebate from Benton REA.

The project included installation of new pumps, fans, heat exchangers, variable frequency drives and process controls for a system dedicated to processing 400,000 gallons of raw milk per day into its powdered form.

The construction began in 2014 with the goal of processing milk locally, rather than transporting it long distances to other facilities.

Darigold went above and beyond the requirements of the Washington energy code.

"The level of control and automation necessary to sustain optimal quality for production required tighter controls and standards during operation," says Tom Rouleau, technical manager at Darigold. "We pursue sustainable practices across our entire enterprise, not only because it's the right thing to do, but also because stewardship is core to our values and heritage."

Efficiency is a team effort. More than 15 people from six departments make up the Darigold Sunnyside Energy Team. This team works closely with the Bonneville Power Administration and Benton REA to bring ideas from the white board to the production line.

"It truly is a team effort to identify and capture opportunities to save energy," Tom says. "Our team continues to take ownership to keep pushing those efforts forward."

Eric Miller, Benton REA's energy advisor, facilitated connections among Darigold's energy team, Energy Smart Industrial and BPA. Benton REA provides rebates to commercial, agriculture and residential members who follow BPA energy-efficiency standards.

Tom also recommends looking at Energy Star programs and involving vendors to help identify and resolve opportunities.

"Recognize that initial investments may seem high, but the savings will be sustained long-term when people are committed," he says.

For more information about Benton REA's commercial rebates, contact Eric Miller at emiller@bentonrea.org or 509-786-8265.

Tom Simon, a professional engineer with Energy Smart Industrial, helped Darigold identify projects as well as their value and potential savings. Tom collected data before and after the efficiency improvements, made comparisons and validated that each energy-saving idea produced expected results.

"We could not have crunched all the necessary data without his help," Tom says.

Improving energy efficiency requires tighter operational controls, resulting in improvements to other areas of the plant.

After nine years of improving the plant's lighting, refrigeration, boilers, condensers and more, it may seem like there is nothing left to do. But Tom and the Sunnyside team aren't done. Their next plan includes replacing all lighting with energy-efficient LEDs.

Tom encourages other businesses to achieve efficiency savings by establishing a common goal and demonstrating a top-down commitment to follow through.

"Reach out to your utility providers," he says. "They can provide technical assistance in many ways."

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April 2020 Benton REA



Project Showcase: Tillamook (Tillamook PUD)



Tillamook County Creamery Association

Energy Savings Projects 2019



Projects Implemented

1 Installed Variable Frequency Drives (VFDs) on:

- Beta Vacuum Pumps
- Tower Vacuum Pumps
- Evaporator Fans

VFDs allow a motor to run at a slower speed. This allows for more precise control of the process. A fan that was drawing 10-hp at 100% speed may now only draw 4hp at 70% speed.

2 Installed a Logix Control System on the South Refrigeration System

This Control System optimizes the operation of the refrigeration system by allowing for greater control by plant technicians.

3 Designed and Installed Photo Eyes to reduce compressed air usage in packaging

Photo Eyes were installed to only blow when there is product on the packaging line. A timer will turn off compressed air once all product has passed. Compressed air is a very expensive utility. Reduction of compressed air usage will greatly save energy.



1,191,905

kWh Annual Energy Savings



\$63,000

Annual Avoided Cost



141

Pacific Northwest Homes' Annual Energy Use



Members of the Tillamook County Creamery Association Energy Team (L-R):

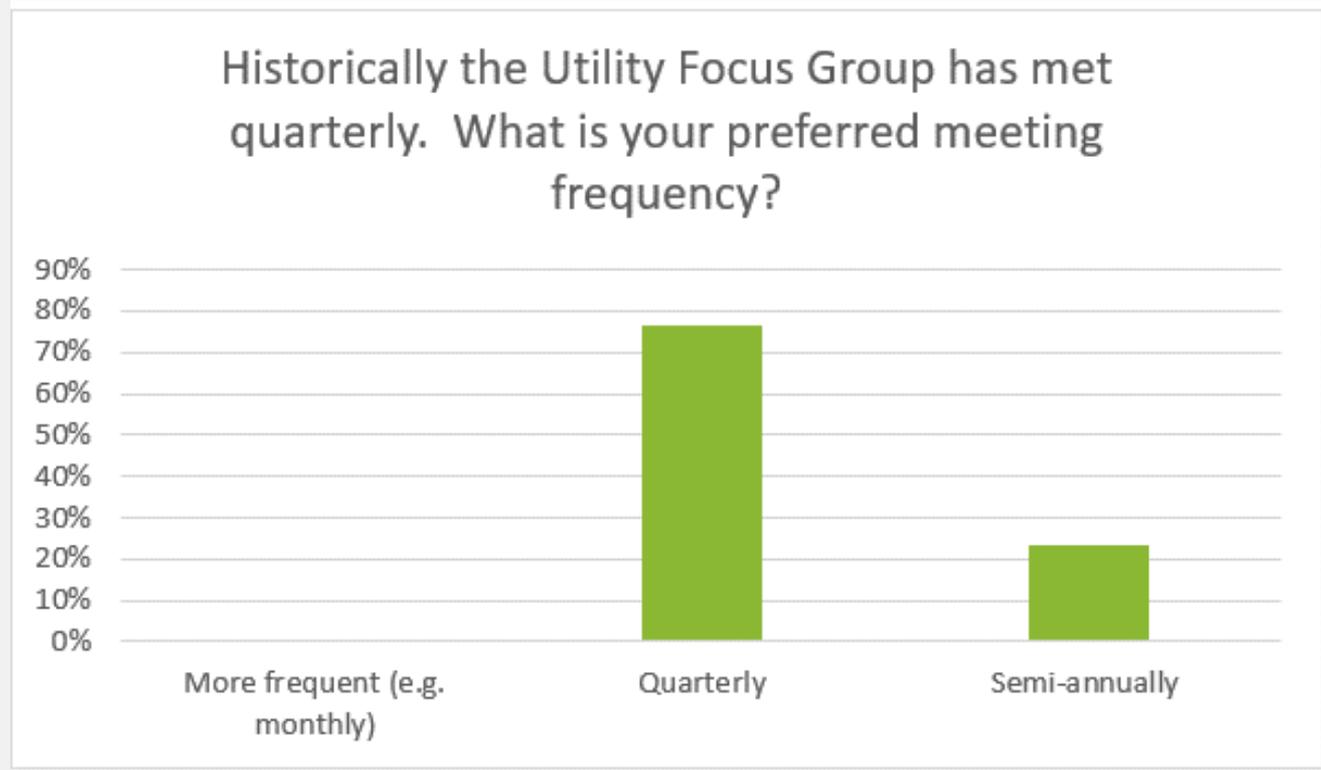
Doug Dentel, Maintenance Supervisor • Justin Kanoff, Corporate Environmental Manager • Cory Slaughter, Associate Process Engineer
Dave Wimpy, Key Accounts Manager • Ray Mack, Maintenance Supervisor • Ryan Gentry, Maintenance Manager

What ideas do you have to save energy?

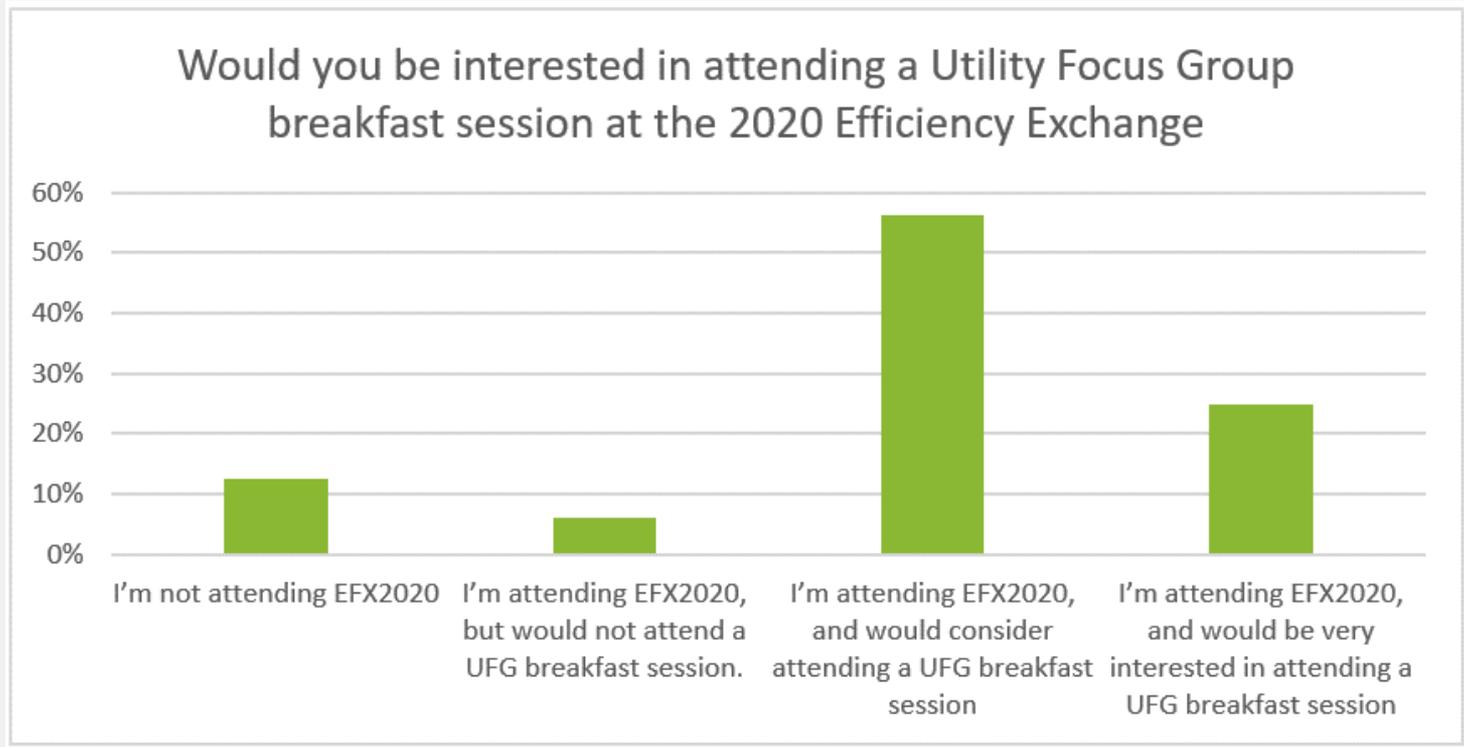
CONTACT

Cory Slaughter, Associate Process Engineer

Utility Focus Group survey



Utility Focus Group survey



Potential topics for July 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
- Future of lighting
- Demand response



Thank you!

For more information, contact:

Michelle Lichtenfels

Commercial & Industrial Sector Lead, Energy Efficiency

Bonneville Power Administration

melichtenfels@bpa.gov

503-230-5453