Better Buildings®
U.S. DEPARTMENT OF ENERGY

JUNE 8–11

2020 SUMMIT

A Virtual Leadership Symposium

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U.S. DEPARTMENT OF ENERGY

Best of the Betters: 2020 Better Project and Better Practice Presentations

Wednesday, June 10

11:00 am-12:30 pm ET

David Reid

Celanese Corporation

Submit Questions
www.slido.com event code **#bbsummit**
then go to room **"Best of the Betters"**

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Celanese - Energy Sparks

U.S. Department of Energy - Better Plant Program

2020 Better Practice Award

David Reid CEM, P.Eng. – Sr. Manager Energy and Productivity

Better Plants
U.S. DEPARTMENT OF ENERGY

Background, Goal and Challenge

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- Sometimes even the best energy projects and equipment can underperform
  - Mis-operation
  - Knowledge gaps
  - Lack of know-how
- Energy systems are sometimes operated with:
  - Incorrect setpoints,
  - Inefficient equipment lineup
  - Manual mode, bypassing automated optimization
- Personnel do not realize the cost magnitude of seemingly insignificant energy inefficiencies.

Approach, Implementation and Execution:

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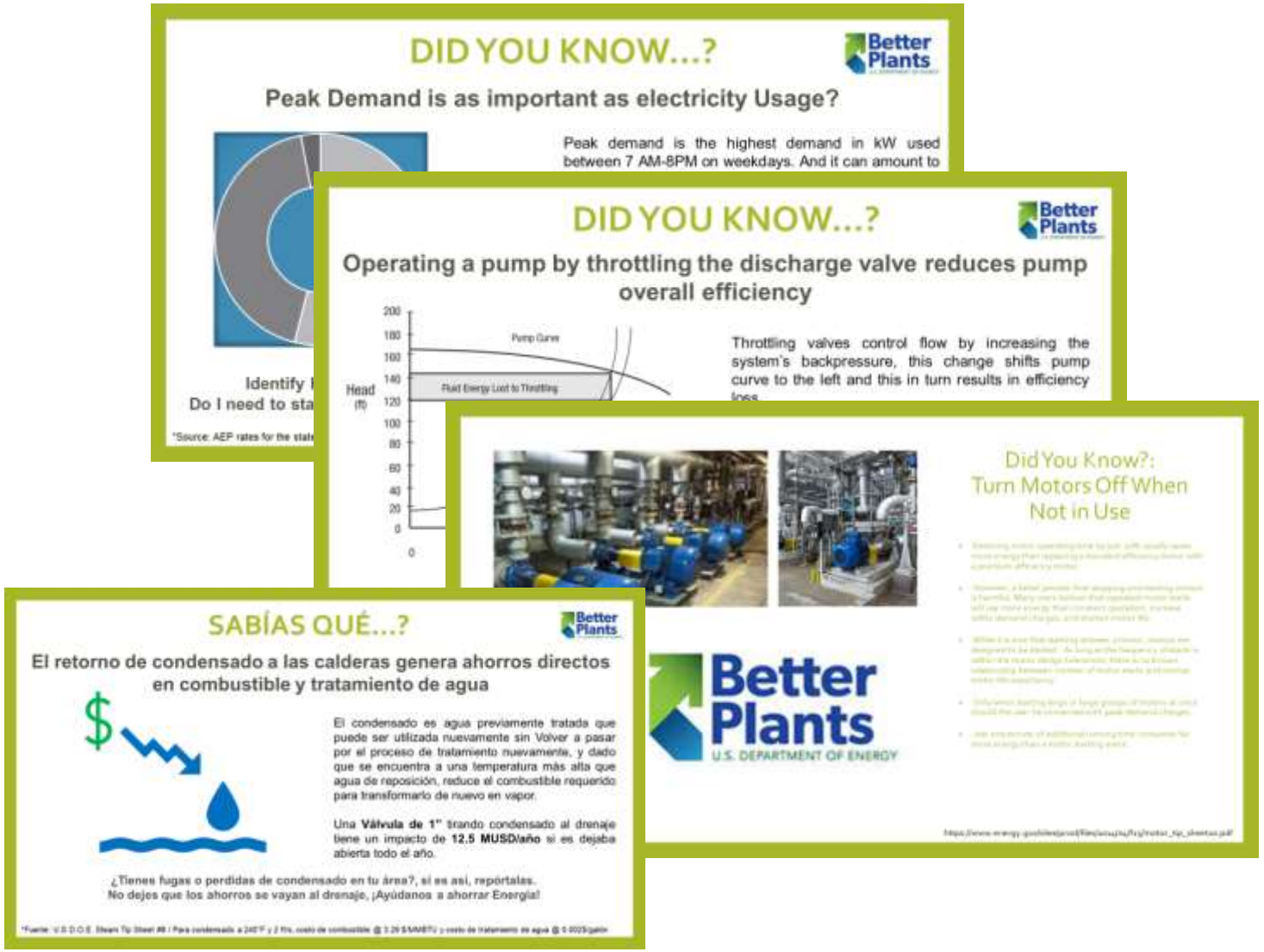
- Engaging Operations teams in energy
  - "Sparks" engagement, discussion and action
- Informative manufacturing related energy facts for:
  - Relevant to Operations teams
  - Toolbox meetings and bulletin boards
  - "Did You Know" format using DOE Energy Tips
  - Two minute conversation starters
  - Keeps energy in conversation and mindset of the 24/7 teams



Outcomes & Measuring Success

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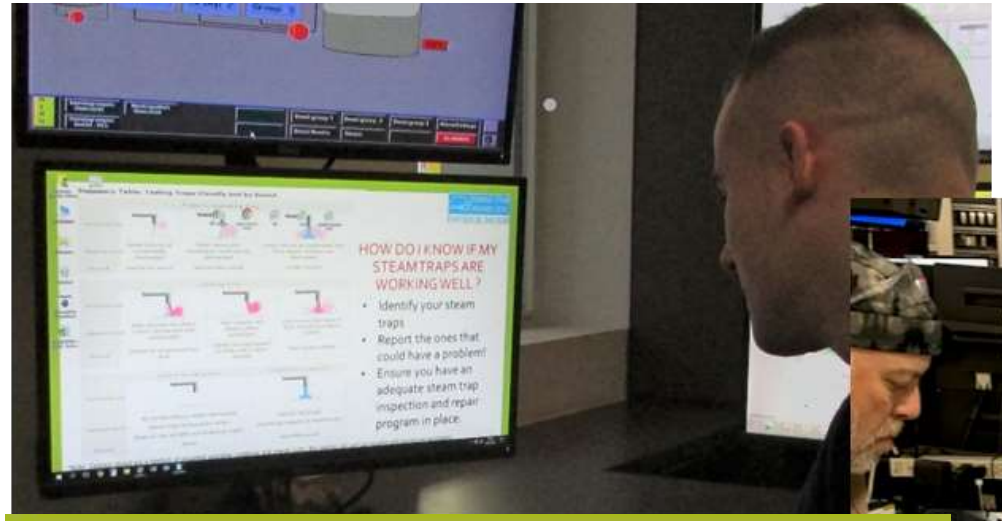
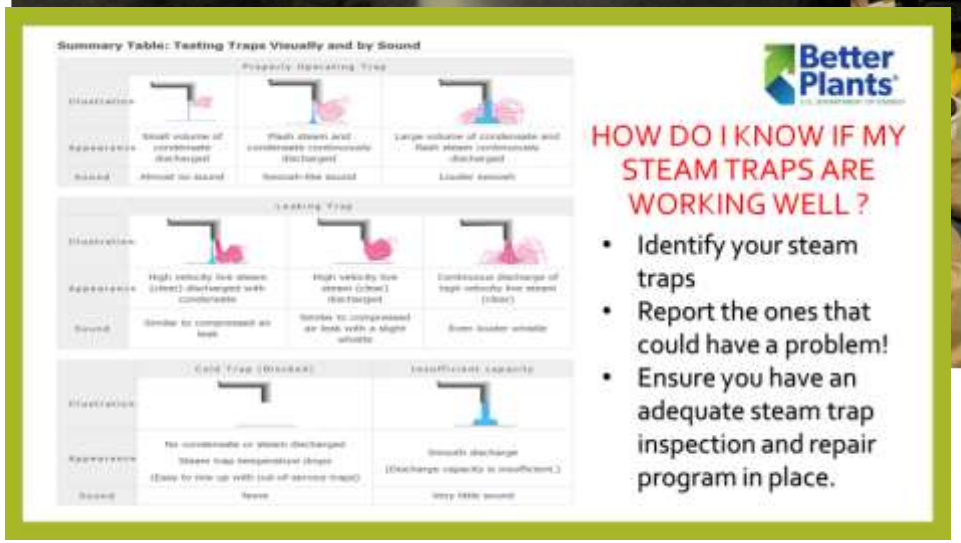
- Changed the mindset of shift operators
- Initiated conversation and action at the shift team level
- Steam Trap Case Study
  - Energy Spark - how steam traps work and how to inspect and detect a failed trap.
  - Operations teams took it on themselves to conduct further inspections
  - Post External Inspection trap failure finding saved $7000





Sustainability

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- Currently 16 Energy Sparks available in English and Spanish
- Goal is to translate them to German, Chinese and Dutch.
- Can be adapted to other subjects in the sustainability space
- Carries over to home and community life, engaging the next generations in energy efficiency.

DID YOU KNOW...?

Better Plants

Condensate return to boilers generate direct savings on fuel and water treatment

Condensate is water that has already been treated and can be reused on our boilers without going

Do you have condensate lea
Do not let savings go t

*Source: U.S D.O.E. Steam Tip Sheet #8 / For 240 °F condensate at 2 ft/s.

SABÍAS QUÉ...?

Better Plants

El retorno de condensado a las calderas genera ahorros directos en combustible y tratamiento de agua

El condensado es agua previamente tratada que puede ser utilizada nuevamente sin Volver a pasar por el proceso de tratamiento nuevamente, y dado que se encuentra a una temperatura más alta que agua de reposición, reduce el combustible requerido para transformarlo de nuevo en vapor.

Una **Válvula de 1"** tirando condensado al drenaje tiene un impacto de **12.5 MUSD/año** si es dejaba abierta todo el año.

¿Tienes fugas o perdidas de condensado en tu área?, si es así, repórtalas.
No dejes que los ahorros se vayan al drenaje, ¡Ayúdanos a ahorrar Energía!

*Fuente: U.S.D.O.E. Steam Tip Sheet #8 / Para condensado a 240°F y 2 ft/s, costo de combustible @ 3.29 $/MMBTU y costo de tratamiento de agua @ 0.0025/galón

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Contact Information

Global Headquarters

222 West Las Colinas Blvd. Suite 900N

Irving, Texas 75039, United States

European Regional Headquarters

The Atrium, Floor 6 Strawinskylaan 3105

1077 ZX Amsterdam, The Netherlands

Asia Regional Headquarters

4560 Jinke Road, Zhang Jiang Hi Tech Park

Shanghai 201203, China