Better Plants Online Learning Series

We’ll be starting in just a few minutes….

Visit our new Online Learning Series webpage on the Solution Center where you can see the schedule of upcoming webinars, RSVP, and access previously recorded webinars on other energy management topics.
Online Learning Series – Webinar #1
Better Plants Town Hall

Eli Levine
Office of Energy Efficiency and Renewable Energy
Eli Levine
U.S. Department of Energy
First off – Stay Safe and Thank you!

“Dow starts to make hand sanitizer as coronavirus pandemic continues”

“Coronavirus: Parker Hannifin “stepping up to deliver””

“L’Oréal Will Start Producing Hand Sanitizer to Help Fight Coronavirus”

“Steelcase to Supply Personal Protective Equipment to Healthcare Workers”

“Central Mass. manufacturers are joining the coronavirus fight”

“Industrious: Essential industries forge ahead”
### Better Plants Online Learning Series

**NEW! Better Plants Online Learning Series**

Starting Thursday, April 16, 2020  |  1:00pm US-ET

CLICK HERE TO LEARN MORE

<table>
<thead>
<tr>
<th>Webinar Topic</th>
<th>Speaker</th>
<th>Date</th>
<th>Time</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Better Plants Town Hall</td>
<td>Eli Levine (DOE), feat. Al Hildreth (General Motors)</td>
<td>04/16/20</td>
<td>1:00 pm US-EST</td>
<td>Register</td>
</tr>
<tr>
<td>2. Basics of Energy</td>
<td>Thomas Wenning (ORNL)</td>
<td>04/23/20</td>
<td>1:00 pm US-EST</td>
<td>Register</td>
</tr>
<tr>
<td>3. Lighting, HVAC, and Building Envelope</td>
<td>Thomas Wenning (ORNL)</td>
<td>04/29/20</td>
<td>1:00 pm US-EST</td>
<td>Register</td>
</tr>
<tr>
<td>4. Resources You Should Know: USDA Rural Development Programs and the Department of Commerce Manufacturing Extension Partnership</td>
<td>Venus Welch-White (USDA) and David Stieren (NIST-MEP)</td>
<td>05/07/20</td>
<td>1:00 pm US-EST</td>
<td>Register</td>
</tr>
<tr>
<td>5. Compressed Air Systems</td>
<td>Thomas Wenning (ORNL)</td>
<td>05/14/20</td>
<td>1:00 pm US-EST</td>
<td>Register</td>
</tr>
<tr>
<td>6. Water Efficiency</td>
<td>Sachin Nimbalkar (ORNL)</td>
<td>05/21/20</td>
<td>1:00 pm US-EST</td>
<td>Register</td>
</tr>
</tbody>
</table>
Agenda for Today

Program Update from Better Plants
- What’s new with the program?
- New resources and tools for you to leverage
- Potential upcoming events and opportunities

Partner Town Hall
- How are partners adapting to the global pandemic?
- What does this mean for energy management?
- What will the future look like, and how can Better Plants support you?
Welcome New Partners!
Important Dates to Remember

Data:
04/15/20 *
Today, or as soon as possible

Better Practice and Better Project Awards:
05/08/20*
Extended from original date
National Recognition – New Prize

Individuals Taking Energy Action in Manufacturing (ITEAM) Prize

$5,000 to 5 winners in each of small, medium, large categories.

DOE is launching the ITEAM Prize competition as a means to:
1. Find individuals who were responsible for creative, specific, and innovative ideas and practices that led to significant, measurable energy savings at their manufacturing facilities; and
2. Encourage those individuals to widely share their ideas and practices for the benefit of U.S. Manufacturing facilities nationwide.
Fundamentals of Energy Management Training

Save The Date
Fundamentals of Energy Management Training Workshop
Aug 18 - 20, 2020
Optional Tour Aug 21
AEE World 2020

THE CONFERENCE
Sept 23-25, 2020

The conference is your chance to learn about the latest developments from business, industry and government sectors. It also provides you with multiple opportunities for networking with your peers, or meeting with potential vendors and business partners.

THE EXPO
Sept 23-24, 2020

A wide range of industry-leading companies present and demonstrate energy efficient products, energy management services, and solutions. Find your next vendor or business partner at AEE World Expo.
Technology Days 2020

Save the Date for the 2020 Technology Days!

October 13-15, 2020
Lemont, IL
New Tools and Resources

MEASURE
Welcome to the most efficient way to manage and optimize your plant's systems and equipment.

Create an assessment to model your system and find opportunities for efficiency or run calculations from one of our many property and equipment calculations that starts with one of the following options:

- Create Pump Assessment
- Create Process Heating Assessment
- Create Fan Assessment
- Create Property 
- Create Equipment 
- Create Energy 
- Create Property 
- Create Equipment 
- Create Energy 

All Calculators

Pumps

- Fan Efficiency Curves
- Pump Curves
- Specific Speed
- Head Tool
- System Curve
- Use system curve to match your pumps flow.

Specific Speed
For each pump type there is an optimal specific speed based on size, flow rate, specific speed. High speed pumps have a higher ratio of impeller diameter to impeller length and vice versa. High specific speed pumps not achieve this ratio and some manufacturers may use a high specific speed impeller to operate at maximum efficiency. Use the system curve to match your pumps flow and achieve maximum efficiency.

Head Tool
Use head tool to calculate the head provided.

System Curve
Use system curve to match your pumps flow.
2020 In-Plant Trainings

- Status of INPLTs Scheduled for 2020
- How to stay up to date on INPLT schedule
- Other opportunities for training
Field Validation Pilot

Why Field Validation?

Field validation helps reduce the risk associated with testing new technologies and enables the broader integration of new technology into the industrial and manufacturing space.

This initiative allows for the performance of next-generation energy efficiency technologies to be evaluated in real-world operational settings, for the purpose of advancing research and development in the industrial sector.
New Solutions

ABANDONED AIR HANDLER REPURPOSING

APPLICATION OF PRINCIPLES OF GREEN CHEMISTRY LEADS TO SIGNIFICANT REDUCTIONS IN MATERIAL WASTE

COMPRESSED AIR CHALLENGE

ECOSTRUXURE BUILDING ADVISOR

ENERGY MANAGEMENT ASSESSMENT MATRIX

NARROWS SITE ENERGY REDUCTION PROJECT ACHIEVES SIGNIFICANT ENERGY SAVINGS
Better Plants Special Initiatives

Supply Chain Initiative
- Around 40-60% of a manufacturing company's energy and carbon footprint can reside upstream in its supply chain.

Water Savings
- Transporting and treating water requires energy, thus saving water saves energy and can also lead to a more reliable water supply and improved water quality.

Waste Reduction
- A platform for industry leaders to demonstrate what is achievable in waste reduction, which can aid other organizations in developing or improving their own programs.
GM responds to Covid-19

Al Hildreth
General Motors Global Energy Manager

GM is committed to a future of:
ZERO CRASHES
ZERO EMISSIONS
ZERO CONGESTION

alfred.j.hildreth@gm.com

16-April-2020
Actions related to pandemic

1. Cease major manufacturing
2. Real-time monitor energy shutdown
3. Support Ventilator production with Ventec
4. Manufacture respirators
## Best shutdown for energy savings

<table>
<thead>
<tr>
<th>Facility - Green text = top 85th percentil</th>
<th>Shutdown of Electric load 4/9 @4 am-8am, Kw</th>
<th>Shutdown of Electric load 4/10 @4 am-8am, %</th>
<th>Shutdown of Electric load 4/10 @4 am-8am, Kw</th>
<th>Shutdown of Electric load 4/10 @4 am-8am, %</th>
<th>Facility Best = target, KW</th>
<th>Facility Best = target, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility 1</td>
<td>176</td>
<td>97%</td>
<td>172</td>
<td>97%</td>
<td>201</td>
<td>97%</td>
</tr>
<tr>
<td>Facility 2</td>
<td>189</td>
<td>95%</td>
<td>188</td>
<td>96%</td>
<td>201</td>
<td>95%</td>
</tr>
<tr>
<td>Facility 3</td>
<td>802</td>
<td>94%</td>
<td>792</td>
<td>94%</td>
<td>845</td>
<td>94%</td>
</tr>
<tr>
<td>Facility 4</td>
<td>537</td>
<td>94%</td>
<td>551</td>
<td>94%</td>
<td>553</td>
<td>94%</td>
</tr>
<tr>
<td>Facility 5</td>
<td>350</td>
<td>97%</td>
<td>678</td>
<td>93%</td>
<td>482</td>
<td>95%</td>
</tr>
<tr>
<td>Facility 6</td>
<td>553</td>
<td>98%</td>
<td>375</td>
<td>93%</td>
<td>400</td>
<td>93%</td>
</tr>
<tr>
<td>Facility 7</td>
<td>334</td>
<td>93%</td>
<td>332</td>
<td>93%</td>
<td>356</td>
<td>93%</td>
</tr>
<tr>
<td>Facility 8</td>
<td>505</td>
<td>93%</td>
<td>507</td>
<td>93%</td>
<td>494</td>
<td>93%</td>
</tr>
<tr>
<td>Facility 9</td>
<td>1,011</td>
<td>92%</td>
<td>1,016</td>
<td>92%</td>
<td>1,025</td>
<td>92%</td>
</tr>
<tr>
<td>Facility 10</td>
<td>900</td>
<td>91%</td>
<td>900</td>
<td>91%</td>
<td>810</td>
<td>92%</td>
</tr>
</tbody>
</table>

**GENERAL MOTORS**

Daily report to facility management
Use idle space to produce needed Ventilators

We’re proud to utilize our manufacturing and purchasing expertise to partner with Ventec on these lifesaving devices.

Should demand continue to increase, we are ready and equipped to ramp up the number of ventilators being manufactured at our Kokomo facility.

We leveraged our manufacturing expertise and supplier relationships to locate hundreds of parts in little more than a week.

These critical care ventilators are portable so medical professionals can treat patients in non-traditional locations such as field hospitals.
Use idle space to manufacture masks

An Inside Look at How General Motors is Mass-Producing Masks

Not all heroes wear capes – some of them wear masks.

Raw Materials       | Fold, Weld, Cut       | Ear loops       | Sterilization       | Bagging

GENERAL MOTORS
Want to join the conversation?

Use the **raise your hand** feature to alert webinar moderators you’d like to speak. Once your name is called, your line will be unmuted, and you can share with the group.

Type any questions or comments into the **Questions box**.
BETTER BUILDINGS

Better Buildings is an initiative of the U.S. Department of Energy (DOE) designed to improve the lives of the American people by driving leadership in energy innovation. Through Better Buildings, DOE partners with leaders in the public and private sectors to make the nation's homes, commercial buildings and industrial plants more energy efficient by accelerating investment and sharing of successful best practices.
BETTER PLANTS TOWN HALL
Thr, Apr 16, 2020 | 1:00 - 2:00 PM ET

BASICS OF ENERGY
Thr, Apr 23, 2020 | 1:00 - 3:00 PM ET

LIGHTING, HVAC, AND BUILDING ENVELOPE
Wed, Apr 29, 2020 | 1:00 - 3:00 PM ET

RESOURCES YOU SHOULD KNOW:
USDA Rural Development Programs & the Dept. of Commerce Manufacturing Extension Partnership
Thr, May 7, 2020 | 1:00 - 2:00 PM ET

COMPRESSED AIR SYSTEMS
Thr, May 14, 2020 | 1:00 - 3:00 PM ET

WATER EFFICIENCY
Thr, May 21, 2020 | 1:00 - 2:00 PM ET
JUNE 8–11
2020 SUMMIT
A Virtual Leadership Symposium

Learn more and register: betterbuildingssolutioncenter.energy.gov/summit