

Better Buildings Alliance Plug and Process Loads Technology Research Team

October 2020

Team Updates

- The Plug and Process Loads Technical Research Team (PPL TRT) hosted a webinar in July titled *Case in Point: Oregon's Recent Efforts to Reduce Plug Load Energy Consumption*. Dave Wortman (Oregon Department of Administrative Services) and Stephanie Kruse (Oregon Department of Energy) discussed Oregon's Statewide Plug Load Strategy, the state's adoption of ASHRAE 90.1-2016 energy codes, and Oregon's recently adopted Energy and Resource Conservation Policy, which includes several components of the Plug Load Strategy. The full recording and past webinars can be found on the PPL TRT's [On Demand Webinar webpage](#).
- In August, the PPL TRT published a Better Buildings [Beat Blog Post](#) that informs the retail sector of the strategies they can use to curtail energy use from PPLs in their buildings. In addition to other tools, strategies, and resources, the blog post highlights a newly published resource by the PPL TRT, *Assessing and Reducing Plug and Process Loads in Retail Buildings*.

Resource Spotlight

- In August, the PPL TRT published two resources. These **new guides** are fully revamped with the latest processes and technologies and are geared to address the buildings of today.
 - [Assessing and Reducing Plug and Process Loads in Office Buildings](#): This guide helps office building owners and energy managers reduce PPL energy use. It includes a process for developing a PPL control strategy for office buildings. Access this resource on the PPL TRT [website](#) under "Featured Solutions" and "Guidance".
 - [Assessing and Reducing Plug and Process Loads in Retail Buildings](#): This guide describes the process needed to cost-effectively reduce PPL energy impact in retail buildings. It includes general and appliance-specific PPL control strategies. Access this resource on the PPL TRT [website](#) under "Featured Solutions" and "Guidance".
- The PPL team's paper, *Emerging Technologies for Improved Plug Load Management Systems: Learning Behavior Algorithms and Automatic and Dynamic Load Detection*, was published in the [ACEEE 2020 Summer Study](#) conference proceedings. Learning behavior algorithms and automatic and dynamic load detection are technology areas that could accelerate plug load management system adoption by reducing installation demands and providing additional energy efficiency and nonenergy benefits. This paper includes findings on the current state of these technologies.

Upcoming Webinars and Events

- We plan to host our next PPL TRT webinar in early winter – stay tuned for more details!
- PPL TRT webinars will now include the option for participants to **share PPL updates** with other webinar attendees. Please email PPL@nrel.gov if you would like to share an update of your organization's PPL activities on our next webinar (initiatives, best practices, challenges, etc.).

- On November 16, 2020, join the [California Plug Load Research Center \(CalPlug\)](#) virtually for the [CalPlug Workshop – COVID19, Community, Carbon Footprint and Energy Consumption](#). CalPlug's 16th workshop will bring together experts in their respective fields to discuss how energy consumption has affected our communities – especially disadvantaged areas, our carbon footprint, and the challenges we all face during this Covid19 pandemic.
- The [Integrated Lighting Campaign \(ILC\)](#) has launched! The ILC is a resource for research on new advanced lighting controls and integrated lighting systems and provides a platform to recognize exemplary projects shared by ILC participants. The ILC is looking for parties who have integrated, or are considering integrating, lighting systems with other building end uses, such as plug loads or HVAC systems, to join the Campaign. Email integratedlighting@pnnl.gov if you are interested in joining, learning more, or if you are working on projects that integrate controls of these building end uses.

Funding Opportunity

- The U.S. Department of Energy (DOE) announced a \$80 million funding opportunity! Buildings Energy Efficiency Frontiers & Innovation Technologies (BENEFIT) 2020 will award competitively selected projects that enhance energy demand flexibility across buildings and the electric power grid **including plug load management solutions**. Learn more [here](#).
- The U.S. Department of Energy (DOE) announced a \$65 million funding opportunity! Connected Communities aims to expand DOE's network of grid-interactive efficient building communities nationwide. Learn more [here](#).

Contact Us

- Are you working on any plug and process load research or have data to share? Would you like to be more involved with the Plug and Process Loads Technology Research Team? If so, we would like to hear from you! Contact us at PPL@nrel.gov.

All the best,

Kim Trenbath (BBA PPL Technical Lead), Amy LeBar, and Robin Tuttle, National Renewable Energy Laboratory