

Bell Lab

380 Tan Hall



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Building Contact:

Amber Janda - aljanda@berkeley.edu

myPower Team:

Erin Fenley - fenley@berkeley.edu

Rohini Rajgopal

Background

Bell Lab is home to chemical research. No previous surveys have been conducted in this lab, but there is a pulse dashboard available online so building occupants can track their building-level energy consumption. In addition, Power Save “Shut the Sash” stickers were found on some fume hoods.

Bell Lab usually has equipment that is on standby, so that occupants don’t have to keep turning machines on and off, wasting energy and time. The lab also has stickers as reminders, shut the sash reminders and lights are usually off when the lab is not occupied. Their main concerns are about unused equipment that could remain on for a year or so without being used. A few current pieces of equipment include: a furnace to heat gases, mass spectrometer and gas chromatograph.

Approximately twelve people occupy this lab, seven days of the week. There are no official hours. During the holidays, occupants are present in the lab. Occupants also work in labs other than Tan Hall.

Lighting

Efforts have been made to turn off lights overall when no one is occupying the offices or lab areas. No occupancy sensors have been installed for overhead lighting in non-lab spaces, which could be something to look into for future green developments. Lastly, the Bell Lab could benefit from light switch reminder stickers.

Computers/Printers

For the most part, occupants use 2 shared networked printers and their own desktops. Monitors are normally in sleep mode. However, some people do use screen savers on their computers, which is not recommended since these settings do not allow the monitors to go into sleep mode.

Kitchenette

In the kitchenette (which is not directly part of the lab), power strips are used on appliances with phantom loads. By placing the power strip in a conspicuous place, occupants can be reminded to turn it off more easily. The current refrigerator is over 20 years old (see image at top left) and is often times only half full. Bell Lab could look into purchasing a smaller, more efficient, Energy Star fridge.

Laboratory

Fume Hoods

There are 12 fume hoods in this lab. Stickers reminding occupants to “Shut the Sash!” whenever it is open have helped close the sash when it is not in use. Vacuum pumps are always on under the fume hoods because they need to remain on. Bell Lab is working to minimize storage of equipment and chemicals in the hoods, by placing appropriate items on shelves.

Lab Equipment

Bell Lab does share equipment with other labs and departments unofficially. No auxiliary equipment can be set up to automatically shut off with the equipment it supports; most things are manually controlled but the lab does use the “Lab View” software. The lab does not use equipment cooling water but has some gas chromatographers that are cooled with cryogenes.

BELL LAB ENERGY SAVING RECOMMENDATIONS

Short term:

Lighting

- Continue to utilize natural light** as much as possible. Encourage daytime vs nighttime work.
- Place reminder stickers** on light switches.

Computers/printers

- Avoid screensavers** – they don't save energy on LCD monitors.
- Continue to turn monitors off** at the end of the day or when not in use
- Look into using smart energy saving power strips.**

Kitchenette

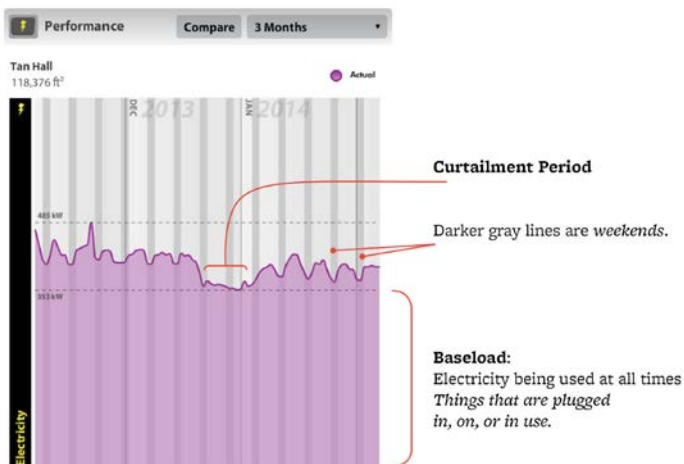
- Unplug kitchen appliances after use**, or put them on a power strip and turn off the entire strip when done.
- For ease of use**, place power strip in conspicuous area.
- Look into purchasing** a newer, more efficient fridge.

Long term:

- Look into installing occupancy sensor light switches** in low traffic office areas.

Further Resources

- Keep stocked with stickers to prompt energy conservation. Visit the **myPower Resource Center in 192 Barrows**.
- Become a **Power Agent**: bit.ly/PowerAgents
- Report maintenance issues to **Physical Plant Campus Services** (PP-CS): 642-1032
- myPower **lab tips** available at: mypower.berkeley.edu/takeaction/lab.html
- Discard old or underutilized electronics** at Overstock and Surplus: businessservices.berkeley.edu/overstock
- Look into Labs21** for some more ideas on Green Lab Best Practices: www.labs21century.gov/



Check out Tan Hall's

Dashboard here: <http://bit.ly/VhD0xC>

The dashboard shows real-time electricity use for the entire building. It's updated every 15 minutes.