

Dwinelle Hall – Linguistics Department Level A & C (Partial)



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Dwinelle Energy Dashboard: <http://bit.ly/dwine>

Established in 1901, Berkeley's Linguistics Department was the first of its kind in North America. It has since made a name for itself by joining careful, scholarly documentation with cutting-edge theoretical work in phonetics, phonology and morphology. The department contains staff, faculty and graduate student offices on the ground floor of Dwinelle's northern wing. The department's phonology lab is housed in the southern wing where graduate students perform research on unwritten languages and theoretical phonetics and phonology. Approximately 60 graduate students, 14 faculty members, and 4 staff use the building and its facilities regularly during the hours of 7:00 A.M. to 5:30 P.M. However, the building is open during all hours of the day as members of the Linguistics Department have 24 hour key card access. The Linguistics Department contacted myPower for recommendations to reduce overall energy use while maintaining a comfortable and work-friendly environment.

Lighting

Unfortunately, only the ground floor portion of this department has access to natural lighting. On the ground floor, task lighting is used in conjunction with natural lighting in various offices. However, the bulbs within each task light

are usually incandescent and should be switched to more energy efficient CFLs. Occupants do remember to turn off lights when leaving a room or when the light is not needed.

One of this department's main concerns is overhead lighting in hallways. Every other hallway light was turned off (as an energy-saving measure), creating displeasing patches of light and dark throughout the hallway. The myPower team is proposing delamping as a possible solution that could create a more suitable and well-lit work environment - while using the same amount of energy. As the building is open 24 hours to faculty members, graduate students, and custodians, the hallway lights are left on through the majority of the night. Additional light metering could be performed to determine if specific areas of this department are over- or under-lit.



Recommendations

- Look into delamping of hallway lights. The Energy Office may be able to assist with this issue.
- Ensure that task lamps are equipped with compact fluorescent bulbs (CFLs) or LEDs.
- Assign an occupant on each floor to turn off lights at the end of the day.
- Continue turning off lights manually when leaving a room.
- Utilize natural light as much as possible.

Thermal Comfort

Due to the structure of the building and its steam heating system, the Linguistics Department tends to be too hot during both the summer and winter months. Western facing offices allow natural light and excessive heat during the summer. In the winter when upper floors request heat, large amounts of heat are also unwantingly supplied through vents in the bottom floor Linguistics offices. This occurs even though their accessible thermostats are all set to 55° F. These offices also use windows and doors appropriately to control office temperature depending on if HVAC is running. However, due to the heat, some occupants use personal fans.

A central fan located in Room 50B (Level C) next to the phonology lab has created additional concern. This fan circulates air through the building, but is incredibly loud and inefficient. This creates problems for those doing research in the phonology lab, which requires them to listen closely to audio recordings. Turning the fan off allows research to be performed, but creates an uncomfortable work environment due to poor air quality and high temperatures.

Recommendations

- Open windows and use blinds to regulate high temperatures.
- Talk to building manager and Energy Office to address winter heating issue.
- Unplug personal fans when not in use.
- Follow up on rm 50B (Level C) fan issue.
- Look into possibility of lowering building temperature set-points (through Building Manager or Energy Office).

Computers & Printers

Most individuals in the Linguistics Department use laptops instead desktops. As a result, there are no standard energy-saving settings for all occupants' laptops. Suggested energy-saving settings for individual laptops can be found in the *Recommendations* section below. Most computers inside the phonology lab are shut off or put in sleep mode at the end of the work day. Monitors were turned off when they were not in use as well. Some occupants also use individual printers rather than a central printer because of confidentiality and the need for varying print quality. Servers are located offsite via IST.

Recommendations

- Avoid using screensavers.
- Reduce brightness and increase contrast of computer screen.
- Turn off monitors when not in use.
- Shut off or put computers in sleep mode at end of day.
- Use proper energy saving modes (i.e. sleep) when equipment is temporarily not in use.
- Keep vents and fans on computers clean and unblocked.
- Unplug chargers when not in use.
- Turn off power strips when not in use. Look into partial-shut-off powerstrip devices: tinyurl.com/ye5lml2
- Consider Energy Star and other energy saving technology when purchasing new appliances.

General Appliances

Although this department does not contain a kitchenette, many individual rooms contain personal refrigerators, microwaves, and coffee makers. These appliances are generally left plugged in when not in use. Powerstrips are not used effectively as they are left on when appliances are not in use. In addition, appliances or other items are left on top of refrigerators. This forces fridges to work harder to keep their contents cool, using more energy than necessary. Many of these personal fridges are also outdated and not very energy efficient.

Recommendations

- Consolidate refrigerators where possible.
- Clear items from top of fridges.
- Unplug appliances after use, or put them on a power strip **and** turn off the entire strip when done.
- Defrost freezers regularly.
- Place reminder stickers conspicuously to prompt unplugging and powering down of appliances when not in use.
- Consider Energy Star and other energy saving technology when purchasing new appliances.



Further Resources

- Keep stocked with efficiency prompting posters, stickers, etc. Visit the myPower Resource Center in 192 Barrows.
- Become a Power Agent!: bit.ly/PowerAgents
- Contact Physical Plant Campus Services (PP-CS) for maintenance issues: (510) 642-1032
- myPower office tips are available at: mypower.berkeley.edu/takeaction/office.html
- Get rid of old or underutilized electronics at Berkeley Overstock and Surplus: businessservices.berkeley.edu/overstock