# SAVING ENERGY On Campus



### Warren Hall (1<sup>st</sup> Floor)

2195 Hearst Avenue Berkeley, CA 94720



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myPower Team: Joe Martorana

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Warren Hall was constructed in 2006 and currently houses the University's Controller's office, accounting and disbursement departments, and several units of the campus Information Services and Technology unit (IST). This building was named after former Chief Justice Earl Warren, who was also a former Berkeley graduate and California Governor. The building is open year round during the hours of 7:30 A.M. to 7:00 P.M. for regular employees, but is open 24 hours for IST employees. During the holiday season, the office undergoes curtailment in order to reduce their yearly energy consumption.

Ron Holmstrom, myPower's building contact, explained that although the building is relatively new, the IST department has had to replace two malfunctioning chiller units. In addition, the building experiences large air flow imbalances that forces many doors out of position and ultimately make the HVAC system work harder than it should.

### Lighting

Ron Holmstrom explained that Warren Hall had been retrofitted to house CFLs throughout the building and was on

a timer lighting system that keeps lights on during regular business hours. When the lights are turned off at around 7 P.M., the third floor switches to an occupancy sensor lighting system because IST employees work throughout the night. myPower recommends that these occupancy sensors also be used in common areas such as the copy/mail room in Payroll department. Both timer and occupancy sensor systems together form a highly efficient lighting program that many campus buildings should aspire to.

Although the building has some access to natural lighting, it relies heavily on overhead lighting fixtures to ensure proper visability for its employees. If employees feel like their work area is overlit, they should ask their building manager about delamping their work area to suit their needs. Task lighting is available within each employee's cubicle, but is used in conjunction with the overhead lighting. Numerous task lights



were left on when not in use and could be turned off to save energy. The myPower team placed lighting reminder stickers and posters throughout the building as a

behavioral solution to these lighting issues.

### Recommendations

- ☐ Turn off task lights when leaving work area.
- ☐ Turn off lights manually when leaving a room.
- ☐ Utilize natural light as much as possible.

### **WORK WITH BUILDING MANAGER**

☐ Look into installing motion sensor light switches in low traffic areas (i.e. mail room, kitchenette, etc.).



### **Thermal Comfort**

Although employees have no control over thermostats and cannot open windows in the building, the myPower team gathered that employees were generally comfortable in this work environment. Employees seeemed to dress appropriately for weather conditions instead of relying on space heaters. However, the



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myPower team did notice a variety of personal fans located in cubicles.

As stated before, the building's HVAC system can create air flow imbalances that force many doors out of position. As this allows the climate controlled air to escape the building, the HVAC system must work harder in order to bring the building back to its internal climate settings. Finally, the building did undergo curtailment during part of the holiday season to cut down their energy usage.

#### **Recommendations**

Wear temperature appropriate clothing instead of using
fans and space heaters.
Unplug space heaters and fans when not in use.
Close doors and windows when HVAC is running.
Leave window shades and blinds closed or tilted to
reduce cooling needs during warmer months.
Leave window shades and blinds open on sunny days
during winter months, but close them at night to help
reduce heat loss through windows

### **Computers & Printers**



The first floor of Warren hall had a vast array of networked energy star printers instead of individual printers per cubicle. The myPower associates took note that when a desk was left unattended, computer monitors were left on or were using a screen saver (which doesn't allow computers to go

into sleep mode). These monitors should be set to turn off automatically after 10 minutes of non-use. In addition, occupants can reduce the brightness and increase the contrast of their monitors. This can reduce power usage by up to 50%.

Also, the myPower associates learned that there was no person assigned the task of turning these monitors or printers off at the end of the day. In common work areas such as the copy rooms, many of the pencil sharpeners, automatic staplers, and shredders were placed on power strips. However, some power strips were not turned off where possible while individual appliances were left plugged into the wall outlets.

### **Recommendations**

Avoid using screensavers.
Turn off printers at nights or on weekends

	Enable energy saving features on all devices.
	Turn off monitors when you leave for more than 15
	minutes.
	Reduce brightness and increase contrast of monitors.
	Look for Energy Star rated electronics when making new
	purchases.
	Keep vents and fans on computers clean and unblocked.
	Utilize power strips by turning them off when plugged-ir
	appliances are not being used.

### **Kitchenette**

The layout of the kitchenette on the first floor of Warren hall was very efficient for the number of people that occupy the offices. The refrigerators appeared to be fully utilized for their entire space and there were no excess items on top of the fridge. The freezer appeared to be frequently defrosted as well. Many of the toasters, microwaves, etc. were left plugged into the outlets or power strips long after their use. Standby power (phantom power) that is generated by these types of appliances accounts for more than 100 billion kilowatt hours of annual U.S. electricity consumption and more than \$10 billion in annual energy costs. Unplugging these appliances is an easy way to save large quantities of energy year round.

### Recommendations

	Unplug appliances after use, or put them on a power			
	strip <u>and</u> turn off the entire strip when done.			
	Look into partial-shut-off powerstrip devices:			
	tinyurl.com/ye5lml2			
	Set up a system to have an emplyee unplug appliances			
	and turn off power strips at the end of the lunch hour.			
	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!: <u>bit.ly/PowerAgents</u>			
	Contact Physical Plant Campus Services (PP-CS) for			
	maintenance issues: (510) 642-1032			
	myPower office tips are available at:			
	mypower.berkeley.edu/take-action/your-office			

