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Energy Vampire Slide Deck

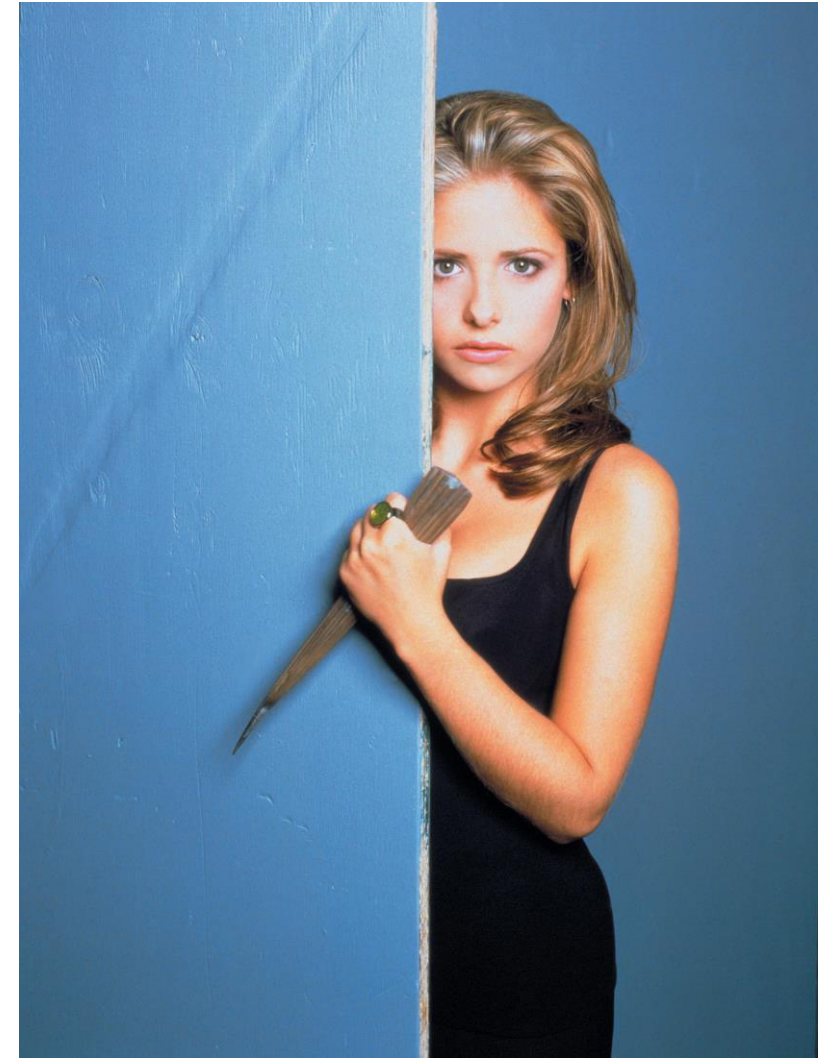


Any questions please email: greenlabsinfo@caltech.edu

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What are energy vampires?

Put down your wooden stake, Buffy! Energy Vampires are appliances and electronics that leach power even when they are not in use. By managing these energy-wasting appliances, you can “slay” at least 10%-20% of your energy usage every month.



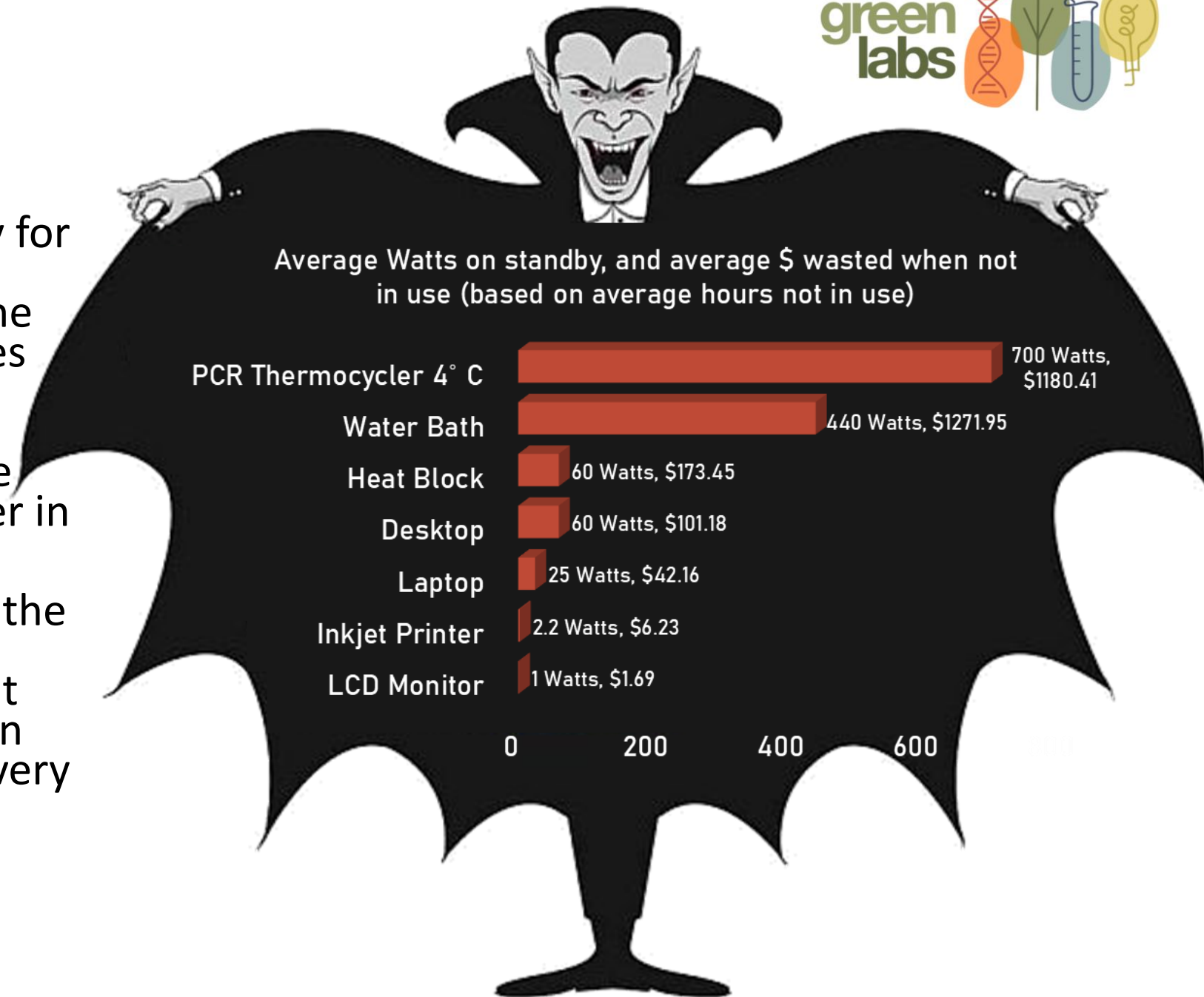
What can you do in the lab (or office)?

1. Power down or unplug all non-essential appliances (computers, monitors, printers, speakers, microwaves, coffee pots, hot plates, thermocyclers, scales).
2. Switch off power strips at the end of the day.
3. Turn off video displays, monitors, and electronic signs in common areas.
4. Close laboratory fume hoods.
5. Defrost your freezers regularly. This will also make your freezers last longer!
5. Turn off lights when rooms are vacant.
6. Use “smart” power strips, which can detect when appliances are in standby mode and cut the power.
7. Use automatic timers to turn off equipment during off-hours.



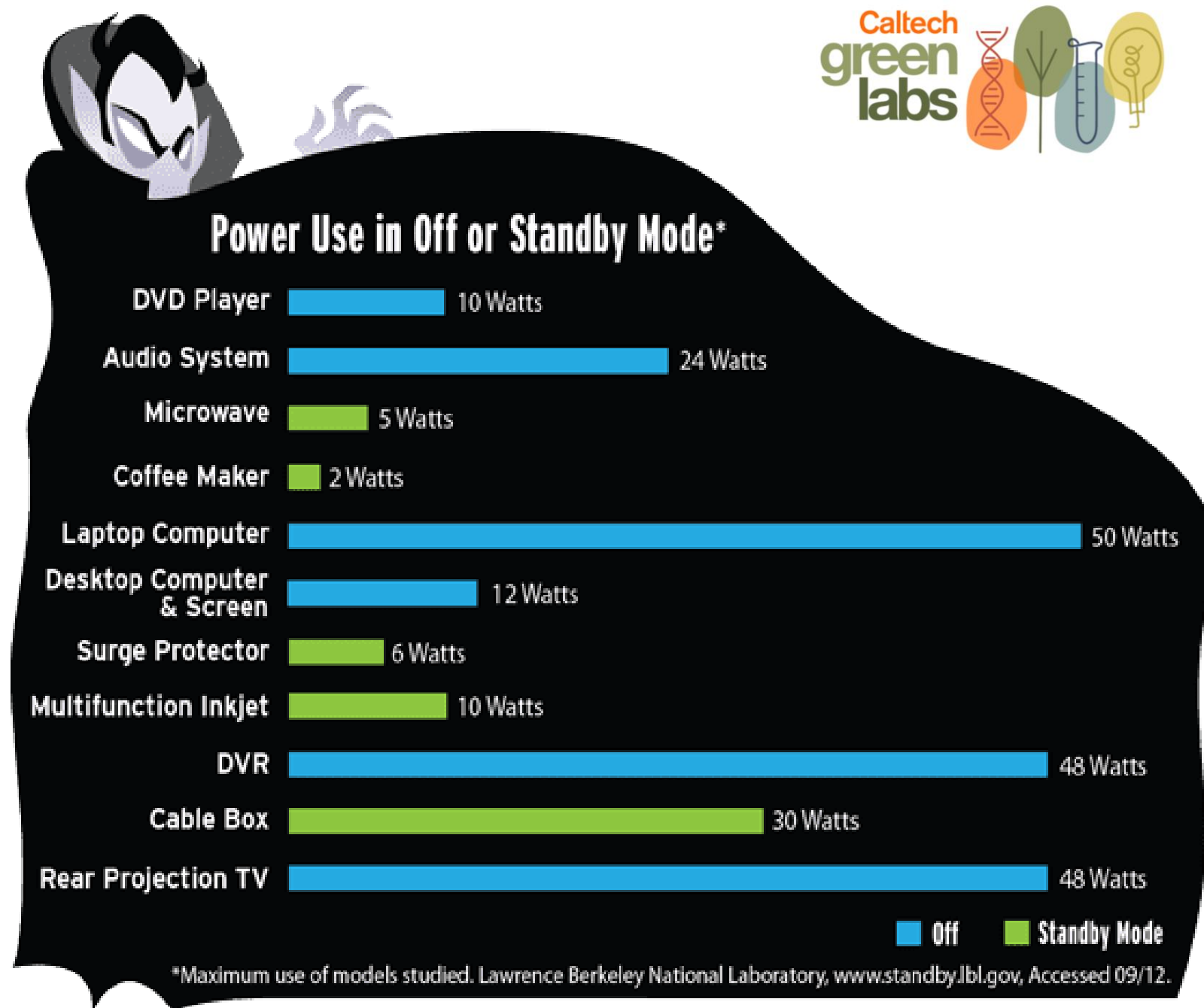
Why bother?

- Not only does it cost money for your lab to leave this equipment on standby all the time, it also causes machines to wear out faster, meaning you'll have to replace them more often or they will have errors or issues much sooner in their lifetimes!
- Here are some examples of the average watts of some lab equipment and the money it wastes on standby (based on average hours not in use) every year!



At home

Over 40% of your electricity is leeches by energy vampires! That's an average of \$200 per household ever year. However, we realize you're not going to turn off and reset your alarm clock every day!



What can you do at home?

1. Power down or unplug all non-essential or unused appliances (computers, monitors, printers, speakers, microwaves, coffee pots, food processors, hair dryers, gaming systems, cable TV, DVD players, electric toothbrushes).
2. Utilize ENERGY STAR appliances such as refrigerators.
3. Unplug phone and laptop chargers (YES, those draw power even when not plugged in to anything!)
4. Turn off the lights.
5. Use automatic timers or “smart” power strips, which can detect when appliances are in standby mode and cut the power.
6. Switch off power strips when you leave home.

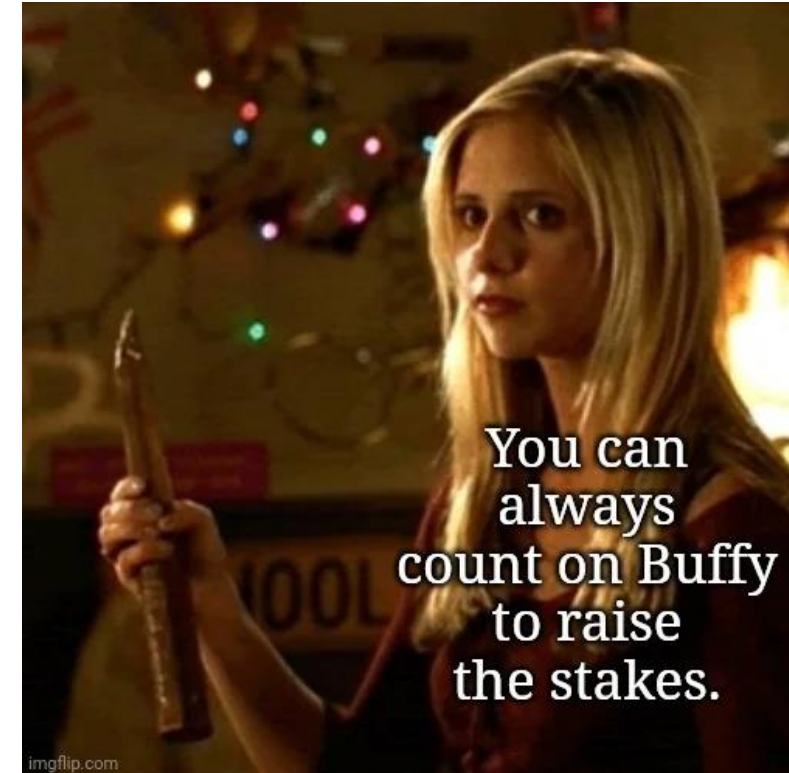


Slay, folks!

By managing these energy-wasting appliances, you can “slay” at least 10%-20% of your energy usage every month both at home and in the lab.

Imagine all the energy we could save if we all worked together?

GO FORTH AND SLAY!



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References and Additional Resources

[Visit our fact sheets website for more information!](https://greenlabs.caltech.edu/resources/fact-sheets) (<https://greenlabs.caltech.edu/resources/fact-sheets>)

- Here are some [common lab items and their estimated energy vampire and annual costs to run per year](https://docs.google.com/spreadsheets/d/1S2HMtHabfPOJ3FazetusYUMMx2-vH500rv5pyQxAzsw/edit?usp=sharing). (<https://docs.google.com/spreadsheets/d/1S2HMtHabfPOJ3FazetusYUMMx2-vH500rv5pyQxAzsw/edit?usp=sharing>)
- References and useful articles:
- [Quantity and electricity consumption of plug load equipment on a university campus](https://link.springer.com/article/10.1007/s12053-016-9503-2) (<https://link.springer.com/article/10.1007/s12053-016-9503-2>)
- [Energy Vampire Devices; Where to Find Them, and How To Deal With Them](https://facilities.georgetown.edu/energizegu-2/energy-vampire-devices-where-to-find-them-and-how-to-deal-with-them/). (<https://facilities.georgetown.edu/energizegu-2/energy-vampire-devices-where-to-find-them-and-how-to-deal-with-them/>)
- [Complete Guide to Vampire Power](https://paylesspower.com/blog/vampire-energy/) (<https://paylesspower.com/blog/vampire-energy/>)
- [How to Slay Vampire Electricity in Your Home](https://chariotenergy.com/chariot-university/vampire-electricity/) (<https://chariotenergy.com/chariot-university/vampire-electricity/>)