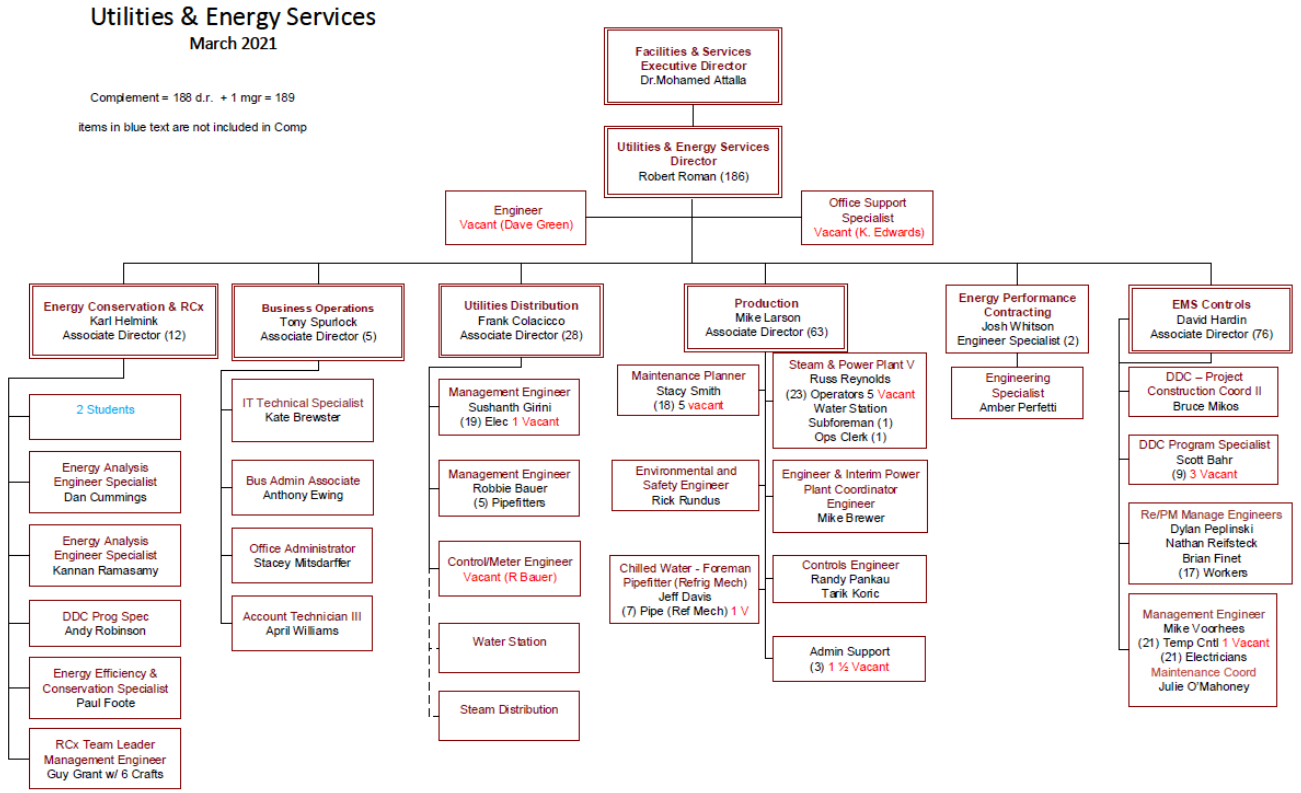
There are many folks working on campus to increase energy efficiency

- Facilities and Energy Services 180-190 professionals/students
- Institute for Sustainability, Energy and Environment
- Student Sustainability Committee, Energy Working Group
- iCAP 2020
- Energy iCAP Team
- Students, faculty and staff



Recent Campus Projects

Final Stage of Ultra-Sustainable Solar Farm 2.0 Project

- The Project Makes the U of I the Third-Largest Producer of Onsite Clean Power Among U.S. Universities
- "Provides Exceptional Habitat." more than 21 different plant types that are native to the area https://fs.illinois.edu/resources/newsroom/2021/05/13/final-stage-of-ultra-sustainable-solar-farm-2.0-project
- 12.3 megawatts (DC), 54 acres and 31,122 bifacial monocrystalline solar panels, single-axis trackers, pollinator habitat, and zero waste construction practices

Geothermal at the Campus Instructional Facility (CIF)

- 122,000 sq/ft 4 story building
- Forty boreholes dug into the Bardeen Quad, 20 feet apart, 6 inches wide and drilled 450 feet deep

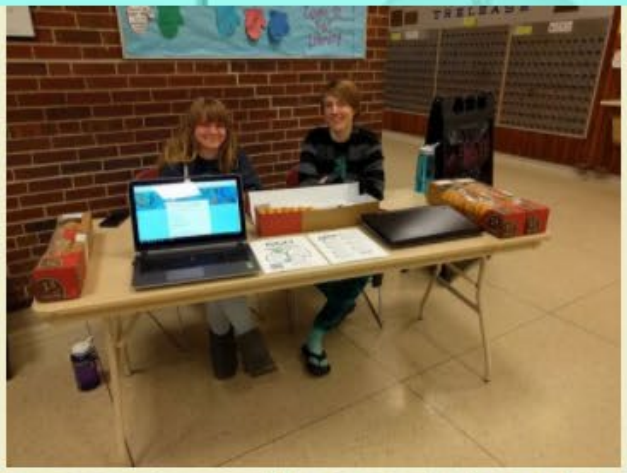
- The News-Gazette -An artist's rendering of the University of Illinois' $75 million Campus Instructional Facility at the southeast corner of Wright Street and Springfield Avenue, just west of the Grainger Engineering Library.

Eco-Olympics

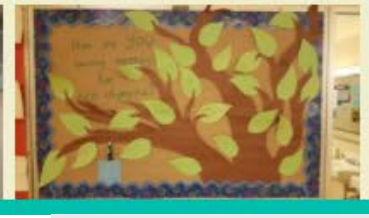
Energy Conservation Competition

JOIN NOW





A big thanks to all our participants who make this competition fun!

What We've Accomplished

—

Students, faculty, and staff have all been busy making a difference in our community.

Think Globally-Act Locally!

350

Up to a total of 17 Residence Halls compete annually

over 350 Students have Signed-up & committed to energy saving tasks

25

OVER 25% ENERGY SAVINGS in ONE BUILDING

70K

Over 70K kWh's of ENERGY SAVED by STUDENTS

Metering Labs for the Integration of the iCAP Goals into Laboratory Practices

By Brinn McDowell May 2021

Scope:

- Over the past 3 months, laboratory instruments were measured amongst four chemistry laboratory rooms in the Engineering Sciences Building.
- Five P3 P4400 Kill A Watt Electricity Usage Monitors were purchased through a micro grant from the Student Sustainability Committee for metering equipment.
- The main categories of equipment measured were fume hoods, hot plates, glove boxes, freezers, ovens, centrifuges, scale, computers, and lights (specific names are included in the attached excel spreadsheet).
- There were a few limitations when it came to metering the energy usage of instruments in lab.

Conclusion: Over $33k annual cost to run lab equipment in the 4 labs she worked in.

Some other ideas for committee responsibility would be:

- Creation of a laboratory instrument inventory
- Adding a training module of sustainable lab practices while on boarding
- Metering and consultation of energy usage in labs
- Developing a monetary incentive program
- Continuing and adding challenges/competitions such as the “Freezer Challenge”
- Increasing lab recycling efforts
- Increasing training in green chemistry practices and knowledge
- Promoting better usage of laboratory space

2020 to 2021 Action Items

2021 International Freezer Challenge UIUC Action Items and Impacts	2020	2021	increase
Number of labs participating	21	34	13
# of freezer units retired	9	21	12
# of freezer units entered in competition	180	310	130
# of freezers upgraded to more efficient units	9	11	2
# of units that you have defrosted & cleaned filters	99	134	35
# of freezers w/samples removed/cleaned out since August	108	158	50
# of std freezer boxes converted to high density boxes	2	27	25
# of Room temperature sample storage (RTSS) well plates, samples, reagents and sets of 25 tubes	41	131	90
# of units where you created inventory tracking	47	120	73
# of freezer units shared with other labs	68	161	93
# of samples discarded since August	400,000+	2,060,000	1,660,000

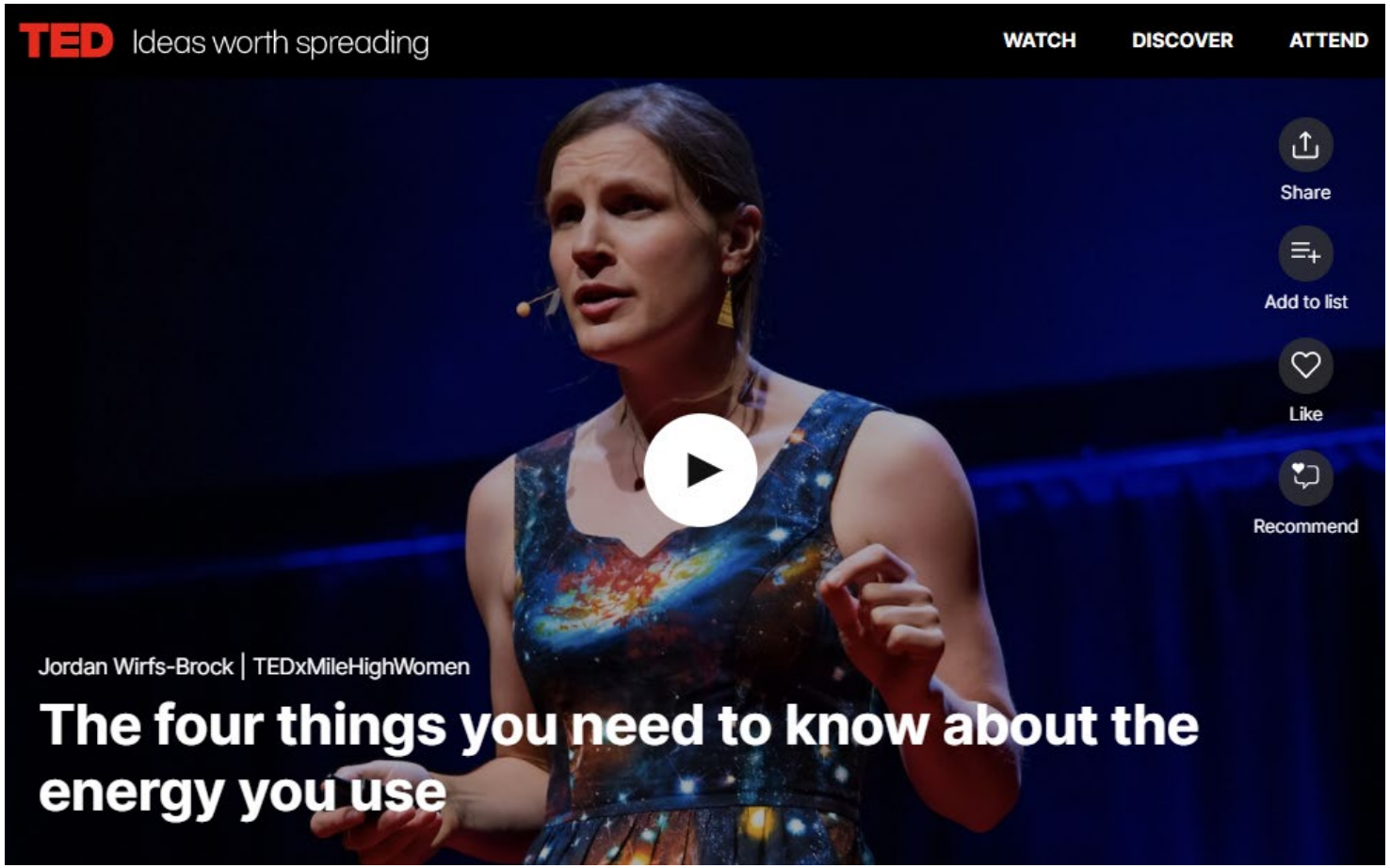
Descriptions in white font denotes significant increases from past years

Preliminary data, still awaiting energy saved and university standing results

FREEZER CHALLENGE

“Every little bit adds up to make a big difference!”

What are we missing ?

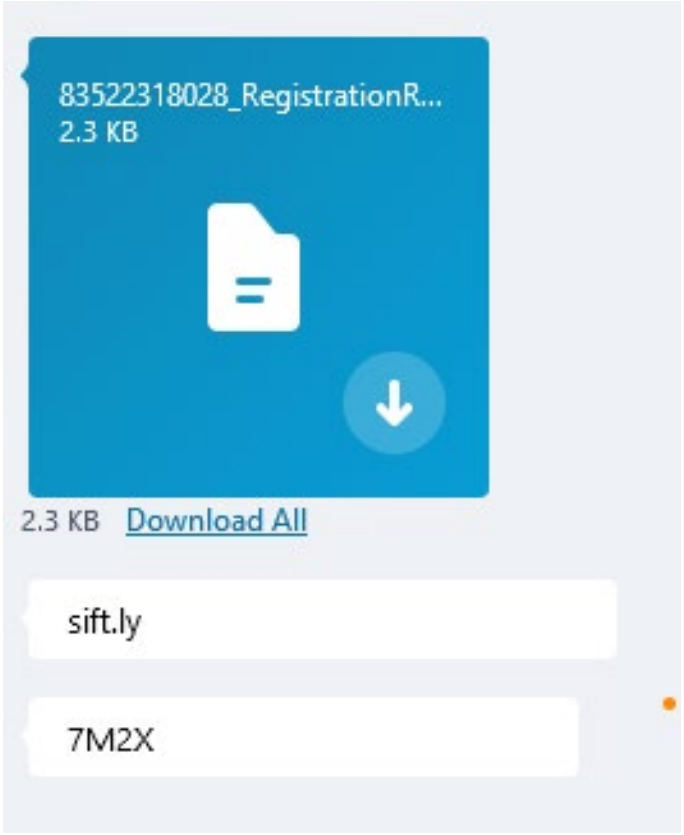


https://www.ted.com/talks/jordan_wirfs_brock_the_four_things_you_need_to_know_about_the_energy_you_use?utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare

Sift.ly enter mtg code 7M2X

What are some items you and your family use that consume energy?

In your browser enter SIF.ly
Then enter the code when prompted.



Leading questions for discussion:

1) Short of returning to Pre-Agricultural humans, what are some ways we can make changes in our own lives, to reduce our Zeus like power consumption?

2) Are we finely tuned in with our energy consumption, what daily items we use and are we increasing or decreasing our energy reliance?

3) Taking energy for granted, how dependent are you and what would you do without energy?

4) What questions do you think resonate with everyone?
In other words, what questions will lead to everyone thinking about how efficient they are or are not?

Food for thought

How large is our energy appetite?

How big is your energy black box?

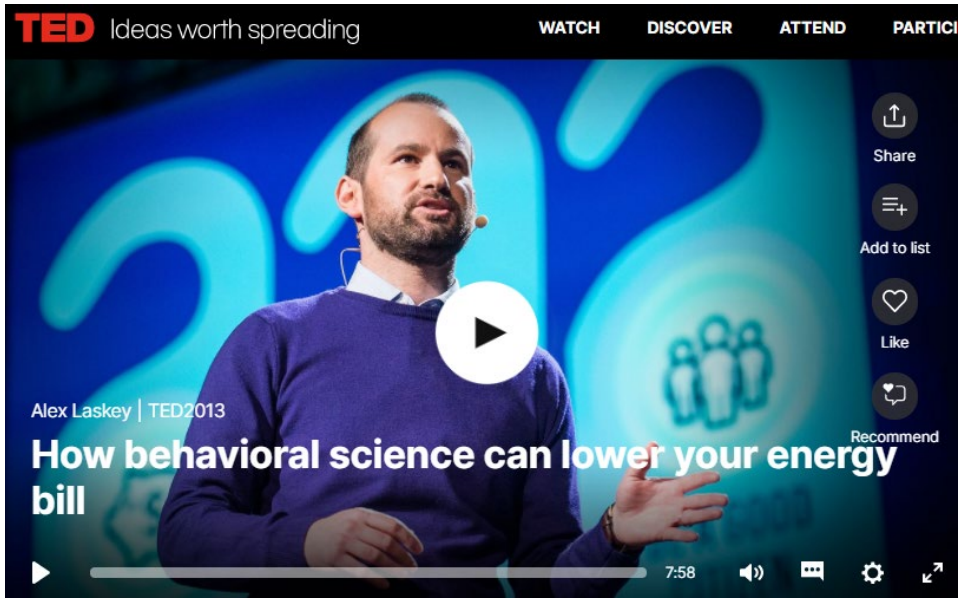
Are you able to easily handle a loss of energy?

Where are we headed, what does the future of energy production, distribution and consumption look like?

Using your energy goggles what solutions can help be more efficient?

Alex Laskey- How behavioral science can lower your energy bill

- A room full of people passionate about the future of the planet and even ***they are not paying attention to their energy use***….
- The messages that work and did not work?
- $40 billion per year saved with this alone.



“Most overlooked resource is YOU, we can harness this resource right away, we can do it today, we know it works and it will save us money right away”

https://www.ted.com/talks/alex_laskey_how_behavioral_science_can_lower_your_energy_bill?utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare

Thank you!
Feel free to reach out any time

Paul Foote
Think Globally. Act Locally

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Current opportunities




Current opportunities