



Better Buildings

U.S. DEPARTMENT OF ENERGY

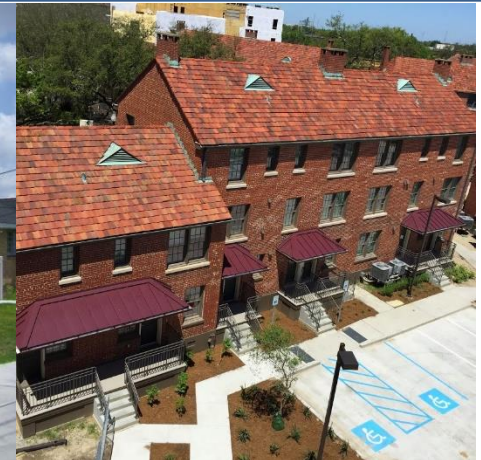
Using Technology to Engage Tenants and Save Energy



Tenant Energy Savings

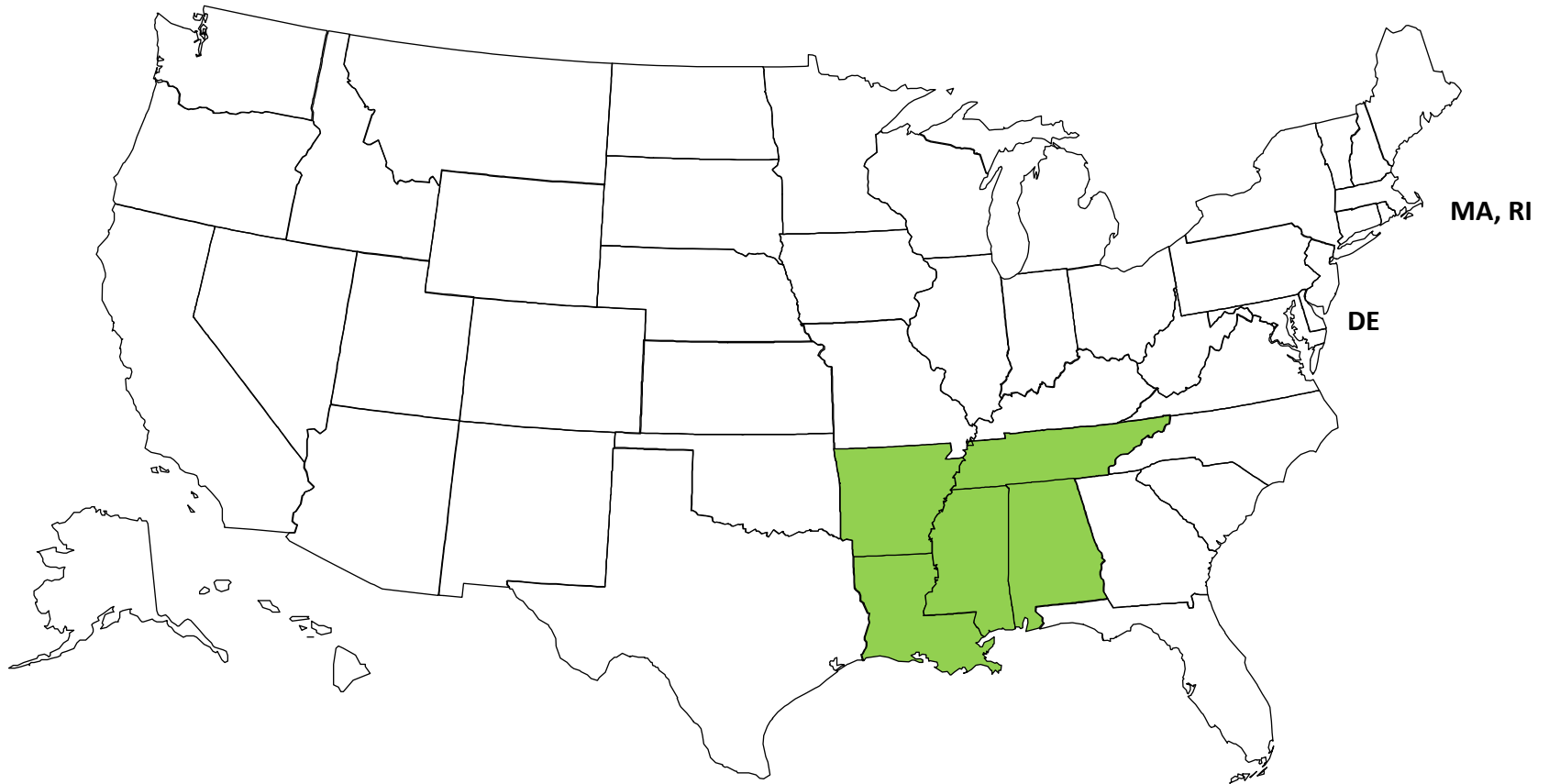
Jackie Dadakis
Managing Director, GCE Services
Better Buildings Symposium 2015







Markets Served

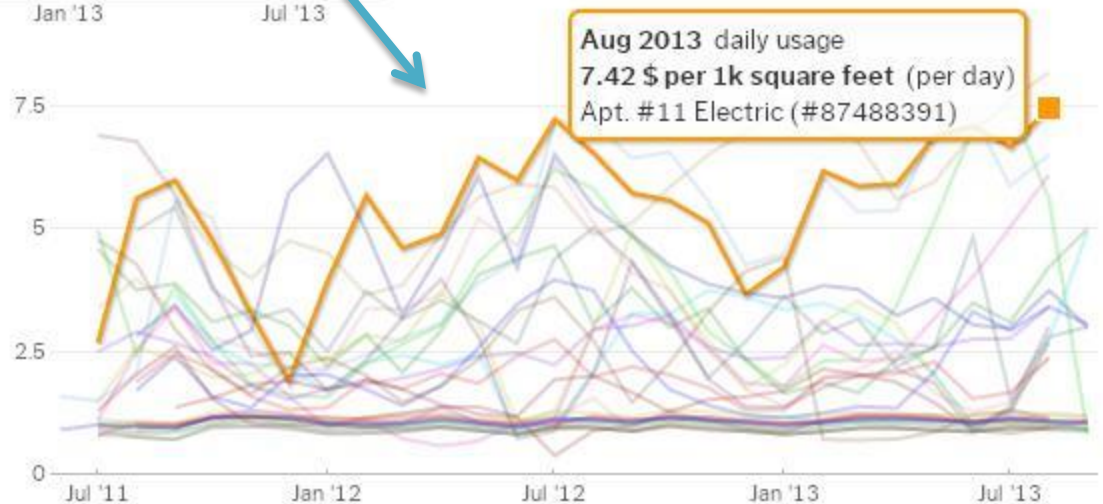
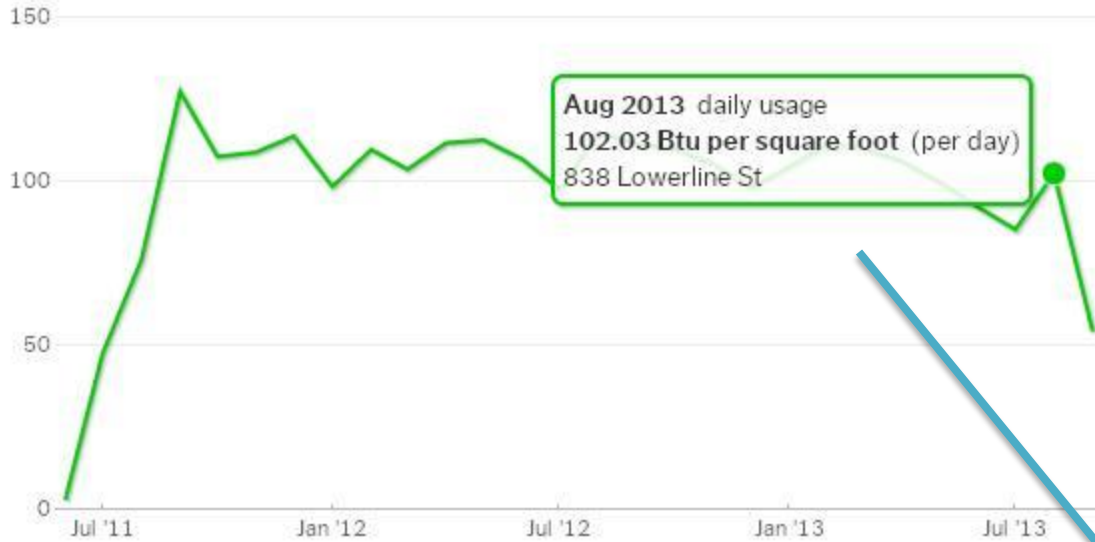


We are qualified to help your building achieve one of the certifications below:



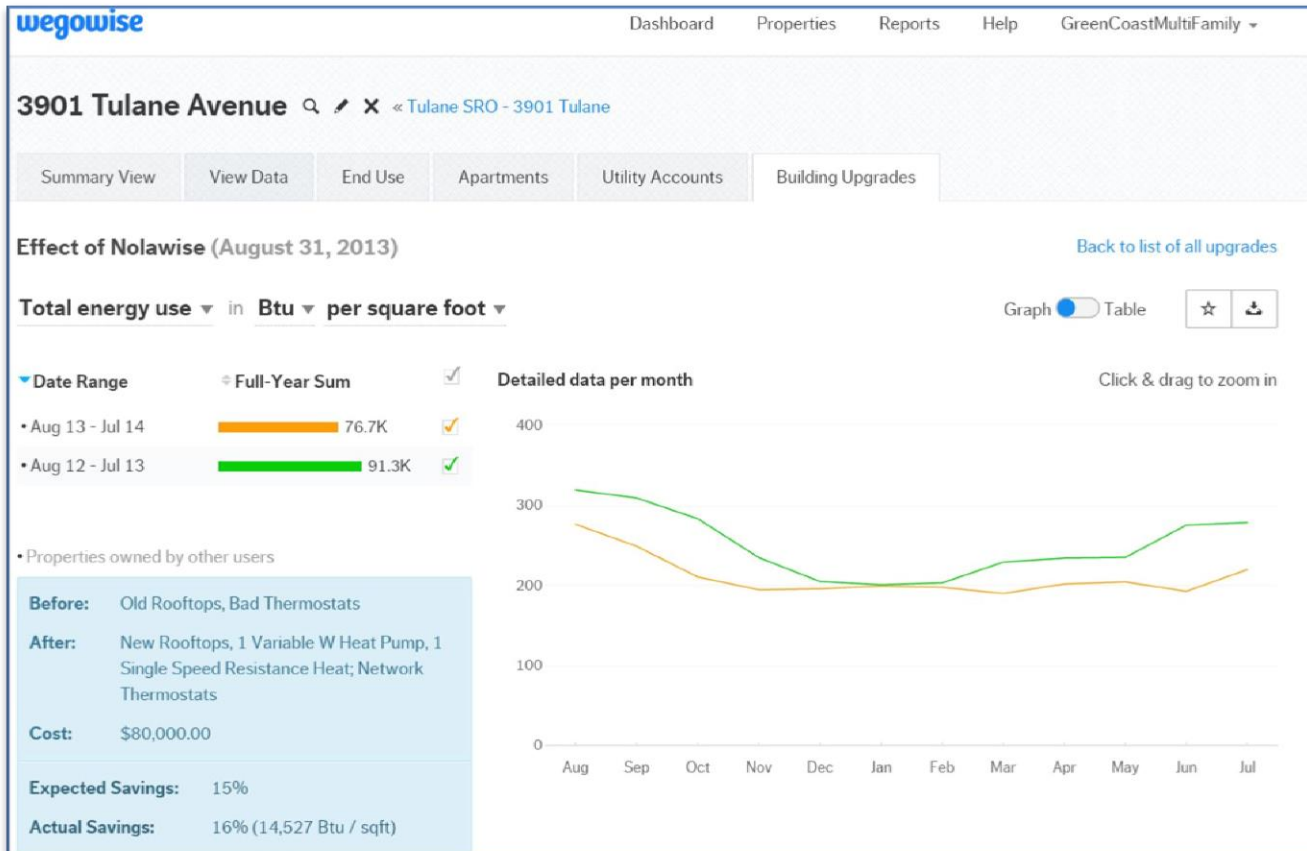


Benchmarking/Monitoring



Monitor utility use and cost of multiple properties and units at once





Network Thermostat



Network Thermostat



Network Thermostat



TUL-SRO-15T-CAR

[Status / Update](#)
[Schedules](#)
[Vacation](#)
[Weather](#)
[Configuration](#)

Thermostat Update

Mode: Auto


Setpoints: Cool 76, Heat 67

Fan: Auto

[Update](#)
[Resume](#)

[Undo](#)
[Vacation](#)

Filter EHeat Fault



Current Status

Indoor 76 Weatherbug® Outdoor --

System COOL - 2nd Stage

Schedule **Is Running (Thu-Day)**
 Mode: AUTO Fan: AUTO
 Setpoints: COOL-76 HEAT-67

Remote Sensors: 70 Return Air

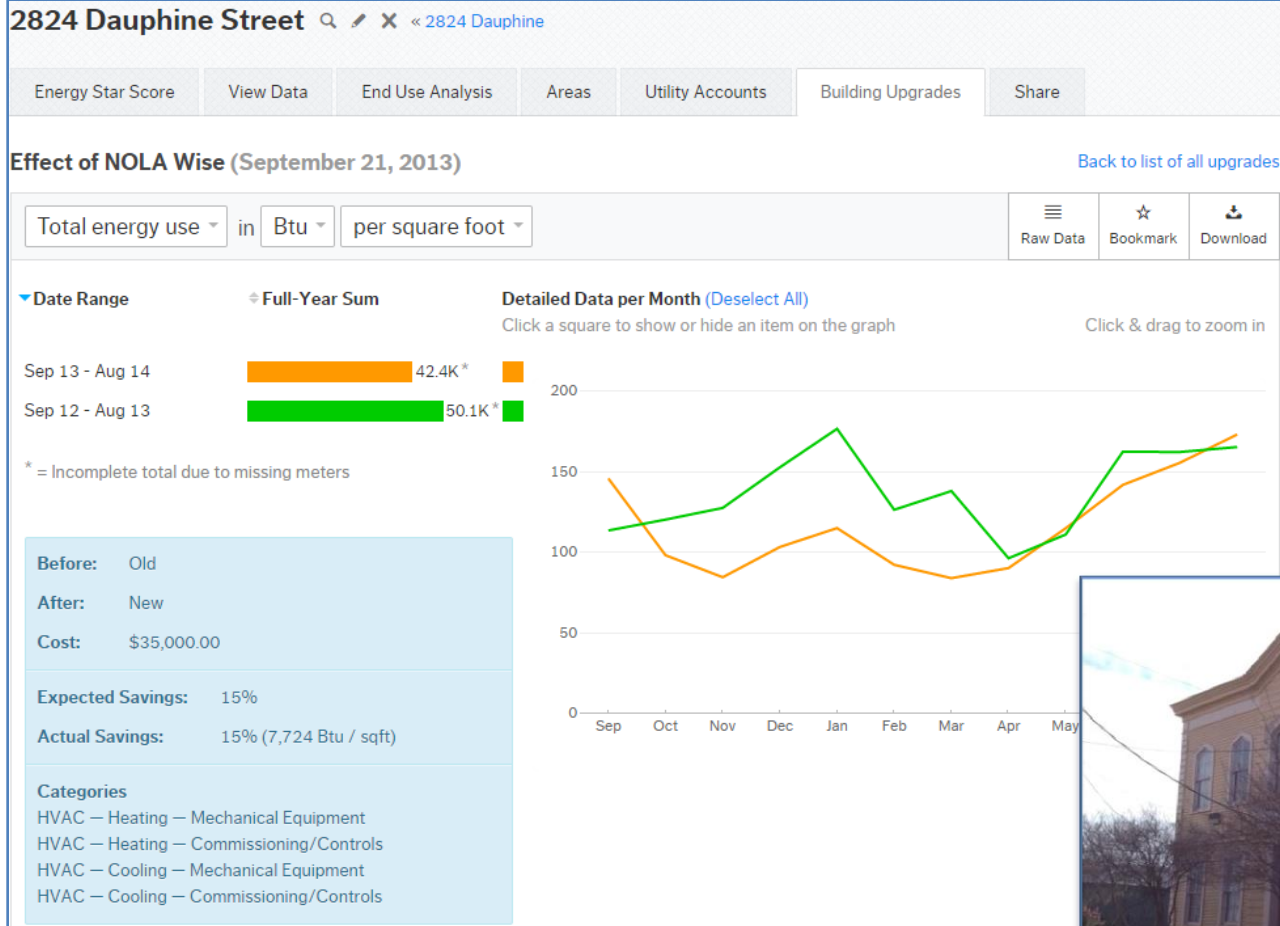
[Help](#)

[View Full Mobile](#)



Cumulative Savings

	1801 Canal Street	3901 Tulane Avenue	212 South Gayoso Street	211 South Gayoso Street	5005 Constance Street	127 South Rendon Street	230 South Dupre Street	Total
Cumulative Savings Since NOLA Wise Intervention	\$11,780.15	\$ 8146.85	\$ 725.67	\$ 226.99	\$ 822.91	\$ 890.02	\$ 891.75	\$ 23,484.873



Current Cost Meter



- Pros
 - Low Cost, simple installation, wireless transmitter/display
 - Direct to internet connection w/ dashboard
 - Low cost: \$129/point (potentially lower)
- Cons
 - Limited accuracy, primarily UK product, intended for residential use, poor user support in USA



4035 Washington Avenue [Q](#) [✎](#) [X](#) [« Washington and Broad](#)

Energy Star Score

View Data

Areas

Utility Accounts

Building Upgrades

Share

Total energy use [▼](#) in [Btu](#) [▼](#) per square foot [▼](#)

Graph Table



Name

Full-Year Sum



Detailed data per month

Click & drag to zoom in

Electric #100590074

 27.7K



150

Water #188329011

Not included in total reports

100

50

0

Jul '12

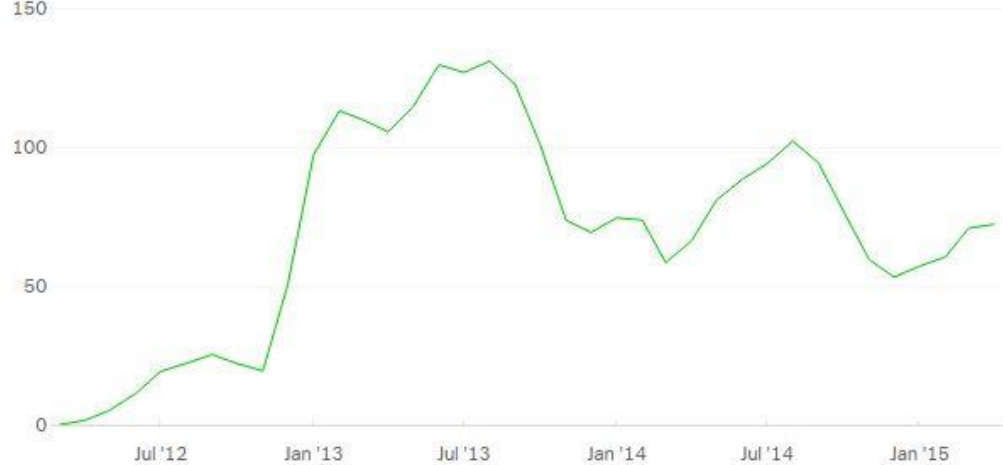
Jan '13

Jul '13

Jan '14

Jul '14

Jan '15

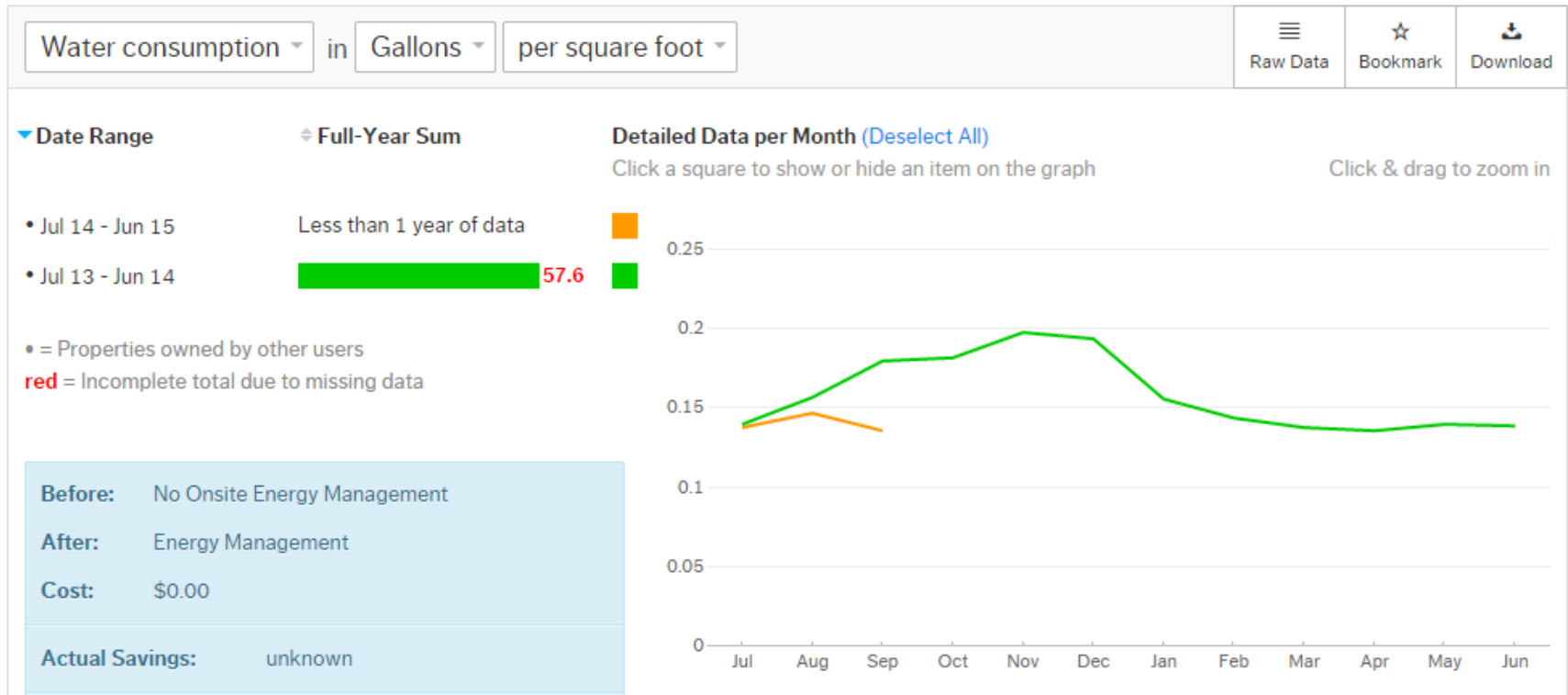


1220 Spain Street 🔍 ✎ ✕ « [Annunciation Inn](#)

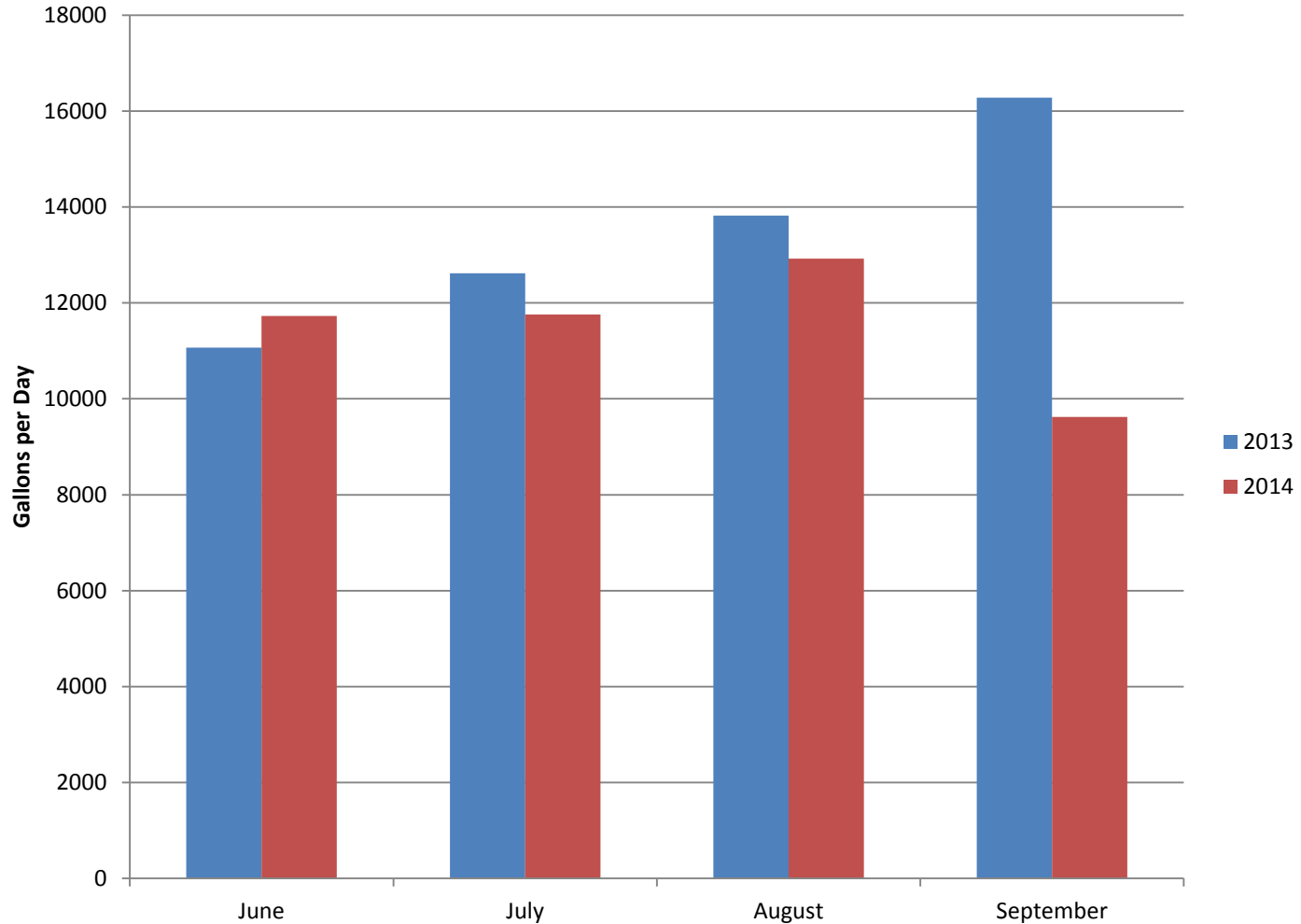
- Summary View
- View Data
- WegoScore
- Apartments
- Utility Accounts
- Building Upgrades

Effect of GCE Services (July 2, 2014)

[Back to list of all upgrades](#)



Annunciation Inn Water Usage - Gallons per Day



Tenant Behavior



Make the right choices

“I wish our construction side would tell us options instead of just focusing on cost savings. I would have rather spent an extra \$300k on the construction of this building to get better equipment than have to fix it now through the property management budget.

– Kelly Parenton, Property Management, Gibbs



Thank You!

Jackie Dadakis
Managing Director, GCE Services
Green Coast Enterprises
New Orleans, LA

Jackie@greencoastenterprises.com



THE UNIVERSITY OF UTAH



The University of Utah's Web-Based Energy Behavior Change Tool

Jeff Wrigley Energy Manager
University of Utah Facilities Management

May 28, 2015

Background

Behavior change programs are not new at The U

- Green teams (fading away)
- Building scheduling (ongoing, but not “behavioral”)
- “It’s Good to Shut the Hood”

20% by 2020, 3 keys to success:

1. Improvements/Retrofits
2. Tune Ups/Retrocommissioning
3. **Behavior Change**

Time for a change

Background

2014 RFP for behavioral consultant services

Non-specific scope

- Communication
- Engagement

Support savings in buildings with projects

- Skaggs Biology Research Building
- Biology Building
- Henry Eyring Chemistry Building

Background

Winning Proposal

Combined team



Their strategy:



Background

Their technology:

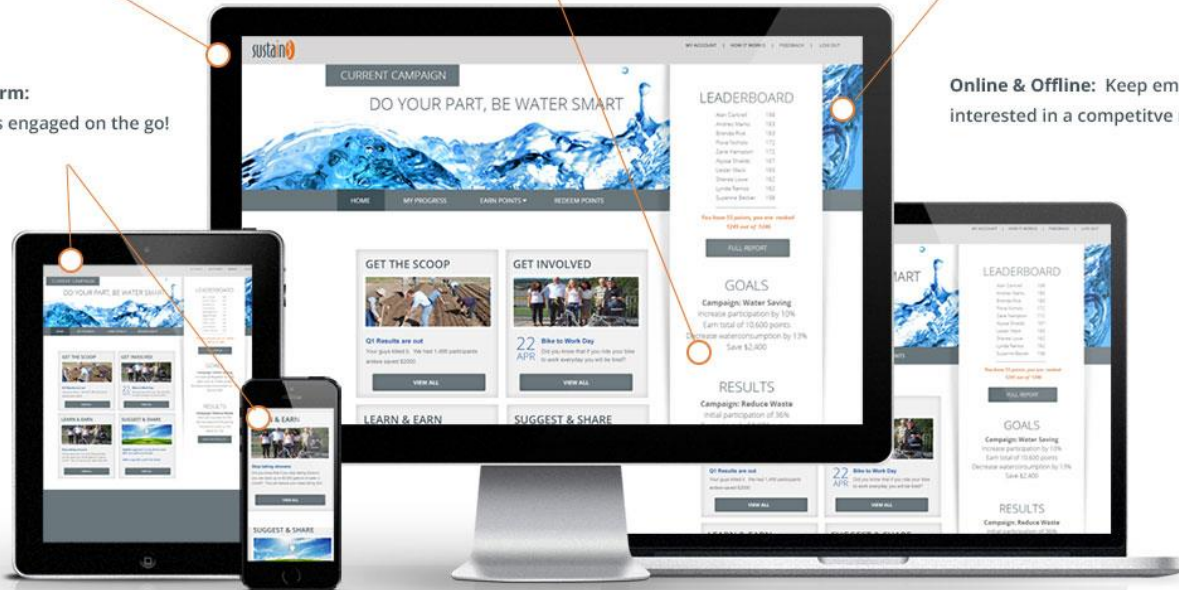
Tracking: All information is tracked and aggregated so that your employees, shareholders and customers can see that your efforts really do count.

Themes: We create themes that are relevant to your business & help you attain your sustainability goals

Skinable: Colors & branding easily adjust to company's brand guidelines

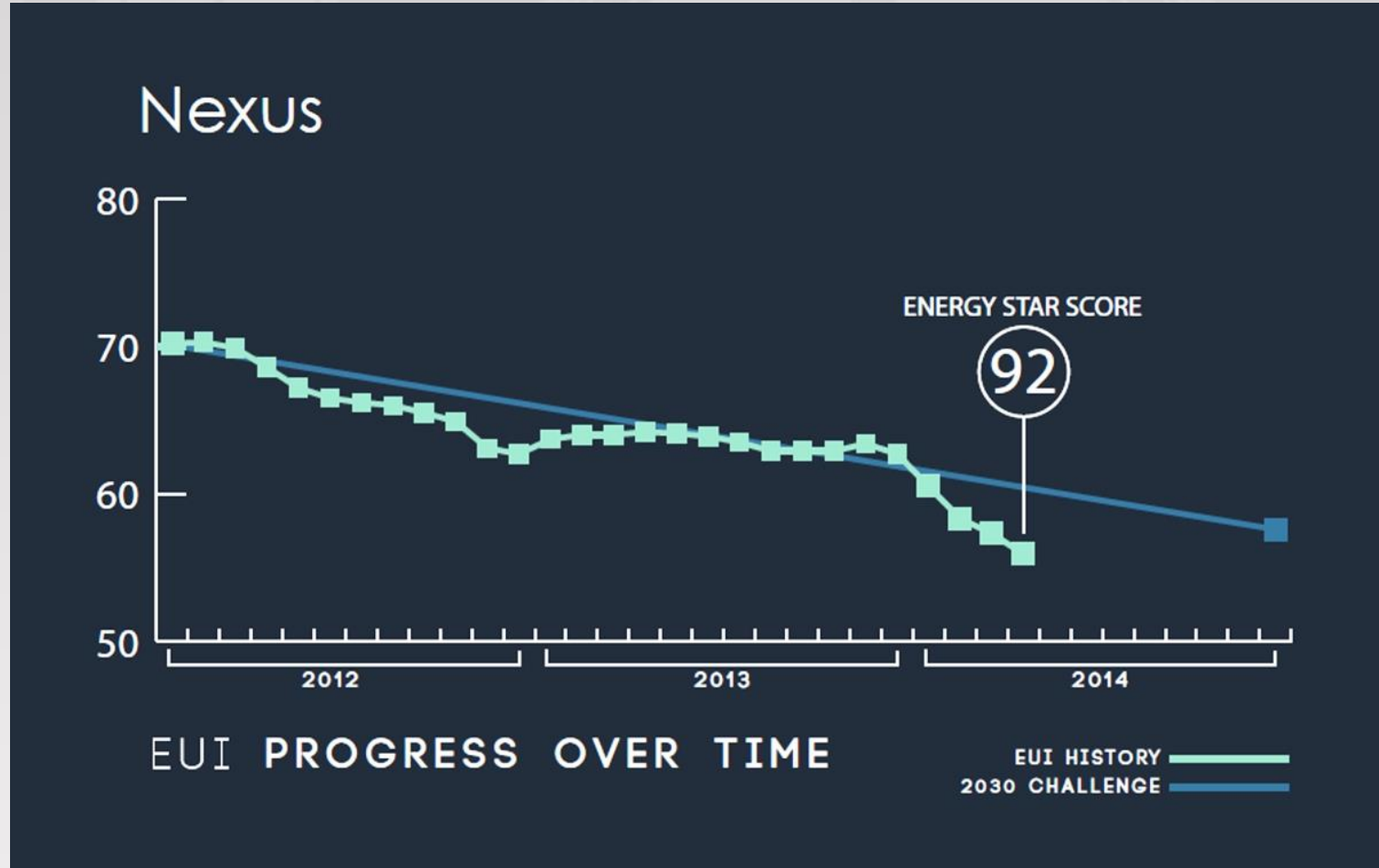
Responsive platform: to keep employees engaged on the go!

Online & Offline: Keep employees interested in a competitive nature



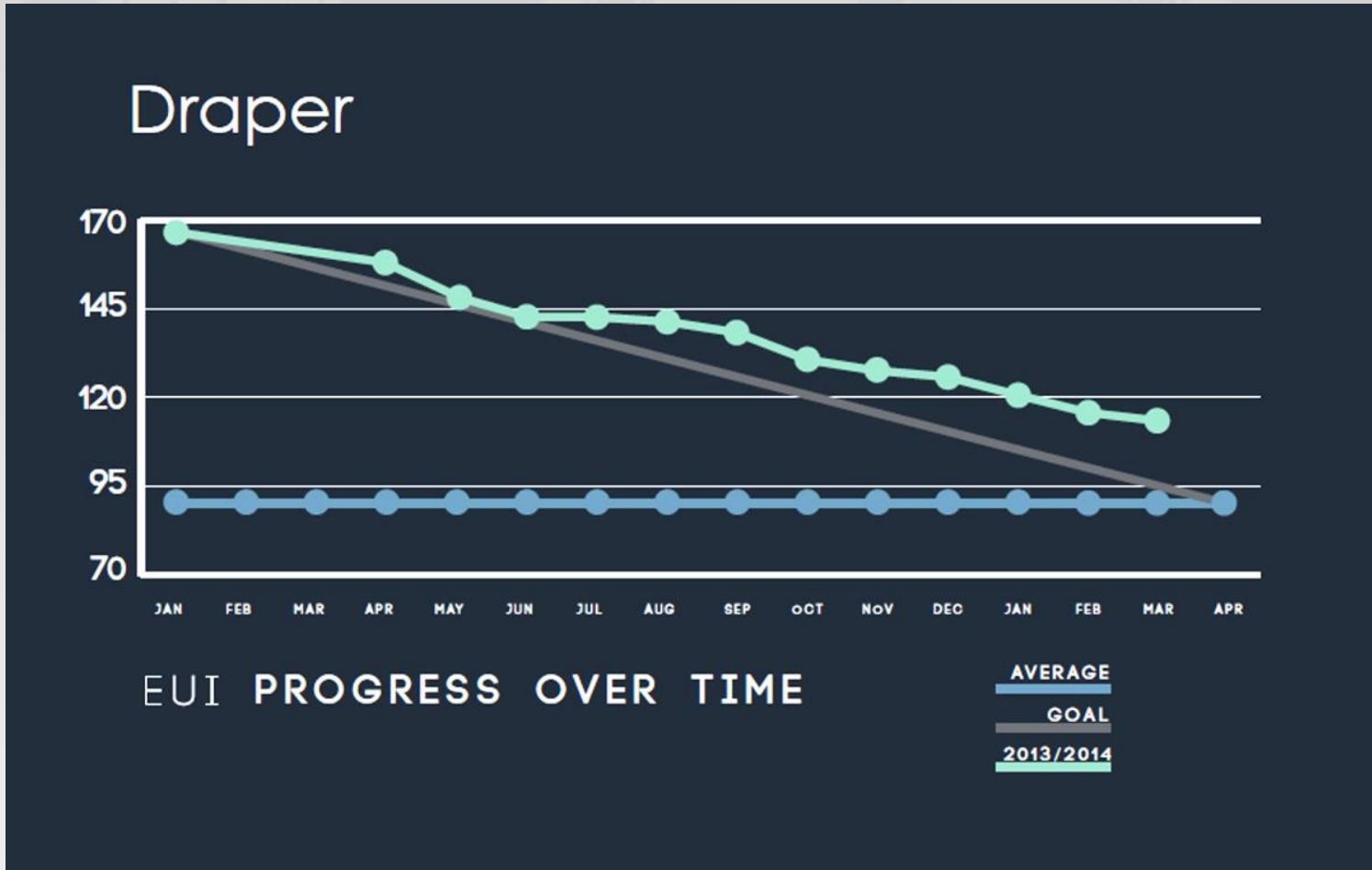
Background

Their experience:



Background

Their experience:



Our Program

Not just a web application

- Benchmarking and data logging
- Occupant steering committee
 - Give occupants control
- Tabling events
- Brown bag educational events
- Marketing (banners, posters, cards)
- Focus groups

Our Program

College of Science input

- Offer program to entire College
8 primary buildings + parts of others
- Yearlong competition between 4 departments
Biology, Chemistry, Physics & Math
- Data!!! (sorry ☹)
- College focus group named program

YOU MATTER

computers MATTER
printers MATTER
lights MATTER
thermostats MATTER
fume hoods MATTER
behaviors MATTER
people MATTER

The logo features the word "YOU MATTER" in white, bold, sans-serif capital letters on a red rectangular background. The letter "O" in "YOU" is replaced by a white power button symbol (a circle with a vertical line through the top).



YOU MATTER

Sign up. Take action. Save energy.

Every kilowatt of energy that is wasted on campus depletes our limited supply of natural resources, pollutes the air we breathe, and drives up University expenses.

Did you know?

- **The U has a goal to reduce on-campus energy use 20% by 2020**
- **Buildings are responsible for 40% of all U.S. energy use**
- **At the U, buildings are responsible for 75% of campus carbon footprint**
- **Discretionary energy use of occupants may reach 50% of building energy use**

The choices we make as building occupants have a significant impact on building energy use. In other words, **you matter**.

Participate at youmatter.utah.edu



YOU MATTER

- ✓ Save resources
- ✓ Protect the environment
- ✓ Contribute to University of Utah's success!

REGISTER TO GET STARTED

WELCOME UNIVERSITY OF UTAH COLLEGE OF SCIENCE!

LEARN

Learn how to contribute to University of Utah's sustainability success through entertaining videos, engaging games and interesting articles.

Bonus: Learn new habits that will save you money at home!



Change your habits...

CONTRIBUTE

Join your colleagues in events and teams to work on projects to improve University of Utah's carbon footprint.

Bonus: Improve your environmental impact!



Watch your progress!

Join today!

EARN VALUABLE PRIZES

Earn points as you participate and contribute to the program and redeem



Earn Rewards



Welcome, Jeff

- HOME
- EARN POINTS <
- SHARE
- NEWS
- PROGRESS
- HOW IT WORKS
- THEMES <
- SUPPORT

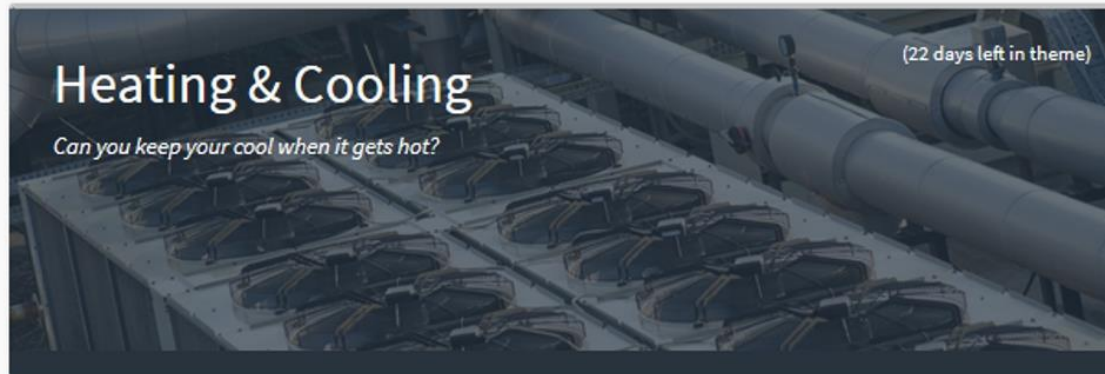


YOU MATTER

Welcome

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS



Heating & Cooling

Can you keep your cool when it gets hot?








(22 days left in theme)

2
My Learn & Earns Completed
Earn More Points ↕

0
My Actions Completed
Earn More Points ↕

30
My Points
My Progress ↕

Leaderboard

	Paula Tooman	2670
	Deni Morrison	2620
	Ajara Rahman	2530
	Kurt Vanness	2510
	James Gossell	2505
	John Gipson	2490
	Suman Singh	2485

Teams

Name	Members	Team Score HOW SCORING WORKS	Rank	Eligible Users
Mathematics	234	132	1	673
Chemistry	263	114	2	713
Biology	353	94	3	1457
Physics & Astronomy	73	19	4	611

Learn & Earns



Energy Use in the Built Environment
How much influence do you have on building energy use?
12/01/2014 12:30 PM



Understanding Energy Efficiency
What does energy efficiency really mean?
11/19/2014 09:00 AM



Secondary Energy
Energy is only as useful as the form it's delivered in.
11/08/2014 11:47 AM



Electricity in Utah
More than 80% of Utah's electricity comes from coal.
11/08/2014 11:40 AM

Actions



Anchor an Action
If you'd like to build new habits that conserve resources, anchoring will help.
12/10/2014 01:15 PM



Suggest Uses for the YouMatter Cash Awards
Make suggestions for potential uses of the YouMatter cash awards by your department.
12/03/2014 03:23 PM



Ride Alternative
Ride the rails, bike, or carpool to campus at least one time this week.
12/03/2014 02:58 PM



Point Out a Barrier to Action
Help us identify barriers to action in lab environments, so we can help you break



Suman Singh 2485



Douglas Cornwall 2465



Zach Niemeyer 2415



Emily Witt 2340

You have 30 total points.

You are ranked 0 out of 939

News



YouMATTER: Competition Results, Awards & Recognition
It's time to reflect on the year and celebrate!
05/04/2015 10:39 AM



EPA and The Nature Conservancy partnering on Earth Day Nature Selfie



Welcome, Jeff


YOU MATTER Learn & Earn

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS

AVAILABLE

COMPLETED

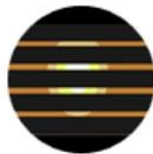


Natural Gas

Another precious resource to conserve.

04/09/2015 03:58 PM

EARN 15 POINTS



Thermal Comfort in the Built Environment

How comfortable are you?

04/02/2015 01:55 PM

EARN 15 POINTS

30

Total Points



Earn More Points

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology

HOME

EARN POINTS

LEARN & EARN

ACTIONS

SUGGEST

SHARE

NEWS

PROGRESS

HOW IT WORKS

THEMES

SUPPORT



Learn & Earn

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS

LEARN

EARN


ADDITIONAL RESOURCES



Photo: The U's Cogeneration Turbine & Generator

Natural gas is colorless, tasteless, and odorless and the pungent smell we associate with it is actually a highly sulfuric additive to help us detect it and prevent danger. But even though we don't often come into contact with its physical state, natural gas fuels our homes and vehicles, cooks our meals, heats our water, and is used to produce steel, glass, paper, clothing, and electricity, among other things. It is even hidden in many of our everyday products including paints, fertilizers, plastics, dyes, and medicines. But what actually *is* natural gas, what are the implications with its production, and what does it mean for me as a Utah resident and as part of the U's campus community?

How it works

 Read this article

⌚ 5-5 minutes

 Take the quiz

⌚ 2-5 minutes

 Complete unlocked actions

🕒 Daily

30

Total Points



Earn More Points ↕

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology



Welcome, Jeff

- HOME
- ★ EARN POINTS
- LEARN & EARNS
- ✓ ACTIONS
- SUGGEST
- SHARE
- NEWS
- PROGRESS
- HOW IT WORKS
- THEMES
- SUPPORT



YOU MATTER Actions

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS

AVAILABLE

COMPLETED



Anchor an Action

If you'd like to build new habits that conserve resources, anchoring will help.

12/10/2014 01:15 PM

EARN 30 POINTS



Suggest Uses for the YouMatter Cash Awards

Make suggestions for potential uses of the YouMatter cash awards by your department.

12/03/2014 03:23 PM

EARN 30 POINTS



Ride Alternative

Ride the rails, bike, or carpool to campus at least one time this week.

12/03/2014 02:58 PM

EARN 30 POINTS

30

Total Points



Earn More Points

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology



\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS

LEARN

EARN

Complete this quiz to earn your points!

Heating and cooling our buildings accounts for more than [BLANK] % of our energy use in the United States.

- 65
- 22
- 17
- 38
- 48

30

Total Points



Earn More Points ↕

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology

- HOME
- EARN POINTS
- SHARE
- NEWS
- PROGRESS
- HOW IT WORKS
- THEMES
- SUPPORT

Step 1: Action Details

Help us identify barriers to action in lab environments, so we can help you break through them.

Our goal is to **empower** as many people as possible to directly reduce energy and water use on campus. That's why we want to hear from you.

What prevents you from reducing water and energy use in the **labs** you work out of? Is it a lack of training or equipment? Not enough information? Too little time?

Tell us about **one barrier** that prevents efficient energy or water use in the lab environments where you work by sending a **Suggestion** to our team.

Step 2: Submit your results for points

Did you send a suggestion about barriers that promote inefficient energy or water use?

Yes

No

CONFIRM

30

Total Points



Earn More Points

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology





Welcome, Deni

- HOME
- EARN POINTS
- SHARE
- NEWS
- PROGRESS
- HOW IT WORKS
- THEMES
- SUPPORT



YOU MATTER

My Progress

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS

Overall Progress

Theme

Percentage of Activities Completed



2620

Total Points



Earn More Points

94

Team Score

3

Team Rank

1

Rank in Team



Your team is Biology

75

Learn & Earn
Points Earned



240

Action Points
Earned



0

Suggestions Points
Earned





Welcome, Jeff

- HOME
- EARN POINTS
- SHARE
- NEWS
- PROGRESS
- HOW IT WORKS
- THEMES
- SUPPORT



YOU MATTER News

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS



YouMATTER: Competition Results, Awards & Recognition

It's time to reflect on the year and celebrate!
05/04/2015 10:39 AM

READ MORE



EPA and The Nature Conservancy partnering on Earth Day Nature Selfie Photo Project

Show your love for nature by taking your very own #NatureSelfie photo!
04/20/2015 10:34 AM

READ MORE



YouMATTER Competition to End on Earth Day

The YouMATTER competition is officially over next Wednesday, April 22nd.
04/15/2015 03:12 PM

READ MORE

30

Total Points



Earn More Points

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology



Welcome, Jeff

YOU MATTER Suggestions

\$25K IN PRIZES
COMPETE FOR YOUR DEPARTMENT

HOW IT WORKS

SUGGEST SUSTAINABILITY IDEAS

MY SUGGESTIONS

The Suggestion Box

YouMATTER isn't about providing a one-way source of information. It's about creating conversation so we can learn from one another.

That's why we've created the YouMATTER Suggestion Box. This is where you can share your suggestions for energy saving actions and conservation initiatives with the YouMATTER team.

When you drop a suggestion in the box, our team will review it to see if your idea can be implemented in the near future.

You'll be awarded 10 points for the first 3 suggestions you make each month. After 3 suggestions have been made, you can submit additional suggestions during the month for no points.

****NOTE:** For technical inquiries, such as problems with the site (bugs, password problems, site rendering problems, etc.) or ideas to improve it, please visit the [support page](#).

Details of Suggestion

30

Total Points



Earn More Points

94

Team Score

3

Team Rank

0

Rank in Team



Your team is Biology

- HOME
- EARN POINTS
- LEARN & EARNS
- ACTIONS
- SUGGEST
- SHARE
- NEWS
- PROGRESS
- HOW IT WORKS
- THEMES
- SUPPORT

Recent Suggestions



Kurt Vanness

🕒 05/05/2015 12:18 PM

I also noticed that about a week ago I saw the sprinklers in front of the president's office running despite the fact that it was raining and continued to rain for most of the day. There should be a way for the campus to have the sprinklers stay off when a good rain comes through.



Kurt Vanness

This was a good program and sh



Georgia Sinimbu Silva

How about the U establish the

[All Suggestions](#)

Recent Comments



Kurt Vanness

🕒 04/16/2015 04:22 PM

According to the Progress page I have 2 uncompleted Electricity Activities but there are no uncompleted activities when I go to the Electricity theme. I think it's keeping me from getting the points for activities completed.



Kurt Vanness

🕒 04/04/2015 05:29 PM

The progress page says I have two uncompleted activities under energy but then when I go to the energy theme there are no activities for me to complete.




Spencer Streeter

🕒 02/12/2015 02:54 PM

[All Comments](#)

Sustain3 Admin
Jeff Wrigley



Hello, Jeff
Online

Home > Suggestions

Filter

Title	Status	Date	User	Savings Opportunity	Points Awarded	
*** NEW SUGGESTION ***	New	Tue May 05 2015 12:18 PM	Kurt VanNess	\$0.00	10	
<p>Suggestion: I also noticed that about a week ago I saw the sprinklers in front of the president's office running despite the fact that it was raining and continued to rain for most of the day. There should be a way for the campus to have the sprinklers stay off when a good rain comes through.</p>						
*** NEW SUGGESTION ***	New	Tue May 05 2015 12:16 PM	Kurt VanNess	\$0.00	10	
<p>Suggestion: This was a good program and should be repeated</p>						
*** NEW SUGGESTION ***	New	Thu Apr 30 2015 11:46 AM	Georgia Sinimbu Silva	\$0.00	10	
<p>Suggestion: How about the U establish the "Ride your bike to school" day with a big collective picnic in the end of the day for everyone!?</p>						
*** NEW SUGGESTION ***	New	Thu Apr 23 2015 01:06 PM	Joeleen Thompson	\$0.00	10	
<p>Suggestion: http://nationswell.com/three-years-200000-pounds-later-food-recovery-network-still-asks-gonna-eat/ http://www.gracelinks.org/blog/1514/going-green-12-ways-to-reduce-your-impact-on-the-food-water By donating our food that is left over from on campus diners actually impact our energy/water consumption.</p>						
*** NEW SUGGESTION ***	New	Wed Apr 22 2015 09:25 PM	Holly Sebahar	\$0.00	10	
<p>Suggestion: Create initiative to recycle solvents such as acetone. Installing shared equipment that could be used for this purpose or educating lab personnel on benefits of recycling solvent could keep waste out of stream and save money on purchase of new solvent.</p>						

- Main Site
- Dashboard
- Users <
- Activities <
- News <
- Feedback
 - » Suggestions
 - » Shares/Comments
- Themes Energy
- Reports <
- Email <
- Signage <
- Rankings <

Results

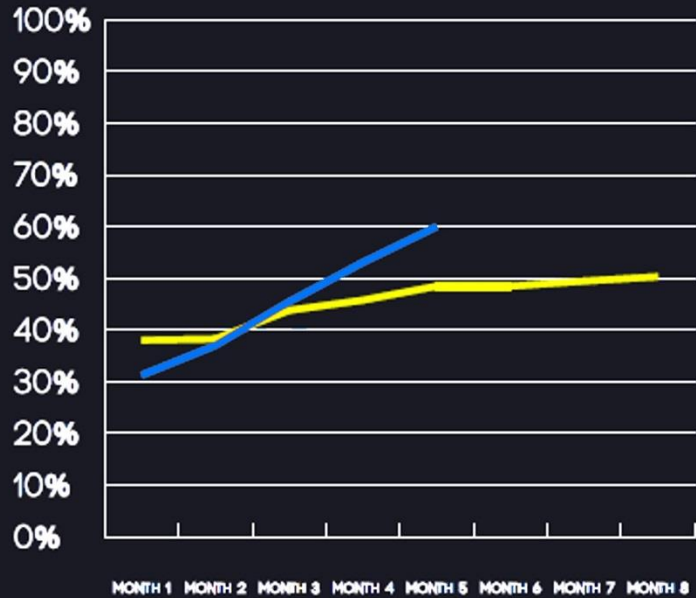
Program ended April 22, 2015 (Earth Day)

Winner! Math (132 team points)

- 930 participants
- 12,200 completed activities
- 950 suggestions
- 375,115 individual points earned
- Meter data was inconclusive (as expected)

Results

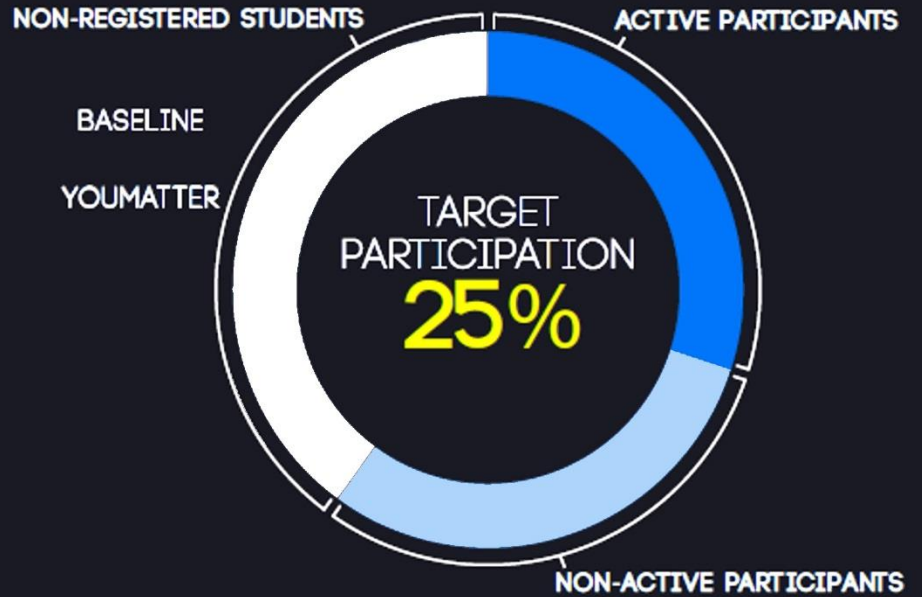
REGISTERED PARTICIPANTS



BASELINE

YOU MATTER

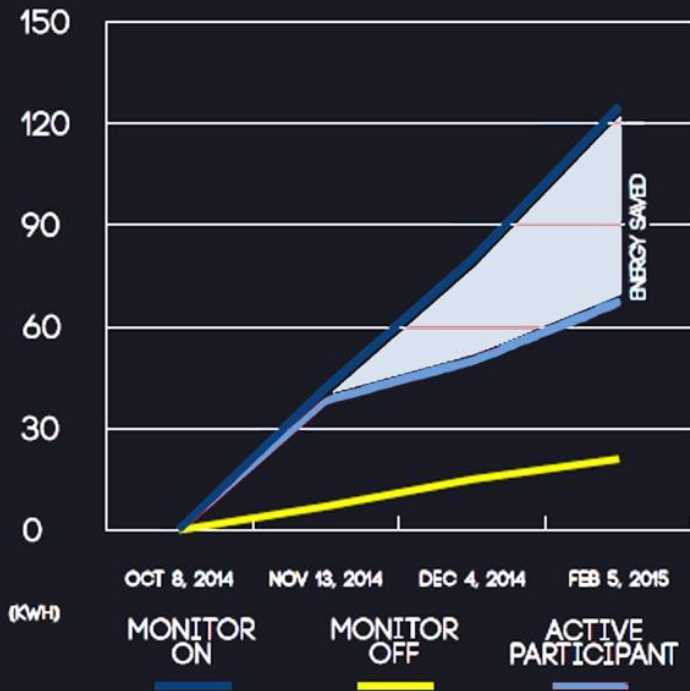
ACTIVE PARTICIPANTS



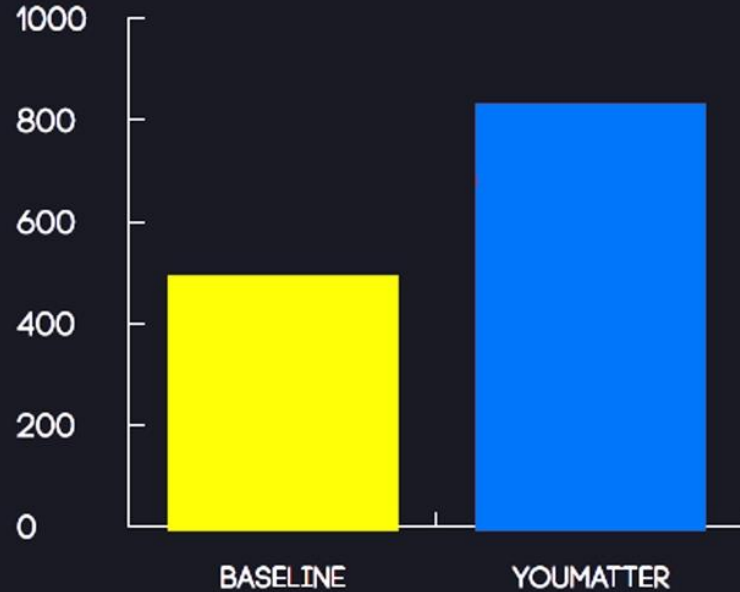
USER PARTICIPATION

Results

ENERGY IMPACT



NUMBER OF SUGGESTIONS



What Worked

- Competition
- Meaningful content
- Suggestions/Feedback
- Identify energy champions in the buildings
- Established relationships and communication with building occupants
- Energy reduction
- Spin-off projects
 - Lighting
 - Refrigerator replacement assistance

What Didn't Work

Lessons learned

- Consistent steering committee
- Build relationship with users first
- Focus on manageable groups
(turns out we were right!)
- Data!!!!!!!!!!
- Social Media
- Suggestion Format (open vs. closed)
- Shorter competitions with more frequent rewards
- Varied competitions
- Individual rewards

What's Next

YouMATTER round 2: Art & Architecture

- One building/complex
- 2 entities

Possible changes in round 2:

- Funding for peer educators program and publicity materials
- Funded intern to act as liaison for planning and activities
- Classroom integration

Thank you!!

Jeff Wrigley, Energy Manager

University of Utah Facilities Management

jeff.wrigley@fm.utah.edu

801-587-9556