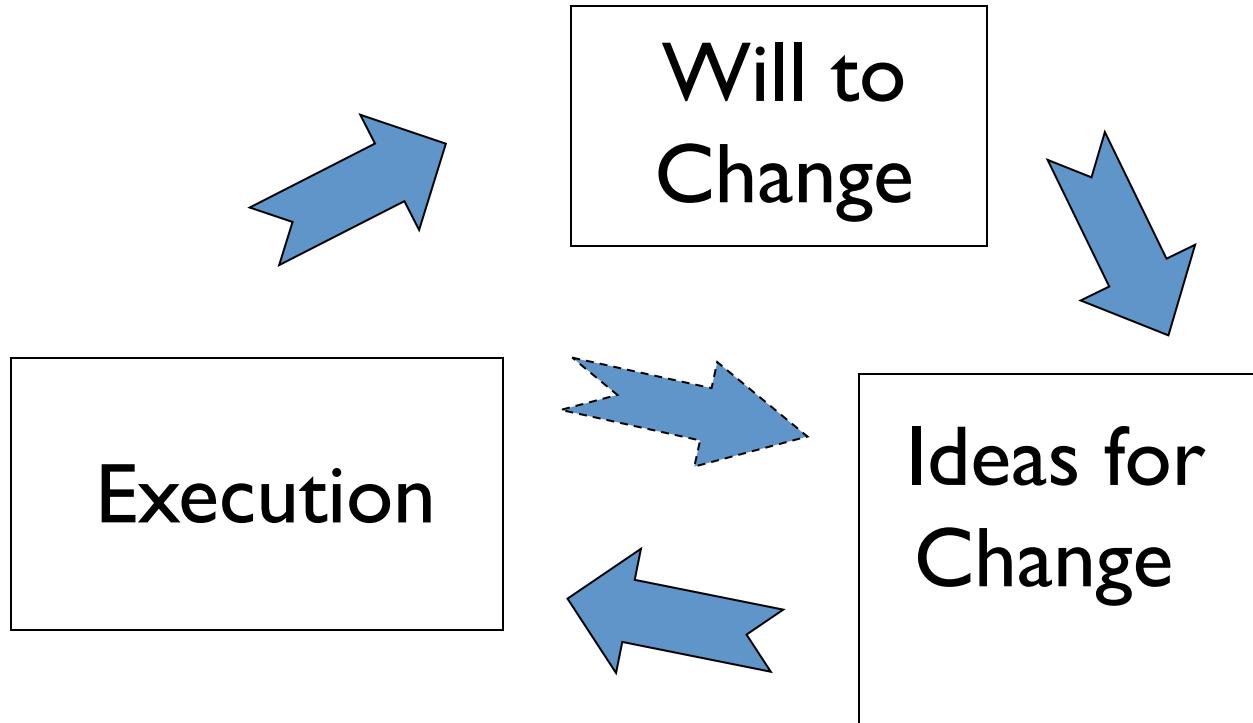


# Key Ingredients to Spread & Deepen Results



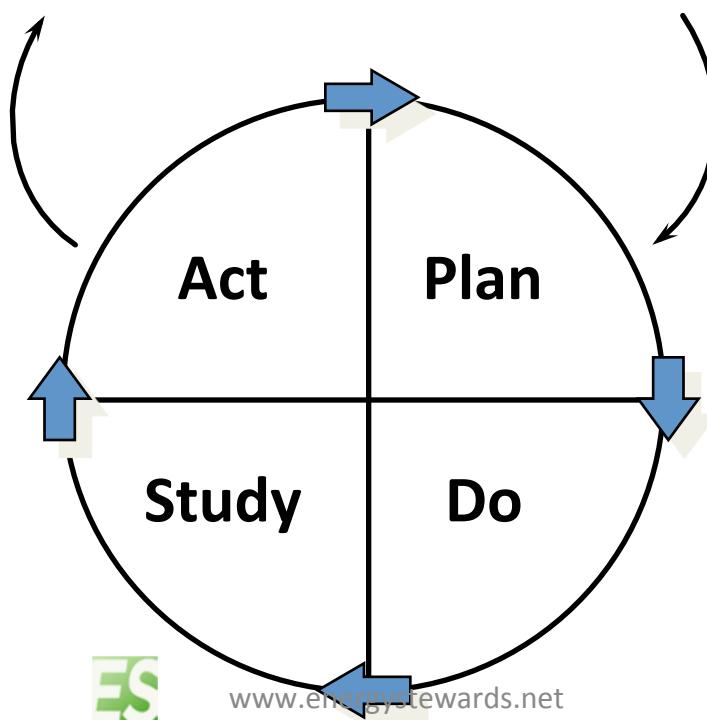
*Rapid Improvement Associates, LLC – Energy Stewards Web Platform*

# Basic Method To Guide

1. What are we trying to accomplish?

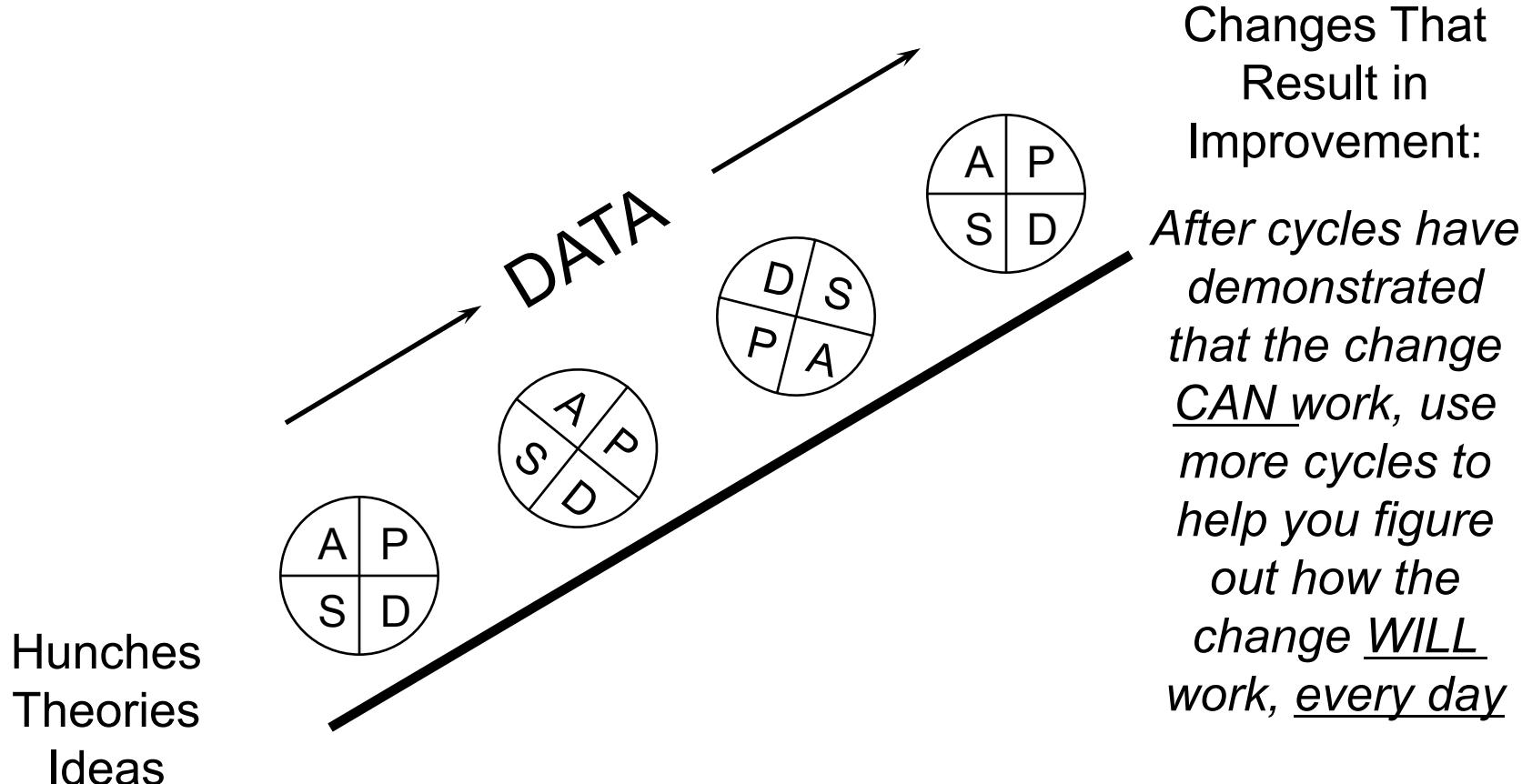
2. How will we know that a change is an improvement?

3. What change can we make that will result in improvement?



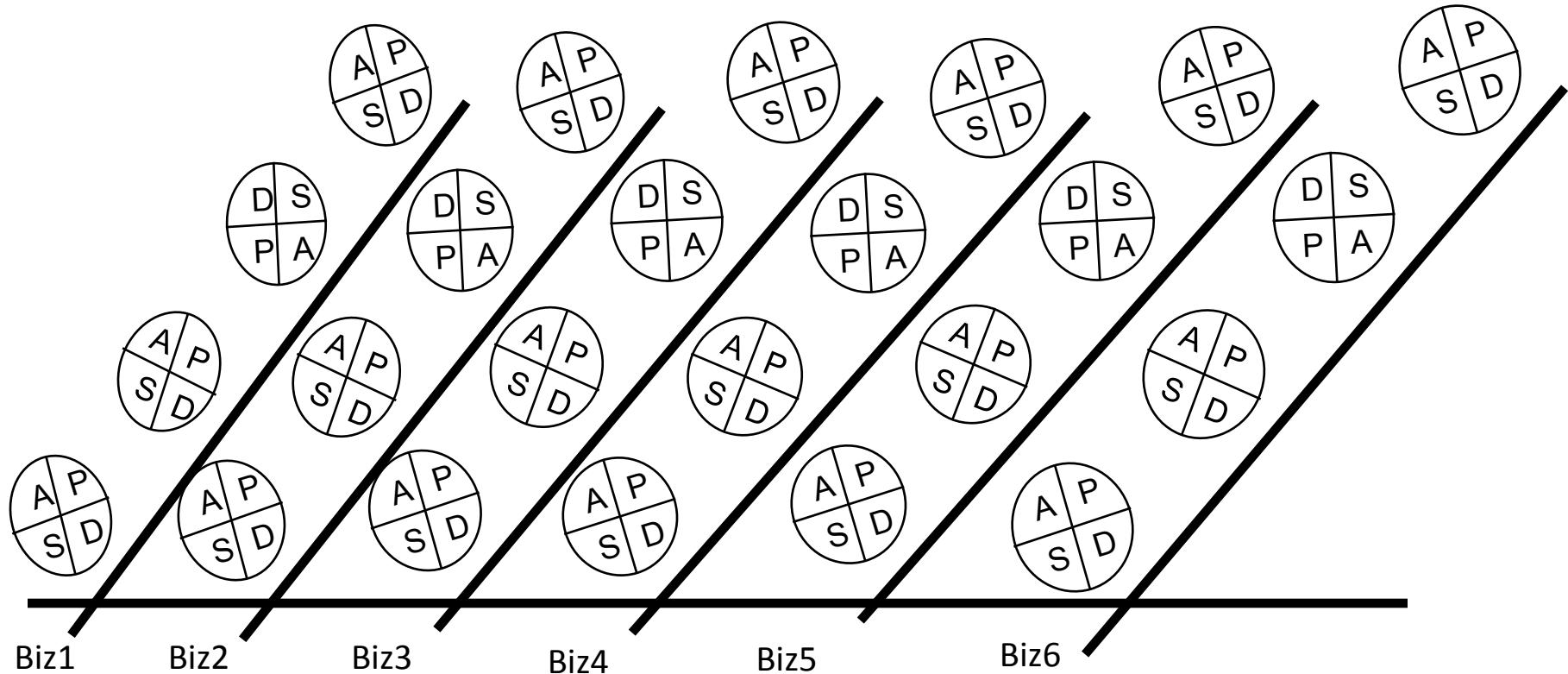
Langley et al. (1996), The Improvement Guide, Jossey-Bass: San Francisco.

# Repeated Use of Cycle



**Investigation** → **Demonstration** → **Implementation**

# To Quicken: Multiple Cycles of Testing, Standardizing, Sharing

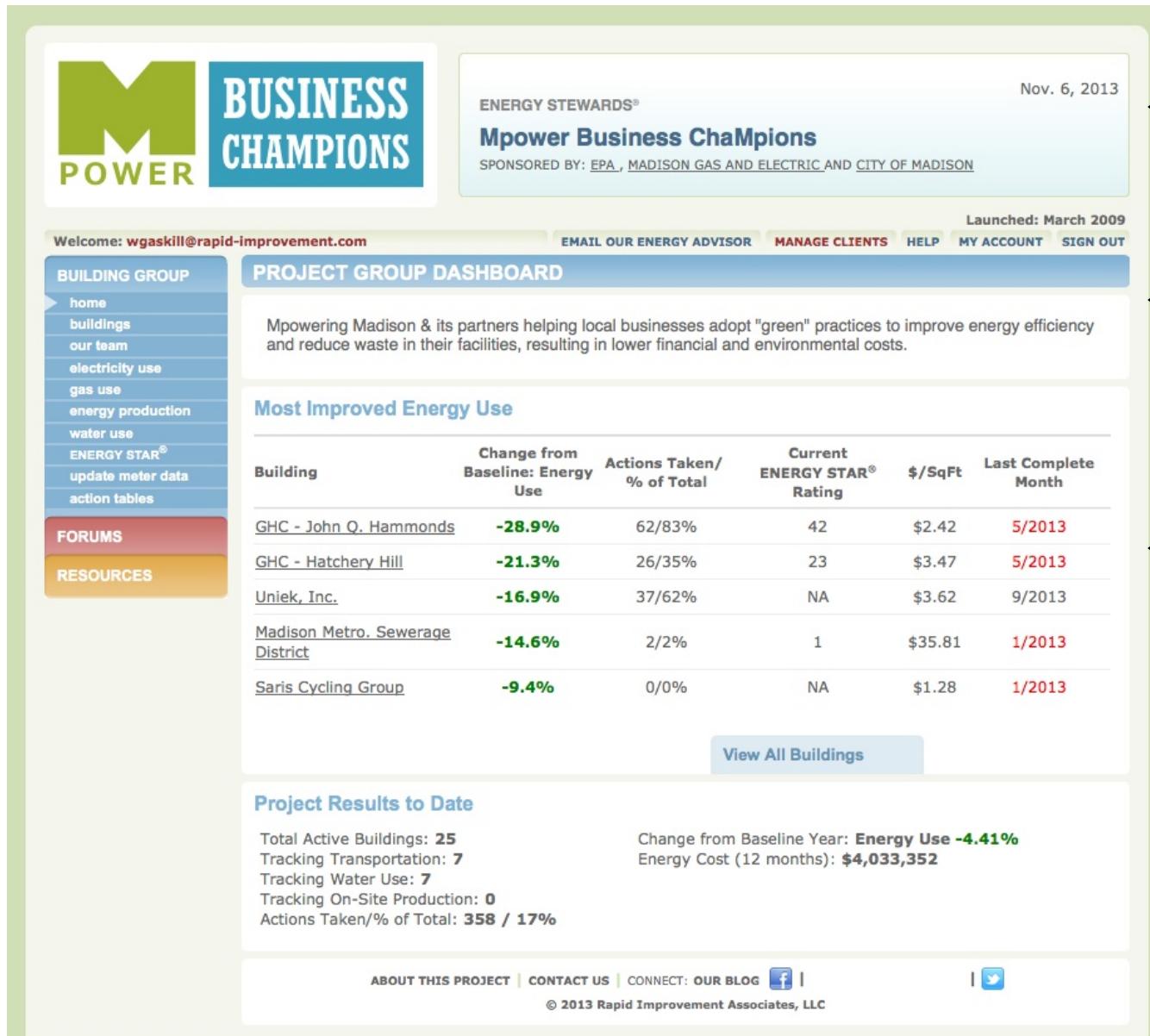


*With Regular (monthly, quarterly) management at least review & decision on next steps.*

# Successful Collaborative Attributes

- ✓ Success important to leadership
- ✓ Participants share common bond
- ✓ Clear target, measures . . . Some know how to do well
- ✓ Applications & deadlines help make the important, *urgent*
- ✓ Reports, reviews & celebrations
- ✓ “Action Table” & web site integrated with overall program, culture & values

# A Web Tool to Support



Welcome: [wgaskill@rapid-improvement.com](mailto:wgaskill@rapid-improvement.com)

Launched: March 2009

ENERGY STEWARDS® Nov. 6, 2013

**Mpower Business ChaMpions**

SPONSORED BY: [EPA](#), [MADISON GAS AND ELECTRIC](#) AND [CITY OF MADISON](#)

**PROJECT GROUP DASHBOARD**

Mpowering Madison & its partners helping local businesses adopt "green" practices to improve energy efficiency and reduce waste in their facilities, resulting in lower financial and environmental costs.

**Most Improved Energy Use**

Building	Change from Baseline: Energy Use	Actions Taken/ % of Total	Current ENERGY STAR® Rating	\$/SqFt	Last Complete Month
<a href="#">GHC - John Q. Hammonds</a>	<b>-28.9%</b>	62/83%	42	\$2.42	<b>5/2013</b>
<a href="#">GHC - Hatchery Hill</a>	<b>-21.3%</b>	26/35%	23	\$3.47	<b>5/2013</b>
<a href="#">Uniek, Inc.</a>	<b>-16.9%</b>	37/62%	NA	\$3.62	9/2013
<a href="#">Madison Metro. Sewerage District</a>	<b>-14.6%</b>	2/2%	1	\$35.81	<b>1/2013</b>
<a href="#">Saris Cycling Group</a>	<b>-9.4%</b>	0/0%	NA	\$1.28	<b>1/2013</b>

[View All Buildings](#)

**Project Results to Date**

Total Active Buildings: **25**

Tracking Transportation: **7**

Tracking Water Use: **7**

Tracking On-Site Production: **0**

Actions Taken/% of Total: **358 / 17%**

Change from Baseline Year: **Energy Use -4.41%**

Energy Cost (12 months): **\$4,033,352**

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- ✓ Targets energy, water use in existing buildings
- ✓ Integrated with ENERGY STAR® Portfolio Manager
- ✓ Building energy use a simple doorway to many sustainable actions

# Integrated For Use by Range of Project Partners

- City Government
- Health Care Systems
- School Districts
- Non-Profits
- Faith Communities
- Architectural Firms

*. . . Today totaling 400+ properties nationally*



## Uniek, Inc.

232,600 sq ft  
805 Uniek Dr.  
Waunakee, WI 53597  
Project Contact: [Brian Duzan](#)

## Our Scorecard

**Actions Taken/% of Total:** 37/62%

**Current ENERGY STAR® Rating:** NA

**Energy Cost (12 months):** \$842,571 per sq ft: \$3.62

**Metric Tons CO<sub>2</sub> (12 months):** 7327

**Water Use (annual gal/sq ft):** 16.7

**Last Complete Month:** September 2013

## Recent Activity

06/20/2012 Actions Common to All

06/20/2012 Actions Common to All

04/25/2012 Milestones for All

04/24/2012 Actions Common to All

04/24/2012 Actions Common to All

[Project Notes](#)

[Track Our Transportation](#)

[Take Action](#)

## Energy Summary

**Change from Baseline Year: Energy Use -16.9% Tons CO<sub>2</sub> -11.5%**

**Baseline Year ending**

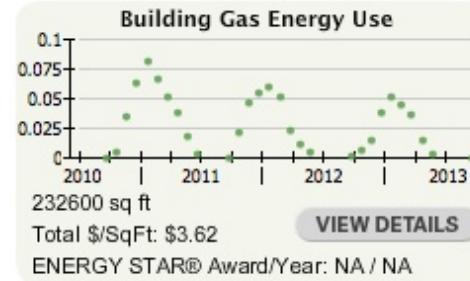
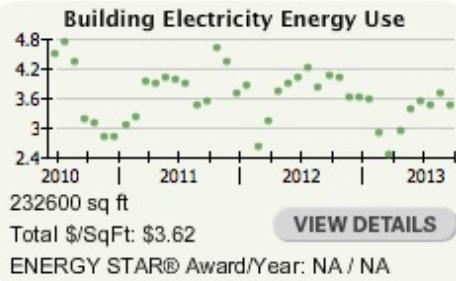
Click "View Details" on your building's graph to view a detailed version.

Rollover a specific point on the graph to view the exact month and value details.

**Note:** CO<sub>2</sub> graphs are CO<sub>2</sub> pounds/SqFt.

kWh/SqFt  CO<sub>2</sub>/SqFt  \$/SqFt

Therms/SqFt  CO<sub>2</sub>/SqFt  \$/SqFt



# How Will We Know Improvement?



# BUSINESS CHAMPIONS

Launched: March 2009

Welcome: [wgaskill@rapid-improvement.com](mailto:wgaskill@rapid-improvement.com)

ENERGY STEWARDS®

## Mpower Business ChaMpions

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### BUILDING GROUP

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[ENERGY STAR®](#)  
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[action tables](#)

### FORUMS

### RESOURCES

#### Notes

On electric, gas, water or similar graphs, each dot represents property energy use or cost for a calendar month.

Note seasonal variation over the years. Mouseover a dot to see the month, totals.

The ENERGY STAR and Energy Intensity graphs are "weather normalized." And each dot is a rolling 12-month calculation. This allows you to easily see the real energy use trend in your property over time, factoring out, for example the effect of a warmer winter one year or hotter summer another.

What trends or "story" do you see in the data? Does it

### UNIEK, INC. MONTHLY ENERGY USE

[+Edit Your Action Table](#)

[+Mark Special Event](#)

#### Monthly Energy Use Details

Review Notes, left. Use *Edit Action Table* or *Mark Special Event*, above, with dates to note key events on graphs. Download data to spreadsheet for further analysis, bottom.

▼ 1-4 Actions Taken in Month ▼ 5-9 Actions Taken in Month ▼ 10 or more Actions Taken in Month ▼ Special Events

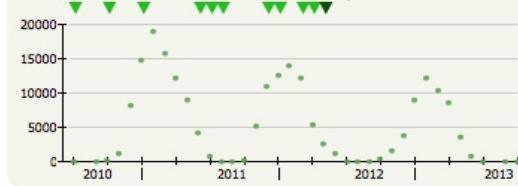
#### 14 Actions for April 2012

Completed prior to ChaMption - 20.05 Install programmable thermostats that can be secured.

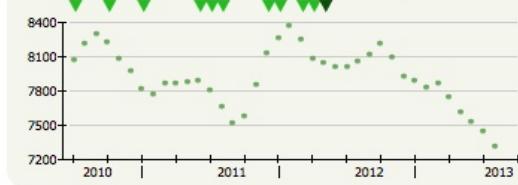
Maintain (already doing) - 10.11 Use fans to circulate warmed/cooled air.

Maintain (already doing) - 10.14 Set office thermostats when occupied at 68° in winter and 78° in summer.

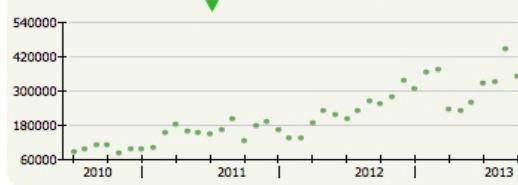
#### Natural Gas (Therms)



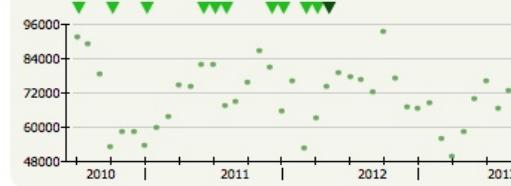
#### Metric Tons CO2 (12-month totals)



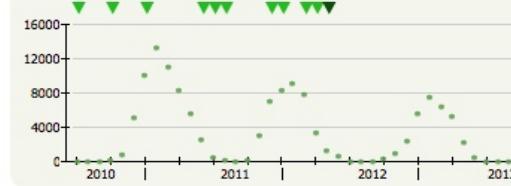
#### Water Indoor/Outdoor (Gallons)



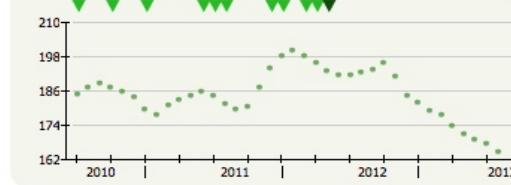
#### Dollars Electric



#### Dollars Gas



#### Energy Intensity, Weather Normalized (12-month calculation)



#### Dollars Water



## Example: UniEk, Inc.

- ✓ Started with Mpower 2011
- ✓ Reduced weather-normalized energy use intensity, CO2.
- ✓ Reduced energy use by -17% (most recent 12 months vs. 2011)



# BUSINESS CHAMPIONS

Launched: March 2009

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action tables

## FORUMS

## RESOURCES

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## Mpower Business ChaMpions

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### MONTHLY ENERGY STAR® RATINGS (12-MONTH)

The ENERGY STAR® rated property types in our portfolio. TRENDING UP? Indicates improved energy use performance.

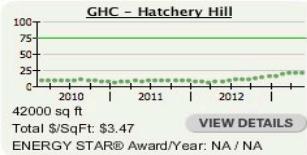
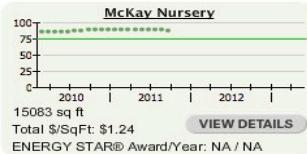
(February 2010 - May 2013)

Click "View Details" on your building's graph to view a detailed version.  
Rollover a specific point on the graph to view the exact month and value details.

ENERGY STAR® Ratings  Energy Intensity (weather normalized)

Subset [View All](#)

Building Type [View All](#)



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## Example: Current Mpower participants

- ✓ ENERGY STAR scores, on 0-100 scale
- ✓ Up = improvement
- ✓ All weather normalized
- ✓ Each can compare energy use performance to own history, each other, similar buildings nationally



ENERGY STEWARDS®

## Speeding Energy Use Improvement

Launched: January 2011

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[electricity use](#)  
[gas use](#)  
**ENERGY STAR®**  
[update meter data](#)  
[action tables](#)

## FORUMS

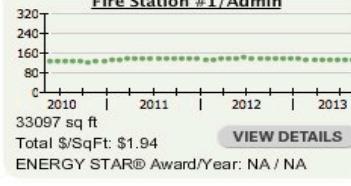
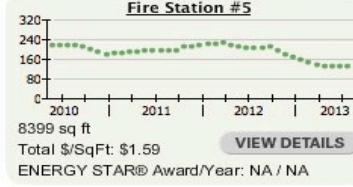
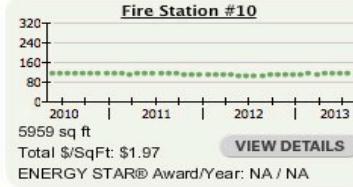
## RESOURCES

## MONTHLY ENERGY INTENSITY, WEATHER NORMALIZED (12-MONTH)

All properties in our portfolio. TRENDING DOWN? Indicates improved energy use performance.  
 (May 2010 - August 2013)

Click "View Details" on your building's graph to view a detailed version.  
 Rollover a specific point on the graph to view the exact month and value details.

ENERGY STAR® Ratings  Energy Intensity (weather normalized)

Subset [Fire](#) 

## Example: City of Madison Fire Stations

- ✓ Energy Use Intensity, all on same scale.
- ✓ Down = improvement
- ✓ 12 stations, \$198,000 in annual energy costs
- ✓ -8.9% most recent 12 months vs. 2011



Launched: January 2012

Welcome: wgaskill@rapid-improvement.com

ENERGY STEWARDS®

## Energy Stewards Initiative

SPONSORED BY:

LUTHERANS RESTORING CREATION, LUTHERAN COMMUNITY FOUNDATION AND THE TITHING & STEWARDSHIP FOUNDATION

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### FORUMS

### RESOURCES

### BUILDINGS IN OUR GROUP

#### Summary Results to Date

Total Active Buildings: 21

Tracking Water Use: 19

Tracking On-Site Production: 2

Actions Taken/% of Total: 390 / 22%

Change from Baseline Year: Energy Use **3.10%**

Energy Cost (12 months): **\$257,797**

Subset  Building Type  Baseline Year ending

Click a heading to sort the list of buildings.

Building	Change from Baseline: Energy Use	Actions Taken/% of Total	Current ENERGY STAR® Rating	\$/SqFt	Last Complete Month
<a href="#">Bethel - University City, MO</a>	<b>-23.2%</b>	4/5%	45	\$0.76	7/2013
<a href="#">Good Shepherd - Decorah, IA</a>	<b>-9.7%</b>	27/32%	<b>89</b>	\$0.44	8/2013
<a href="#">Camp Kinard/Dining Hall - SC</a>	<b>-8.2%</b>	20/24%	NA	\$1.97	8/2013
<a href="#">St. Andrew - Racine, WI</a>	<b>-8.1%</b>	56/67%	<b>92</b>	\$0.68	8/2013
<a href="#">Redeemer - Columbus, OH</a>	<b>-3.5%</b>	9/11%	56	\$0.91	6/2013
<a href="#">First Lutheran - Decorah, IA</a>	<b>-2.1%</b>	47/56%	<b>96</b>	\$0.47	7/2013
<a href="#">University - East Lansing, MI</a>	<b>0.6%</b>	78/93%	<b>75</b>	\$0.97	8/2013
<a href="#">Emmaus Evangelical - Racine, WI</a>	<b>2.3%</b>	13/15%	65	\$0.78	<b>6/2012</b>
<a href="#">Orfordville Luth - Orfordville, WI</a>	<b>3.6%</b>	17/20%	<b>95</b>	\$0.32	<b>3/2012</b>
<a href="#">St. Stephen's - Monona, WI</a>	<b>5.3%</b>	46/55%	<b>75</b>	\$1.40	<b>3/2012</b>
<a href="#">Bethesda Lutheran - Morehead, MN</a>	<b>5.7%</b>	0/0%	28	\$1.88	7/2013
<a href="#">Mount Olive - Rochester, MN</a>	<b>6.5%</b>	0/0%	<b>81</b>	\$0.89	6/2013
<a href="#">Wooden Cross - Woodinville, WA</a>	<b>6.6%</b>	0/0%	60	\$0.69	<b>11/2012</b>
<a href="#">Our Saviour's-Arlington Heights, IL</a>	<b>9.2%</b>	42/50%	47	\$0.66	8/2013
<a href="#">Peace Lutheran - Fargo, ND</a>	<b>12.1%</b>	25/30%	45	\$1.06	7/2013
<a href="#">Spirit of Joy - Orlando, FL</a>	<b>12.9%</b>	0/0%	51	\$0.59	<b>4/2013</b>
<a href="#">St. Matthew's - Wauwatosa, WI</a>	<b>14.5%</b>	0/0%	59	\$0.91	8/2013

# Compare to Self, Peers, Nationally

# Customized Action Table

## *Heart, integrated with program*

Improve Energy Efficiency	
Category	Action
Actions Common to All	20.01 Ensure proper weatherization of building (i.e. doors and windows have tight seals; Insulate and/or coat windows to reduce heat gain/loss; outside walls are adequately insulated; caulk and insulate around electrical outlets, where service lines enter building, between wood and masonry, etc.)
Actions Common to All	20.02 Centralize refrigerators by eliminating surplus and multiple small units.
Actions Common to All	20.03 For south facing windows consider awnings, levelors or meco shades (lets light not UV in) to reduce heat capture in summer.
Actions Common to All	20.04 Install aluminum reflectors in fluorescent fixtures.
Actions Common to All	20.05 Install programmable thermostats that can be secured.
Actions Common to All	20.06 Insulate hot water heater.
Actions Common to All	20.07 Plant trees south of the building to increase shade, on west as a wind buffer or anywhere to offset emissions.
Actions Common to All	20.08 Replace incandescent exit signs with Energy Star LED fixtures.
Actions Common to All	20.09 Replace overhead fluorescent fixtures with T-8 or T-5 lamps.
Actions Common to All	20.10 Replace screw-in Incandescent bulbs with energy star compact fluorescent bulbs.
Actions Common to All	20.11 Ensure timers or sensors are installed where appropriate (i.e. outside lighting, restrooms and other spaces intermittantly used).
Actions Common to All	20.12 Research and identify efficient operations/process equipment.
Actions Common to All	20.13 Upgrade electronics and appliances to Energy Star efficient models (don't forget high efficiency vending machines).
Actions Common to All	Other - Completed other energy efficiency measure (please describe in forum).

This table allows you to record the actions you have taken to improve use of energy.

Use the "Jump to action topic..." drop down menu to navigate quickly to an Action Topic.

Jump to action topic....

Jump to action topic....

ES Project Management  
Reduce Use - "Free" Savings  
Improve Energy Efficiency  
Conserve Water (and Energy!)  
Buy Renewable Energy  
Install Renewable Energy  
Reduce Transportation  
Increase Employee Education/Awareness

Applicable

Action	Action Code	Action Date	
01 Welcome Review 3 short Getting Started videos here.	D	04/25/2012	<a href="#">Add Forum Post</a>
02 Welcome Meeting on site with Mpower Team.			
03 Energy baseline data submitted	D	08/11/2011	<a href="#">Add Forum Post</a>
04 Water baseline data submitted	D	08/11/2011	<a href="#">Add Forum Post</a>
05 Energy assessment completed by your utility and/or Focus On Energy	D	05/09/2011	<a href="#">Add Forum Post</a>
06 Energy assessment completed by Campos Comprehensive Engineering	D	06/16/2011	<a href="#">Add Forum Post</a>
07 Meet with Dane County Clean Air Coalition	D	06/07/2011	<a href="#">Add Forum Post</a>

- [Download a copy of current filled in Action Table.](#)  
Useful for reports.
- [Download a blank Action Table.](#)  
Useful for team discussion and taking notes.
- [Please send us ideas to improve the way our Action Table works.](#)

# Update, Share Action Table

# Check, Update Energy Use . . .

Use Meters and Meter Data from this list

Building Name	Building Square Foot Size	Meter Name	Meter Type	Actions	
<a href="#">Cafe Costa Rica</a>	N/A	<a href="#">G229217</a>	Natural Gas	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
		<a href="#">E306932</a>	Electricity Grid Purchase	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
<a href="#">Community Pharmacy</a>	7049	<a href="#">E284434</a>	Electricity Grid Purchase	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
		<a href="#">G209506</a>	Natural Gas	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
<a href="#">Filament Games</a>	3760	<a href="#">E277357</a>	Electricity Grid Purchase	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
		<a href="#">G179977</a>	Natural Gas	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
<a href="#">GHC - Capitol</a>	35400	<a href="#">E278482</a>	Electricity Grid Purchase	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
		<a href="#">commute</a>	Transportation Commute	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
<a href="#">GHC - Capitol</a>	35400	<a href="#">work</a>	Transportation Work	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
		<a href="#">CC electric</a>	Electricity Grid Purchase	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
		<a href="#">CC gas</a>	Natural Gas	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
<a href="#">GHC - Capitol</a>	35400	<a href="#">CC water</a>	Water Indoor/Outdoor	<a href="#">Update Meter</a>	<a href="#">Update Data</a>
			Transportation	<a href="#">Update Meter</a>	<a href="#">Update Data</a>

- In Energy Stewards or from Portfolio Manager®
- ...From utility accounts
- ...Month-by-month or via upload of spreadsheets.
- ...Testing “automatic” updates via WegoWise
- All entries sync between Portfolio Manager & ES

# Invite Key Team Members

## OUR TEAM

### Invite Someone to Join your Team

Ask others to join your effort. Include a note about project background and why you want them on the team.

#### Full Name      Username

Michael Campos      michael.campos@covance.com1

n/a

Warren Gaskill      wgaskill@tds.net

Currently Signed In

You have been invited by Warren Gaskill of Covance Laboratories, Inc. to join Mpower Business ChaMpions.

testing 1

Please join the effort to improve our building's energy efficiency. Follow the link below to sign up for an account.  
<http://www.energystewards.net/mpower/login/?action=register>

# Share Learning/File Reports

## ADD NEW POST

Use this page to share information.

Add text, attach a file, link to a website. You can describe your entry using the check boxes, which helps us sort the entries when viewing.

Title:

Message:

Building:

Associated Action Categories:

Actions Common  Actions Helpful to Renters  Helpful to Larger Energy Users  Helpful to Smaller Energy Users

Milestones for All

Attach File: (optional)  
 no file selected  
(Only DOC, DOCX, XLS, XLSX, PPT, PPTX, PDF, ZIP, JPG, PNG, and GIF file types)

Place in Forum Photo Gallery:

 **Lutherans Restoring Creation**

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**FORUMS**

Post a report, ask a question, look for ideas and answers.

Search Posts:  All Forums  Our Forum  Our Group   
  Have a Question? Ask Us:

**Efficient Buildings Forum**

**Our Group // Most Recent Posts**

- Notes from the 24 Sept. meeting...
- In Progress (Partially Done) - 4 Complete formal building energy assessment with energy advisor from your local utility or state program (if available) to help identify your actions and incentive potential. Option: Complete building assessment with your G
- Maintain (already doing) - 40.7 If you don't have it already, build a vestibule (or double entrance doors) at main entrance better control indoor air in all seasons.
- Done - 41.3 Install high-efficiency hot water source
- Done - 40.8 Update old outdoor central air conditioning unit with current, high energy efficient unit.

[View All](#)

**Our Group // Most Popular Posts**

- Smart thermostats
- Recommended Light Levels in Church Buildings
- Bulletin announcement for your congregation
- Maintain (already doing) - 12 Related Programs -- Implement a recycling program for appropriate items for member convenience and as a way to raise funds for your conservation program.
- Warren, First English was just awarded the E-Star certificat for the year ending June 2011, how do we reflect this on the site?

[View All](#)

[All Groups // Most Recent Posts](#) [All Groups // Most Popular Posts](#)

# Energy Stewards Platform

*Useful web tool for certain programs*

- ✓ Engage a community of users . . . step up an energy management program for a targeted portfolio.
- ✓ Partners bring other key elements
  - Commitment by leadership & participant
  - Growing a peer network – an affinity of users
  - Application to join . . . stay engaged . . . no “deadwood”
  - Specified period to take action (1 year)
  - Webinars/ Lunch & Learn/ File Reports
  - Link to other support resources (utility, federal & state programs, program allies)

*Make simple to try something. . . Make important, urgent!*

# Contact

Warren Gaskill

608 852-9191

[wgaskill@rapid-improvement.com](mailto:wgaskill@rapid-improvement.com)

[www.energystewards.net](http://www.energystewards.net)