

Municipal Energy and Water Tracking

wegowise

Dan Teague

Director of Business Development

Our Work with Cities

- Clients
 - Los Angeles, CA
 - New Orleans, LA
 - Lowell, MA
 - Ann Arbor, MI
- Automated Data
 - Con Edison
 - National Grid
 - NYSEG
 - Central Hudson
 - National Fuel

Building Characteristics

5600 Franklin Avenue
New Orleans, LA 70122

X

Age of Building

Built in 1948

Structure

No basement

Size

1,100 square feet in total

1,100 tenant square feet

1 stories tall

Energy Efficiency

Not certified as a green building

Heating

Gas heat

Furnace

Cooling

Ducted central AC (Outdoor condenser)

Hot Water

Gas hot water heater

Stand-alone storage water heater

Facilities

No elevators

Electric Accounts

Electric meters are all building-wide

1 electric account

Gas Accounts

Gas meters are all building-wide

1 gas account

Notes

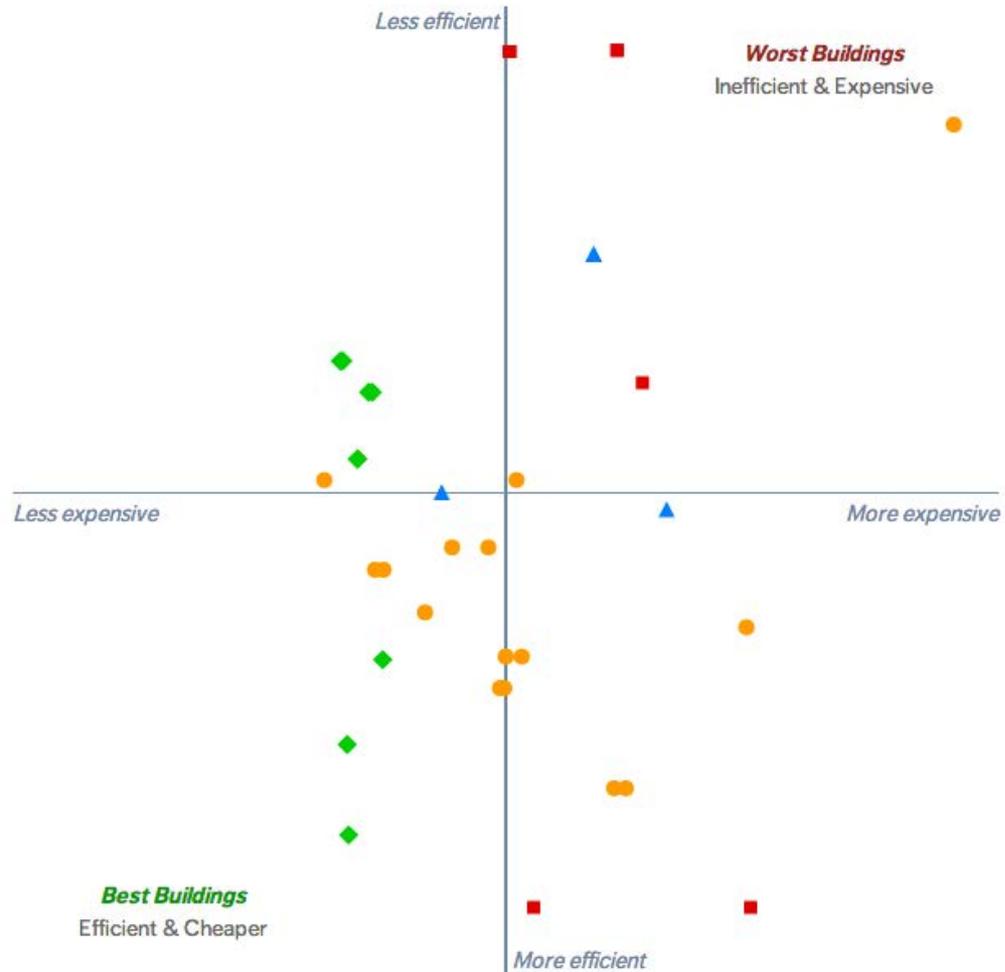


Utility Data

End Date MM/DD/YYYY	Start Date MM/DD/YYYY	Usage Btu	Usage Therms	Total Charge	Supply Charge	Delivery Charge
12/17/2013	11/24/2013	192.6 MMBtu	1,926 thm	\$3,300.00	\$2,471.71	\$828.29
11/23/2013	10/24/2013	167.6 MMBtu	1,676 thm	\$2,500.00	\$1,771.96	\$728.04
10/23/2013	09/24/2013	119.9 MMBtu	1,199 thm	\$2,086.00	\$1,627.35	\$458.65
09/23/2013	08/24/2013	53.5 MMBtu	535 thm	\$930.90	\$652.24	\$278.66
08/23/2013	07/26/2013	28.4 MMBtu	284 thm	\$494.00	\$256.97	\$237.03
07/25/2013	06/25/2013	26.2 MMBtu	262 thm	\$455.80	\$239.31	\$216.49

Your To Do List

 All Energy  Water  Electricity  Gas  Oil



Portfolio Summary

 All Energy

 Water

 Electricity

 Gas

 Oil



This graph shows the performance of all of your buildings, relative to one another.

- Buildings in the top right quadrant need the most attention — they are the most inefficient and expensive ones in your portfolio.
- Use the buttons at the top to switch between different utilities.

Legend [\(Deselect All\)](#)

Click label to toggle graph items

-  NOFD
-  NOJS
-  NOMP
-  NOPD
-  NOPL
-  NORD
-  OPSO

View Data

Share

Add a Building

Water consumption in Gallons per square foot

Raw Data

Bookmark

Download

Name
Click for detailed data

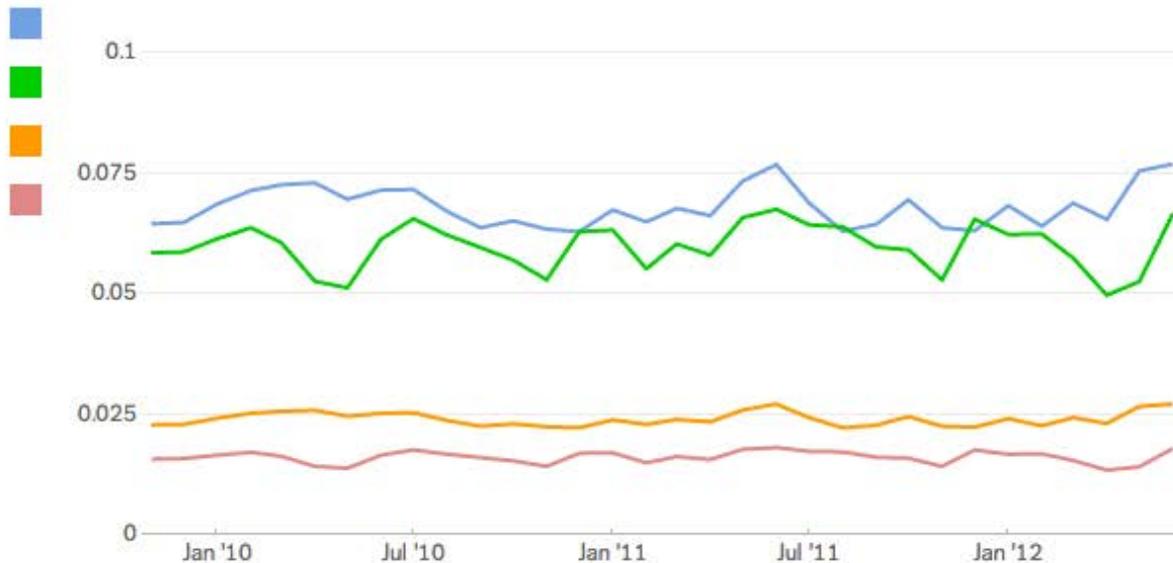
Full-Year Sum

Detailed Data per Month (Deselect All)

Click a square to show or hide an item on the graph

Click & drag to zoom in

700 Pennsylvania ...	24.6
1600 Pennsylvania...	21.7
1 1st St Northeast	8.59
600 Independence ...	5.73



Property Stability

Building Address	Feb	Mar	Apr	Notes
461 Green Rd	-2%	-2%	-8%	Stable
435 Ridge Rd	-5%	-3%	5%	Stable
477 Green Rd	0%	-1%	3%	Stable
422 Green Rd	-6%	-4%	2%	Stable
475 Green Rd	0%	-1%	3%	Stable
455&457 Ridge Rd	-6%	-4%	-7%	Stable
418 Green Rd	-2%	-11%	-14%	Better
416 Green Rd	-2%	-11%	-14%	Better
466 Ridge Rd	7%	13%	13%	Worse
468 Ridge Rd	10%	15%	11%	Worse

Your Targets

600 Independence Avenue Southwest 🔍 ✎ ✕ « Federal

Energy Star Score

View Data

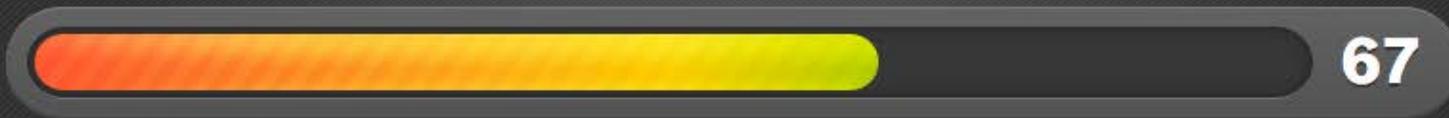
Areas

Utility Accounts

Building Upgrades

Share

Energy Star Score



What does this score mean?

Your Energy Star score shows how your building performs compared to similar buildings. A 50 is average, 99 the best and 1 the worst. A high score conveys to tenants, investors, and the general public your building minimizes energy waste and supporting a sustainable environment.

Score valid for period ending Jun 30, 2012

Improve your score

Your Targets

Building Outlook Report

32 Main St.

2013

Projected Spend: \$496,956

Potential Savings: \$33,174

- 18/39 in portfolio

- Focus on water

	2012 (Actual)	2013 (Projected)	Median Building	Potential Savings
Total	\$473,291	\$496,956	\$463,782	\$33,174
Electric	\$194,209	\$203,919	\$198,653	\$5,266
Gas	\$183,930	\$193,127	\$193,127	\$0
Water	\$95,152	\$99,910	\$72,002	\$27,908

Improve

Effect of Boiler Upgrade (June 11, 2009)

[Back to list of all upgrades](#)

Natural gas use in Therms (not normalized)

Raw Data Bookmark Download

◆ Date Range

▼ Full-Year Sum

Detailed Data per Month (Deselect All)

Click a square to show or hide an item on the graph

Click & drag to zoom in

Jun 08 - May 09



7.86K



Jun 09 - May 10



5.84K



Before: Old a.O. Smith ~68% Efficient Boiler, Uninsulated Basement

After: New Slant/Finn 84% Efficient Boiler, Basement Ceiling Insulated With Foam

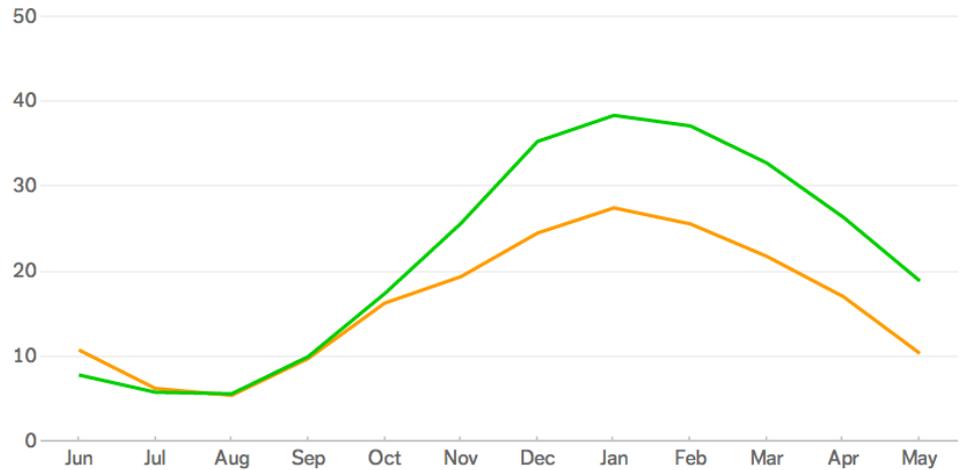
Cost: \$23,000.00

Expected Savings: 22%

Actual Savings: 26% (2,015 Therms)

Categories

HVAC — Heating — Mechanical Equipment
Building Envelope — Insulation — Foundation



Portfolio Manager

Portfolio Manager Setup

It's time to setup a new Portfolio Manager account!

Wegowise will create a new Portfolio Manager account on your behalf to export your buildings into.

This guarantees that we will never overwrite any information you have setup in your existing Portfolio Manager account, nor will we overwrite the changes you make in your existing account.

[Create My Account](#)

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Portfolio Manager

Climate Smart Communities Webinar: Energy Management Resources for Municipalities

June 12, 2014

Juan Gutierrez / Region 2
U.S. EPA - ENERGY STAR

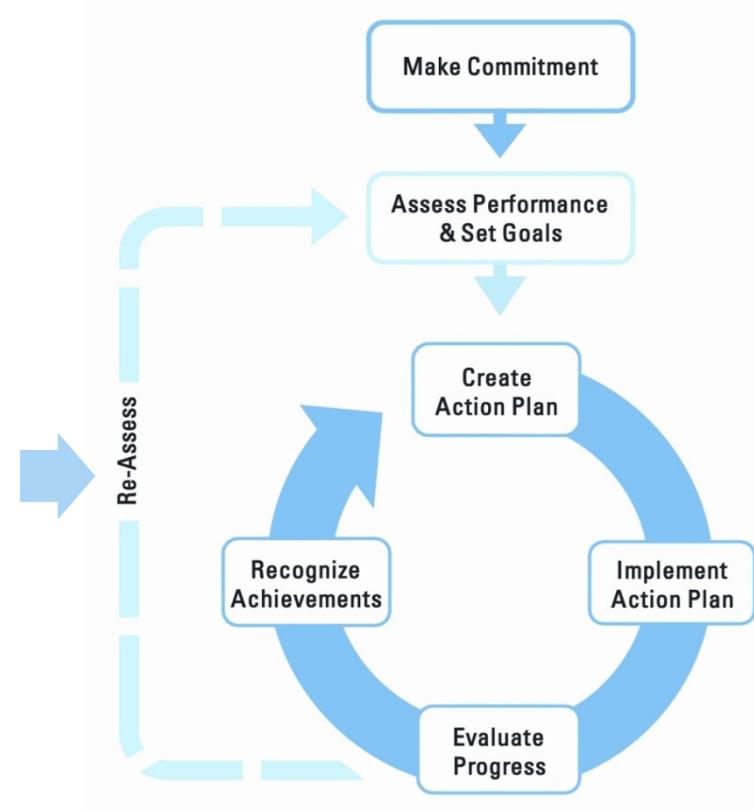
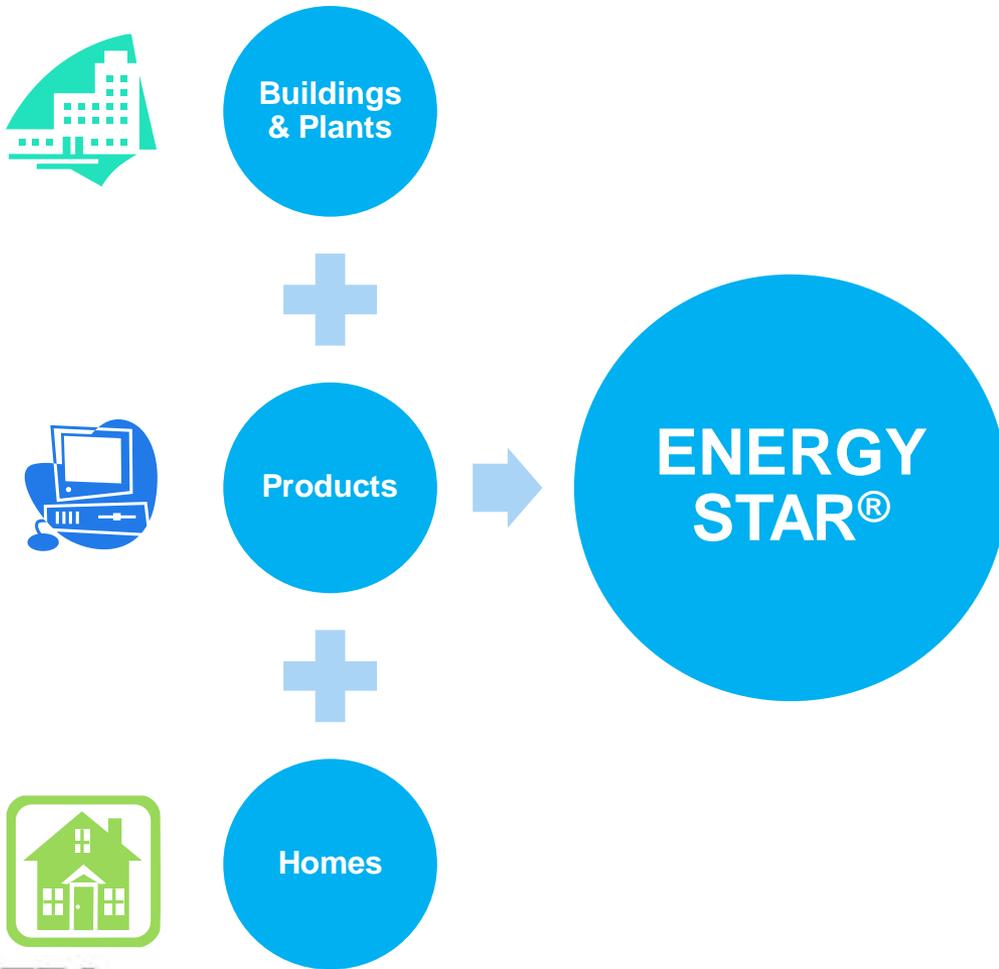
ENERGY STAR

Commercial Buildings Program



- Offers a strategic approach to energy management
- Enables building owners, managers, and tenants to save money & protect the environment
- Provides organizations with measurable information on energy savings and greenhouse gas emissions reductions from commercial buildings
- Builds on strong ENERGY STAR brand recognition
- ENERGY STAR on a building = Superior Energy Performance
- Benchmarking is the first step

ENERGY STAR Program



- **Management Tool** – Helps business and organizations by offering a platform to:
 - ◆ Assess whole building energy and water consumption
 - ◆ Track changes in energy, water, greenhouse gas emissions, and cost over time
 - ◆ Track green power purchase
 - ◆ Share/report data with others
 - ◆ Create custom reports
 - ◆ Apply for ENERGY STAR certification

- **Metrics Calculator** – Provides key performance metrics to integrate into a strategic management plan
 - ◆ Energy consumption (source, site, weather normalized)
 - ◆ Water consumption (indoor, outdoor)
 - ◆ Greenhouse gas emissions (indirect, direct, total, avoided)
 - ◆ ENERGY STAR 1-to-100 score (available for many building types)

→ **Accessible in a free, online secure platform:**
www.energystar.gov/benchmark

Understand Comparative Performance



- ALL properties can be benchmarked
- Benchmarking through Portfolio Manager enables you to:
 - ◆ Compare one building against a national sample of similar buildings
 - ◆ Compare all of your buildings of a similar type to each other
 - ◆ Set priorities and targets for the use of limited staff time and/or investment capital
 - ◆ Track performance over time and gain recognition

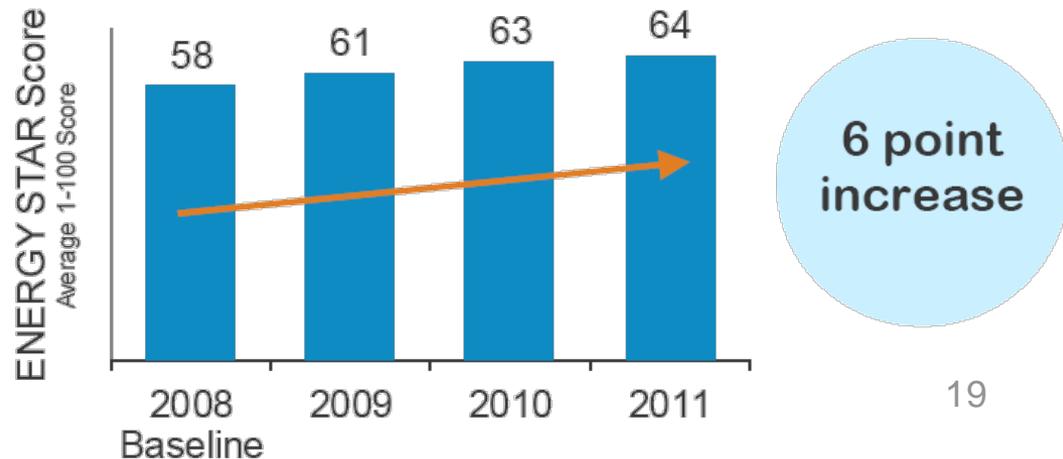
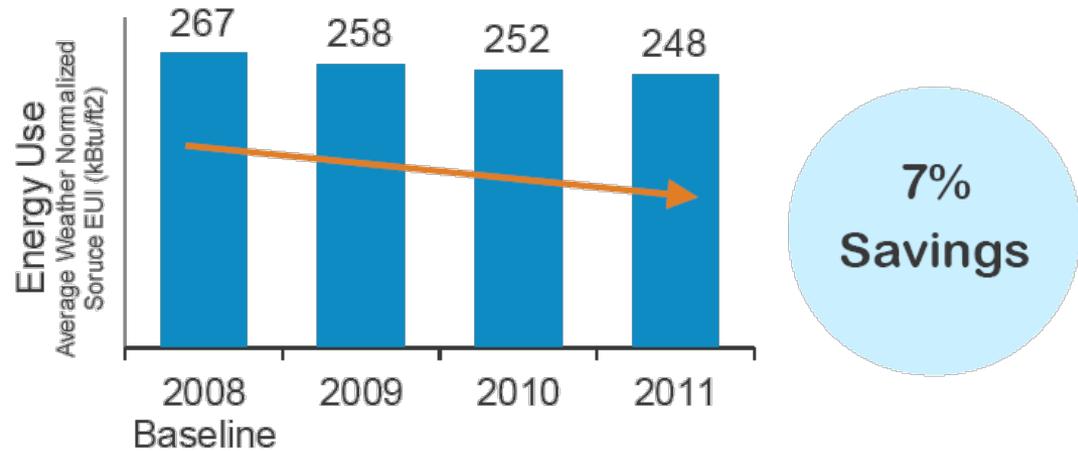
Value of Benchmarking



Consistent benchmarking in buildings results in energy savings and improved performance

Access the “Benchmarking and Energy Savings” and many more in EPA’s “DataTrends” report series:
www.energystar.gov/datatrends

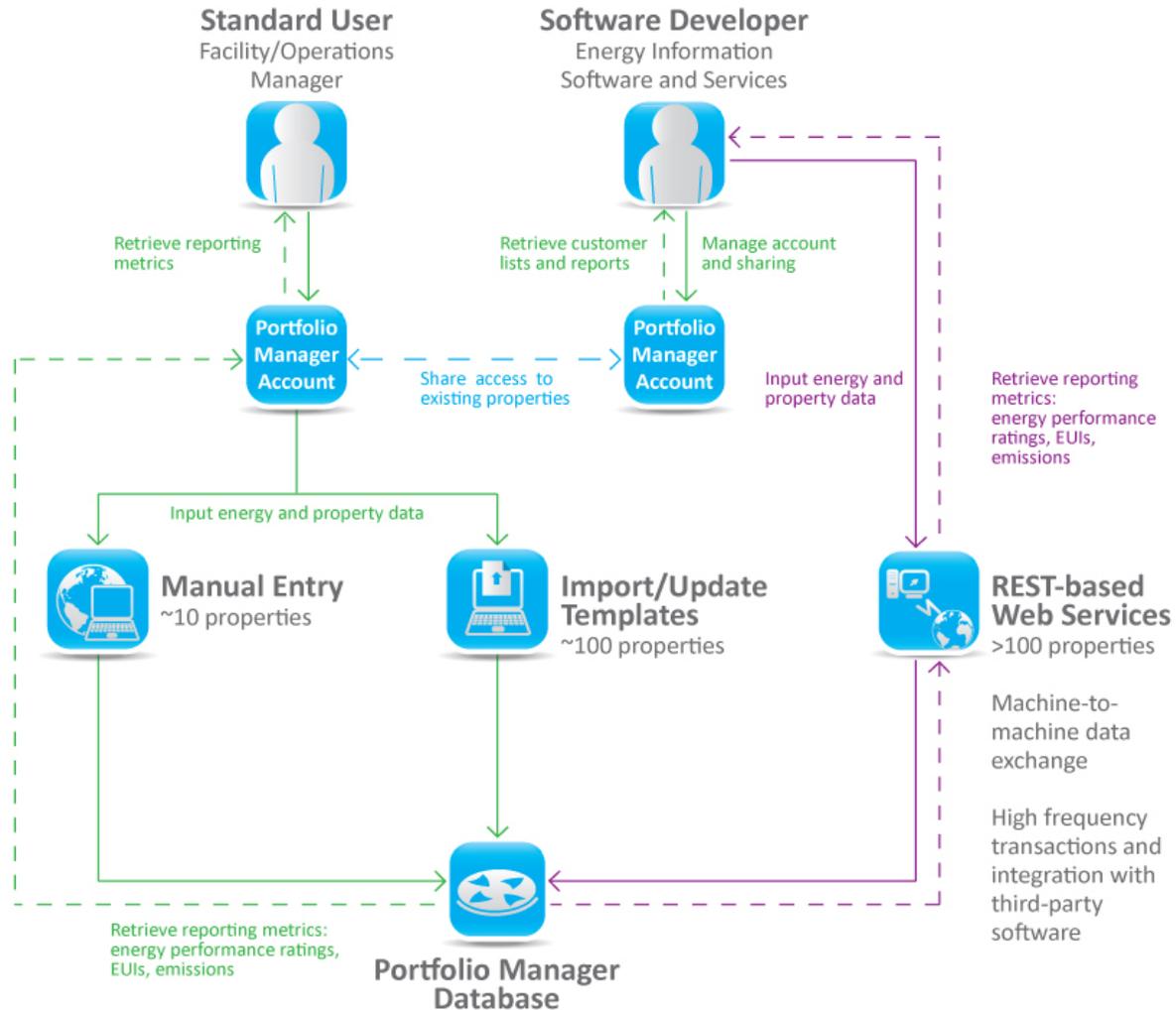
Energy Savings in Portfolio Manager



Get Data Into Portfolio Manager



Portfolio Manager Data Entry/Reporting Options



To Get Started Benchmarking in Portfolio Manager



- Helpful data to have on hand
 - ◆ Property Information
 - Function
 - Name, street address, ZIP/postal code
 - ◆ Property type data
 - Gross floor area
 - Use details (ex. weekly operating hours, number of computers, number of workers on the main shift, etc)
 - ◆ Energy consumption data
 - Property-specific invoice information from all purchased and on-site generated energy for all fuel types

Exchanging Data with Portfolio Manager



- Portfolio Manager’s “web services” API* allows service providers to develop software to transfer data into and out of Portfolio Manager automatically
 - ◆ Easy upload & efficient management of data for large portfolios
- **Over 150 organizations** have software that is actively exchanging data with Portfolio Manager via web services
- **Over 50 percent of properties benchmarked in Portfolio Manager** in 2013 were benchmarked via web services

**Application Programming Interface*

More info:

<http://www.portfoliomanager.gov/webservices/home>

<http://portfoliomanager.energystar.gov/webservices/home/api>



Providers of Portfolio Manager Web Services



- Active ENERGY STAR Partners featured on our [Most Active List](#)

- ♦ Most Active List URL: http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/expert-help/find-energy-star-service-a-0?c=spp_res.pt_spps_automated_benchmarking



Portfolio Manager in State and Local Building Energy Policy



- State and local energy benchmarking and disclosure policies on the rise
- Purpose of these laws:
 - ◆ Reduce GHG: In large cities with significant public transportation, buildings typically account for 70% or more of CO₂ emissions and energy usage.
 - ◆ Increase transparency of building performance data for a better informed market (energy and water)
 - ◆ Incentivize improvements in public and private building
 - ◆ Grow clean energy job market
- All jurisdictions with benchmarking laws have specified the use of Portfolio Manager, EPA's ENERGY STAR measurement and tracking tool

State and Local Energy Efficiency Programs Leveraging Portfolio Manager



Impact of Adopted Benchmarking and Disclosure Policies



Each year, existing policies will impact more than **51,000 properties** totaling approximately **5.6 billion SF** of floor space in major real estate markets

**** Update: Montgomery County, MD passed a benchmarking and disclosure ordinance on April 22 2014**

BUILDING AREA (IN SQUARE FEET) COVERED ANNUALLY

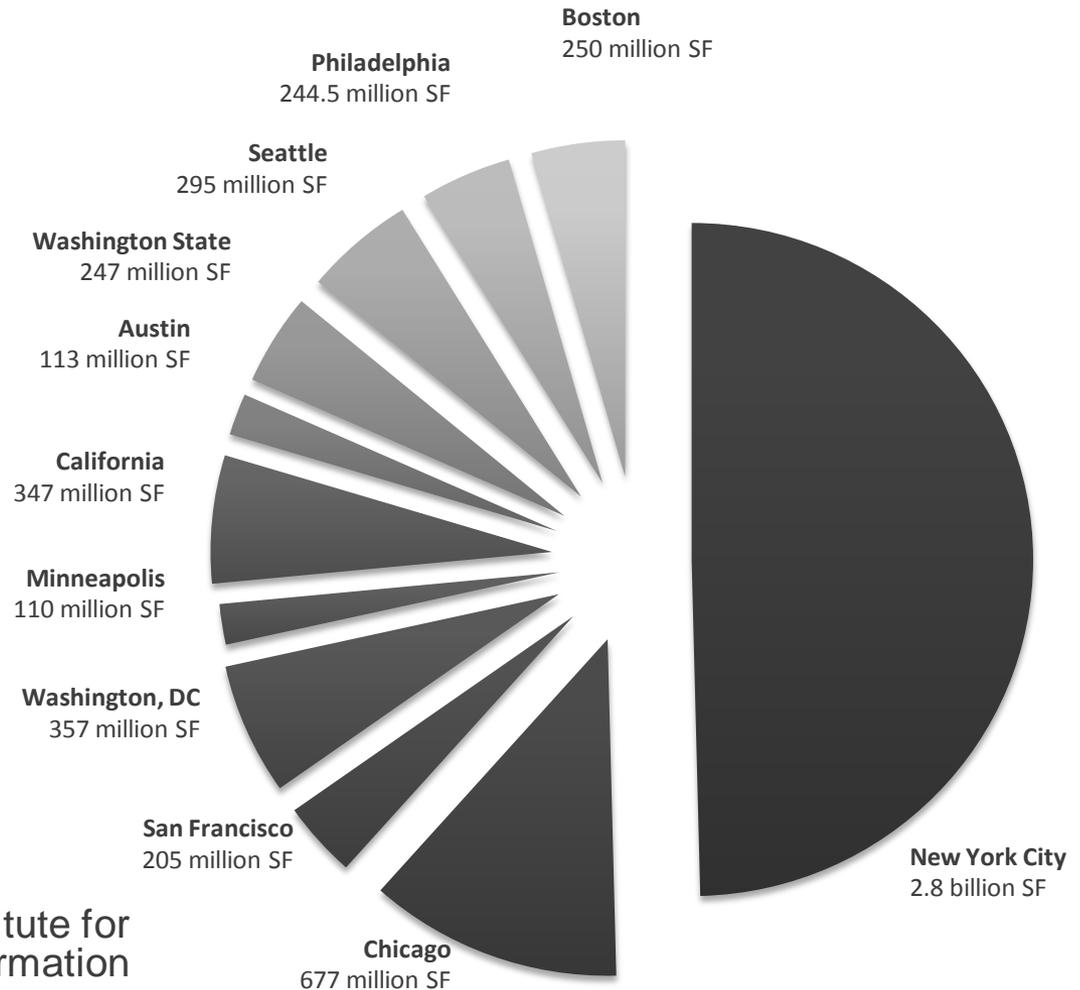
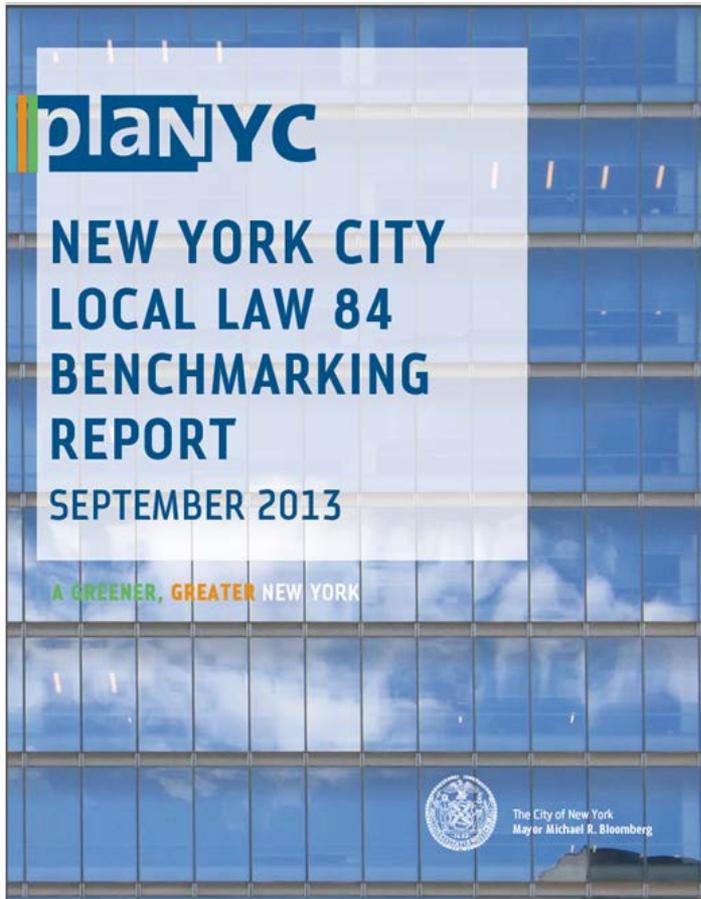


Image credit: Institute for Market Transformation

Early Findings from City Reporting

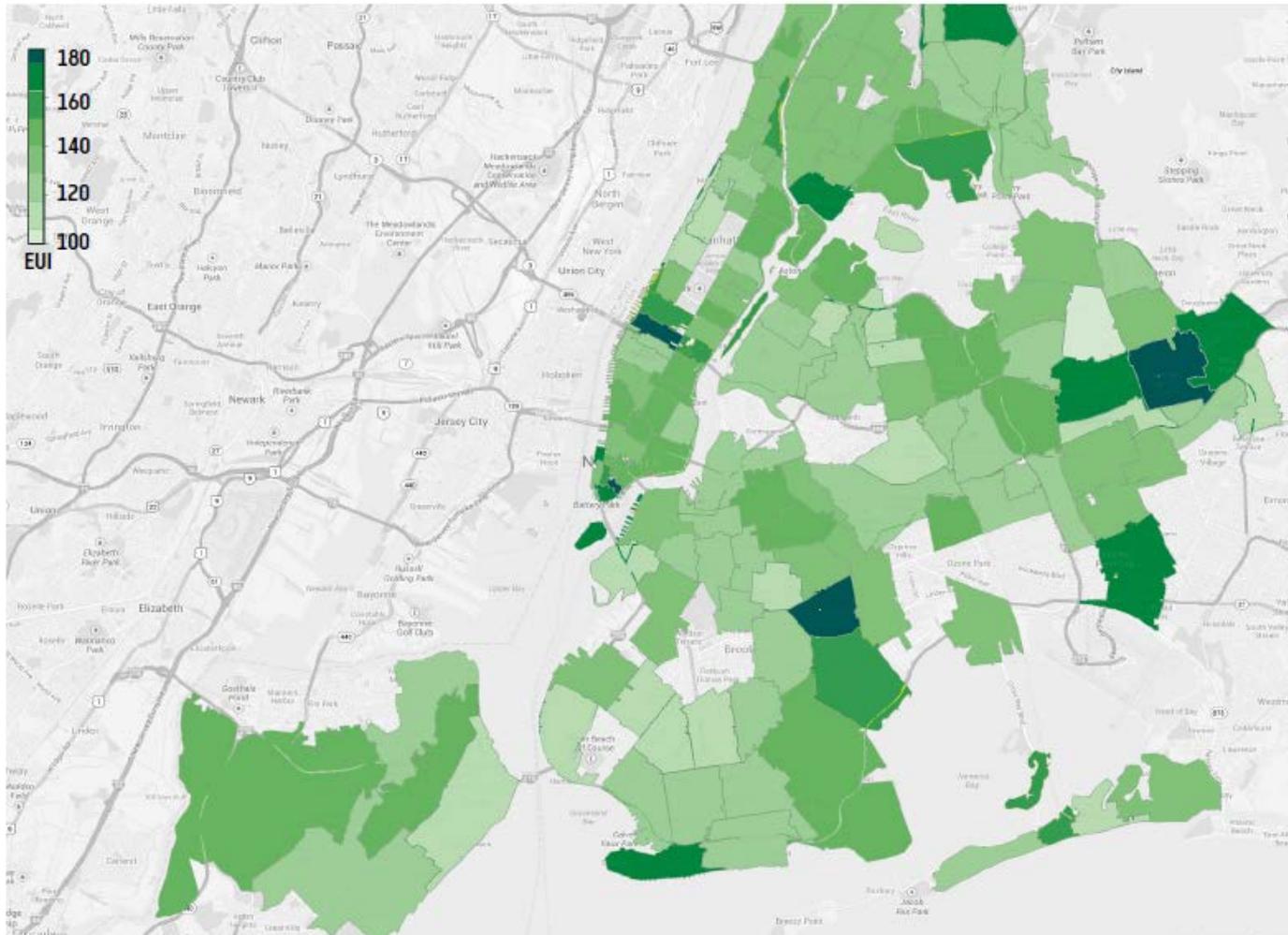


www.nyc.gov/html/gbee/html/plan/ll84.shtml

www.seattle.gov/environment/buildings-and-energy/energy-benchmarking-and-reporting



Early Findings from City Reporting: NYC

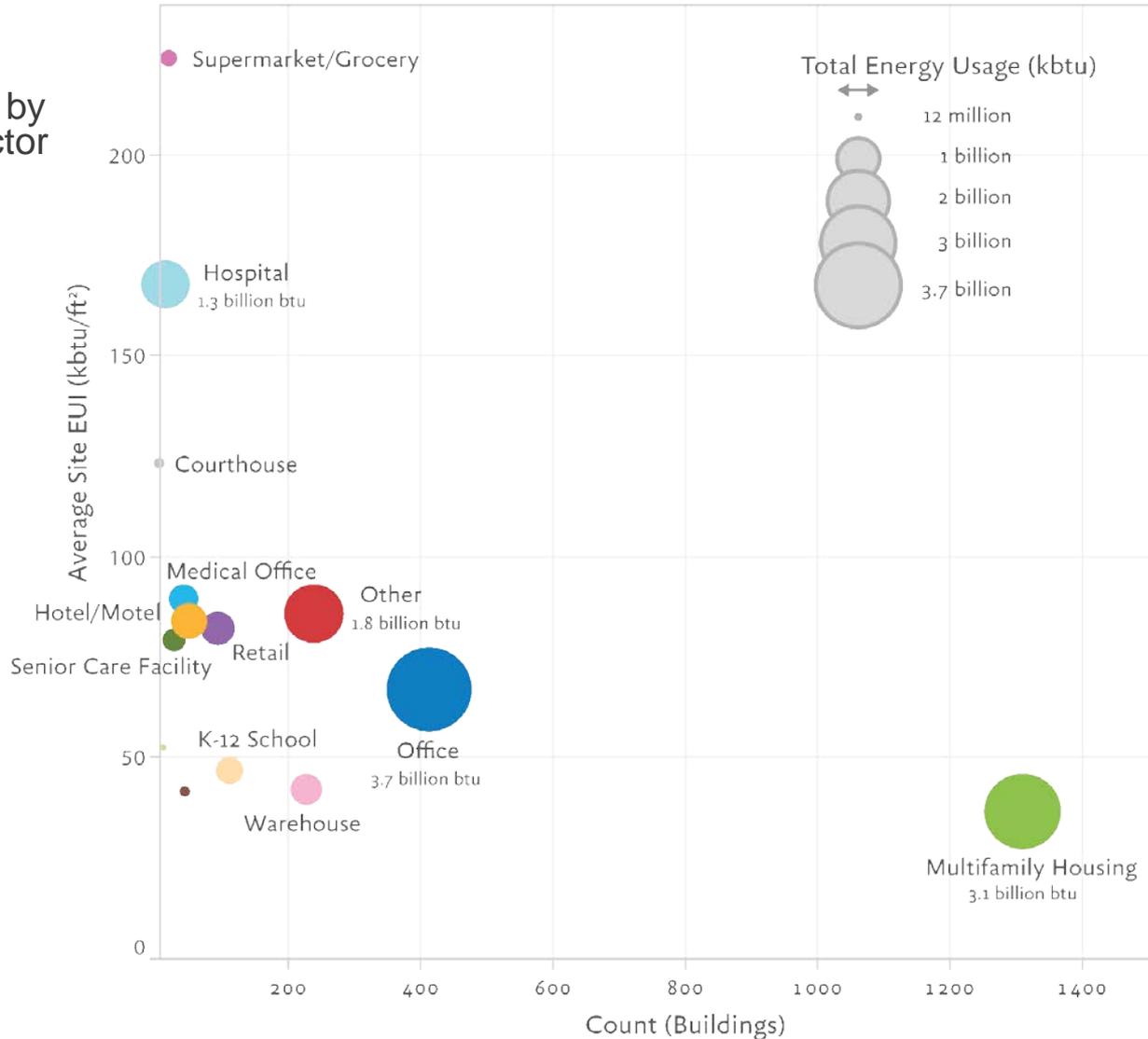


Multifamily Energy Use Intensity by Neighborhood in NYC

Early Findings from City Reporting: Seattle



Energy Use by Building Sector in Seattle



Governments Report Public Building Benchmarking Results



- New York State: <http://buildsmart.ny.gov/> (benchmarking results coming to this portal soon)
- Washington State: www.des.wa.gov/services/facilities/Energy/EnergyStar/Pages/default.aspx
- State of Alabama: www.adeca.alabama.gov/Divisions/energy/Documents/State%20Buildings%202012%20Report.PDF
- District of Columbia (see pg 22 of DC report):
 - ♦ http://ddoe.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/20140113_Green%20Building%20Report%202012_FINAL.pdf
- Philadelphia: www.phila.gov/green/PDFs/Municipal%20Energy%20Benchmarking%20Report.pdf
- New York City: http://www.nyc.gov/html/gbee/html/plan/l184_scores.shtml
- Minneapolis: www.bomampis.org/boma/pdf/CityofMPLSBenchmarking.pdf
- San Francisco: <http://sfwater.org/index.aspx?page=701>
- Seattle: www.seattle.gov/Documents/Departments/OSE/EBR-muni-buildings.pdf

Identify Trends, Opportunities for Savings



Top Performing Public Buildings

By ENERGY STAR score

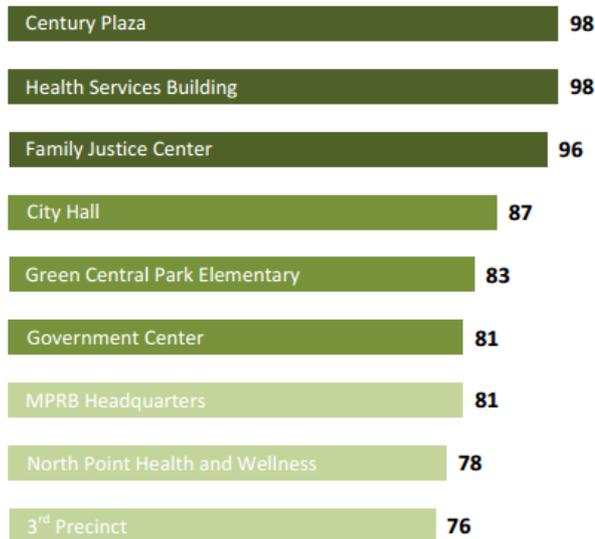


Figure 6: City Building EUI Averages: Percent from National Average by Building Type, 2010

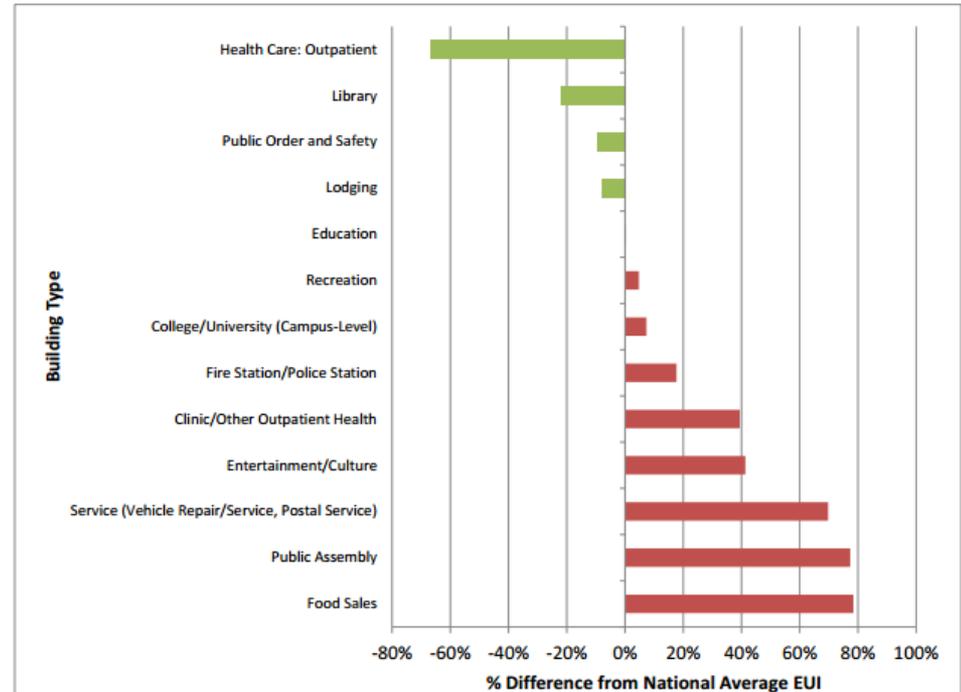


Table 3: DGS Facilities' Energy Use Intensity Compared to National Medians

Facility Type	National Median Source EUI (kBTU/ft ²)	DGS FY2012 Median Weather-Normalized Source EUI (kBTU/ft ²)	DGS Median EUI vs. National Median EUI
Fire Station or Police Station	154	219	42% more
K-12 School*	141	154	9% more
Library	236	169	-28% LESS
Lodging (Shelters)	156	202	30% more
Office*	148	214	44% more
Other	123	237	93% more
Recreation	97	203	110% more

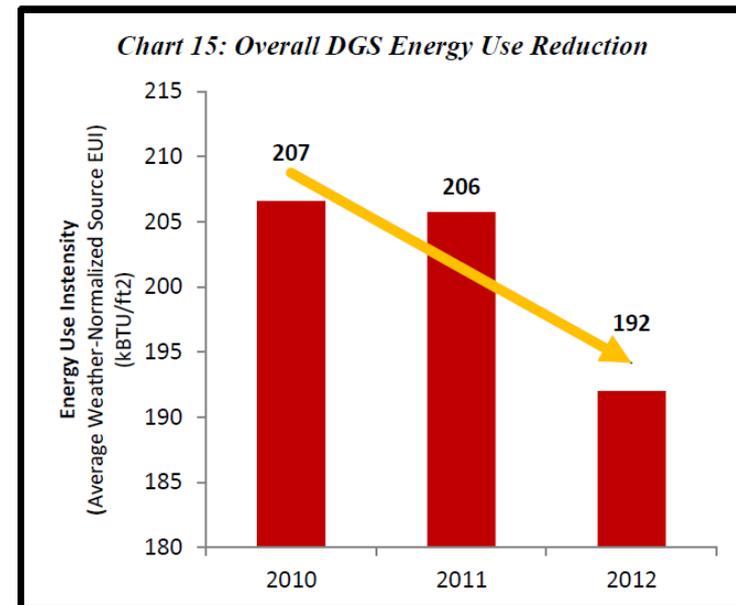
Communicate Progress



Reporting Agencies		FY 2012		
AGENCY/Institution NAME	Total Floor Space (Sq. Ft.)	Annual Energy Cost	% Chg from Base Year	2012 Est. Cost Saved/Avoided
ABC Board Central Office Hqs & Warehouse	174,610	\$157,892	-6.0	-\$18,559
Corrections Department	2,980,363	\$7,490,874	-16.1	-\$1,571,222
Emergency Management Agency	35,000	\$111,785	-39.5	-\$79,848
Environmental Management	195,222	\$475,408	-18.7	-\$187,063
Finance Department	1,833,076	\$3,482,424	-7.0	-\$184,630
Forestry Commission	29,936	\$38,666	-28.1	-\$19,290
Geological Survey/Oil and Gas Board	95,967	\$105,047	-7.1	-\$6,984
Military Department (State Operated Facilities)	1,213,229	\$1,252,892	-23.3	-\$380,209
Pardons and Paroles	73,517	\$228,924	-2.2	-\$3,769
Postsecondary Education (ACCS)	6,865,103	\$12,041,594	N/A	-\$754,884
Public Health	1,168,527	\$2,335,719	8.6	N/A
Real Estate Commission	16,681	\$54,978	15.0	N/A
Supreme Court	265,017	\$518,924	-5.0	-\$33,712
Transportation Department	1,221,323	\$2,002,986	20.8	N/A
Alabama Institute for Deaf & Blind	536,258	\$362,079	-9.6	-\$373,331
Athens State University	393,817	\$508,955	-19.6	-\$33,064
University of Montevallo	1,062,634	\$1,336,963	-20.0	-\$252,846
TOTALS FY 2012:	18,160,280	\$32,506,111		-\$3,899,411

Alabama state agency benchmarking report compares energy performance in 2005 to FY 2012 to communicate avoided energy costs.

District of Columbia public buildings showed a 7% reduction in EUI from FY 2010 to 2012



EPA Portfolio Manager Training and Technical Support



- Visit: www.energystar.gov/buildingshelp
- Additional Portfolio Manager training resources available at: www.energystar.gov/pmupgrade
 - ◆ Step-by-step documents (PDF)
 - ◆ Recorded webinars and short training videos
- Register for regular webinars at: <http://esbuildings.webex.com>
- Portfolio Manager Technical Reference Series: http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager_model_tech_desc

Get Recognized!

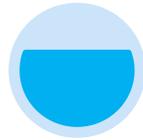
- ✓ Join as an ENERGY STAR Partner
- ✓ Earn the ENERGY STAR for your buildings
- ✓ Enter EPA's National Building Competition in 2015
- ✓ ENERGY STAR Partner of the Year

Strong ENERGY STAR brand recognition



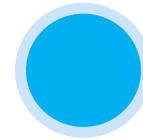
Partner

- Strategic approach to energy management
- Helps save money & protect the environment



Benchmark

- The first step
- Provides measurable information on energy savings and GHG emissions reductions



Certify

ENERGY STAR on a building = Superior Energy Performance



ENERGY STAR Partnership

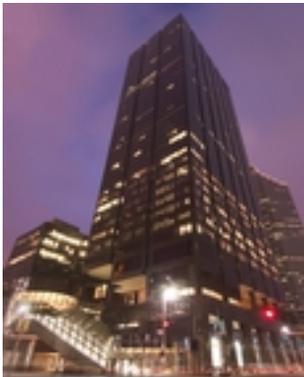


- ENERGY STAR partners can co-brand with ENERGY STAR, a brand recognized by 85 percent of Americans
- Partners also gain access to a rich variety of promotional materials
- ENERGY STAR partners commit to:
 - ◆ Measure/track/benchmark building energy use
 - ◆ Implement a plan to improve energy performance
 - ◆ Educate and communicate others about energy efficiency
- Texas government ENERGY STAR partners include: Texas Department of Criminal Justice, Texas Department of Transportation, University of Texas at Austin, cities of Austin, Dallas, Fort Worth, and Houston, Fort Bend and Harris counties, the Greater Waco Chamber of Commerce, and more.



15 years

ENERGY STAR
Certified Buildings & Plants



Two Houston Center



City of Houston
General Services Department



Memorial Hermann Sugar Land Hospital

Recognizing the Financial Value of ENERGY STAR Certified Buildings



Owners and operators are realizing a wide-variety of value-enhancing benefits:



2.7% higher NOI / sq. ft.



12.9% lower operating expenses



7% higher effective cash flows



10-11% increase in occupancy



8.5% higher property value



+\$30 / sq. ft. transaction price



6.5% greater rent prices



0.66% increase in ROE

Updates to the ENERGY STAR Score



- Canadian
 - ◆ New Hospital score to be released on May 13, 2014
- US
 - ◆ New Multifamily score
- CBECS Update
 - ◆ 2014: Review technical methodology and solicit input from partners
 - ◆ 2015: CBECS data available, modeling to begin
 - ◆ 2016: Hope to release first revised scores
 - ◆ ***Schedule depends on release date for CBECS data from EIA!***

Training and Other Resources



- Office Hours
 - ◆ Monthly session
 - 30 min focus topic with 60 min Open Q&A
 - ◆ Good opportunity to hear what others are asking and to ask your own questions
- FAQs (www.energystar.gov/BuildingsHelp)
 - ◆ Updated regularly
 - After every office hours
 - Based on monthly suggestions from customer support team
 - ◆ See “new this month” section
- Training (<http://www.energystar.gov/buildings/training>)
 - ◆ Maintaining PDF library & Regular trainings (101, 201, etc)
 - Modify share PDF for this summer’s changes, etc
 - ◆ Developing short videos (5 minute) on key topics
 - Setup Properties; Setup Meters; Navigate Reporting; Respond to Data Request
 - ◆ Planning to re-design training page
 - Easier access to recorded WebEx Trainings
 - ◆ Expanding external trainers network



Thank you for Attending!

If you have any questions on Portfolio Manager or the ENERGY STAR program, contact us at:

www.energystar.gov/BuildingsHelp

Or you can contact me at:

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Climate Smart Communities Webinar

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Climate Smart Communities Webinar

Website Address



<http://www.dec.ny.gov/energy/50845.html>