

# Thanks For Joining

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This is the US DOE TAP Webcast –Benchmarking Outreach and Data Collection Techniques for External Portfolios

We will begin shortly!

For the best audio quality, please dial in using your telephone and place your phone on mute. We will have a Q&A session at the end. If you have a question during the presentation, please type it in the questions window in the control panel to the right.

Toll: 1-702-489-0007

Access code: 176-849-565

Audio PIN: Shown after joining the Webinar

# Benchmarking Outreach and Data Collection Techniques for External Portfolios



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy

Technical Assistance Program  
April 25, 2013

# Agenda

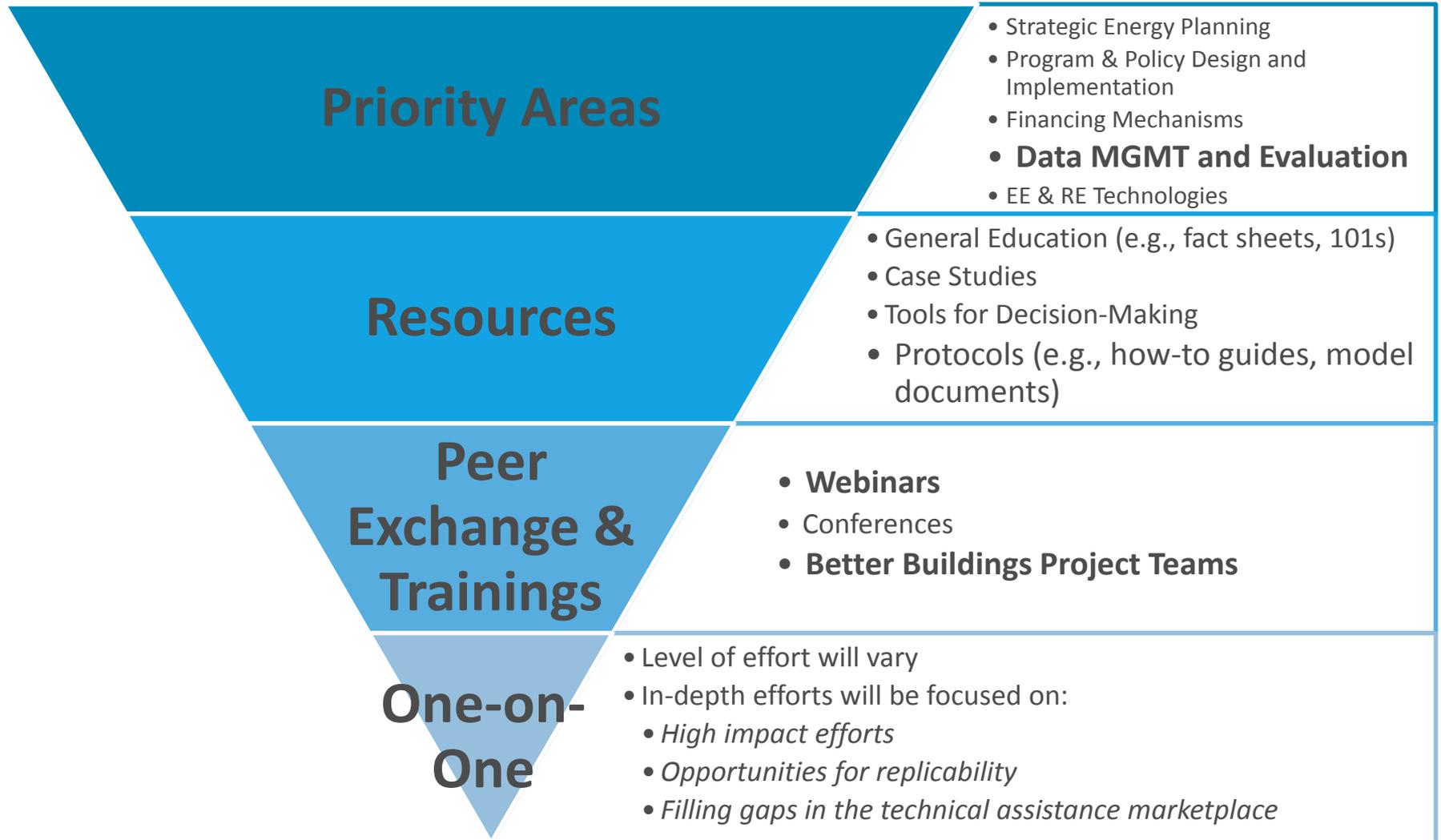
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1. Welcome & overview of TAP
2. Introduction to external benchmarking
3. Promising practices from the Institute for Market Transformation
4. Resources from the Environmental Protection Agency
5. Atlanta's approach to the Better Buildings Challenge
6. Engaging Washington's 'external' agencies

# What is the Technical Assistance Program?

- DOE's Technical Assistance Program (TAP) provides state, local, and tribal officials with resources to advance successful, high-impact, and long-lasting clean energy policies, programs, and projects
- TAP supports one of EERE's key missions – taking clean energy to scale through high impact efforts
- TAP has been around for over a decade and handled thousands of inquiries – most recently TAP had been focused on supporting Recovery Act grantees
  - One-on-one assistance
  - Online resource library & webinars
  - Facilitation of peer exchange

# New TAP Approach



# Data Management and EM&V as a Priority Area

- Resources:
  - Rolling out a Comprehensive Data Management and Evaluation portal on the Solution Center in May
- Peer Exchange & Trainings:
  - National webinar trainings, including – ***Designing a Benchmarking Plan***, February; ***Internal Benchmarking Outreach and Data Collection Techniques***, March; Upcoming sessions on QA/QC and Analyzing Benchmarking Data
  - Long-term small group peer exchange – join the ***Better Buildings Alliance Project Team for Data Management Approaches***, current session underway – new session slated for August
- Better Buildings Summit for State and Locals
  - May 30th and 31st in DC:  
[www.yesevents.com/BBSummit2013](http://www.yesevents.com/BBSummit2013)

# How to Tap into These and Other TAP Offerings

- Visit the ***Solution Center***  
<http://www1.eere.energy.gov/wip/solutioncenter/>
- Contact Local or State ***Regional Coordinator***  
<http://www1.eere.energy.gov/wip/solutioncenter/pdfs/rcmapsep2012.pdf>
- Submit an ***application*** for assistance  
[http://www1.eere.energy.gov/wip/solutioncenter/technical\\_assistance.html](http://www1.eere.energy.gov/wip/solutioncenter/technical_assistance.html)
- Sign up for ***TAP Alerts***, the TAP mailing list, for updates on our latest and greatest  
[TechnicalAssistanceProgram@ee.doe.gov](mailto:TechnicalAssistanceProgram@ee.doe.gov)

# Benchmarking External Portfolios

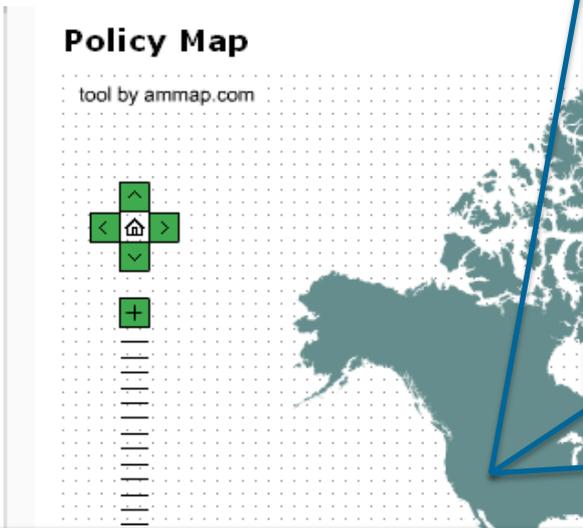
Organizations are moving beyond benchmarking the buildings they manage and reaching out to ‘external’ portfolios to adopt benchmarking programs:

- Create awareness to foster energy efficiency
- Develop energy management practices in the community
- Promote market change through greater transparency in building energy information

“A recent California study found that energy performance benchmarking prompted energy efficiency investment in over 60% of participants through improved energy management processes, building upgrades, and behavioral efficiency projects.”

– SEE Action ECB WG Fact Sheet

# Existing External Benchmarking Programs



Graphics - <http://www.buildingrating.org/ammap>;  
[http://www4.eere.energy.gov/challenge/partner\\_map](http://www4.eere.energy.gov/challenge/partner_map);

# Help Getting Started

More information about starting external benchmarking programs

- DOE Programs
  - [Better Buildings Challenge](#)
  - [Better Buildings Alliance](#)
  - [Standard Energy Efficiency Data \(SEED\) Platform](#)
- SEE Action Network (Existing Commercial Buildings Working Group)
  - [B&D Policy Design Guide and Sample Policy Language](#)
  - [Fact Sheets on B&D for States, Locals and Regulators](#)
- IMT and BuildingRating.org
  - [Building Energy Transparency Report](#)
  - [Commercial Energy Policy Toolkit: Benchmarking and Disclosure](#)
  - [www.buildingrating.org](http://www.buildingrating.org)
- EPA and ENERGY STAR
  - [Guide to EE Competitions for Buildings and Plants](#)

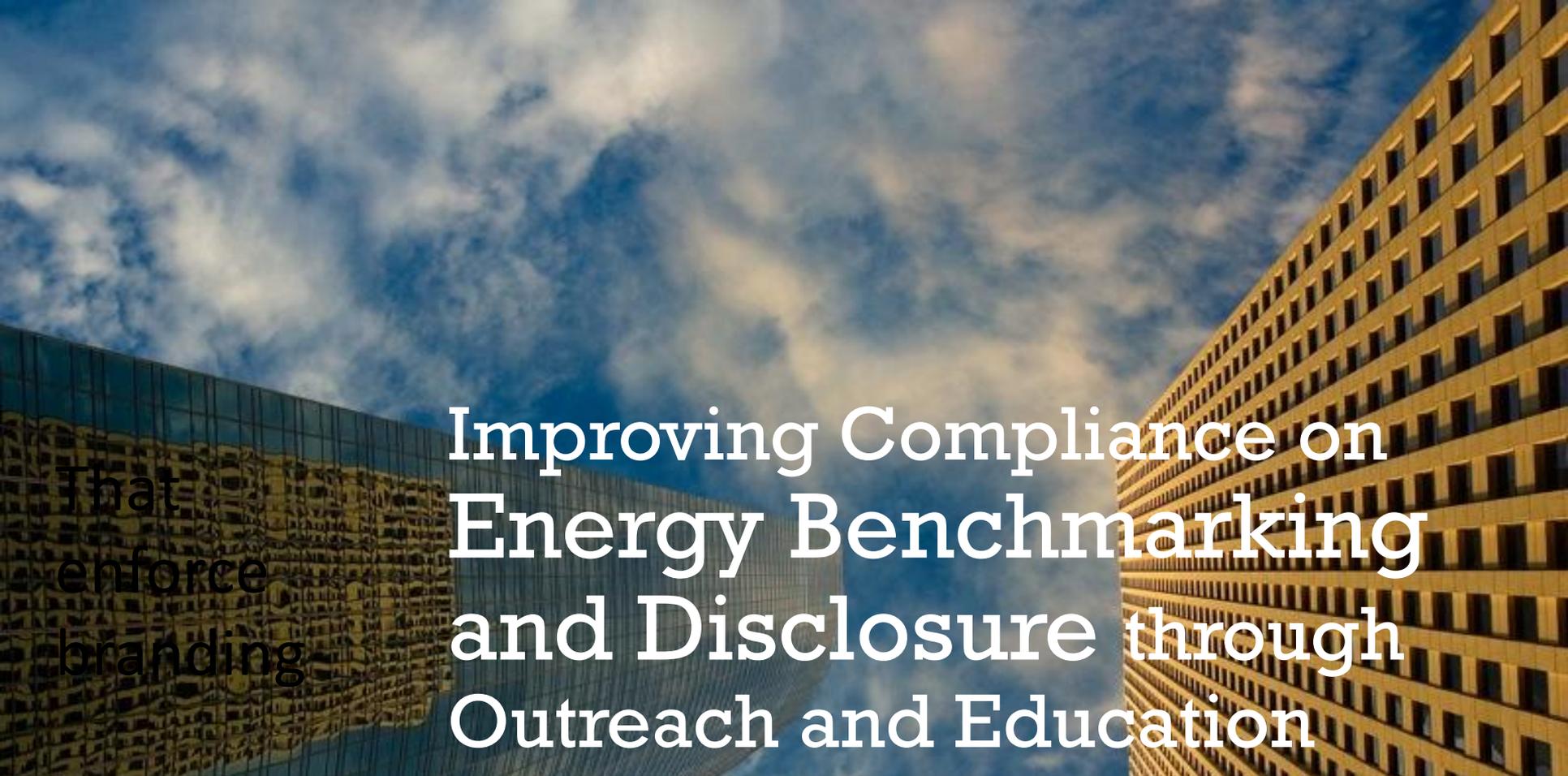


# Now What?

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After the program has been adopted:

- How do I improve participation and compliance?
- How can participation impart better energy management practices?
- How do I collect the data in a manageable and consistent format?



# Improving Compliance on Energy Benchmarking and Disclosure through Outreach and Education

Outreach and Data Collection Techniques for External Benchmarking  
April 25, 2013 | DOE Technical Assistance Program



**Caroline Keicher**

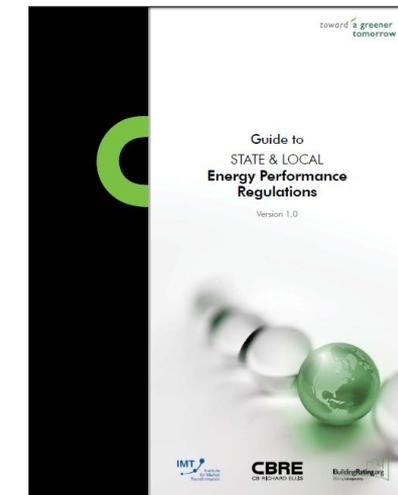
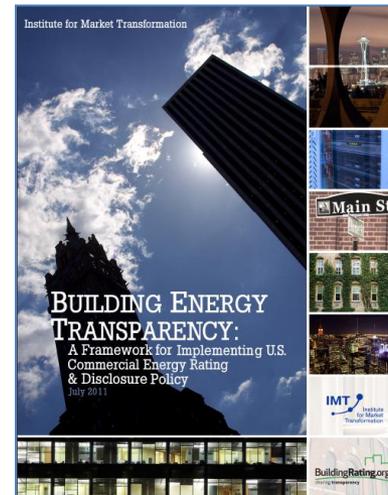
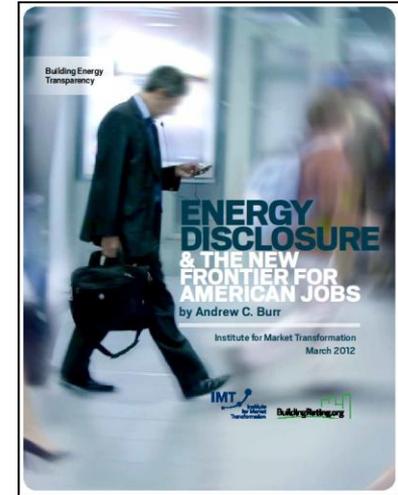
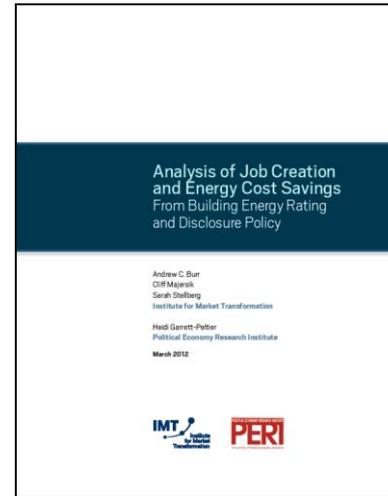
Program Manager, Building Energy Performance Policy

Institute for Market Transformation

[caroline@imt.org](mailto:caroline@imt.org)

# Institute for Market Transformation

- National best practices center for the design, adoption and implementation of building energy performance policies in cities.
- Policy advisor to state and local governments, federal agencies, the Administration, and industry groups
- Hands-on experience assisting cities in preparation and execution of policies (close partners with NYC and DC)
- Serves as the U.S. hub for the Global Buildings Performance Network, an international best practices network for building energy efficiency, and DATA Alliance, partnership with large building owners





# NEW YORK CITY GREENER, GREATER BUILDINGS PLAN

- NYC set a greenhouse-gas (GHG) reduction target of 30 percent by 2030
- Energy benchmarking and public disclosure for large buildings, + mandatory audits, RCx, lighting upgrades and tenant sub metering
- NYC buildings account for \$15 billion annually in energy costs and 94% of electricity usage
- Properties over 50,000 SF account for ~2% of building stock by number (16,000 properties), but 50% of floor area
- 85% of existing buildings will still exist in 2030

2011

**64% compliant at deadline**

**75% compliant 6 months later**

2012

**75%+ compliant at deadline**



# Outreach and Education: New York City

Activities	Partnerships
<b>Notification letters, warning letters, messaging in quarterly statement of accounts</b>	Department of Finance, Department of Buildings
<b>Email blasts to large building associations and trade organizations</b>	Mayor's Office
<b>Live weekly 3-hour Portfolio Manager training specific to LL84</b>	Assoc. of Energy Affordability, EPA; funding from NYSERDA
<b>Online trainings</b>	EPA
<b>Benchmarking Help Center (call-in hotline)</b>	CUNY graduate students; funding from NYSERDA
<b>Step-by-step instructions for compliance (Checklist)</b>	Urban Green Council and the Related Companies
<b>Step-by-step and FAQ on whole building electricity data</b>	Con Edison
<b>Information available on website</b>	Mayor's Office
<b>Monthly outreach event to the general public</b>	Department of Buildings

There were many contributing factors to high compliance rates in NYC...

- **Strategic and multi-tiered approach to outreach, education and training**
- **Effectively leveraging a variety of partners and resources**
- **Public exposure and media attention received as part of the GGBP and PlaNYC**
- **Strong enforcement**
- **Utility support; owner access to whole building energy data**
- **Focus on the largest, most “energy-sophisticated” building owners**
- **Energy efficiency consultants and vendor participation**

# Outreach and Education: San Francisco

<b>Activities</b>	<b>Partnerships</b>
<b>Notification letters; notice of violation</b>	City staff
<b>Disseminating information through local trade organizations, Chamber of Commerce</b>	City staff
<b>Local media campaign</b>	Resource Media
<b>Trainings and webinars (25+)</b>	City staff
<b>90-minute monthly webinars on local ordinance, PM, and data access</b>	City staff
<b>Monthly in-person workshops in a computer lab; sectors-specific workshops, including office, hospitality, and health care</b>	Pacific Gas and Electric Company (PG&E)
<b>Benchmarking Help Center (call-in hotline)</b>	PG&E
<b>Public posting of compliance status</b>	Honest Buildings

# SAN FRANCISCO EXISTING COMMERCIAL BUILDINGS ENERGY PERFORMANCE ORDINANCE

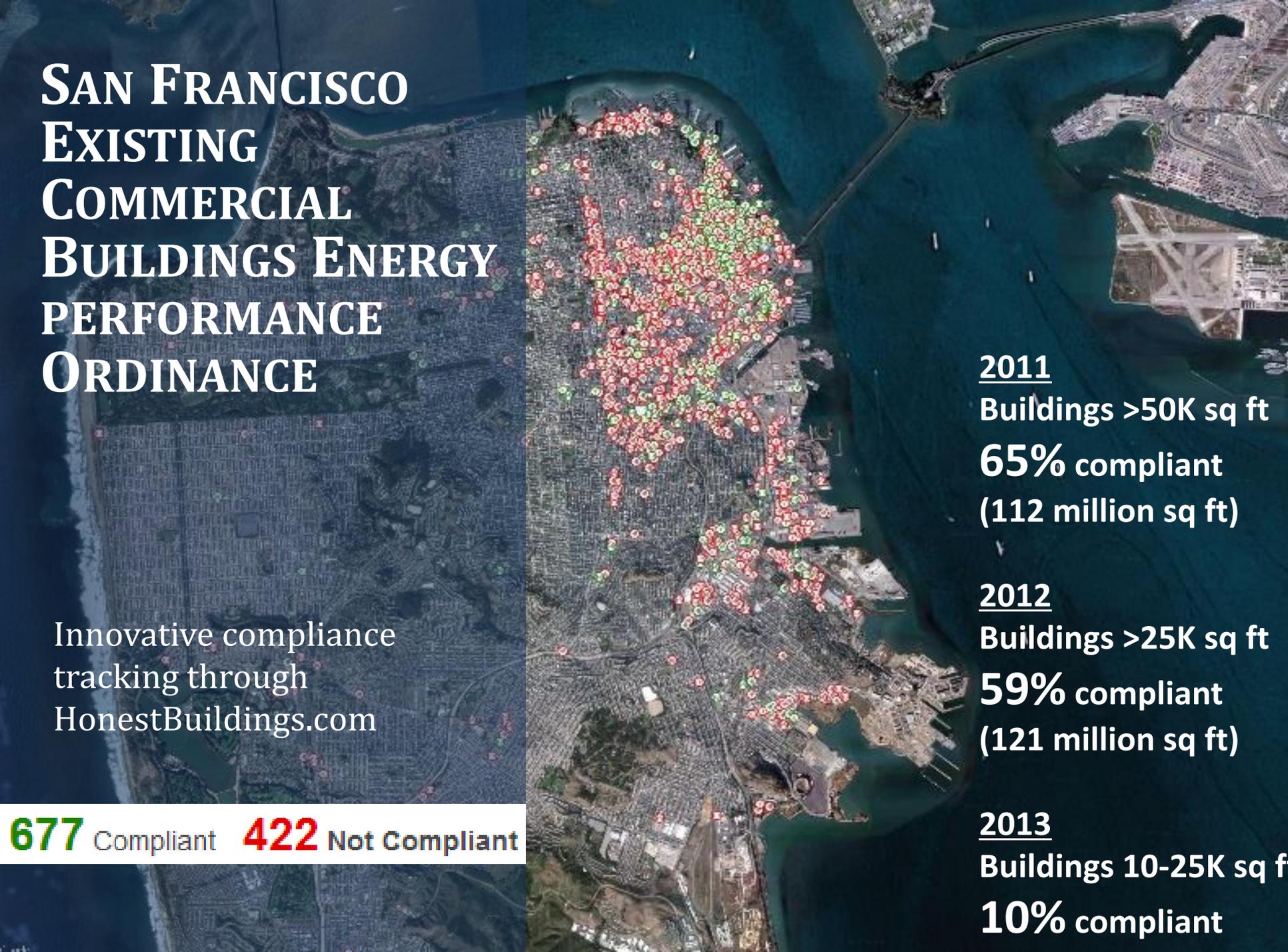
Innovative compliance  
tracking through  
[HonestBuildings.com](http://HonestBuildings.com)

**677** Compliant **422** Not Compliant

2011  
Buildings >50K sq ft  
**65% compliant**  
(112 million sq ft)

2012  
Buildings >25K sq ft  
**59% compliant**  
(121 million sq ft)

2013  
Buildings 10-25K sq ft  
**10% compliant**



# Outreach and Education: Seattle

Activities	Partnerships
<b>Notification letters, direct mail</b>	City staff
<b>Email blasts to 2,600 E-newsletter subscribers, information distributed at 3 relevant conferences</b>	City staff
<b>Briefings to stakeholders and partners (15+)</b>	City staff
<b>Local media campaign, partnership newsletters</b>	Resource Media, City Staff
<b>Live Portfolio Manager training workshops (every 2-3 weeks)</b>	Northwest Energy Efficiency Council (NEEC)
<b>Live weekly 'drop in' assistance sessions</b>	NEEC
<b>Benchmarking Help Center (call-in hotline)</b>	NEEC, South Seattle Community College Energy Audit and Certification training program students; funding from NEEA, EECGB, Energy Foundation
<b>Benchmarking How-to Guide, Compliance Checklist</b>	City staff
<b>Information available on website</b>	City staff
<b>Open house events at City Hall</b>	City staff

# PROPERTY OWNERS

## Report Your Building's Energy Use

Owners of non-residential buildings **larger than 50,000 square feet** are required by Ordinance 123226 to track energy performance through the U.S. EPA's ENERGY STAR® Portfolio Manager and to report it annually every April 1st to the City of Seattle.



# SEATTLE ENERGY BENCHMARKING & REPORTING

**OVERDUE NOTICE**

**Your building is overdue for 2011 energy use reporting.**

April 2012 Nonresidential buildings >50K sq ft - **89.9%** compliant (sq ft) as of Jan 2013

October 2012 Multifamily buildings >50K sq ft - **92.3%** compliant (sq ft) as of Jan 2013

April 2013 NR & Multifamily buildings 20K-50K sq ft - **26%** compliant (sq ft) as of Jan 2013

# BENCHMARKING & REPORTING

SEATTLE ENERGY

## How to Guide

STEP  
3

### Set Up Automated Benchmarking for Utilities

To save owners and managers the effort of manually entering data each month and help maintain tenant privacy, Seattle City Light, Puget Sound Energy (PSE) and Seattle Steam offer “Automated Benchmarking” – a direct upload of a building’s summarized utility usage to Portfolio Manager. Each utility has a different process for automated benchmarking; please follow each section carefully.

### Instructions for Each Utility

- [Seattle City Light](#)
- [Puget Sound Energy](#)
- [Seattle Steam](#)

In partnership with the city, the three Seattle utilities have established the new golden standard for energy data access: automated processes for uploading whole-building consumption data.

**Improving  
access to data  
help remove  
a significant  
barrier to  
widespread  
benchmarking**

# DATA

## Data Access and Transparency Alliance

- BOMA, RER, IMT, USGBC form DATA Alliance to work with utilities and regulators to secure better access to utility data
- July 2011: NARUC approves resolution calling on regulators to provide better data access to commercial owners
- USGBC Existing Authorities memo identifies data access as key EE barrier and calls for increased federal involvement
- Collaboration with administration on expanding Green Button initiative to include commercial data access

## **Additional Complementary Policies:**

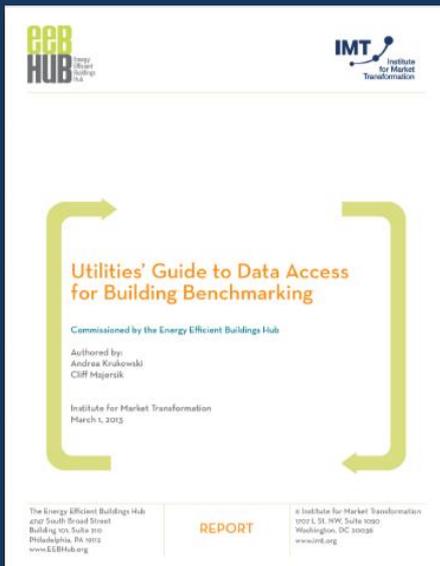
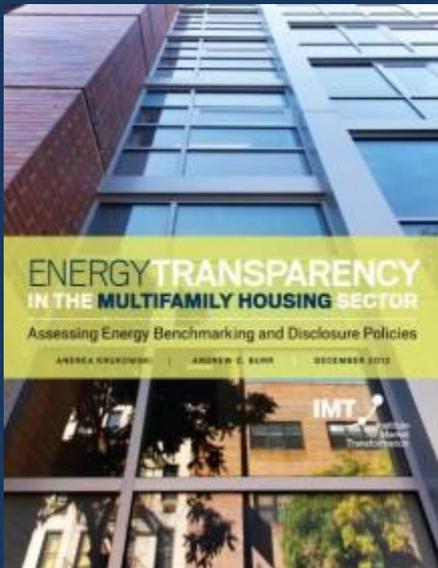
- Green leasing
- Tenant submetering
- Financing mechanisms

In many commercial leases, owners cannot profit from energy investments

- Often tenants are not billed according to their consumption
- Many buildings cannot access capital for cost-effective energy efficiency upgrades

### **Complementary policies can help align incentives and provide capital:**

- Promote the Energy Aligned Lease Clause
- Encourage commercial tenant submetering
- Create local financing structures (PACE financing, etc.)



# Resources

- Help Center Guide

<http://www.imt.org/resources/detail/benchmarking-help-center-guide>

- Utility's Guide to Data Access

<http://www.imt.org/news/the-current/new-utilities-guide-to-data-access>

- Lessons from Implementation in NYC, Seattle, San Francisco

<http://www.imt.org/resources/detail/lessons-learned-from-the-implementation-of-rating-and-disclosure-policies-i>

- [BuildingRating.org/content/policy-comparison](http://BuildingRating.org/content/policy-comparison)

- [IMT.org/resources](http://IMT.org/resources)



Thank you!  
Questions?

That  
enforce  
branding



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# EPA ENERGY STAR

## Best Practices for Successful Community Outreach and Data Collection

*Leslie Cook*

*U.S. Environmental Protection Agency (EPA)*

*April 25, 2013*



Learn more at [energystar.gov](http://energystar.gov)

- ✓ **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 purchases
  - 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)
  - ENERGY STAR 1-to-100 score (available for 15 building types)
  - Greenhouse gas emissions (indirect, direct, total, avoided)
  - Water consumption (indoor, outdoor)

→ **Accessible in a free, online platform:**  
[www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)

# Why State and Local Governments are Choosing Portfolio Manager



- One consistent tool provides an accessible, consistent measurement platform for EE programs
- Delivers key whole building energy performance based on utility data
- Many data sharing options available
- Industry standard, nationally and locally
  - Used to track more than 300,000 buildings, representing more than 30 billion square feet of commercial and institutional building space in the U.S.
  - Adopted by leading commercial real estate, retail, healthcare, and educational organizations
  - Platform for all adopted state and local public disclosure policies

[www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)

# Community Outreach



## CASE STUDY

### Georgia State Building Competition

The State of Georgia launched a [competition](#) with the purpose of reducing its state-owned building energy consumption. The **goal** for each participant was to achieve the greatest percent reduction in energy use intensity (EUI). The focus on EUI, a universal indicator of energy consumption for buildings, reflected the overall purpose while enabling agencies with a range of building types, from offices to parking garages, to participate.

## Define Your Goals

- Improve access to utility data and increase transparency of energy performance information
- Improve energy efficiency by 10%
- Reduce GHG emissions by 20%
- Earn the ENERGY STAR
- Improve average ENERGY STAR score by 15 points

# Partner Locally to Plan Outreach and Training Strategies



- Key partners:
  - Local associations representing key stakeholders (CRE, multifamily, healthcare, K-12, etc)
  - Local energy efficiency / sustainability NGOs
  - Energy service providers and trade groups
  - Utility providers



“We all know that energy efficiency makes good business sense as well as good environmental sense, but a contest like this is a great way to help companies get started.”

- Judy Poferl, president and CEO of Northern States Power Co.-Minnesota, an Xcel Energy company (March 2012)

# Community Outreach

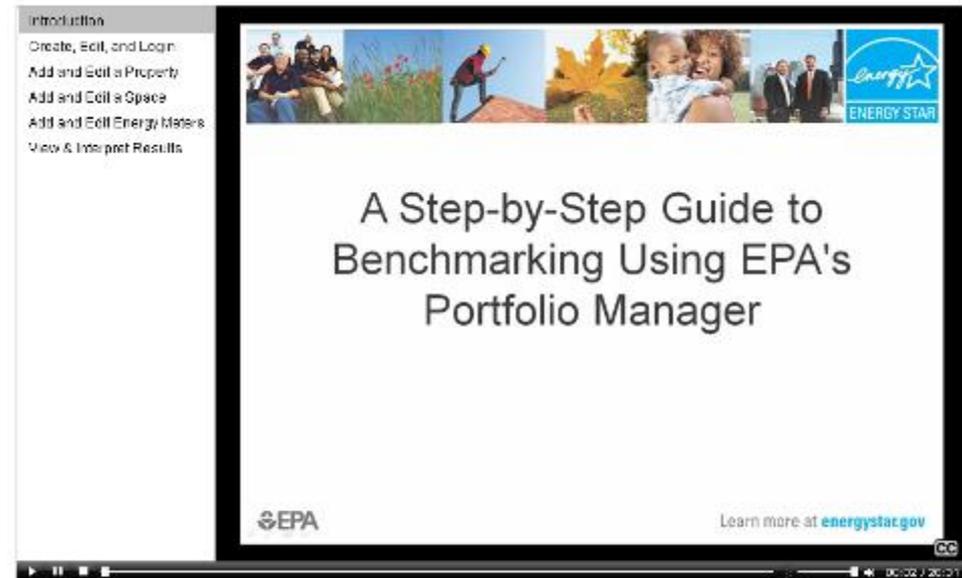
- Communicate the value of benchmarking
  - Help participants reduce operating costs and lower carbon footprint
  - Verify pre- and post-project energy use, GHG emissions, and energy costs
  - Identify under-performing facilities
  - Assess effectiveness of current operations, policies and practices
  - Assist in planning: set goals, targets, and timelines
  - Set investment priorities
  - Identify billing errors



# Deploy EPA Training Resources



- Use off-the-shelf EPA resources to help stakeholders learn about Portfolio Manager Benchmarking
  - Animated Portfolio Manager training
  - Data Collection Worksheet
  - Step-by-step Quick Reference Guides



Available at [www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)

# Recognize Program Achievements



Arlington County , VA  
Green Games Winner  
Recognition Event



Building owners that earn  
ENERGY STAR Certification  
get mayoral recognition in  
Louisville, KY



# New ENERGY STAR Resource



## ENERGY STAR Guide to Energy Efficiency Competitions for Buildings & Plants



U.S. Environmental Protection Agency  
**ENERGY STAR® Guide to Energy Efficiency Competitions for Buildings & Plants**



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# Data Collection Resources and Best Practices

# Required Information for Benchmarking in Portfolio Manager

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- **Building Identifiers**

- Name, street address, zip code for weather normalization

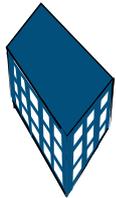
- **Space Type Data (*office example*)**

- Square footage, hours of operation, Number of workers on main shift , # of PC's, Percent of gross floor area that is air conditioned, heated

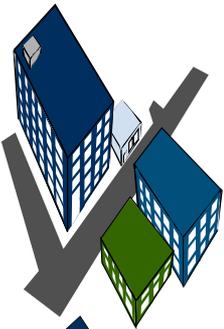
- **Energy Use**

- Bldg specific invoice information from all purchased energy. Begin with at least 11 consecutive months for each source and update with monthly usage data.

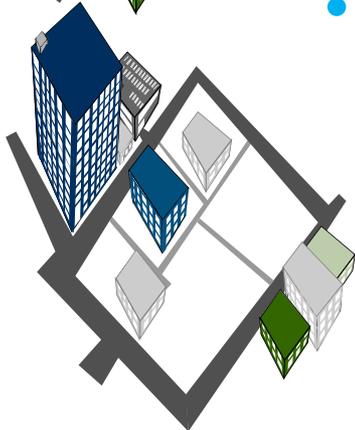
# Portfolio Manager Data Entry Options



- **Single Building Manual Entry**
  - Enter building and energy consumption information into Portfolio Manager.



- **Bulk Data Upload**
  - Upload large sets of building data in Portfolio Manager using an Excel template.

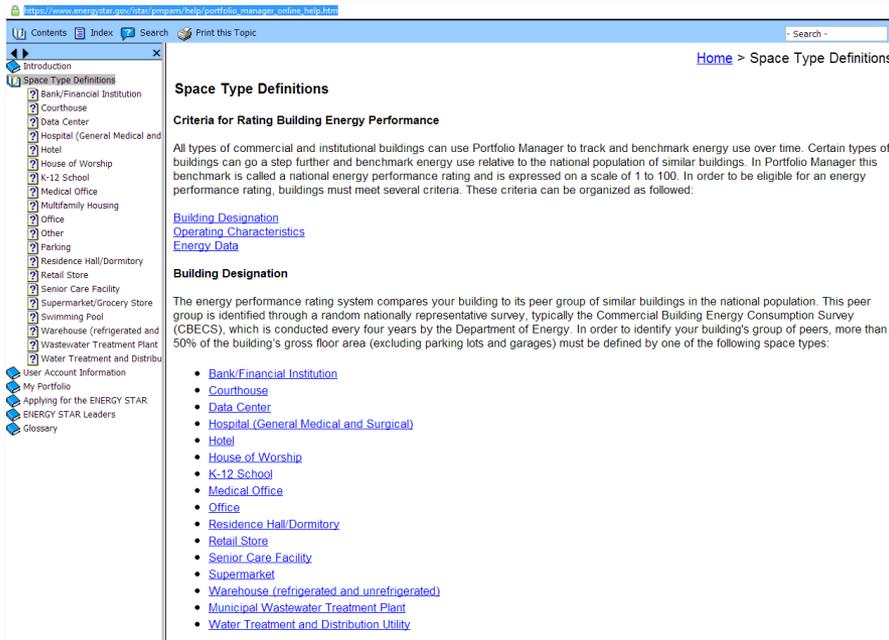


- **Web Services**
  - Service and Product Providers
  - Utility-based

# Portfolio Manager Quality Assurance Resources



- Use the [data collection worksheet](#) for guidance on compiling space attribute data
- [Portfolio Manager Help](#) clarifies space type definitions



## ENERGY STAR® Portfolio Manager Data Collection Worksheet



This worksheet was designed to help building owners and managers collect data to benchmark buildings using EPA's ENERGY STAR Portfolio Manager. The information in this worksheet will be used to establish your building's profile in Portfolio Manager, which is critical to calculate benchmarks of key metrics such as energy intensity and costs, water use, and carbon emissions. **All building types can be entered into Portfolio Manager and receive energy and water benchmarks, as well as a comparison of performance against a national average for buildings of a similar type.**

Some buildings will also receive an ENERGY STAR score. The ENERGY STAR score is a benchmark that indicates how efficiently buildings use energy on a 1-100 scale. A score of 50 indicates that energy performance is average compared to similar buildings, while a score of 75 or better indicates top performance, and means your building may be eligible to earn the ENERGY STAR label. To receive an ENERGY STAR score, the gross floor area of the building must be comprised of more than 50% of one of the following space types: bank/financial institution, courthouse, data center, hospital (general medical and surgical), hotel, house of worship, K-12 school, medical office, office, residence hall/dormitory, retail store, senior care facility, supermarket/grocery store, warehouse (refrigerated and unrefrigerated), and wastewater treatment plant.

Use this worksheet to collect the data for all space types applicable to your facility.

### Required Data for ENERGY STAR Benchmarking

- Portfolio Manager username and password.
- The building street address, year built, and contact information.
- The building gross floor area and key operating characteristics for each major space type. Use this worksheet to collect this information before logging in to Portfolio Manager.

### Medical Office:

#### Required:

- \_\_\_\_\_ Gross floor area (SF)
- \_\_\_\_\_ # of workers on main shift
- \_\_\_\_\_ Weekly operating hours
- \_\_\_\_\_ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)
- \_\_\_\_\_ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

### General Office 1:

#### Required:

- \_\_\_\_\_ Gross floor area (SF)
- \_\_\_\_\_ Weekly operating hours
- \_\_\_\_\_ # of workers on main shift
- \_\_\_\_\_ # of personal computers
- \_\_\_\_\_ Percent of floor area that is air conditioned (>=50%, <50%, or none)
- \_\_\_\_\_ Percent of floor area that is heated (>=50%, <50%, or none)

# Portfolio Manager Quality Assurance Tips

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- ✓ **Incomplete Meter Data:** All meters must have complete usage data through the entire reporting period
- ✓ **Gaps and Overlaps in Meter Data:** Gaps or overlaps in the meter data of more than one day will cause errors
- ✓ **Length of meter entries:** No individual electrical meter entry can be for a period longer than 65 days
- ✓ **Extreme Energy Use Intensity (EUI) or Water Use Intensity (WUI) values, or Extreme Fluctuations**
  - Mismatched units
  - Missing digits
  - Extra digits Transposed digits
  - Swapped cost and consumption information

# Portfolio Manager Custom Reports

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- Create a Portfolio Manager Custom Report choosing from Key Performance Metrics:
  - Energy Performance
    - 1-100 energy performance score
    - Weather normalized energy use per square foot
    - Change in energy use compared to a baseline
  - Water Performance
    - Total annual indoor/outdoor water use
    - Water use per square foot
  - Financial Performance
    - Energy and water cost per square foot
    - Change in utility costs over time
  - Greenhouse Gas Emissions
    - Total annual GHG, Change in GHG emissions over time

# Access Custom Reports in Your Portfolio Manager Account



**PORTFOLIO MANAGER** ACCOUNT INFORMATION CONTACTS

Home > My Portfolio

Portfolio Averages	
<b>Baseline Rating: 78</b> Facilities Included: 9	<b>Current Rating: 89</b> Facilities Included: 9
<b>Change from Baseline: Portfolio Adjusted Percent Energy Use (%): -15%</b> Facilities Included: 10	
Averages are weighted by Total Floor Space. <a href="#">More about Baselines</a> <a href="#">More about Change from Baseline: Adjusted Energy Use</a>	

[Add](#) a Property  
[Import](#) Facility Data Using Templates

**Work with Facilities**  
[Update](#) Multiple Meters  
[Share](#) Facilities

**Reporting and Analysis** 1

**New!** [Generate Reports and Graphs](#)  
[request](#) Energy Performance Report  
[Federal Sustainability Report](#)

**Apply for Recognition**  
[Apply](#) for the ENERGY STAR  
[ENERGY STAR Leaders](#)

**Automated Benchmarking**  
[Automated Benchmarking Services Console](#)

GROUP: All Facilities [Create Group](#) | [View All](#) VIEW: Summary: Facilities

Download Results Facility

**PORTFOLIO MANAGER** ACCOUNT INFORMATION CONTACTS FAQ FREQUENTLY ASKED QUESTIONS CONTACT US HELP LOGOUT

Home > My Portfolio > Generate a Report

Report Template [About Report Templates](#)

Select a Report Template

- Select a Report Template
- Baseline Comparison
- Benchmark Performance
- Current Facility Status
- Emissions Performance
- Energy Performance
- Utility Cost Report
- Water Performance Report
- Water/Wastewater Energy Performance
- Custom Reports --
- Custom Reports Home** 2
- Data for Download --

### Portfolio Manager Reports

Generate reports and graphs using data from your Portfolio Manager account

[QUICK REFERENCE GUIDES](#)



# Portfolio Manager Reports: Key Features

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- Select data that is specific to your program.
- Use your Custom Report Template to collect specific data from other individuals who use Portfolio Manager as a means of collecting program-wide benchmarking results.
- Utilize filters to further customize your data request:
  - Location: Generate reports based on where your facilities are located. This filtering can be done at the country, state, or city/zip code levels.
  - Reporting Period: Generate reports for different reporting periods, including
    - *Single period* (one 12-month period, commonly used for annual disclosure reporting)
    - *Comparative* (two 12-month periods, commonly used for grant and incentive programs), or
    - *Range* (all periods within date range).

# Request and Collect Data Electronically: Process Overview

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1. Create a Custom Report and choose data needed for your specific reporting needs
2. Add custom instructions
3. Portfolio Manager will create a unique URL to provide access to template by other Portfolio Manager users
4. Distribute report via unique URL (via your program's website and email distribution)
5. Data from recipients is aggregated electronically in your Portfolio Manager Account
6. Download all collected data in Excel, XML, or PDF

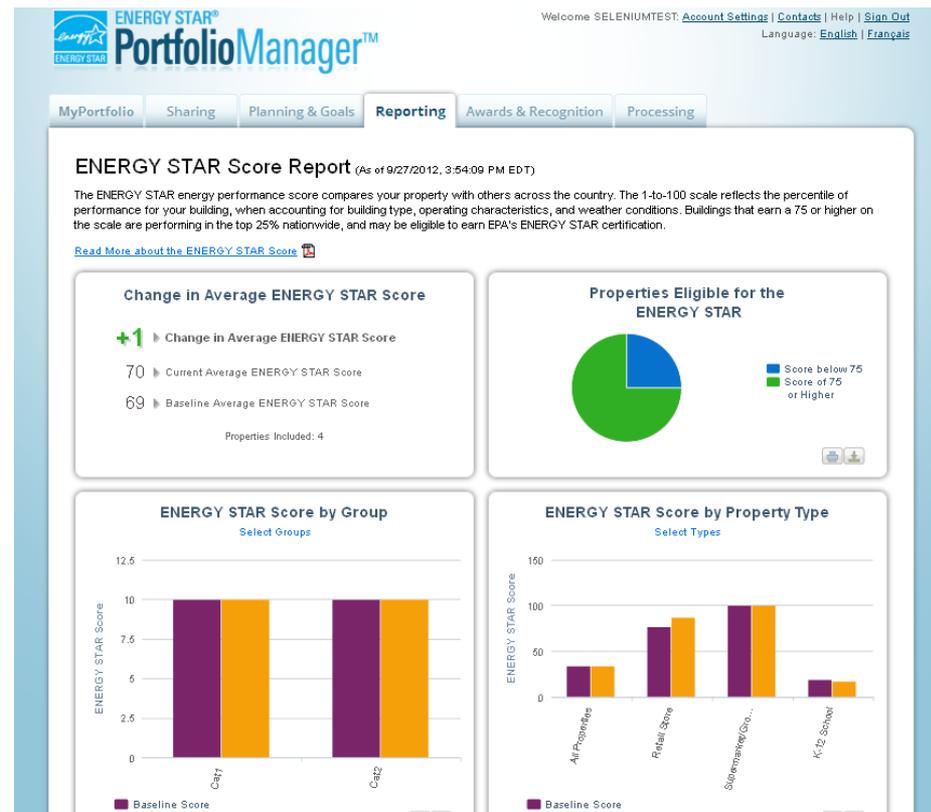
**Download Reporting Quick Reference Guide:**

[https://www.energystar.gov/istar/pmpam/external\\_reporting/lib/docs/PM\\_Custom\\_Reports\\_QRG.pdf](https://www.energystar.gov/istar/pmpam/external_reporting/lib/docs/PM_Custom_Reports_QRG.pdf)

# Portfolio Manager Upgrade – Launching July 10!



- ✓ New features throughout
  - Completely new look and feel
  - Streamlined data management
  - Improved reporting
- ✓ All data currently in existing Portfolio Manager accounts will be transferred
- ✓ Portfolio Manager will be offline from June 26 through July 9



[www.energystar.gov/pmupgrade](http://www.energystar.gov/pmupgrade)

# New EPA Portfolio Manager Training Resources Coming with Upgrade

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- Key “Getting Started” Resources
  - Highlight of major changes
  - Quick Start Guide
  - Step-by-Step guide to adding properties
- Webinars/Recorded Sessions
  - Portfolio Manager Benchmarking 101
  - Portfolio Manager Benchmarking 102
  - Earning the ENERGY STAR
- Detailed Help Documents
  - Data Entry & Data Export
  - Sharing
  - Customizable Reports
  - How to apply for the ENERGY STAR

Resources will be posted starting in May/June at:  
[www.energystar.gov/PMUpgrade](http://www.energystar.gov/PMUpgrade)

Learn about governments leveraging ENERGY STAR in legislation *and* voluntary campaigns.

(Includes direct links to programs and policies)

POLICIES LEVERAGING ENERGY STAR TOOLS		
State/ Municipality	Policy	Summary
Borough of West Chester, PA	<a href="#">Borough Ordinance</a>	This Ordinance requires new commercial construction to be <b>Designed to Earn the ENERGY STAR</b> and benchmarked annually in EPA's <b>Portfolio Manager</b> .
City of Denver, CO	<a href="#">Executive Order 123</a>	Executive Order 123 requires new construction and major renovations of existing and future city-owned and operated buildings to be <b>Designed to Earn the ENERGY STAR</b> and benchmarked in EPA's <b>Portfolio Manager</b> .
District of Columbia	<a href="#">Green Building Act of 2006</a>	The Green "Designed to Earn the ENERGY STAR" system as annually in
District of Columbia	<a href="#">Clean and Affordable Energy Act of 2008</a>	The Clean eligible private <b>Manager</b> of a publicly a
State of CA	<a href="#">AB 1103, 2007</a>	Assembly Bill 1103 requires nonresidential buildings to maintain an <b>ENERGY STAR</b> <b>Manager</b> . If or operator prospective
State of MI	<a href="#">EO 2005-4, 2005</a>	Executive Order 2005-4 establishes a Department of Energy benchmark
State of OH	<a href="#">EO 2007-02</a>	Executive Order 2007-02 establishes <b>ENERGY STAR</b> baselines a

CAMPAIGNS AND INCENTIVE PROGRAMS LEVERAGING ENERGY STAR TOOLS		
State/ Municipality	Policy	Summary
City of Albuquerque, NM	<a href="#">Green Path Program</a>	This program encourages and facilitates the voluntary design and construction of energy-efficient buildings that meet measurable criteria, which includes earning <b>Designed to Earn the ENERGY STAR</b> through EPA's <b>Target Finder</b> .
City of Chicago, IL	<a href="#">Chicago Green Office Challenge</a>	Participants in the Chicago Green Office Challenge will use EPA's <b>Portfolio Manager</b> to track energy and water use and compile results at the end of the contest period.
City of Louisville, KY	<a href="#">Louisville Kilowatt Crackdown</a>	Participants in the Louisville Kilowatt Crackdown will track their building's energy performance using EPA's <b>Portfolio Manager</b> and work to improve performance during the campaign period. The competition is open to owners and managers of all commercial buildings in the city.
City of Portland, OR	<a href="#">BOMA Energy Showdown</a>	Participants in the BOMA Portland Office Energy Showdown will track their building's energy performance using EPA's <b>Portfolio Manager</b> and work to improve performance during the campaign period. The competition is open to owners and managers of commercial offices.
City of San Francisco, CA	<a href="#">Earth Hour 24x7 Energy Challenge</a>	Participants in the San Francisco Earth Hour 24x7 Energy Challenge will track their building's energy performance using EPA's <b>Portfolio Manager</b> and work to improve performance during the campaign period. The competition is open to owners and managers of office buildings, hotels, retail stores, hospitals, medical office buildings, supermarkets, and schools.
City of Seattle and King County, WA	<a href="#">BOMA Kilowatt Crackdown</a>	Participants in the BOMA Seattle/King County Kilowatt Crackdown will track their building's energy performance using EPA's <b>Portfolio Manager</b> and work to improve performance during the campaign period. The competition is open to owners and managers of commercial offices.
State of NM	<a href="#">HB 534: Sustainable Building Tax Credits</a>	To qualify for income tax credits, applicants must demonstrate that the commercial building is 50 percent more efficient than an average building of the same type using EPA's <b>Target Finder</b> .
State of NJ	<a href="#">NJ Pay for Performance Program</a>	Under the Pay for Performance program, commercial building owners are given technical assistance with developing and implementing an Energy Reduction Plan to reduce energy use by 15 percent or more. Participants benchmark energy use in EPA's <b>Portfolio Manager</b> to verify the required 15 percent threshold savings.

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**EPA's ENERGY STAR Resources for Buildings:**

**[www.energystar.gov/buildings](http://www.energystar.gov/buildings)**

**EPA's Portfolio Manager:**

**[www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)**

**Portfolio Manager Upgrade:**

**[www.energystar.gov/pmupgrade](http://www.energystar.gov/pmupgrade)**

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**Leslie Cook, US EPA**

**[cook.leslie@epa.gov](mailto:cook.leslie@epa.gov)**

**(202) 343-9174**



**20%**  
**2020**

# ATLANTA RISING TO THE CHALLENGE



# Atlanta Rising to the Challenge!

## 20% Energy & Water Reduction by 2020

### Our Goal:

To engage the local community to reduce **energy and water** consumption by at least **20%** in participating buildings across Atlanta's by **2020** and become one of the country's top sustainable cities

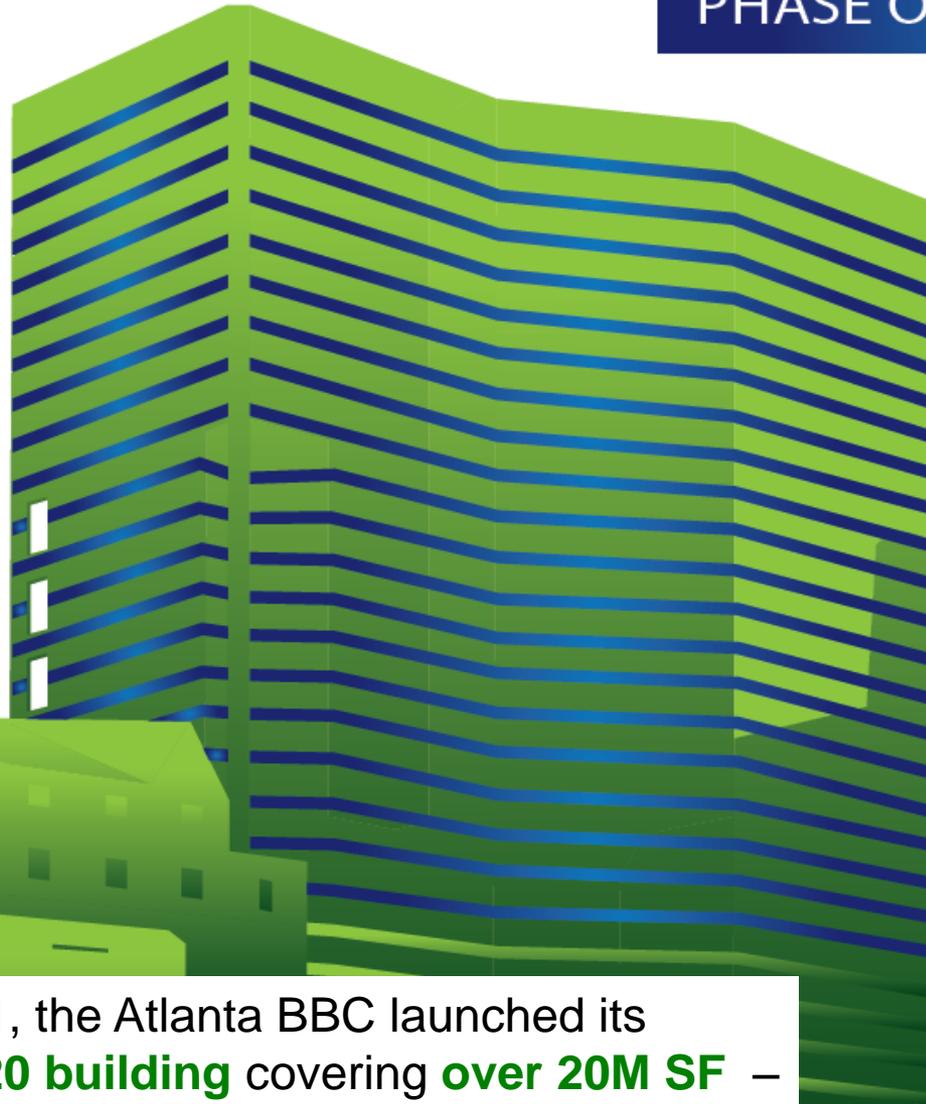


# Atlanta Better Buildings Challenge Background

- **National competition initiated by US Department of Energy**
- **Started in June 2011 with 3 pilot cities: Los Angeles, Seattle and Atlanta**
- **Mayor Reed launched program locally in November 2011 to support the City's first Sustainability Plan**
- **Now 36 Community Partners (cities, states, and school districts) representing 2 billion square feet**



# PHASE ONE PARTICIPANTS

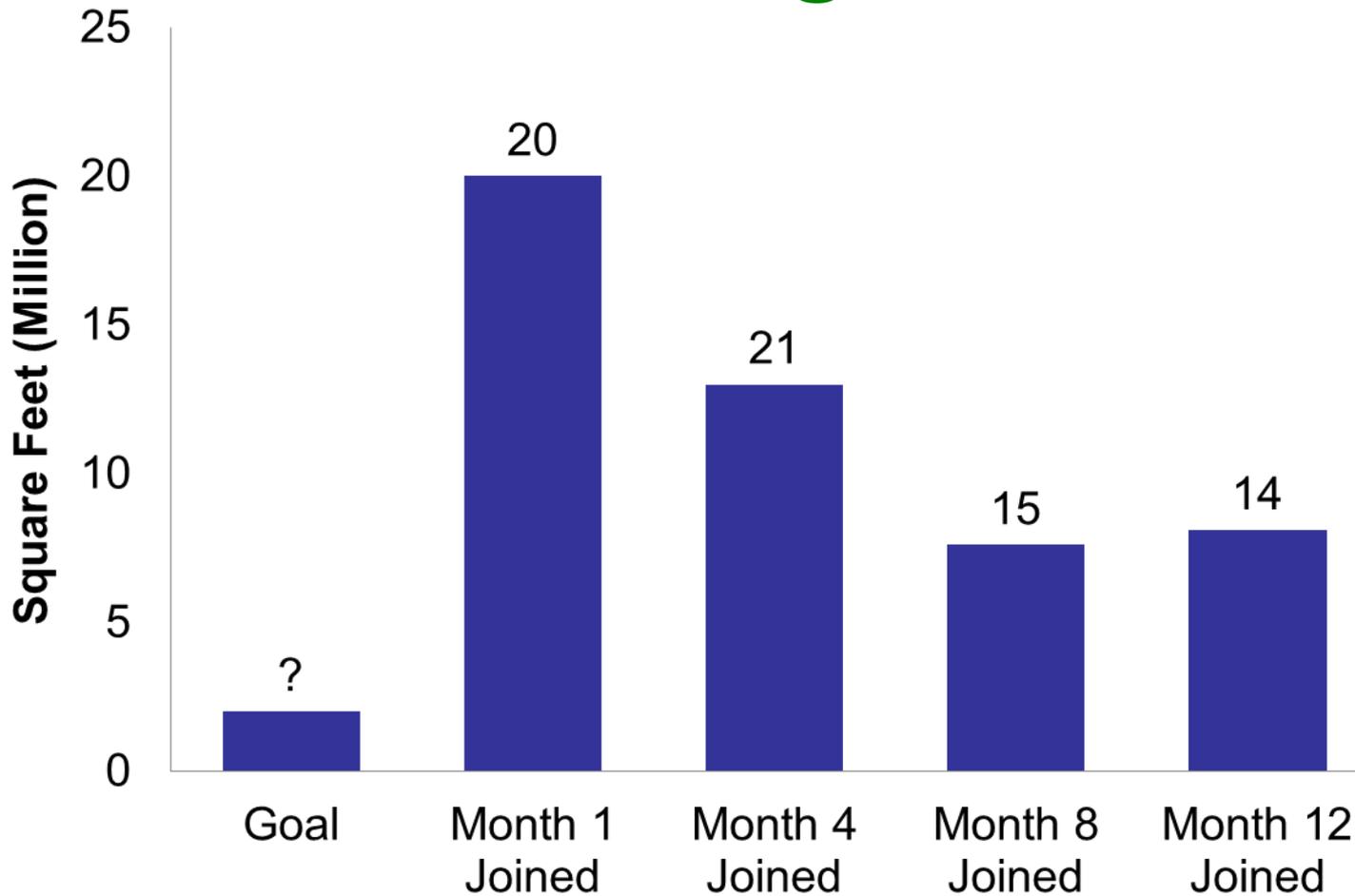


- 20 Georgia Tech Research Institute
- 19 Georgia Power
- 18 Cousins Properties
- 17 Morehouse School of Medicine
- 16 Spelman College
- 15 Lincoln Property Company
- 14 Fulton County Government
- 13 Hartsfield Jackson Int'l Airport
- 12 Luckie Street Properties
- 11 CNN Center and Omni Hotel
- 10 330 Marietta Street
- 9 Jamestown Properties
- 8 Epsten Group
- 7 Legacy Property Group
- 6 AmericasMart
- 5 Georgia Institute of Technology
- 4 Georgia State University
- 3 Philips Arena
- 2 Georgia Dome & World Congress Center
- 1 US General Services Administration

Flagship Project: Atlanta Civic Center

In November 2011, the Atlanta BBC launched its **Phase One** with **20 building** covering **over 20M SF** – more than **10x our initial target of 2M SF**

# Number of Buildings that took the Challenge in 2012



**TOTAL**  
70 Buildings  
50M SF



# A Public-Private Partnership

## Public:



## Private:



# What do Participants Commit to?

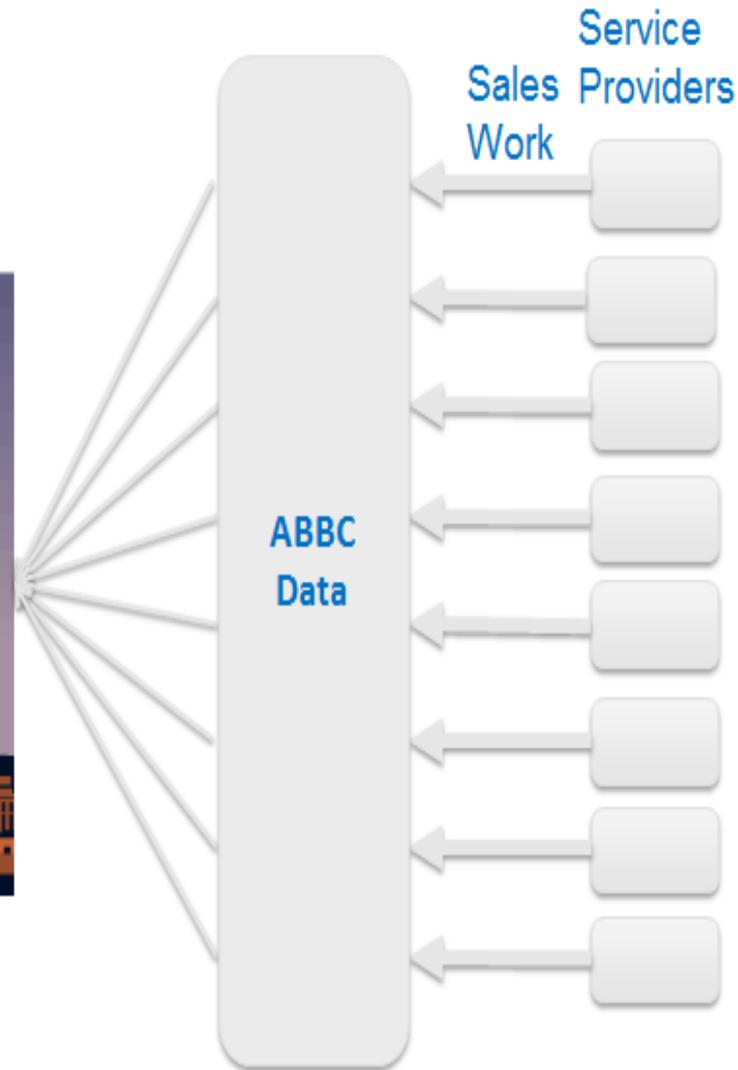
- Publicly pledge a building-specific energy and water savings goal of 20%
- Develop a plan to implement projects and reach goals by 2020
- Share utility data using Energy Star's Portfolio Manager
- Share information about the tools, technologies, and processes used in reaching goals



# What does Atlanta BBC Provide?

- **Free, detailed energy & water assessment**
- **Education and training seminars**
- **Access to capital, emerging finance models (PACE, TAD)**
- **Recognized progress through marketing and PR initiatives**
- **Better marketplace engagement**

Building Owners



# Atlanta BBC's Secret to Outreach & Data Collection Success?

**Local Engagement**

**Recruitment**

**Buy-In**

**Competition**



# Atlanta BBC's Secret to Outreach & Data Collection Success?

## Local Engagement

### Recruitment

- Established Community Improvement District (CID) relationships
- Networking Events
- Lobby Banners
- Monthly Newsletters
- Monthly Project Highlights
- Print & Broadcast Advertisements
- Press Releases Spotlighting Participants

Buy-In

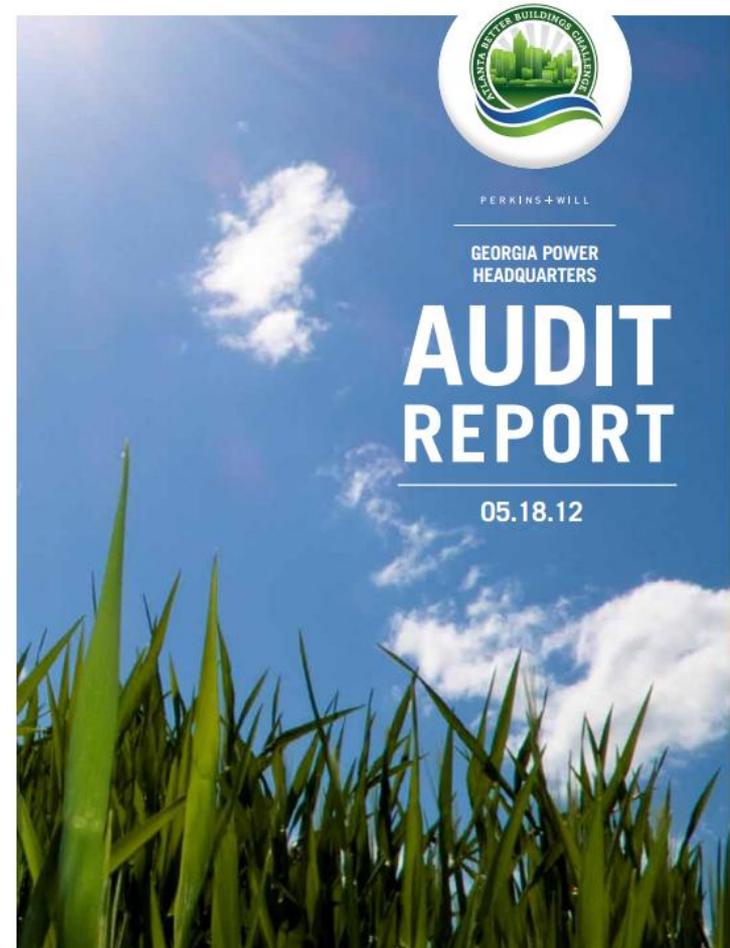
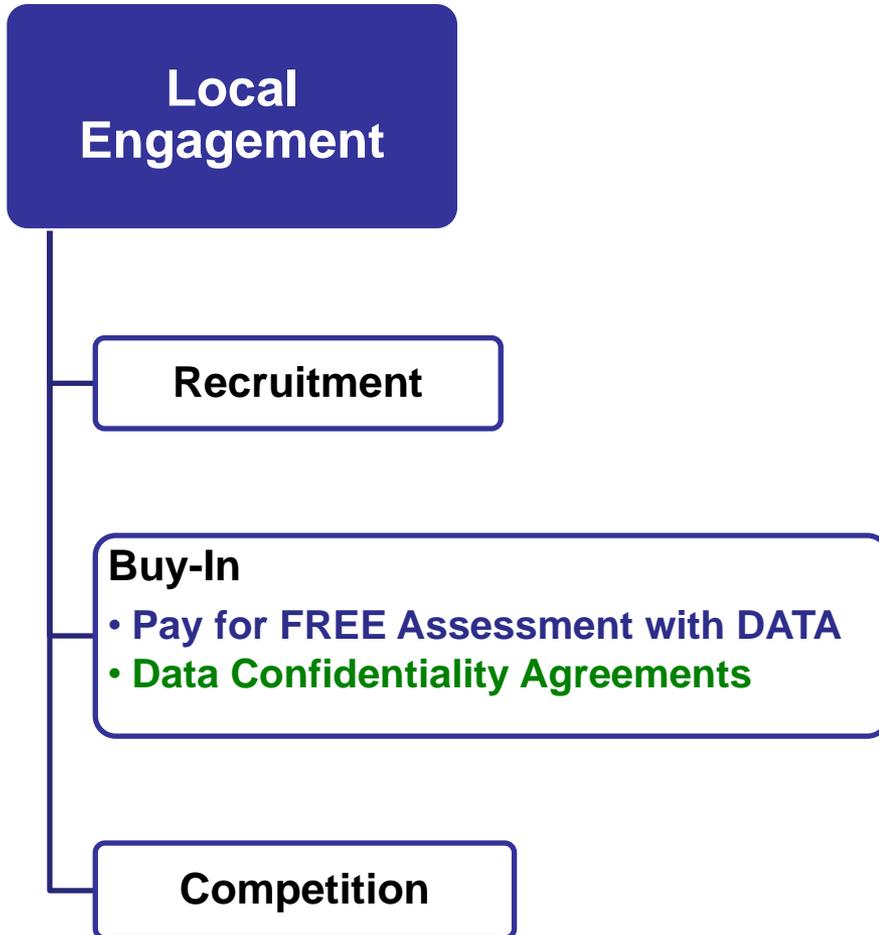
Competition



WE TOOK THE  
CHALLENGE

AtlantaBBC.com

# Atlanta BBC's Secret to Outreach & Data Collection Success?



# Atlanta BBC's Secret to Outreach & Data Collection Success?

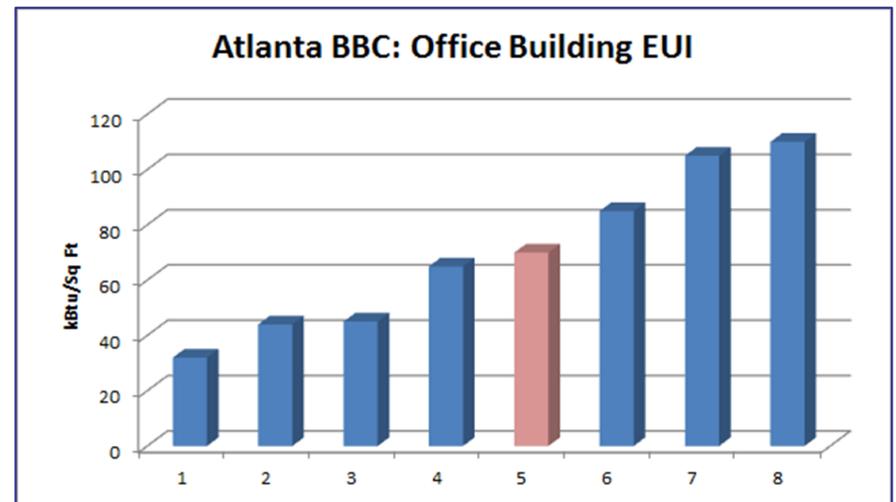
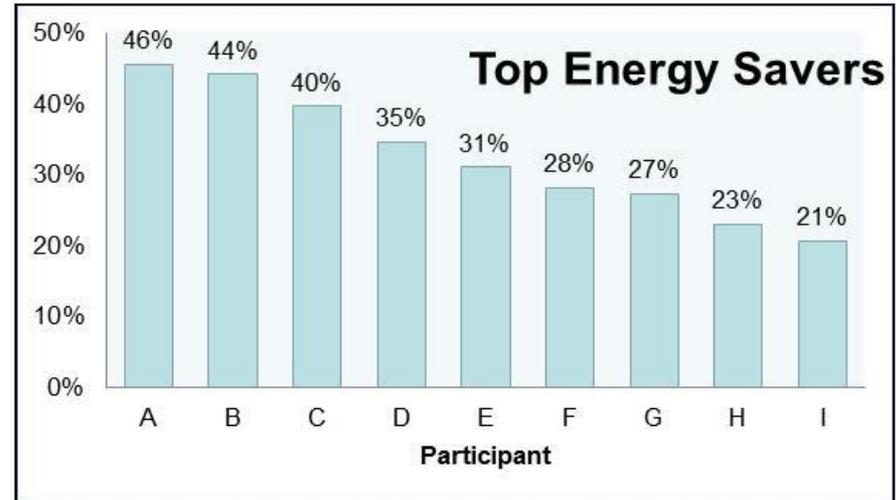
## Local Engagement

Recruitment

Buy-In

## Competition

- National Benchmarking
- Local Benchmarking
- Case Studies
- Participant vs. Participant
- Downtown vs. Midtown
- Atlanta BBC Annual Awards



# Atlanta BBC's Secret to Outreach & Data Collection Success?

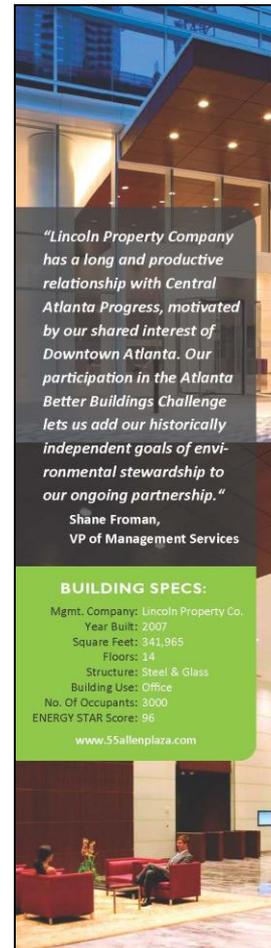
Local Engagement

Recruitment

Buy-In

Competition

- National Benchmarking
- Local Benchmarking
- Case Studies
- Participant vs. Participant
- Downtown vs. Midtown
- Atlanta BBC Annual Awards



**BUILDING SPECS:**  
Mgmt. Company: Lincoln Property Co.  
Year Built: 2007  
Square Feet: 341,965  
Floors: 14  
Structure: Steel & Glass  
Building Use: Office  
No. Of Occupants: 3000  
ENERGY STAR Score: 96  
[www.55allenplaza.com](http://www.55allenplaza.com)

## 20% REDUCTION STRATEGY BY 2020



### 55 ALLEN PLAZA

#### WE TOOK THE CHALLENGE 20% WATER & ENERGY REDUCTION BY 2020

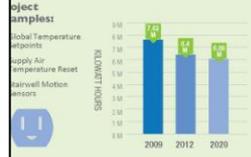
55 Allen Plaza joined the challenge seeking opportunities to reduce energy while pursuing LEED Gold status and investing in the community. The Atlanta BBC assessment provided huge value for the building in being able to move towards its goals and implement projects. The assessment provided a clear, concise summary of savings opportunities, each with a projected return on investment. Together, this info provided a clear path to their goal with no out of pocket costs.

#### PROJECTED SAVINGS:\*



Technology Square Research Building began its retrofit effort just before joining the Atlanta Better Buildings Challenge in late 2011, but quickly benefited from the Atlanta BBC assessment. The Atlanta BBC assessment provided 15 additional energy and water saving solutions that spanned from lighting retrofits to additional controls, with estimated annual savings of over \$80,000 per year. The majority of recommendations were operational or controls and sensor changes. The building moved quickly into implementation and has completed all upgrades saving 23% on electricity and water costs as compared to the 2009 baseline.

**DOLLARS SAVED:\*\*** 80,000 Annually  
**RETURN ON INVESTMENT:\*\*** 1.4 Years



#### RESOURCES USED

**FREE BUILDING ASSESSMENT:**  
Southface provided assessment

**CLASSES/EVENTS ATTENDED:**  
The lunch and learn sessions were very beneficial, helping Technology Square Research Building gain a broader understanding of the opportunities and solutions available to help them meet their building performance goals and save on operational costs.

\*Atlanta Better Buildings Challenge. \*\*Based on a 42 gallon tub. \*\*\*Kitchen equipment, vending machine upgrades, etc.

# How Do We Use the Data?

Assessment

Opportunities

Marketplace  
Engagement



# How Do We Use the Data?

Assessment

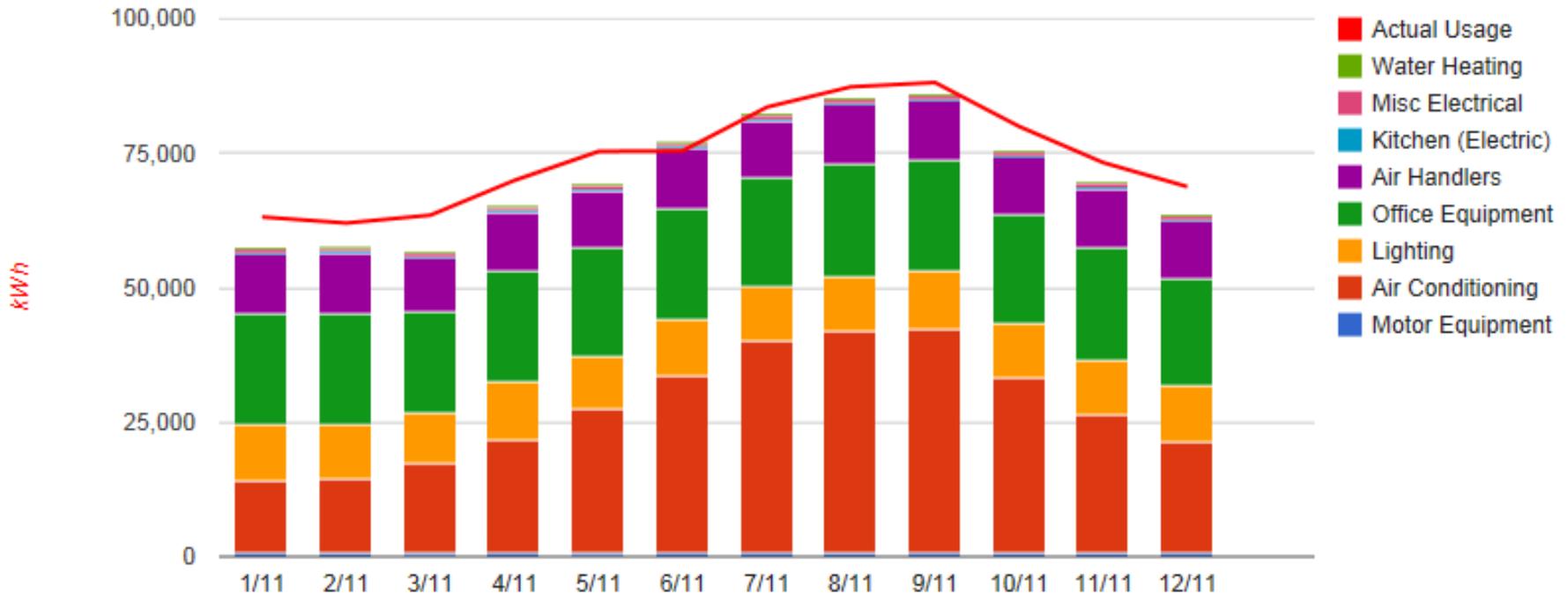
Opportunities

Marketplace  
Engagement



Better Informed  
Building Owners

Energy Model vs Actual



# How Do We Use the Data?

Assessment

Opportunities

Marketplace  
Engagement

- Conservation Measures
- Summary Views

Opportunities So Far	
Annual Savings	~ \$6,900,000
Estimated Costs	~ \$31,000,000
Utility Savings	~ 22%
Power Savings Range	6 – 50%
Payback Range	3 Months – 20+ Years

# How Do We Use the Data?

Assessment

Opportunities

Marketplace  
Engagement

- Audits create foundation, experts build on that work

## Recommended Opportunities

Opportunity	Annual Savings	Cost	Date Identified
<a href="#">Add Motion Sensors in appropriate areas</a>	\$4,018	\$1,815	9/21/2012
<a href="#">High Performance T8 Lighting Retrofit</a>	\$3,635	\$30,000	9/24/2012
<a href="#">Use Motion Sensors to Reduce Stairwell Lighting</a>	\$13,181	\$51,600	9/21/2012
<a href="#">Variable Frequency Drives on Air Handlers</a>	\$7,895	\$8,000	9/19/2012
<b>Total</b>	<b>\$28,729</b>	<b>\$91,415</b>	

## Audit Share: Added by Service Providers

Company	Opportunity	Annual Savings	Cost
Lighting Experts	<a href="#">Use Motion Sensors to Reduce Stairwell Lighting</a>	\$9,494	\$37,400
Schmoe Lighting	<a href="#">High Performance T8 Lighting Retrofit</a>	\$2,580	\$11,400
Schmoe Lighting	<a href="#">Variable Frequency Drives on Air Handlers</a>	\$12,661	\$12,000
<b>Total</b>		<b>\$24,735</b>	<b>\$60,800</b>

# Lessons Learned

- Bring real value
- Momentum will build
- Do a couple things well
- Sustaining program funding





# **Energy Benchmarking and Energy Savings Performance Contracting**

*Resources for complying with the Energy  
Benchmarking Law, and Executive Order 12-06*

# ***BENCHMARKING STRATEGY***

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- Explain benchmarking requirements
- Present yourself as a resource
  - Ask what are the barriers to benchmarking
  - Find ways to make it easier for facilities staff and managers to benchmark their buildings
- Continue to improve – it's a journey



# *EXPLAIN BENCHMARKING*

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- Announce the benchmarking effort
- Have a communication plan
- Define sharing structure and facility name format
- Provide training



# BE A RESOURCE

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- Provide a website
  - Links to resources
  - Instructions specific to your audience
  - Post reports on progress
- Provide benchmarking services options
  - Resource Conservation Managers
  - Universities or colleges
  - Energy Savings Performance Contracts
- Provide a real person to answer questions



# CONTINUE TO IMPROVE

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- Set expectations, appreciate progress
- Post benchmarking data for public viewing
- Identify errors or incomplete data
- Use Scores or Energy Use Intensity (EUI) to identify energy savings opportunities
- Provide tools to take action to reduce energy use (DES Energy Savings Performance Contracting)
- Highlight successes in case studies



# Thank you

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Energy Program Website: <http://www.des.wa.gov/services/facilities/Energy>

Energy Program Portfolio Manager Website:

<http://www.des.wa.gov/services/facilities/Energy/EnergyStar>



# Question and Answer Time

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If you have questions or comments, let us know what you think

Type questions in the Question box in the control box on the right

# Thank you for participating

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Slides will be posted on the Solution Center

<http://www1.eere.energy.gov/wip/solutioncenter/>

More questions? Contact Joel Blaine – [Joel.Blaine@ee.doe.gov](mailto:Joel.Blaine@ee.doe.gov)