

Overview of the ENERGY STAR® Program and the Portfolio Manager Tool

Leslie Cook
U.S. EPA, ENERGY STAR

Overview of ENERGY STAR C&I Program



- Rationale
 - Large potential cost-effective energy savings in commercial and industrial buildings and plants
 - Performance-driven approaches address key issues and deliver verifiable net savings
- Key ENERGY STAR Resources
 - Standardized measurement system for building and plants energy efficiency
 - Energy management approaches for executives and energy managers
 - Technical assistance guidance and training
 - Education and outreach campaign and materials
 - Large partner network
 - Recognition for energy efficiency excellence and leadership



- **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

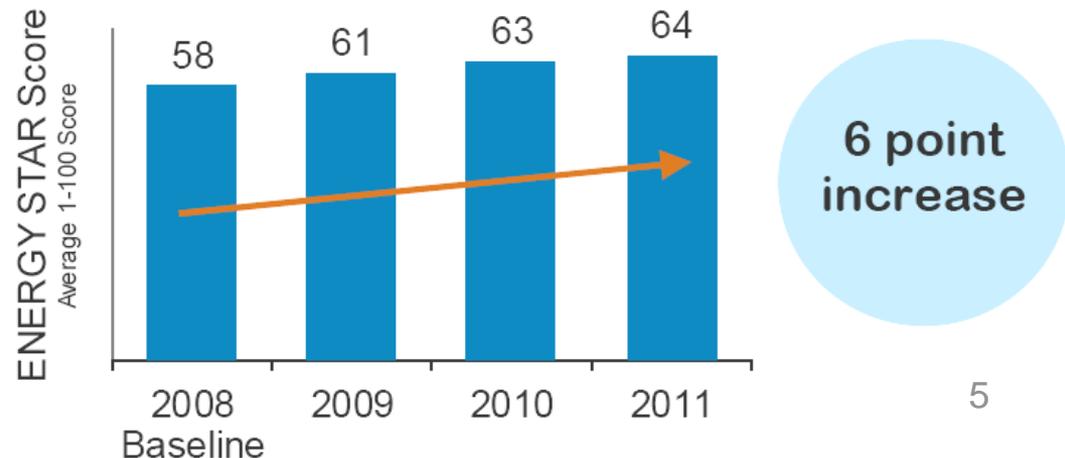
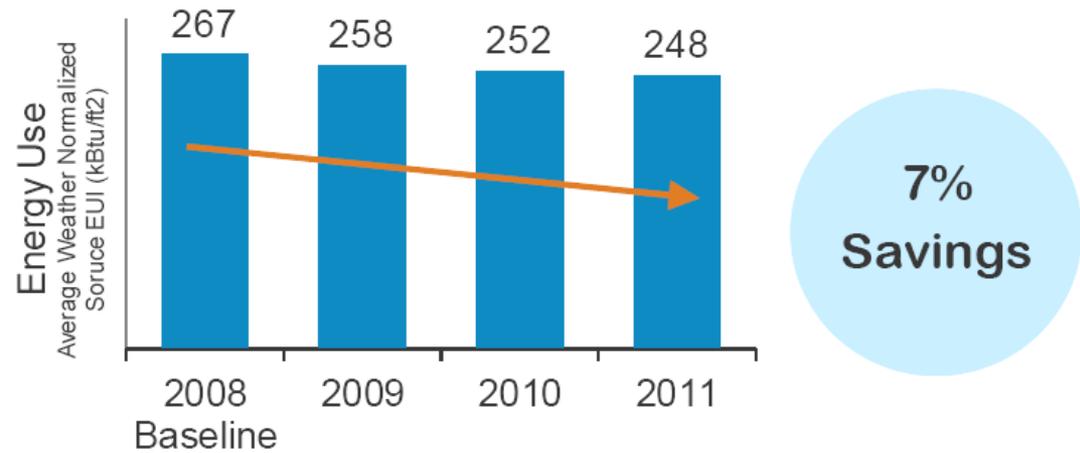
- The standard national platform for benchmarking energy use in commercial buildings in the United States. As of December 2013:
 - Accessed by more than 70,000 accounts
 - Used to track more than 325,000 buildings, representing more than 30 billion square feet of commercial and institutional building space in the U.S.
 - Adopted by leading commercial real estate, retail, healthcare, and educational organizations
 - Incorporated in state and local mandatory benchmarking laws
 - Required for use in buildings owned and occupied by US Federal Agencies
- Selected by the Canadian Government as the platform for their national energy management program for existing commercial and institutional buildings

Value of Benchmarking



Consistent benchmarking in buildings results in energy savings and improved performance

Energy Savings in Portfolio Manager



Source: www.energystar.gov/datatrends

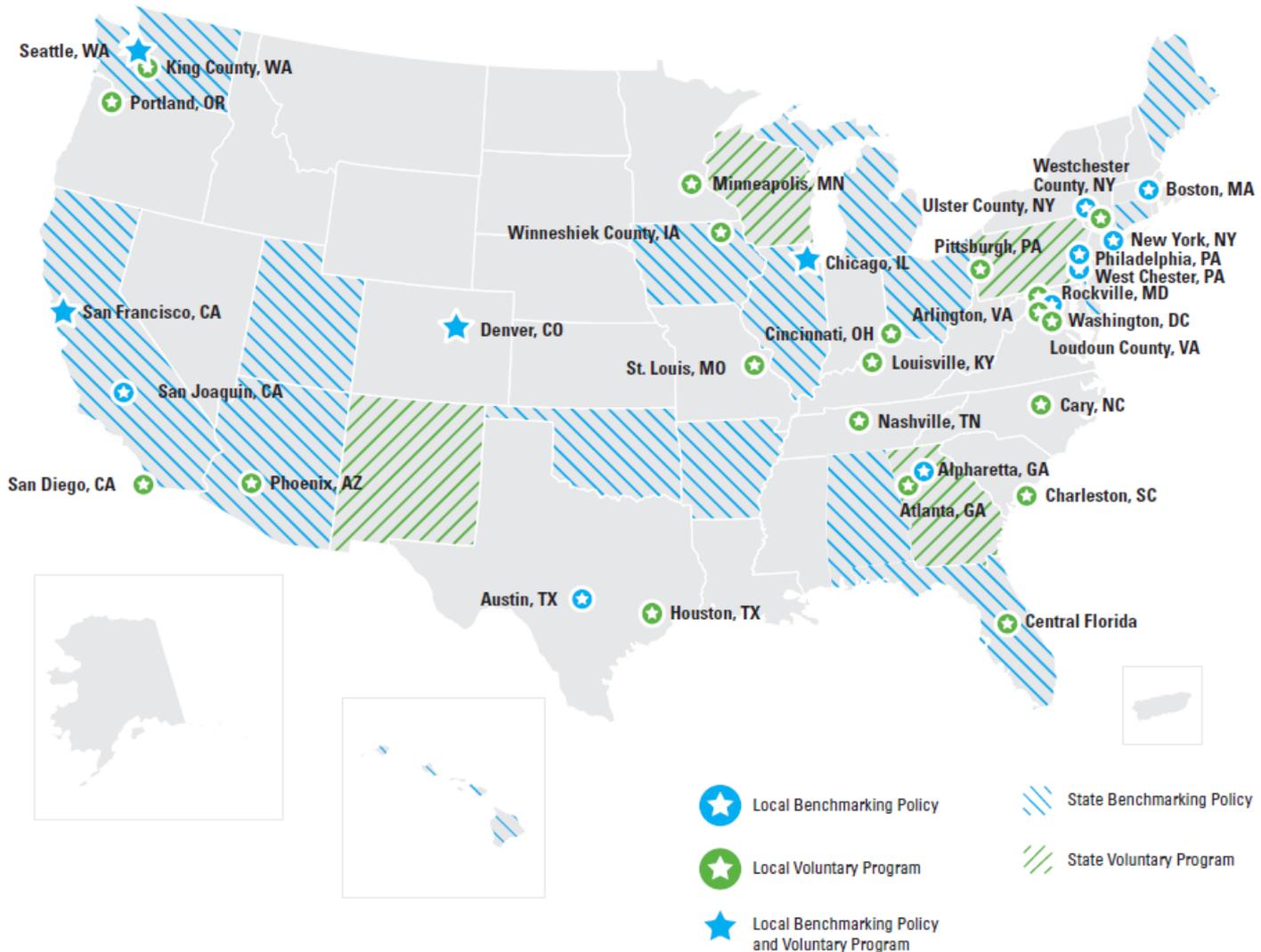


What's Driving Benchmarking Using Portfolio Manager in California?



- Mandatory Drivers
 - AB 1103
 - Other local/municipal benchmarking mandates
 - CPUC benchmarking goals for CA IOUs
- Voluntary Drivers
 - Utility promotion and support of benchmarking, including use of Portfolio Manager web services
 - Pursuing benchmarking as best practice for successful, strategic energy management
 - Seeking ENERGY STAR Certification
 - Seeking recognition from industry association (e.g., BOMA, ASHE, IFMA)

State and Local Energy Efficiency Programs Leveraging Portfolio Manager



How Utilities Are Using Portfolio Manager



- Educating customers
- Incorporating into assessments
- Supporting with data access
- Integrating into program design
- Requiring for program participation
- Taking to scale with web services



What Does it Take to Benchmark a Building?



- General
 - Name
 - Address
 - Year Built
 - Number of buildings
- Space Use Data
 - Specific requirements, based on building type
 - Typically includes number of workers, weekly hours of operation
- Energy Consumption Data
 - 12 consecutive months of energy data
 - All fuel types consumed at property
 - Representing entire property, not just common area

Multiple Solutions for Getting the Data Needed for Benchmarking



- Single Building Manual Data Entry
 - User enters all benchmarking information directly into Portfolio Manager
 - Screen by screen, field by field
- Bulk Data Upload via Spreadsheets
 - Upload larger sets of data into Portfolio Manager at one time using an Excel template
 - Separate templates for separate functions
 - Templates are downloaded and then uploaded from within customer's Portfolio Manager account; discrete transactions
- Portfolio Manager Web Services
 - A framework that allows utilities (and other providers) to exchange data between their systems and Portfolio Manager
 - Requires development of IT infrastructure
 - Opportunity for ongoing data delivery

Web Services and Utilities Around the Country



| Utilities | Buildings Receiving Utility Data Via Web Services |
|---------------------------------------|---|
| Avista Utilities | 360 |
| Clark Public Utilities | 10 |
| ComEd | 630* |
| LADWP | 15 |
| Pacific Gas & Electric | 10,420 |
| PECO | 90 |
| Puget Sound Energy | 3,590 |
| Sacramento Municipal Utility District | 800 |
| Salt River Project | 170 |
| San Diego Gas & Electric | 25 (under new system)** |
| Seattle City Light | 4,310 |
| Seattle Steam Company | 85 |
| Southern California Edison | 3,700 |
| Southern California Gas | 30 (under new system)** |
| Total | 24,235 |

Data current as of June 2014.

* More than 3,700 buildings have been able to benchmark using whole-building data received via ComEd's EUDS tool since 2008.

** SDG&E and SoCalGas each provided energy data to more than 2,000 buildings under the prior web services platform. They upgraded their systems in May 2014, and require all customer to re-initiate the web services in order to ensure proper customer authorization for data release. As of June 2014, this process is just getting underway.





The Value of Web Services for Utilities

- Provide a valuable customer service
- Engage customers through a new communication channel
- Access additional Portfolio Manager information about customer buildings
 - E.g. matching meters to physical facilities, building type, operating hours, space use, number of workers
- Drive customers to participate in DSM programs
- Track customer building performance improvements over time

Further Resources

- General Portfolio Manager information
 - Full suite of “How To” guides:
 - <http://www.energystar.gov/buildings/training>
 - FAQs and technical assistance
 - <http://www.energystar.gov/buildingshelp>
 - Live and recorded webinars
 - <https://esbuildings.webex.com>
- Portfolio Manager Web Services
 - <http://portfoliomanager.energystar.gov/webservices>