



Update on Energy Benchmarking of Private Buildings in the District of Columbia

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Public Briefing

February 21, 2012

1. Why benchmark?
2. Current schedule
3. Lessons from leading cities
4. What is not changing
5. Proposed regulatory changes
6. DC Benchmarking Help Center
7. Target Finder for construction/renovation

- **For Building Owners and Managers**

- Rate and compare performance
- Manage building energy and water consumption
- Calculate your carbon footprint
- Set investment priorities
- Verify and track progress of improvement projects
- Option to gain ENERGY STAR certification
- Attract Tenants



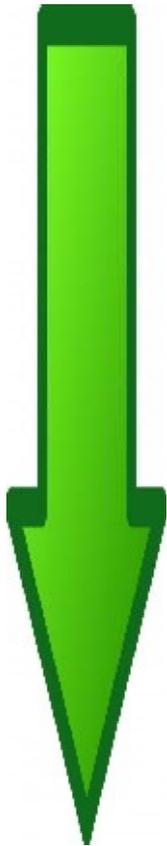
- **For the District**

- 74% of the District's greenhouse gas emissions come from buildings
- Rating and Disclosure will shift the market towards greater energy efficiency
- National Leadership

District laws—Green Building Act (GBA) and Clean and Affordable Energy Act (CAEA):

- Public Building ENERGY STAR benchmarking (>10,000 sq. ft.) and public reporting of scores. Began in 2009; data available online
- Private Building ENERGY STAR benchmarking (>50,000 sq. ft.), phased in by building size, with public reporting of scores beginning with second year of data.

Current Timeline



Fall 2010-Spring 2011	Public meetings to seek input for rulemaking
October 21, 2011	1 st proposed rulemaking
October 21- November 21, 2011	1 st comment period
February 21, 2012	Public Meeting for further stakeholder input
March – April 2012	2 nd proposed rulemaking & comment period
March 21, 2012	Launch of District Benchmarking Help Center
May 2012	Rulemaking Finalized
60 days after rulemaking finalized	2010 & 2011 report due for buildings >200,000 sq. ft. 2011 report due for buildings 150,000-200,000 sq ft.

Phased Implementation for ENERGY STAR Reporting

Building Size	Utility Year Data	First Report*	% of Covered Buildings	% of Total Building Area
200,000+ sq. ft.	2010	July 1, 2011**	36%	66%
150,000+ sq. ft.	2011	April 1, 2012**	47%	76%
100,000+ sq. ft.	2012	April 1, 2013	62%	86%
50,000+ sq. ft.	2013	April 1, 2014	100%	100%

* And annually thereafter

** Deadlines for 2010 and 2011 data are still in flux based on the ongoing rulemaking process (anticipated Spring 2012; will be the same deadline for both 2010 and 2011 data)

Progress in Other Cities

- NYC, Seattle, San Francisco, & Austin all have similar benchmarking programs
- NYC and Seattle collected first data in 2011
 - NYC law covers ~16,000 buildings > 50,000 sq. ft.
 - Seattle law covers ~8,000 buildings >10,000 sq. ft.
- Access to aggregate building energy data key to success
- US DoE has designed common data platform for all cities
 - SEED Platform (Sustainable Energy Efficiency Data Platform)
- U-Pennsylvania researchers are analyzing initial NYC data



Access to Aggregate Whole-Building Data

- Critical to success in other cities
 - NYC: owners can get data from ConEd for \$102.50
 - Seattle & Austin: Direct upload to PM by municipal utility
- In DC: must ask all tenants directly for their utility data
- Release of building data is supported by Data Access and Transparency Alliance (BOMA is member)
- Limited privacy concerns in large buildings
- May require action from council or PSC.

Basic District Benchmark Process

- Use ENERGY STAR Portfolio Manager for both benchmarking and data submission
- Applies to **both** Non-Residential and Residential buildings over 50,000 sq. ft.
- Parking garages don't count towards size thresholds
- No financial data or other confidential business information will be collected
- Failure to meet deadlines or submission of inaccurate data subject to fines of up to \$100/day

Basic District Benchmark Process

- Open ENERGY STAR Portfolio Manager Account
- Enter **energy**, **water**, and **space use attribute** info:
 - Use whole building data if available
 - Refer to *District Data Collection Worksheet*
 - Request and enter tenant data if needed
- Generate performance results including:
 - Total energy and water use
 - Energy Use Intensity
 - Benchmark Score if available
- Import new *DC District Reporting Template* (download new template from DDOE website each year)
- Release report to DDOE for tracking and public release

Reporting of Results

- DDOE posts data to website

Address	Year Built
Energy Performance Rating (1-100)	Energy Intensity
Electricity Use	Natural Gas Use
Water Use	CO ₂ Emissions
Facility Space Use	Gross Building Area

- DDOE will clarify importance of apples-to-apples comparisons (avoid direct comparison of whole vs. partial building results)
- Data analysis supported by secure US DoE database

1. Official Warning Period:

- Building **owners** or **non-residential tenants** who do not comply will get notice by mail
- 30 day warning period to collect & submit data
- No fines imposed until after end of warning period
- After warning period, fines accrue at rate of up to \$100/day

2. Increased Flexibility

- Previously, owners would have been required to collect data from tenants using certain DDOE-provided forms
- Forms are intended as a convenience, so owners will be able to collect needed data with or without forms, and from tenants or third parties (in the future, will ideally get data directly from utility companies)
- Tenants moving out given more time to get final utility data to landlords

3. Multiple Buildings on a Tax Lot

- DC tax records do not list individual building size
- Following Energy Star practices, if buildings share utilities or systems without separate or sub-metering, benchmarking buildings independently not possible
- Size threshold will apply to combined gross floor area of all spaces that share master meters
- Must be benchmarked and submitted to DDOE as a single building or campus (depending on space type)
- For example...

3. Multiple Buildings (continued)

- Example: apartment complex with four 30,000 sq. ft. buildings and one 75,000 sq. ft. building
 - If the buildings all share at least one master meter, considered a 195,000 sq. ft. building
 - If all are metered separately, only 75,000 sq. ft. building covered
- Building owners will get notice in mail; may submit proof of metering configuration directly to DDOE
- Building owners don't have to benchmark until relevant compliance year

Options for Multi-family Buildings

- **No Change:** Preference for multifamily owners/manager to collect tenant data and use extrapolated method (>10% of tenants respond); partial reporting if 10% threshold not met
- **No Tenant Data:** Multifamily owners/managers not required to request data from any residential tenants; benchmark using master meters, common area meters, and data from non-residential tenants; Must use aggregate utility data once it is available

Inclusion of Retail Spaces

- ENERGY STAR does allow exclusion of certain spaces if they represent <10% of gross building area and the data isn't available
 - DC law requires non-residential tenants to make data available, so retail data is “available”
 - Many office buildings in CBECS database include ground floor retail, so inclusion is appropriate
- Buildings seeking ENERGY STAR label can still be certified by EPA with space exclusions if desired

- Run by DC Sustainable Energy Utility
- Launches March 21
- *Technical* assistance with ENERGY STAR Portfolio Manager and DC benchmarking requirements
- Modeled on centers in NYC & Seattle
- FREE
- **Help Line: 202-525-7036**
- In-Person training sessions
 - March 21, 2012, 9:00 am
 - Other training sessions TBA



Target Finder Submissions New Buildings



- CAEA/GBA also requires projects over 50,000 sq. ft. that submit 1st building permit after January 1, 2012 to model their energy performance using the ENERGY STAR Target Finder Tool and report results to the District
- Results will be made public online
- Submit your Target Finder “Statement of Energy Design Intent” to DCRA with your building permit application either as PDF or hard copy
- Future electronic submission directly through Target Finder (2013)

A photograph of a printed form titled "STATEMENT OF ENERGY DESIGN INTENT" from February 10, 2010. The form is divided into several sections: "BASIC INFORMATION & CHARACTERISTICS" with fields for project name, location, and design energy intensity; "RESULTS FOR ENERGY STAR ENERGY USE" with a table comparing a "MEDIUM BUILDING" and an "ESTIMATED BUILDING" across metrics like Energy Reduction, Site Energy Use Intensity, and Total Annual Energy Use; "CONTACT INFORMATION" for the building owner and architect; and a "Professional Stamp" area for the architect's signature and date. A disclaimer at the bottom states that the project was simulated and estimated by software designed to run the ENERGY STAR certification.

RESULTS FOR ENERGY STAR ENERGY USE		
MEDIUM BUILDING	ESTIMATED BUILDING	
Energy Reduction (%)	50	100
Site Energy Use Intensity (kBtu/sq ft)	60	10
Design Energy Use Intensity (kBtu/sq ft)	5	210
Total Annual Site Energy Use (kBtu)	200	500
Total Annual Design Energy Use (kBtu)	328,321	10,531,360
Total Annual Energy Costs (\$)	326,652	10,400,267
Additional Information (provide details if applicable)	8.4, 234	3, 194, 231
Energy Use	18	131
		718

Questions? Comments?

Contact DDOE at:

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