DC Energy Benchmarking
Andrew Held
June 25, 2019
GOALS: 2032

Mayor Bowser Commitment to ZERO Carbon by 2050

- Adapt to Climate Change
- Climate Ready Buildings
- Cut Energy Use 50%
- 50% Renewable Energy
- Net Zero New Buildings
- Net Zero Retrofits
- Cut GHG Emissions 50%
Purposes of a Benchmarking Law

- Help Owners and Managers understand their energy use and compare it to peers
- Help Policymakers and DSM Program Administrators with analysis, planning, & program design
- Drive Market Transformation
Buildings are DC’s largest source of Greenhouse Gas Emissions:

Utilities are the largest non-fixed expense for DC building owners
DC Benchmarking Law


- All large existing buildings must annually benchmark energy and water usage in ENERGY STAR® Portfolio Manager® and report to DOEE by April 1st of each year
  - Private > 50k
  - Public > 10k

- Adopted in 2008, implemented 2013
- Benchmarking data disclosed beginning in 2nd year
- Large New Buildings must model and report projected energy use in ENERGY STAR® Target Finder™
Benchmarking in the US

U.S. City, County, and State Policies for Existing Buildings: Benchmarking, Transparency, and Beyond

- Requirements of achieving performance targets or completing additional actions
- Benchmarking policy for public, commercial, and multifamily buildings adopted
- Benchmarking policy for public and commercial buildings adopted

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<table>
<thead>
<tr>
<th>Stage</th>
<th>Dates</th>
<th>Description</th>
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<tbody>
<tr>
<td>Prepare</td>
<td>December - January</td>
<td>Publish Covered Building List, Updated Guidance Documents</td>
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<tr>
<td>Support</td>
<td>February - March: “Reporting Season”</td>
<td>Building owners compile data, enter in Portfolio Manager, Benchmarking Help Line Provides Support</td>
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<td>Report</td>
<td>April 1st</td>
<td>Annual Reporting Deadline</td>
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<tr>
<td>Review</td>
<td>April-May</td>
<td>DOE reviews data completeness and quality; follows up, Initial Data shared with Partners</td>
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<tr>
<td>Warn</td>
<td>May-July</td>
<td>Notices of Violation (NOVs) issued; sets 30-day warning period</td>
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<tr>
<td>Fine</td>
<td>July-Fall</td>
<td>Notices of Infraction (NOIs) issued, Fines of $100/day; usually $1,000 for 10 days</td>
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<tr>
<td>Disclose</td>
<td>Late Summer / Early Fall</td>
<td>Public Disclosure published, Summary Analysis published</td>
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Clean Energy DC Omnibus Act of 2018

Transportation
- Zero Emission Fleets by 2045

100% Renewable Electricity
- Require 100% renewable electricity by 2032, and 10% from local solar by 2041

Existing Buildings
- Improve the performance of existing buildings by implementing a Building Energy Performance Standard
Benchmarking Changes

- **2009**: Benchmarking DC-owned > 10K sf
- **2013**: Benchmarking private-owned > 50K sf
- **2018**: Clean Energy DC Omnibus Bill Passed
- **2021**: Benchmarking private-owned drops to 25K sf
- **2024**: Benchmarking private-owned drops to 10K sf

Third Party Verification Now Required Every Three Years
DOEE must establish a minimum threshold for energy performance – will be “at least” the local median ENERGY STAR score by building type (or equivalent)

5-year compliance cycles - 1st cycle begins 2021

Compliance paths for bldgs. below minimum:
- Performance: Reduce energy usage 20%
- Prescriptive: Implement cost-effective energy efficiency measures
- Other as determined by DOEE

Create BEPS Task Force for implementation plan, recommend amendments and complementary programs/policies

BEPS Compliance Cycles

2018: Clean Energy DC Omnibus Bill Passed
2021: 1st BEPS Compliance Cycle Begins for 50K+ sf
2023: 1st BEPS Compliance Cycle Begins for 25-50K sf
2026: 1st BEPS Compliance Cycle ENDS for 50K+ sf, 2nd BEPS Compliance Cycle Begins for 50K+ sf
2026: 1st BEPS Compliance Cycle Begins for 10-25K sf

@DOEE_DC #BEPSDC
Example Timeline: >50K sf Private-Owned Building

2020
- Benchmarking Due April 1
- Third Party Verification Due April 1

2021
- Benchmarking Due April 1
- 1st BEPS Compliance Cycle Begins

2022
- Benchmarking Due April 1
- Third Party Verification Due April 1

2023
- Benchmarking Due April 1
- Third Party Verification Due April 1

2024
- Benchmarking Due April 1

2025
- Benchmarking Due April 1
- Third Party Verification Due April 1

2026
- Benchmarking Due April 1
- 1st BEPS Compliance Cycle Ends
- 2nd BEPS Compliance Cycle Begins

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High Performance Building Hub

DOEE is designing a hub to support YOU through this transition by creating a platform for collaboration, innovation, capacity building, training, and technical assistance.

- Training in high-performance building design and construction techniques
- Support for high efficiency projects
- Direct technical assistance
- Targeted research and resource development
- Market support and development
- Opportunities for knowledge exchange and collaboration
- Business development support for local clean energy entrepreneurs
- Recognition of market leaders and exemplary projects

More than 2,700 buildings impacted by BEPS!
- 916 buildings over 50k sf
- 561 buildings 25-50k sf
- 1,269 buildings 10-25k sf
21% reduction in source energy if all buildings meet the standard for their type and size subgroup.

- 18.7% from buildings over 50K sf
- 1.4% from 25K-50K sf buildings
- 1% from 10K-25K sf buildings

ANNUAL GHG EMISSIONS SAVINGS: 1.05 million tons of CO2e!!