

DC'S NEW BUILDING ENERGY PERFORMANCE STANDARDS

Monthly Update
September 24, 2020



GOVERNMENT OF THE
DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

AGENDA



Marks a slide that has
information subject to change
through the rule-making process

- Present the basic framework of the performance standards, applicability, and compliance cycles/paths
- Additional details on setting the standards and definitions
- Updates on the BEPS Task Force
- Timeline of program implementation
- Complementary program development
- Upcoming webinars and events
- Q&A

SUSTAINABLE DC VISION



Make DC the healthiest, greenest, most livable city in the country.

GOALS: 2032



ADAPT TO CLIMATE CHANGE

CLIMATE READY BUILDINGS

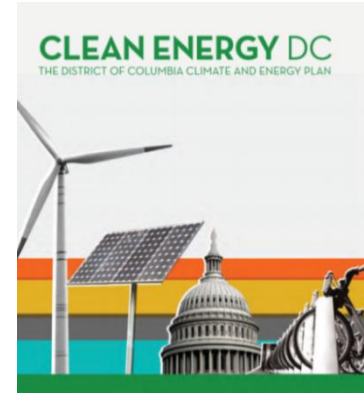
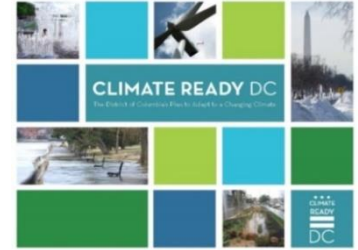
CUT ENERGY USE 50%

50% RENEWABLE ENERGY

NET ZERO NEW BUILDINGS

NET ZERO RETROFITS

CUT GHG EMISSIONS 50%



MAYOR BOWSER: COMMITTED TO ZERO CARBON BY 2050





CLEAN ENERGY DC OMNIBUS AMENDMENT ACT OF 2018, TITLE III....



BENCHMARKING

Lowers minimum building square footage required to benchmark over time;
Creates data verification requirements

ENERGY PERFORMANCE

Improves the performance of existing buildings by implementing a **Building Energy Performance Standard**

BENCHMARKING 101

Clean and Affordable Energy Act of 2008 requires all private and DC-owned buildings to report their calendar year (CY) energy and water use to the DOE for public disclosure by April 1 annually.

Covered Building List

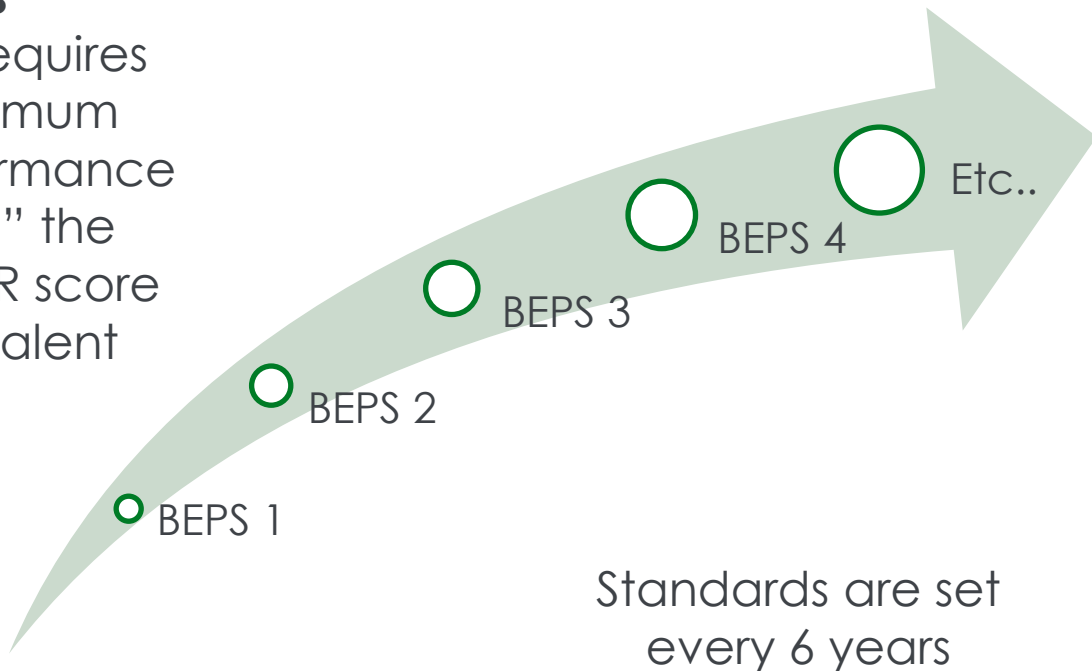
- ❑ CY2009 and on – DC-owned buildings >10,000 sq. ft.
- ❑ CY2013 and on – Private buildings > 50,000 sq. ft.
- ❑ CY2021 and on – Private buildings > 25,000 sq. ft.
- ❑ CY2024 and on – Private buildings > 10,000 sq. ft.

Third Party Data Verification Required

- ❑ Beginning CY2023 and every three (3) years etc.

BEPS PERIODS

Clean Energy DC Omnibus Amendment Act of 2018 requires an establishment of a minimum threshold for energy performance that will be “no lower than” the local median ENERGY STAR score by property type (or equivalent metric).



BEPS APPLICABILITY

As the benchmarking requirements ratchet down in square footage over time, the buildings will be required to meet the BEPS in the following periods until all buildings 10,000 sq. ft. and over are following the performance standards.

BEPS 1:

Private buildings >50,000 sq. ft.
and DC-owned >10,000 sq. ft.

BEPS 2:

Private buildings >25,000 sq. ft.
and DC-owned >10,000 sq. ft.

BEPS 3:

Private buildings and
DC-owned >10,000 sq. ft.



BEPS METRICS

95% of DC's buildings over 50K SF are eligible for an ENERGY STAR score!

ENERGY STAR Score

a number established by US EPA that allows comparison of energy use of a property with similar properties nationwide

Important for setting the standard!

Source Energy Use Intensity (EUI)

the total amount of raw fuel that is required to operate a building, divided by the building's gross floor area (GFA defined by Portfolio Manager)

Important for setting the standard!

Site Energy Use Intensity (EUI)

the annual amount of all energy a building consumes on-site, as reported on a building's utility bills, divided by the building's gross floor area (GFA defined by Portfolio Manager)

Important for compliance evaluation!

PROPERTY TYPES, METRICS AND MEDIANS

Property Types

- Standards will be set for each ENERGY STAR Portfolio Manager **Primary Property Type**
- Refer to your 2019 **benchmarking** report for which property type applies

Metric

- For property types that **can** receive an ENERGY STAR Score, the standard metric will be **ENERGY STAR Score**
- For property types that **cannot** receive an ENERGY STAR Score, the standard metric will be **Source EUI**

Standard

- For most property types, the standard will be set at the **Local Median**
- For property type groups with <10 local buildings, the standard will be set at the **National Median**

SPECIAL PROPERTY TYPES

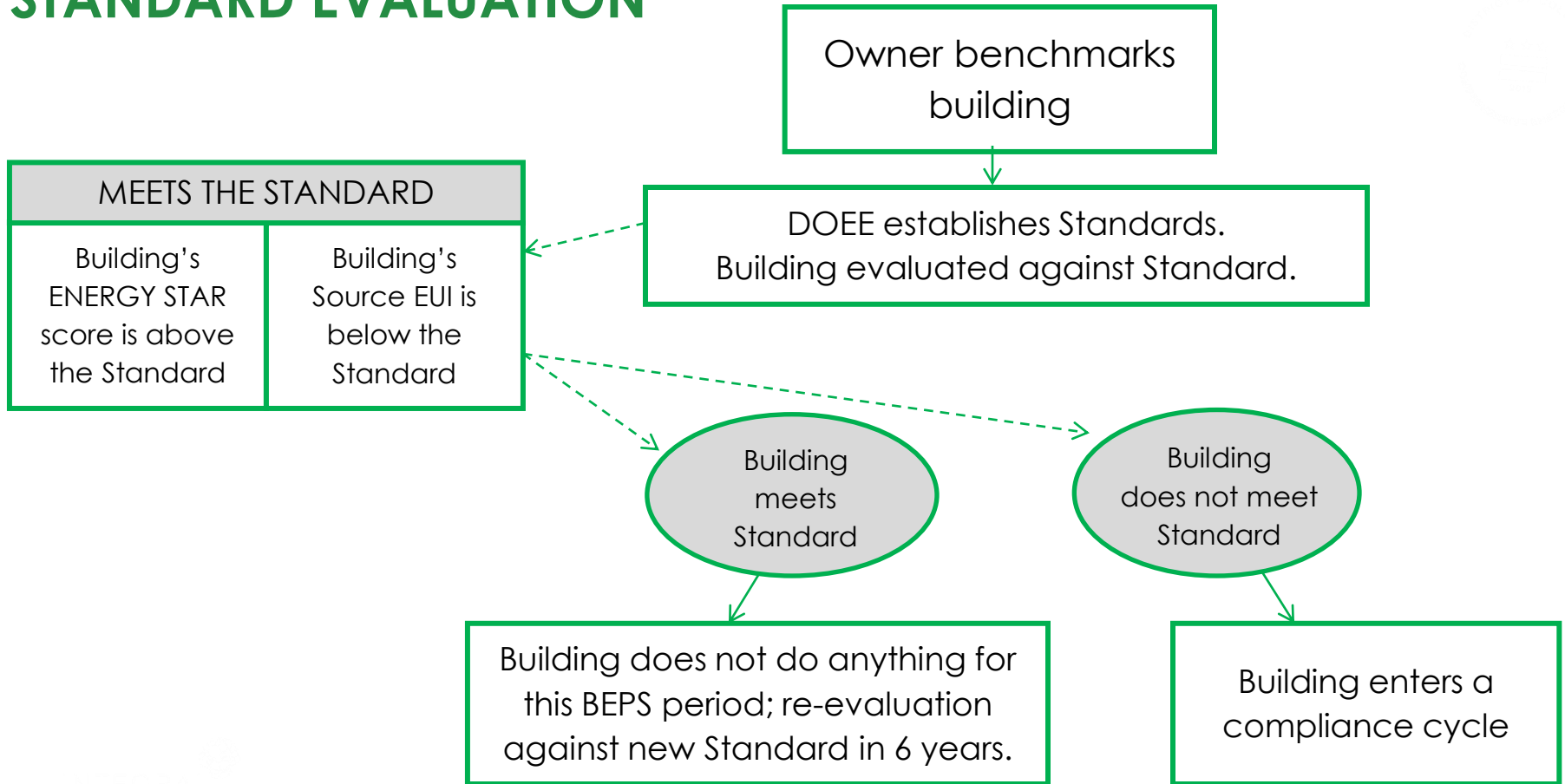
- **Higher Education Campuses** – Source EUI is the metric. Each campus would receive a Blended Custom Standard where all non-high intensity spaces would be classified as the “college/university” property type and then adjusted for high-intensity property types’ square footage.
- **True Mixed-Use Properties** - Buildings where a single property type does not make up more than 50% of the overall gross floor area and the sum of the scorable property use type gross floor area is also less than 50%. DOE will create a Blended Standard based on the percentage of each property use type at the property.
- For **specialized property types**, EPA ENERGY STAR metrics may not be the most appropriate way to determine energy performance. DOE will allow for owners to submit considerations for adjusted standards to be created on a case-by-case basis (Ex: Laboratories may choose to use LBNL’s Lab Benchmarking Tool).

STANDARD TABLE EXAMPLE

There are almost 40 different property types present in DC buildings over 50K SF!

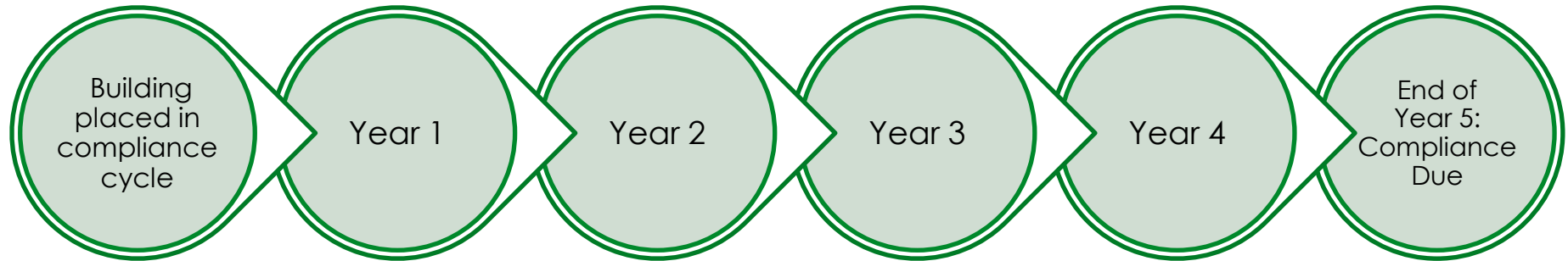
Property Type	Metric	Standard Level	Standard
Multifamily Housing	ENERGY STAR Score	Local Median	
Office	ENERGY STAR Score	Local Median	
K-12 School	ENERGY STAR Score	Local Median	
Hotel	ENERGY STAR Score	Local Median	
Other - Public Services	Source EUI	Local Median	
Residence Hall/Dormitory	ENERGY STAR Score	Local Median	
Non-Refrigerated Warehouse	ENERGY STAR Score	Local Median	
Retail Store	ENERGY STAR Score	Local Median	
Self-Storage Facility	Source EUI	Local Median	
Worship Facility	ENERGY STAR Score	Local Median	
Medical Office	ENERGY STAR Score	National Median	
Fitness Center/Health Club/Gym	Source EUI	National Median	
Hospitals	ENERGY STAR Score	National Median	

STANDARD EVALUATION



COMPLIANCE CYCLES

Buildings that do not meet the Standard for a BEPS period will be placed in a 5-year compliance cycle. The building owner has until the end of the cycle to bring their building into compliance.

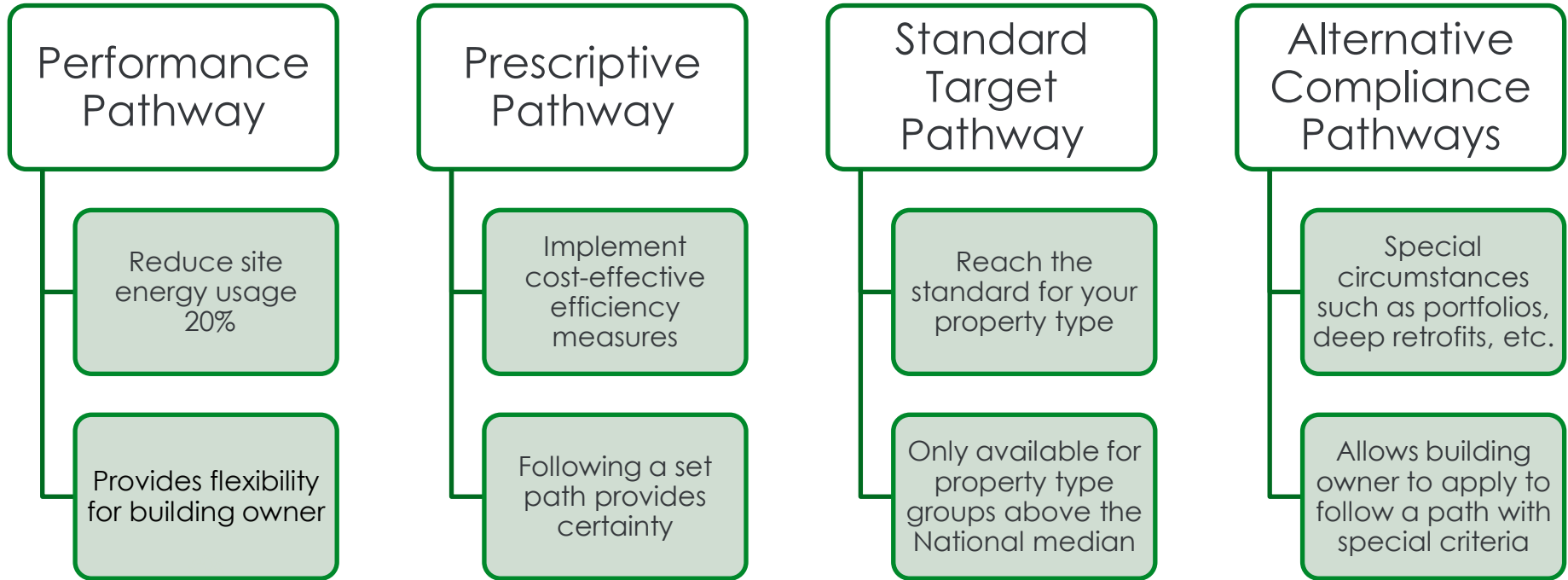


* Proposed COVID-19 PHE adjustment – automatic delay of the BEPS compliance requirement one year ★

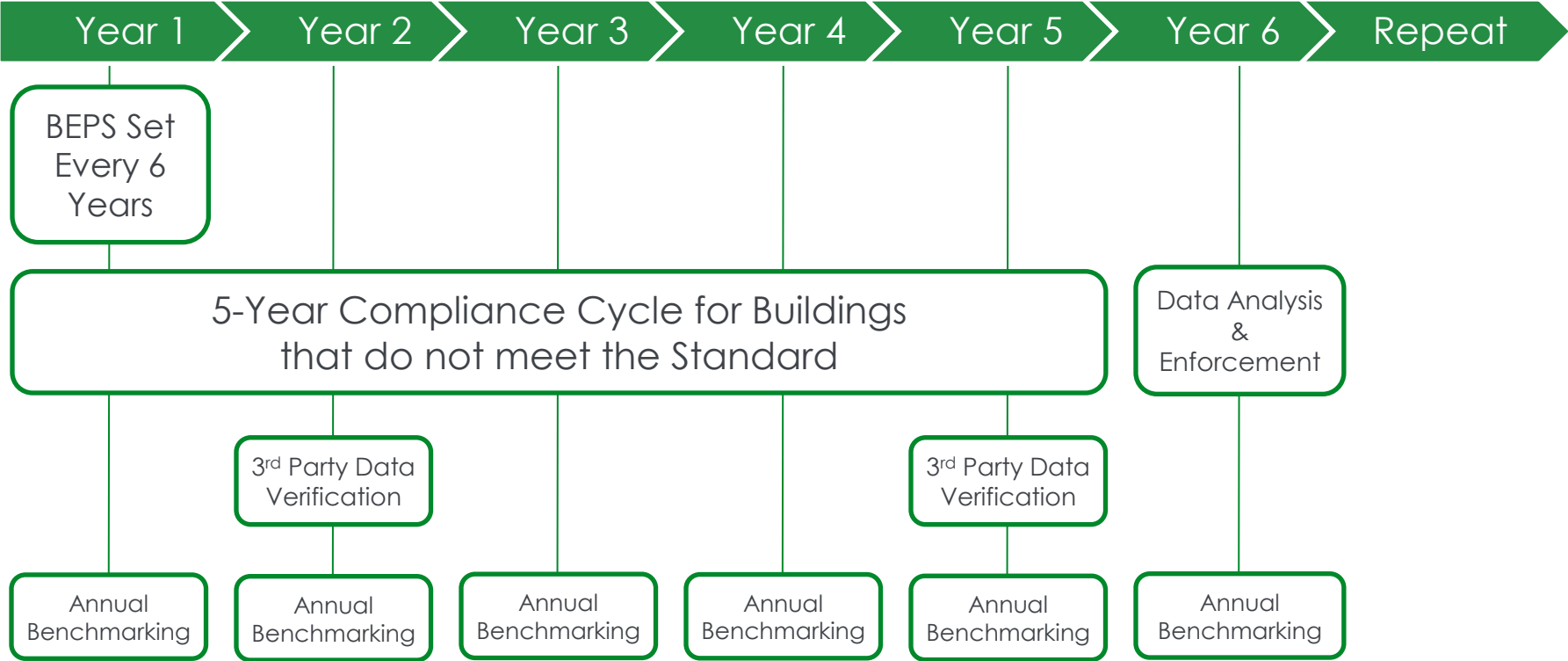
COMPLIANCE PATHWAYS



Building owners have a variety of pathways to choose from:



BEPS REVOLUTIONS



BEPS LANGUAGE



- **Property Type** – the primary function of a building as defined by ENERGY STAR Portfolio Manager
- **BEPS Period** – the period of time in between when the standards are set (every 6 years)
- **Compliance Cycle** – the period of time between when the standard is set and the end date, where compliance is measured (5 years)
- **Compliance Pathway** – the method by which a building demonstrates its fulfillment of the energy efficiency requirements

BEPS PROGRAM TIMELINE

- Draft rules should be ready for public comment in October 2020
- Minimum of one round of public comment, open for 60 days (extension due to COVID)
- Technical Guidance and Task Force Report will be available the same time as public comments on the draft rules
- DOE working with Steven Winter Associates and partners to complete the BEPS Cost/Benefit Study. Check out the [August 4](#) Task Force meeting notes!
- Prescriptive Pathway technical guidance may be released at a separate time based on when the rules go to public comment.

BEPS TASK FORCE UPDATE



- Meets every other Tuesday – open to the public. Schedule, recordings, slides, and notes are available [online](#)
- September was a busy month!
 - Recommendations for the higher education/hospitals standards and compliance pathways
 - Prescriptive pathway - guiding principles, process timeline, building typologies, and energy efficiency measure structure
 - Deep Retrofit Pathway
 - Affordable Housing recommendation reflection
- In October, we'll talk about the deep retrofit pathway for campuses and energy efficiency measures for the prescriptive pathway

BENCHMARKING UPDATE



Free Data Verification for CY2019:

- DOEE is partnering with DCSEU and Baumann Consulting to offer pro-bono data verification of 2019 benchmarking data, available to all covered buildings in the District.
- **Data Verification has been extended!** For free services, submit a completed application by November 30, 2020 at dcverifybenchmarking.com

Benchmarking Rules Update:

- DOEE is close to publishing updated benchmarking rules that clarify the benchmarking reporting requirements, including the new size thresholds and data verification.

Online Rebate Center

Available Now for Residential Customers

- ▶ Online “shopping basket” experience
- ▶ [Prescriptive rebate amounts for lighting, HVAC, and other residential equipment](#) are listed for each offering
- ▶ [Residential home page](#) includes low/no-cost tips, solar opportunities, and success stories

Coming in FY21 for Commercial & Institutional Customers

- ▶ Online “shopping basket” experience for selected equipment
- ▶ [Prescriptive rebates and special incentives](#) are still in effect until the ORC is launched
- ▶ Enhanced rebates available for businesses under 10K sq. ft. and income-qualified properties
- ▶ *Currently offering 30% higher incentives through September 30th*

HIGH-PERFORMANCE BUILDING HUB

Sign up for the
latest releases:
imt.org/hub



Goal: Develop resources and services that directly address barriers in DC's commercial real estate market that hinder the pursuit of high-performance buildings.

Timeline: Launching October 2020

BEPS Resource Highlights:

- BEPS basics
- Common errors in benchmarking
- How to use your benchmarking data
- Where code meets BEPS
- Defining BEPS targets in new construction projects

Other Resource Highlights:

- Funding & financing map
- O&M best practices manual
- Green leasing for BEPS
- Where health & wellness meet building performance
- Procurement guide for qualified vendors



CONSTRUCTION CODE UPDATE



New Codes adopted May 29, 2020

- Significant changes made to the Energy Conservation Code – Commercial - Updates to 90.1-2013, with local amendments
- Minor updates to the Energy Conservation Code – Residential and Green Construction Code - Updates to 2015 IECC, with local amendments
- Effective immediately for new construction, one year grandfather for existing
- Energy Conservation Code alternative compliance paths expanded to include:
 - Appendix Z – DC's voluntary NZE code for commercial and multifamily
 - Living Building Challenge, Passive House (PHI/PHIUS), LEED + LEED Zero
- <https://dcra.dc.gov/page/dc-construction-codes>

UPCOMING WEBINARS

Go to Eventbrite.com
and search for “DOEE”

- DOEE: COVID-19 and Building Readiness: Hear from the Experts
September 29, 10:30 - 11:30 am - Eventbrite # [18647240089](https://www.eventbrite.com/e/doee-covid-19-and-building-readiness-hear-from-the-experts-tickets-18647240089)
- DCSEU: Verifying Energy Benchmarking Data
September 29, 12:00 - 1:00 pm
<https://www.dcseu.com/commercial-and-multifamily/benchmarking-in-dc>
- DOEE, PSC, OPC, and DCSEU: Energy Efficiency Day 2020
October 7, 1:00 – 2:30 pm
- DOEE & DCRA: 2020 Green Building Professional Series @ 1:00 pm
 - New Building Codes – October 13, 2020
 - Getting Ready for BEPS – November 12, 2020
 - Transportation Electrification – December 9, 2020
 - Road to 100% Renewable Electricity – January 13, 2021
 - Funding Clean Energy Projects – February 10, 2021

The DOEE will honor several District businesses or organizations selected by our panel of judges, as well as one business or organization that receives the People's Choice Award for outstanding achievement in sustainability.



Voting is live for the 2020 People's Choice Award!

<https://www.surveymonkey.com/r/2020SDCAwards>

Register for the Virtual Event

Tuesday, September 29 | 6:00 - 7:00pm

<https://2020sdcawards.eventbrite.com>

WHAT YOU CAN DO NOW

Previous webinars available at
<http://doee.dc.gov/service/beps>
under Events & Engagement

- Double-check your benchmarking data (2018 and 2019)
- Compare 2019 scores to the 2018 [median](#) for your property type to get a sense of how your building is performing
- Get an on-site energy audit (ASHRAE Level II or higher) to understand building characteristics, equipment, and energy use
- Begin to identify energy efficiency measures
- Create an internal team to start aligning energy actions
- Engage with building tenants
- Start developing a strategic energy management plan

LEARN MORE!

doee.dc.gov/service/BEPS
info.beps@dc.gov
info.benchmark@dc.gov

- Attend a BEPS Task Force meeting
- Attend a future education session or webinar
- Submit public comments on the rules
- Tell your friends/coworkers/clients about BEPS
- Join us for the next update on [October 29!](#)