



A SERIES BY
**PERKINS—
EASTMAN**

GUIDEBOOK

DC DEPARTMENT OF ENERGY AND ENVIRONMENT



BEPS BUILDING ENERGY
PERFORMANCE
STANDARDS



BEPS FAST FACTS

What is BEPS?

Building Energy Performance Standards are regulations that attempt to reduce energy use in new and existing buildings in DC.

What Does this Mean for Building Owners?

- Buildings that fall short of the BEPS threshold will need to reduce energy use or install upgrades in their buildings to comply.
- Buildings that fail to comply will be forced to pay significant fines.
- Fines are pro-rated by how much improvement is made from previous performance.

Building Size	Maximum Penalty
≥ 500,000 sq. ft.	\$7,500,000
200,000 sq. ft. < 500,000 sq. ft.	\$5,000,000
100,000 sq. ft. < 200,000 sq. ft.	\$2,000,000
50,000 sq. ft. < 100,000 sq. ft.	\$1,000,000
25,000 sq. ft. < 50,000 sq. ft.	\$500,000
10,000 sq. ft. < 25,000 sq. ft.	\$250,000



What is the Timeline?

2013

1

Benchmarking of energy performance started for buildings larger than 50,000 sf in 2013.

2021

2

First BEPS Cycle started in 2021 (meaning we are on the clock to make improvements).

2026

3

Calendar year to benchmark performance and determine compliance: 2026.

BEPS Energy Star Thresholds



Office: 71

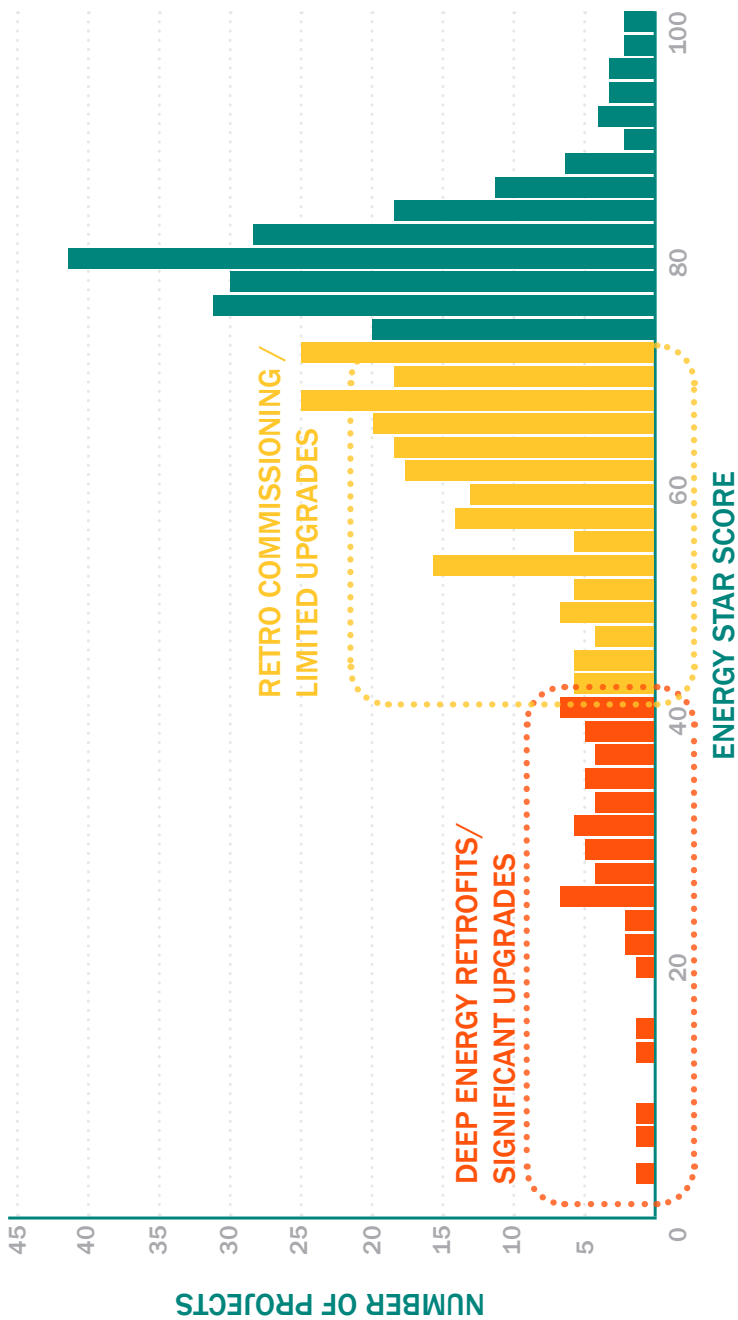


Multifamily
Housing: 66



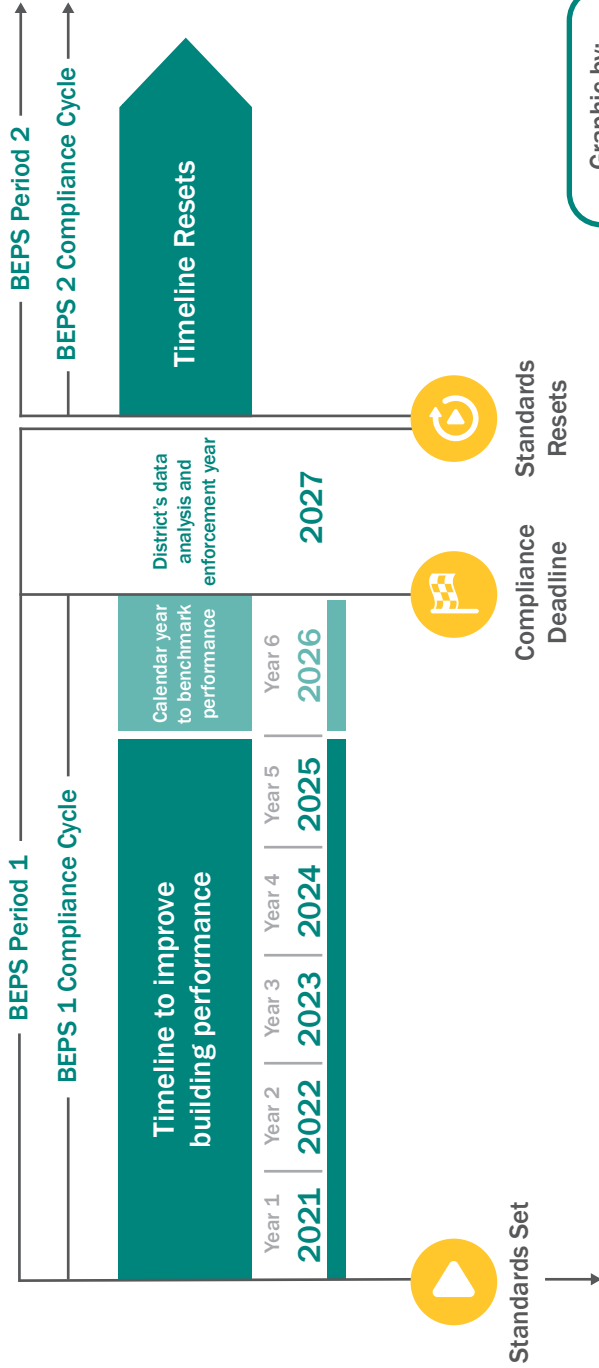
Hotel: 54

(Projects below this score are required to reduce energy use or pay fines.)



Energy Star Score for all offices in DC

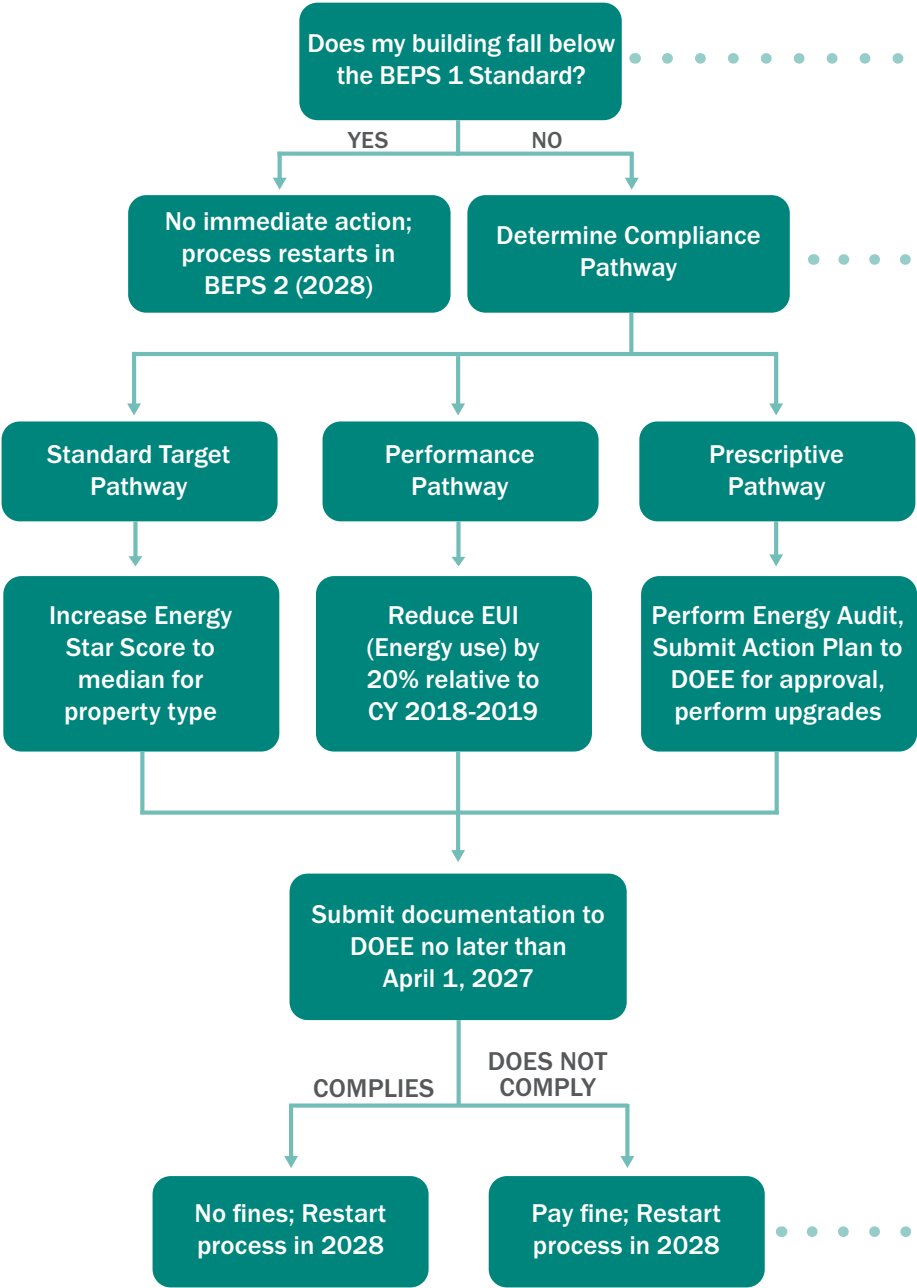
How to Comply...



Above the Standard? No action required under BEPS.
Below the Standard? Must Improve performance.

Graphic by:
Building Innovation Hub

BEPS FLOW CHART





- ☒ Is the Energy Star Score lower than the median?

- ☒ Is the building greater than 50,000 sf?

- **Compliance pathway must be submitted to DOEE no later than April 1, 2023 to avoid \$1,000 fine.**

- **Standard Target Pathway** is only available for certain project types (offices & multifamily can qualify). It is most suited for projects relatively close to median Energy Star Score.

Performance Pathway is most suited for low-performing buildings, that can confidently reduce energy use by 20%. Projects achieving more than this can comply with future BEPS Cycles.

Prescriptive Pathway: Energy Audit due April 1, 2023; Action plan April 1, 2024; Implementation April 1, 2026. Requires performance upgrades that must be approved by DOEE.

Alternative Compliance Pathways, Exceptions, and Delays may be granted in certain cases (like affordable housing, or potentially financial distress due to COVID) - Apply no later than April 1, 2023.

- **Fines are capped at \$10/GSF and are prorated based on how much performance improves from baseline.**

Key Links:

<https://buildinginnovationhub.org/resource/regulation-basics/understanding-beps/beps-compliance-pathway-deadlines/>

BEPS SAMPLE LETTER

Meets BEPS Regulations

DOEE recently sent letters to building owners indicating whether they comply with the current BEPS compliance cycle. Buildings that do not comply will need to reduce energy use or face fines.

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

7/19/2021

BUILDING NAME
PROPERTY OWNER/PROPERTY MANAGER
ADDRESS
WASHINGTON DC #####

Re: Building Subject to Building Energy Performance Standards

Dear Building Owner or Manager:

Pursuant to the CleanEnergy DC Omnibus Amendment Act of 2018 (D.C. Official Code § 8-1772.21), property owners and managers of buildings larger than 50,000 gross square feet are required to meet the Building Energy Performance Standards (BEPS) established by 20 DCMR 3530. Buildings that did not meet the BEPS as of January 1, 2021 are required to complete the energy performance and reporting/verification requirements of a Compliance Pathway described in 20 DCMR 3517 – 3521.

District of Columbia Office of Tax and Revenue (OTR) records show that you are the owner, or manager, of the following building:

Building Address: _____
Owner of Record: _____
District of Columbia Real Property ID Number: _____
OTR Gross Square Footage: _____

The building's 2019 District Benchmark Results and Compliance Report demonstrated the following energy performance:

Building Portfolio Manager ID: _____
Building Primary Property Type: _____
BEPS (per 20 DCMR 3530): ##
BEPS – Metric Type: _____
BEPS – 2019 Building Value¹: ##

This building meets the 2021 BEPS. You are not required to complete a Compliance Pathway at this time. The building will be reevaluated when the next BEPS are established by January 1, 2027.

Please note that if you receive updated utility or property use information for calendar year 2019, you are required to notify DOEE and update your 2019 District Benchmark Results and Compliance Report within 30 days of receipt (20 DCMR 3513.9). If the updated report could change the building's BEPS compliance status, please contact DOEE for a re-evaluation. If the building no longer meets the BEPS, the building owner must select a Compliance Pathway and meet energy performance requirements.

Please visit <https://doee.dc.gov/service/beps> for more information on the BEPS Program. All building owners are encouraged to explore the resources available through the DC Sustainable Energy Utility, the Building Innovation Hub, and the DC Green Bank to improve the energy performance of their building.

¹ If the BEPS – Metric Type is "ENERGY STAR Score" then the BEPS – 2019 Building Value must be equal to or higher than the BEPS. If the BEPS – Metric Type is "Weather Normalized Source EUI" or "Source EUI" the BEPS – 2019 Building Value must be equal to or less than the BEPS.



Does Not Meet BEPS

Building does not meet the BEPS, based on its submitted and complete 2019 Benchmarking.

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7/19/2021

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District of Columbia Office of Tax and Revenue (OTR) records show that you are the owner, or manager, of the following building:

Building Address: _____
Owner of Record: _____
District of Columbia Real Property ID Number: _____
OTR Gross Square Footage: _____

The building's 2019 District Benchmark Results and Compliance Report demonstrated the following energy performance:

Building Portfolio Manager ID: _____
Building Primary Property Type: _____
BEPS (per 20 DCMR 3530): ##
BEPS – Metric Type: _____
BEPS – 2019 Building Value¹: ##

This building does not meet the BEPS. You must select a Compliance Pathway through the Online BEPS Portal by April 1, 2023. All buildings that do not meet the BEPS must complete the energy performance requirements of an approved Compliance Pathway by December 31, 2026. Please note that these dates reflect a one-year delay of compliance for all buildings due to the COVID-19 Public Health Emergency. If your building does not select a Pathway or meet the Pathway requirements by these deadlines, you may be subject to fines and penalties.

Please note that if you receive updated utility or property use information for calendar year 2019, you are required to notify DOEE and update your 2019 District Benchmark Results and Compliance Report within 30 days of receipt (20 DCMR 3513.9). If the updated report could change the building's BEPS compliance

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BEPS SAMPLE LETTER

Does Not Meet BEPS

Building does not meet the BEPS, because it submitted incomplete 2019 Benchmarking.

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Department of Energy and Environment

7/19/2021

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District of Columbia Office of Tax and Revenue (OTR) records show that you are the owner, or manager, of the following building:

Building Address: -----
Owner of Record: -----
District of Columbia Real Property ID Number: -----
OTR Gross Square Footage: -----

The building's 2019 District Benchmark Results and Compliance Report demonstrated the following energy performance:

Building Portfolio Manager ID: -----
Building Primary Property Type: nan
BEPS (per 20 DCMR 3530): nan
BEPS – Metric Type: nan
BEPS – 2019 Building Value¹: nan

For the 2021 BEPS, DOEE uses the 2019 District Benchmark Results and Compliance Report to determine whether a building met the BEPS. Since DOEE does not have a complete 2019 Benchmark Report for this building, according to 20 DCMR 3530.5(d), this building does not meet the BEPS. Please submit a complete and accurate 2019 Benchmark Report to DOEE by following the steps on our website (<https://doee.dc.gov/service/building-energy-performance-benchmarking>).

Unless you submit a Benchmarking Report that demonstrates your building meets the BEPS, you must select a Compliance Pathway through the Online BEPS Portal by April 1, 2023. All buildings that do not meet the BEPS must complete the energy performance requirements of an approved Compliance Pathway by December 31, 2026. Please note that these dates reflect a one-year delay of compliance for all buildings due to the COVID-19 Public Health Emergency. If your building does

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Does Not Meet BEPS

Building does not meet the BEPS, because it was exempt from 2019 Benchmarking.

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7/19/2021

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Dear Building Owner or Manager:

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District of Columbia Office of Tax and Revenue (OTR) records show that you are the owner, or manager, of the following building:

Building Address: _____
Owner of Record: _____
District of Columbia Real Property ID Number: _____
OTR Gross Square Footage: _____

The building's 2019 District Benchmark Results and Compliance Report demonstrated the following energy performance:

Building Portfolio Manager ID: _____
Building Primary Property Type: nan
BEPS (per 20 DCMR 3530): nan
BEPS – Metric Type: nan
BEPS – 2019 Building Value¹: nan

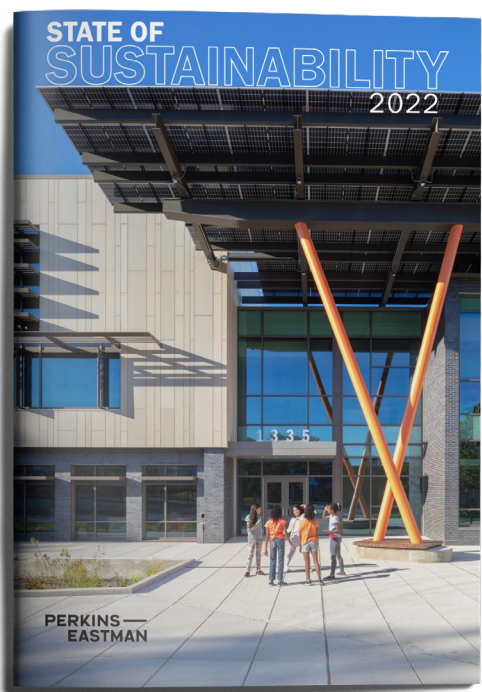
For the 2021 BEPS, DOEE uses the 2019 District Benchmark Results and Compliance Report to determine whether a building met the BEPS. Since this building was exempt from submitting a 2019 Benchmark Report, DOEE does not have a report for BEPS evaluation. Therefore, according to 20 DCMR 3530.5(d), this building does not meet the BEPS. However, please note that buildings may request to use their 2018 Benchmark Report by submitting a variance request on our website (<https://doee.dc.gov/service/building-energy-performance-benchmarking>).

Unless you submit a variance request, DOEE will continue to consider this building as not meeting the BEPS and require that you must select a Compliance Pathway through the Online BEPS Portal by April 1, 2023. All buildings that do not meet the BEPS must complete the energy performance requirements of an approved Compliance Pathway by December 31, 2026. Please note that these dates reflect a one-year delay of compliance for all buildings due to the COVID-19 Public Health

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PERKINS EASTMAN'S STATE OF SUSTAINABILITY

Take a look at our inaugural State of Sustainability report, which presents our progress to date, establishes ambitious goals to go further, and provides a road map for delivering transformative sustainable design across our firm.



For Questions, Contact
SustainabilityTeam@perkinseastman.com



05

Energy and Carbon

To address the role we play in climate change, we carefully focus on improving the energy efficiency and, more broadly, reducing the carbon associated with the construction and operation of our work. We strive to be a carbon-neutral firm, and although we have a long way to go, below are the steps we are taking to get there.

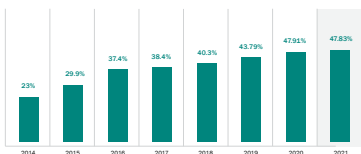
Where We Are

Perkins Eastman has been a signatory of the AIA 2030 Commitment since 2014. While we have faced challenges collecting all of the data from the portfolio of our 1,100-plus person firm, we've also made significant progress. This year, we were able to successfully submit 96 percent of our eligible projects, with only four percent being unable to submit for lack of data or other challenges like verification of international codes.

AIA 2030 Challenge

2021 Submission

Average Percentage Predicted Energy Usage Intensity (pEUI) Reduction



AIA 2030 Challenge Submission Highlights From This Year:

We submitted
267
projects in 2021

47.83%
Predicted Energy Use Intensity (pEUI) reduction

ALL 10
of our top-performing projects were designed with energy modeling software.

3
of these projects are targeting Net Zero Energy.

This equates to saving
369,294 Metric Tons of CO₂
or taking
80,281
passenger vehicles off the road every year.

21.7% **38.6%**
2020 2021
We nearly doubled the number of projects that used energy models from 2020 to 2021.

CASE STUDY

Less Is More

Perkins Eastman Pittsburgh Studio, Pittsburgh, Pennsylvania

As we were designing the space for our own Pittsburgh studio, we challenged ourselves to prove that healthier materials—for both people and the planet—could be specified on a tight time frame without exceeding the budget. Our first step was to significantly reduce our material palette at the outset so we could focus more effort on selecting quality over quantity. We eliminated rubber latex and unnecessary bookshelves, to name two examples. We also selected products that had transparency information such as Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs). We then optimized our selection by honing in on red-list-free products—those that contain no known harmful chemicals. We also introduced handmade elements from Pittsburgh-based artisans, rounding out our material palette to consider all five elements of the AIA Materials Pledge, including societal health.

Cutting the Carbon

We did a comparison of our new Pittsburgh studio with comparable recent workplace projects, and we found that our material palette reductions and design decisions resulted in 34 - 44 percent less embodied carbon.





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