

Building Energy Performance Standards
Task Force
Recommendations for Rulemaking

October 15, 2020

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Foreword

In December 2018, the District of Columbia Council unanimously passed the Clean Energy DC Omnibus Amendment Act of 2018 (CEDC Act, D.C. Law 22-257), which was signed into law by DC Mayor Muriel Bowser in January 2019. This visionary and transformational piece of legislation was crafted to implement many of the goals of the [Clean Energy DC Plan](#) and put the District on the path towards achieving carbon neutrality by 2050. Central to this legislation is the creation of the nation's first Building Energy Performance Standard (BEPS). The BEPS program builds on the District's existing benchmarking program to drive deep energy and carbon savings in the built environment, while creating jobs, enhancing quality of life for District residents, and improving equity.

Because of the major impacts the BEPS will have on the building sector in the District, the CEDC Act mandated the creation of a formal Task Force to advise the Department of Energy and Environment (DOEE), to be composed of representatives from critical stakeholder groups and appointed by the Mayor. The BEPS Task Force began meeting on a biweekly basis in December 2019 and continues to meet through the entirety of 2020 in order to discuss the detailed implementation and enforcement of the BEPS program. The Task Force has also formed numerous subcommittees to address specific topics in greater detail. Task Force meetings have been open to the public, have engaged industry experts and guest speakers where appropriate, and have invited robust discussion. This enabled the Task Force to help the District ensure this groundbreaking policy is fair, cost-effective, and achieves the intent of the legislation.

As co-chairs of the Task Force, it has been our honor to help facilitate these conversations over the past year. Following a series of well-attended stakeholder education sessions led by DOEE throughout 2019, we were excited to see this group of community leaders come together. Mayor Bowser appointed a truly outstanding group of people to the Task Force, who all have brought unique and important expertise to the table, as well as a collaborative and can-do spirit. We want to thank all Task Force members for their hard work, commitment to the District's future, and the generosity with their time. Moreover, the Task Force could not accomplish our work without the collaboration, extensive knowledge, technical support, and monumental effort the DOEE team has invested in the execution of the BEPS program and draft rulemaking. We also want to thank the many members of the public who joined the Task Force meetings and subcommittees, and brought valuable questions, insights and contributions. Their input made our discussions more well-rounded, thoughtful, and balanced.

This report accompanies the proposed rulemaking and guidance release and aims to help the public better understand why the rules look the way they do, as well as the decisions that went into them. The proposed rulemaking document was authored by DOEE. The Task Force is solely an advisory body that provides DOEE with stakeholder input on technical content, without oversight, preview, approval or endorsement on any specific language in the rulemaking and guidance document(s). Members of the Task Force will review draft documents for the first time during the public comment period and provide feedback at that time, in the same manner we hope our fellow community members will. We know there is a lot going on in the world right now, but we hope that if you have comments on the draft rulemaking and guidance documents,

you will also submit them to DOEE so the program can be made even stronger and reflect the very best ideas the District has to offer.

Finally, we know that the fight against climate change is a global one, and no one city can solve the challenge on its own. The true impact of the District's BEPS program will be seen not just here, but in the work it inspires elsewhere. We hope that our experience and lessons learned will ease the way for other cities, counties, and states to adopt similar building performance programs.

Sincerely,

Co-Chairs, BEPS Task Force

Marshall Duer-Balkind

Anica Landreneau

Matt Praske

Introduction

The intention of this report is to summarize the BEPS Task Force (TF) discussions and recommendations that helped inform the design of the Building Energy Performance Standards (BEPS) program. As the public is reviewing the draft rules and providing comments, the TF hopes this content will help the reader understand the extent of thoughtful conversation and feedback provided to the District of Columbia's Department of Energy and Environment (DOEE) during this time of implementation.

The Mayor-appointed BEPS Task Force has been an integral part of the development of the program, advising DOEE on implementation and complementary programs and policies. The outline of the industry representation of its members is available in the [Clean Energy DC Omnibus Amendment Act of 2018](#) (CEDC Act) in Title III, Section 302.b. The charge of the TF is to advise DOEE on creation of an implementation plan for the Building Energy Performance Program, recommend amendments to proposed regulations issued by DOEE, and recommend complementary programs or policies.

This report is broken down into topical sections that match the rulemaking and guidance documents released by the DOEE: the establishment of the Standards, guidance on compliance and enforcement, and a miscellaneous section with topics discussed by the TF that influenced decisions on rulemaking, but do not have a specific call-out in a corresponding document. The report is intended to be an overarching summary of the discussions, not an in-depth dive into the details, so links are provided throughout the document to point you directly to the TF online meeting notes.

Over the last 15 months, DOEE has solicited feedback from multiple stakeholders starting with the BEPS Working Group sessions in Summer 2019 and continuing with TF meetings and focus group sessions. The information from the working groups fed into the BEPS TF conversations when they started meeting in December 2019. This report covers the TF discussions through the August 2020 meetings. The TF will release a follow-up report that covers recommendations from September 2020 on and discuss other programmatic items not covered in this rulemaking report.

Setting Performance Standards

Equivalent Metric

Summary:

The CEDC Act sets the ENERGY STAR Score as the default metric for the Standards and requires DOEE to develop an equivalent metric in determining the Standards for property types that are not eligible to receive an 1-100 ENERGY STAR Score from the U.S. Environmental Protection Agency (EPA). During the working group sessions, stakeholders were presented the options to use Source Energy Use Intensity (Source EUI), Site Energy Use Intensity (Site EUI), and Greenhouse Gas Emissions Intensity for the equivalent metric. EUI represents the energy used in the building per unit of floor area. Site EUI comprises only the energy used at the site

and reflects the actual energy bills paid by the building owner. Source EUI represents the total (or “primary”) energy content, accounting for losses in generation, storage, transmission, and distribution. The EPA provides a good [summary](#) of the difference between site and source energy and what ENERGY STAR Portfolio Manager currently uses for [Source-to-Site](#) ratios for each fuel.

Most of the participants in the Summer 2019 working groups preferred Source EUI as the equivalent metric because it was the closest metric to the ENERGY STAR Score. In contrast, the TF members were evenly split between Source and Site EUI, not because either one was inherently better than the other, but they wanted to avoid confusion between equivalent metric for the Standard, and the Site EUI metric used for compliance evaluation on the Performance Pathway.

DOEE analysis found that only 5% of buildings in the District would need to use the equivalent metric, but those buildings made up 50% of the D.C. Department of General Services (DGS) portfolio, which includes most buildings owned and operated by the Government of the District of Columbia, including public schools. As a result, the TF decided to form a [Public Sector Subcommittee](#) that would recommend an equivalent metric and address other issues unique to public buildings. The subcommittee recommended that Source EUI should be the equivalent metric. The subcommittee also recommended that since the ENERGY STAR Score accounts for the total primary energy use of all fuel sources when evaluating a building's energy performance, DOEE needed to use a metric that did the same thing, in order to fairly compare different property types and properties with different fuel mixes.

The TF held further discussion and suggested that “weather-normalized” Source EUI would be the most appropriate equivalent metric since it would both adjust for weather and for fuel types.

Recommendations:

Use “normalized” Source EUI for the equivalent metric in setting the Standards for property type groups that do not receive a 1-100 ENERGY STAR Score. On April 14, 2020, the recommendation passed with 15 members voting yes and one abstention.

Meetings Discussed:

- [January 7, 2020](#)
- [February 4, 2020](#)
- [March 31, 2020](#)
- [April 14, 2020](#)
- [May 5, 2020](#)

Property Type Groupings and Medians

Summary:

The CEDC Act requires DOEE to establish property types, and BEPS for each property type. The TF reviewed feedback received from the working group session where stakeholders

recommended that DOEE should follow the EPA’s ENERGY STAR definitions for property types, but wanted to see more granularity in property type groupings when possible.

DOEE presented to the TF the following property type methodology:

1. Buildings would be first grouped by Primary Property Type determined by Portfolio Manager;
2. Buildings that can receive an ENERGY STAR Score would be grouped by the “Score Model” Type used by EPA (for example, grouping the office, financial office, courthouse, and bank branch property types together because they all use the same statistical model and reference data for determining the ENERGY STAR Score);
3. Buildings that cannot receive an ENERGY STAR Score would be grouped by EPA’s National Median [Reference Type](#); and
4. If the building cannot receive an ENERGY STAR Score and there are less than 10 buildings per National Median Reference Type, Custom Property Types would be established, in order to create larger local grouping.

The TF agreed with the first three groupings, which cover over 95% of all buildings over 50,000 gross square feet where BEPS currently applies. There was some concern about the confusion that could be created by custom property type groups, and whether the groups as initially presented were appropriate. Discussion on Custom Property Types was moved to the Public Sector Subcommittee because, for at least the first Compliance Cycle, buildings falling in this category were mostly DGS buildings. The subcommittee recommended that these buildings remain a part of their National Median Reference Type, rather than DOEE creating custom groups.

The TF discussed the lower threshold for a group that could have a local median applied to it and settled on 10 as the threshold. Below that, there are too few buildings to establish a robust Standard using local data, and the national median Source EUI (or ENERGY STAR Score, if applicable) will be used.

The TF discussed how to treat mixed-use property types. EPA’s Portfolio Manager defines a “mixed-use property” as one where no property use type makes up a majority of the floor area; based on this definition, very few buildings in the District should be designated as Mixed Use. However, for the few true mixed-use buildings, DOEE proposed to use the national median, or provide a method for building owners to apply for a blended median based on a percentage of the square footage of each property use type. The TF generally agreed with this proposal. The TF also discussed situations where EPA ENERGY STAR metrics might not be the best representation of energy performance, such as the Laboratory property type. The TF recommended that DOEE develop a method wherein building owners with special circumstances could apply for an adjusted Standard.

Additionally, the TF asked DOEE for research on the relationship between building age and ENERGY STAR Scores. DOEE’s analysis found that there is not a statistically significant relationship between building age and the ENERGY STAR Score, a finding that is consistent with what EPA and other [researchers](#) have found in the past.

In future BEPS Periods, as smaller buildings are covered, DOEE may find that there are a significant number of non-DGS buildings that cannot get an ENERGY STAR Score, and a review of the appropriate property type grouping methodology may be needed.

Recommendations:

The recommendations for the property type grouping methodology and associated medians described above was agreed upon by the TF on January 21, 2020:

- Properties eligible for an ENERGY STAR Score should be grouped by ENERGY STAR Score model. Properties not eligible for an ENERGY STAR Score should be grouped by National Median Reference Type. Property type groups with less than 10 buildings should use the National Median Source EUI as the equivalent metric.
- Property type groupings based on the age of the building were not recommended, based on DOEE's analysis that showed no statistically significant difference in ENERGY STAR Score and building age.
- For special building types, such as Laboratories, the TF determined that DOEE should allow building owners to apply to use other benchmarking tools (such as I2SL Laboratory Benchmarking tool, formerly known as [Labs21](#)) to set their Standard. All TF members present agreed on April 14, 2020.
- For mixed-use property types, the national median will be applied unless the building owner applies for a blended median. All TF members present agreed on May 5, 2020.

Meetings Discussed:

- [January 7, 2020](#)
- [January 21, 2020](#)
- [March 31, 2020](#)
- [April 14, 2020](#)
- [May 5, 2020](#)

College/University and Hospital Standards

Summary:

The CEDC Act created a carve-out for “post-secondary educational institutions and hospitals with multiple buildings in a single location.” DOEE held direct talks with the representatives of the Universities and Hospitals in late 2019 and early 2020, after which the Consortium of Universities of the Washington Metropolitan Area held its own internal meetings to create a recommendation. During the March 31 TF meeting, the representative from the Consortium presented their initial recommendations to the TF. The Consortium noted concerns with using Source EUI as the metric given the diversity of university operations, but did not have a specific recommendation on how to set the Standard. With the coronavirus (COVID-19) public health

emergency (PHE) in its beginnings, the discussion was not addressed again until late June, when the DOEE made a recommendation to the TF to create a subcommittee to develop recommendations for this carve-out, which the TF approved.

The subcommittee was composed of representatives from all universities in the District of Columbia, representatives of the DC Hospital Association, several TF members, and additional technical experts who had worked on university and hospital energy projects.

The subcommittee returned with the following recommendations:

- Campus definition refinement:
 - The campus definition should follow EPA guidance: “A campus is a collection of two or more buildings that function as a single property. They are generally owned and operated by the same party.” Single stand-alone buildings that are not near or treated as part of the physical “campus” will use the regular application of BEPS. For example, if a university owns a stand-alone office building that is not a part of the main campus, it will be evaluated against the Office Standard separately from the campus.
 - All buildings within a campus should be benchmarked together and be subject to BEPS unless a building is submetered for all energy uses and below the BEPS size threshold currently in effect, in which case it can be separated and excluded from a given BEPS Period. For example, a 40,000 square foot classroom building that is separately metered may be excluded from the campus, but a 30,000 square foot administration building that is not separately metered must be included.
 - For BEPS, all hospitals/universities buildings benchmarked as a “campus” will be treated as a portfolio for compliance purposes.
- Hospital Standard:
 - For Hospital property types that can receive an ENERGY STAR Score, the national median ENERGY STAR Score (50) should be used for the first BEPS Period.
 - For Hospital property types that cannot receive a Score, the national median Source EUI will be used.
- College/University Standard:
 - Source EUI should be the base metric.
 - However, to account for the diversity of uses on campuses, each campus would receive a Blended Custom Standard that is adjusted for only high-intensity spaces. High-Intensity spaces are a pre-set list of spaces determined by DOEE and the subcommittee to be above the College/University median, and include property types such as Laboratories, Dining Halls, Food Service, Libraries, and Data Centers. All non-high intensity spaces would be classified as “College/University.” National medians will be used to set the Source EUI for each property type, except for those types, such as libraries, where there is a sufficient local dataset.
 - If a University has multiple campuses (i.e., a main campus and a satellite campus), then they will be benchmarked and subject to BEPS separately, but both can receive their own custom Standard.

Recommendations:

There was general agreement that the recommendations from the subcommittee were a sensible approach and the TF voted to submit these to the DOEE.

Meetings Discussed:

- [March 31, 2020](#)
- [September 1, 2020](#)

Setting the Standard Above the Local Median

Summary:

The CEDC Act states the Building Energy Performance Standards shall be “no lower than” the District median ENERGY STAR Score for buildings of each property type. This implies that the Standards could be set higher than the local median. In January, the TF asked the DOEE to perform some research to help inform a recommendation. DOEE presented an analysis that examined several of the low-performing property type groups (groups with a local median below the national median) and their medians in other urban cities across the country. In examining the low-performing groups, the groups tend to either be under-resourced building types or might be benchmarking improperly. By the time the analysis was discussed in March, the COVID-19 PHE had become a bigger influence on the decision, and the TF decided that setting the Standards above the local median was not the right decision for the first BEPS Period. Setting higher Standards remains an option for DOEE in future BEPS Periods.

Recommendations:

The recommendation is to set the Standards at the District median (or national median depending on property type), whether the property type uses the ENERGY STAR Score or equivalent metric, for the first BEPS Period. The recommendation passed with 15 members voting yes and one abstention on April 14, 2020.

Meetings Discussed:

- [January 21, 2020](#)
- [March 31, 2020](#)
- [April 14, 2020](#)

Compliance and Enforcement

Vacancy/Occupancy Thresholds

Summary:

The TF questioned DOEE about whether BEPS would apply to vacant buildings and at what occupancy threshold the Standards would apply. The occupancy threshold for benchmarking a building is if there is one full-time employee in the building during the year, then the building must be benchmarked. The TF expressed concern that this threshold is too low for BEPS to apply. The TF established a subcommittee to discuss eligibility criteria for low or no occupancy exemptions and what that occupancy threshold should be. The TF added language to the effect of “average annual occupancy” to give building owners precise guidance on EPA’s recommendations. The recommendations from the subcommittee were discussed and adopted by the TF as follows.

Recommendations:

- Follow EPA recommendations for occupancy threshold
 - Set the occupancy threshold for property types the same as EPA’s recommendations:
 - Office/Bank/Courthouse/Financial Center must be at least 55% occupied
 - Hotel must be at least 60% occupied
 - Multifamily must be at least 80% occupied
 - Other building types must be at least 50% occupied
 - For building types that can receive a Score but do not have specific EPA recommendations for the occupancy threshold, the threshold should be set by EPA’s [criteria](#) for receiving the ENERGY STAR Score so long as the reason the building does not receive a Score is that they have low occupancy.
 - For all other property types that EPA does not have recommendations, set the occupancy threshold at 50%.
 - All TF members present accepted this recommendation on April 14, 2020.
- Exclusion of low/no-occupancy buildings from dataset
 - DOEE will remove low occupancy buildings when determining the Standards regardless if they apply for the exemption or not to ensure data quality.
 - All TF members present accepted this recommendation on April 14, 2020.
- Eligibility Criteria for low/no-occupancy exemption
 - Buildings that fall below the occupancy threshold for either of the preceding two years before the Compliance Cycle begins are eligible to apply for an exemption for that Compliance Cycle.
 - Recommendation passed with 16 members present; 15 voted yes/one abstained on April 14, 2020.

Meetings Discussed:

- [February 4, 2020](#)

- [March 3, 2020](#)
- [March 31, 2020](#)
- [April 14, 2020](#)
- [April 28, 2020](#)

Compliance Pathways

Performance Pathway

Summary:

The TF held early discussion about the default Performance Pathway requiring a 20% reduction in Site EUI. Concerns were raised about the difficulties buildings might have continuously reducing energy use 20% cycle after cycle, and the difficulties high-performing buildings that are close to their Standard might have in reducing energy use by 20%. Members did not wish to revise the Performance Pathway, because it sets a good baseline for the program overall, and moreover, any legislative changes would have greatly delayed the roll out of BEPS. However, several alternate compliance paths were developed to address concerns.

Recommendations:

The Performance Pathway is the default pathway set by the CEDC Act. The discussion led to a bigger conversation that created the Standard Target Pathway as an alternate pathway, as discussed below.

Meetings Discussed

- [January 21, 2020](#)

Prescriptive Pathway

Summary:

The Prescriptive Pathway discussion has been held over multiple meetings and is still in discussion at the time of this report's release. The CEDC Act charged DOEE with completing a study of the cost impacts and benefits of the BEPS program; this research is ongoing at the time of this report. Because this research would need to model potential energy efficiency measures as part of the process, it might prove useful for deciding which measures could be in the Prescriptive Pathway. The TF and DOEE decided to continue discussing the Prescriptive Pathway and use the outcomes of the research to inform the implementation of the pathway. The TF conversations discussed in this section are through the August 2020 meetings and cover the design of the framework, the development of guiding principles for the pathway, and technical assistance needed in complementary programs.

During early meetings to define the benefits and goals of the Prescriptive Pathway, members agreed that the pathway should:

- Provide cost and compliance certainty;
- Be as clear as possible;

- Help inexperienced building owners;
- Not require energy modeling;
- Buy time for future performance improvements;
- Be lower risk;
- Be property type specific; and
- Have guidance from DOEE.

The TF was split on whether to have certain measures be prerequisites, that would be required of everyone. Those that were opposed felt that DOEE could add additional weight to such items to provide additional incentive, instead of making it a requirement.

The group discussed that because the Standards will be set based on the calendar year (CY) 2019 benchmarking data, projects completed in 2019 and 2020 should be counted towards compliance but asked for a clear definition of what “completion” means. Additionally, the TF recommended that coaching and technical assistance be stood up for those who need it most, and that health and ventilation upgrades be incentivized even if they might increase energy use.

The TF liked the idea of re-examining the Prescriptive Pathway every Compliance Cycle to account for innovations and improvements to technology. The members also agreed that buildings that use the Prescriptive Pathway in one cycle and achieve compliance but do not meet a set reduction savings goal should be at risk of not being allowed to use the Prescriptive Pathway in the next cycle. However, the members recognized that if many buildings failed to meet a savings goal due to a similar reason, such as a certain measure not delivering the savings expected for any building, building owners should not be penalized for this error or systemic bias.

Recommendations:

All members were in favor of the Prescriptive Pathway being a menu of options, and the majority favored including a mixture of building upgrades and operations and maintenance measures. Projects completed in 2019-2020 should be counted towards compliance in Cycle 1.

Meetings Discussed:

- [Working Group feedback](#)
- [February 18, 2020](#)
- [March 3, 2020](#)
- [May 12, 2020](#)

Standard Target Pathway

Summary:

Working Group and TF members raised the question of how the Performance Pathway should be applied to owners of buildings that perform close to the Standard. The concern was that buildings in higher-performing property type groups (i.e., office, multifamily, etc.) with ENERGY STAR Scores close to the median for their property type might have more difficulty meeting the 20% reduction requirement since they may have already implemented the easier low-cost energy

efficiency measures, as reflected in their higher ENERGY STAR Scores. This issue is most important for property type groups where the local median is substantially higher than the national median, such as Office and Multifamily property types. Because DOEE has authority under the legislation to establish additional pathways as necessary, the TF members proposed multiple pathway options that would address this concern.

The following suggestions were considered:

- Standard Target: Buildings must raise their ENERGY STAR Score or lower their Normalized-Source EUI to meet the Standard for their property type established at the beginning of the BEPS Period.
- Gap Reduction w/ floor: Buildings must reduce the gap between their ENERGY STAR Score/Normalized Source EUI and the BEPS for their property type established at the beginning of the Compliance Cycle by 70% (maximum reduction required is 20%).
- Gap Reduction w/ no floor: Buildings must reduce the gap between their ENERGY STAR Score/Normalized Source EUI and the BEPS for their property type established at the beginning of the Compliance Cycle by 70% (no maximum reduction).

The TF asked DOEE to analyze what the prospective trade-offs would be if the recommendations were adopted. DOEE built a BEPS simulation using the latest Benchmarking data and modelled the energy and greenhouse gas emissions savings from each situation. Those projections can be found in the graphs in Figure 1 and 2. Because the 20% maximum reduction “floor” is set by the existence of the performance path, the gap reduction with no floor would require an amendment to the law; for this reason, the terms “with Base Law” and “without Base Law” are used in the graphs. These graphs use Source EUI as a proxy for ENERGY STAR Score, and hold GHG intensities flat over time.

Figure 1 – BEPS Energy Savings Simulation

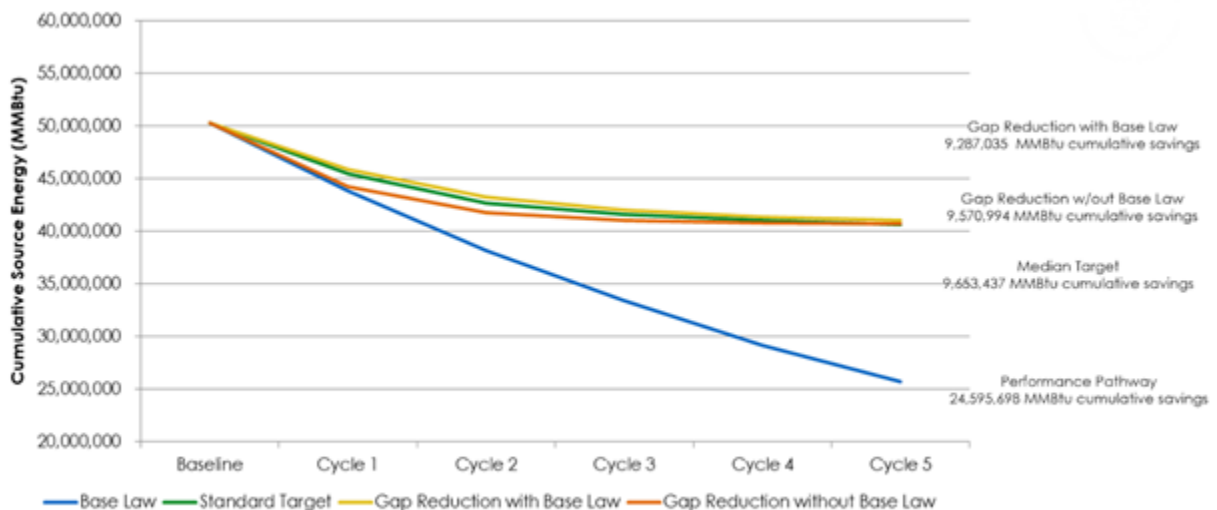
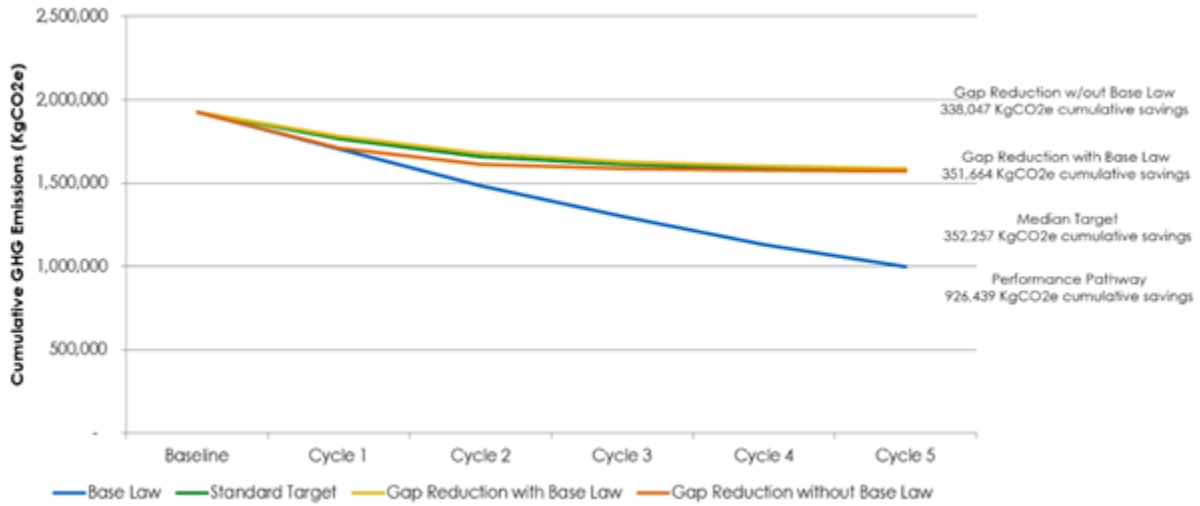


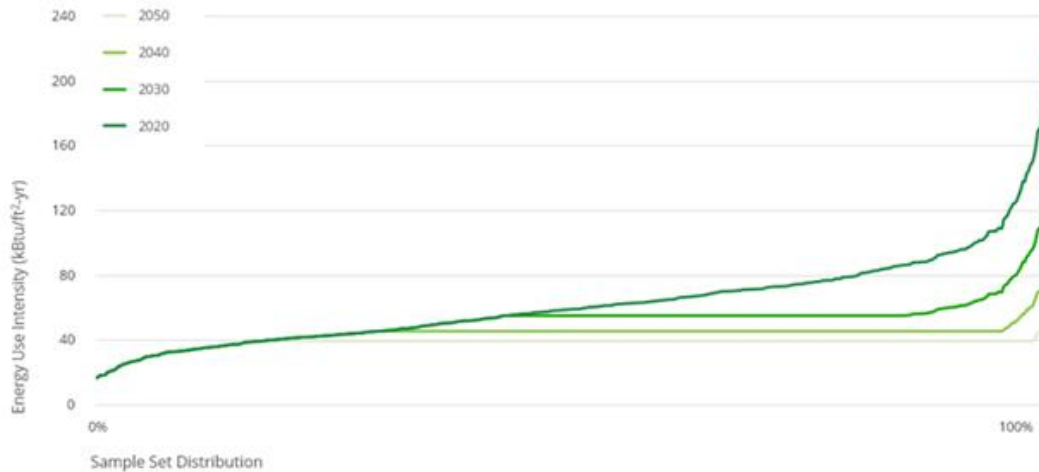
Figure 2 – BEPS Greenhouse Gas Emissions Savings Simulation



Early-on in the discussion the TF decided to not pursue the Gap Reduction scenarios because there were concerns that they would over complicate compliance for building owners and could potentially require an amendment to the law that would delay the roll-out of the BEPS regulations and program.

The TF also requested additional research to be done on how the Standard Target Pathway would affect the long-term carbon neutrality goals. Modeling was completed as part of DOEE’s carbon neutrality research that showed significant 30% average energy savings even with the Standard Target Pathway in place. This, coupled with the other actions in the carbon neutrality strategy, showed that even with the Standard Target Pathway, DC would still be on track to meet its 2032 carbon reduction goal. The savings trend can be seen in Figure 3 for multifamily buildings over multiple compliance cycles (for readability, only a few cycles are shown).

Figure 3 – BEPS Carbon Neutrality Modeling



Later in the TF meetings, DOEE proposed that the Standard Target Pathway will be limited to property type groups at or above the national median (i.e., Energy Star Score of 50 or equivalent Source EUI).

A member expressed an equity concern that the lower-performing property type groups do not get the same opportunity with the Standard Target Pathway, but another member brought up the original argument for proposing the Standard Target Pathway in the beginning; that in higher-performing buildings, achieving a 20% reduction in Site EUI is more difficult. For lower-performing property type groups, there is more opportunity for low/no-cost improvements and a greater chance to achieve a 20% reduction in Site EUI. There was no significant disagreement with DOEE's proposal to limit the Standard Target Pathway to groups above the national median.

Recommendations:

The TF did not take a formal vote on this issue but did hold several informal votes in support of some version of the Standard Target Pathway. Most members were in favor of offering it to all buildings every cycle, while some members supported restricting it to the first cycle only. Ultimately, DOEE decided to offer it every cycle to all buildings in property type groups where the Standards are at or above the national median.

The TF recommended that DOEE be as clear as possible in communicating the difference between the regular Performance Pathway (Site EUI reduction) and the Standard Target Pathway (ENERGY STAR Score/Source EUI reduction) to avoid confusion.

Meetings Discussed:

- [January 7, 2020](#)
- [January 21, 2020](#)
- [February 18, 2020](#)
- [April 14, 2020](#)
- [April 28, 2020](#)
- [May 5, 2020](#)
- [June 23, 2020](#)

Alternative Compliance Pathways

Summary:

The final Compliance Pathway laid out by the CEDC Act is a blanket statement: “other compliance pathways established by DOEE.” At multiple points during the working group sessions and in early TF discussions, the idea of Alternative Compliance Pathways (ACP) was raised. Ideas ranged from allowing green certifications to count towards compliance to an energy efficiency trading scheme (rejected ideas are covered in the “Miscellaneous” section of this report).

The TF talked about the District standing up a tradable allowances program and examined the District's Stormwater Retention Credit Trading Program as an example. DOEE noted that a similar program could be implemented for BEPS in future cycles but noted it would be too time-intensive to stand up for Cycle 1. TF members noted that private portfolio goals could be offered on a case-by-case basis as an ACP.

DOEE proposed that it would consider custom private portfolio goals on a case-by-case basis and create pre-approved ACPs for deep energy retrofits, higher education and hospitals, and property type groups with a single owner. DOEE would produce a guidance document with criteria that building owners could use to propose a custom Alternative Compliance Pathway if it differed significantly from the existing pathways. DOEE would also publish a list of approved custom ACPs and update it periodically so that building owners could see what their peers are doing. The TF did not provide specific recommendations on this guidance, but provided feedback during the August 4 meeting.

Recommendations:

DOEE should offer a pathway that will allow building owners to apply to use a portfolio goal as an Alternative Compliance Pathway on a case-by-case basis. Building ownership determination for that portfolio would have to be part of the application.

Meetings Discussed:

- [January 21, 2020](#)
- [April 28, 2020](#)
- [May 5, 2020](#)
- [August 4, 2020](#)

Deep Energy Retrofit Pathway

Summary:

During several meetings, the idea of a Deep Energy Retrofit Pathway was discussed. One benefit of a Deep Energy Retrofit Pathway is to incentivize or encourage building owners to complete deeper retrofits earlier in the BEPS program. Owners using this pathway would be considered compliant for future cycles. This would save money for buildings owners and help the District meet its climate goals sooner. Some TF members, however, expressed the concern that building owners wanting to do deeper retrofits would need extra time to complete the project due to certain circumstances.

The TF noted that this was an important issue for the affordable housing sector because it would allow building owners to maximize energy efficiency upgrades during a building recapitalization when owners have more access to financing sources. Additionally, members noted the need to provide certainty and reward building owners for going above the existing Compliance Pathways. DOEE noted that building owners can apply for a delay of compliance to have more time to complete the retrofit (covered later in this report). TF members liked the idea of modeling high energy savings early and then meeting them within 1-2 cycles in exchange for

compliance for following cycles. At the time of this report, the framework of the Deep Energy Retrofit Pathway is beginning to be discussed by the TF.

Recommendations:

Buildings that do not meet the Standards at the beginning of the Compliance Cycle may submit to DOEE a compliance plan that shows a Deep Energy Retrofit with modeled energy savings greater than X% in return for 2-3 cycles of compliance. All TF members present at the May 5, 2020 meeting agreed with this recommendation. The exact percentages are a subject of ongoing discussion by the TF at the time of this report.

Meetings Discussed:

- [January 7, 2020](#)
- [January 21, 2020](#)
- [April 14, 2020](#)
- [May 5, 2020](#)

College/University and Hospital Pathways

Summary:

In addition to discussing the Standards carve-out, the campus sub-committee considered possible Compliance Pathways for higher education and hospital campuses, but settled on the following recommendation:

- For College/University and Hospital campuses, the default pathway is the Performance Pathway with the option to choose the Standard Target Pathway. A Prescriptive Pathway for campuses would not be an option, due to the complexity of campus energy management.

At the time of this report, the subcommittee had decided to do additional work to consider the framework for a campus Deep Retrofit Pathway. TF members who have worked with or in universities observed that campus energy master plans and district energy system overhauls will take more than one cycle to complete, and can sometimes take 10 or 15 years. The goal of a Deep Retrofit Pathway for a university or hospital campus is to provide institutions with this additional time in exchange for the deep energy savings that such a plan can deliver.

In addressing considerations for financial hardships, zoning issues, historical districts and buildings, and other issues specific to campuses, the DOEE and the subcommittee feel that the existing proposed rules create the adequate framework for institutions to apply for delays or custom Alternative Compliance Pathways.

Recommendations:

There was general agreement that the recommendations from the subcommittee were a sensible approach and voted to submit these to the DOEE.

Meetings Discussed:

- [September 1, 2020](#)

Property Type Groups with a Single Owner Pathway

Summary:

Early in the TF meetings, the DGS representative expressed the concern that several property type groups were wholly owned by the District. In the general application of BEPS, building owners have an expectation that they could make enough improvements so that all their buildings could meet the Standards in a future cycle. In the situation where one building owner owns 100% of a property type group, 50% of their buildings will fall below the Standards every single cycle and thus that owner cannot have the same expectation. That building owner then might have to keep doing retrofits on the same set of buildings every cycle. The public sector subcommittee was tasked with creating a recommendation on how to address this issue.

The subcommittee recommended to the TF that property types with a single ownership entity should be allowed to use a portfolio-wide goal for that property type group as an Alternative Compliance Pathway. The portfolio-wide goal allows them to count major capital improvements towards their goal regardless of the building. TF members agreed with this approach, but noted that as the square footage applicability of BEPS drops, these property types might no longer be eligible for this approach as new buildings with other owners come into the program.

Recommendations:

In property type groups where one building owner owns all the buildings in that group, the owner would be allowed to apply to use a portfolio goal for those buildings as an Alternative Compliance Pathway. All TF members present on May 5, 2020, agreed with this recommendation.

Meetings Discussed:

- [January 7, 2020](#)
- [January 21, 2020](#)
- [March 31, 2020](#)
- [April 28, 2020](#)
- [May 5, 2020](#)

Reporting/Verification

Summary:

The topic of reporting and verification was lightly touched upon during the two sessions in which DOEE previewed the content of the draft rules. DOEE and the TF acknowledged that for many of the Compliance Pathways, the building owners' submission of the annual benchmarking report would be the main method of reporting compliance at the end of the cycle. The CEDC

Act's new requirement for periodic third-party verification of benchmarking data is an important element of ensuring these submissions will have the rigor needed for this use.

DOEE discussed that the Performance Pathway is the default pathway for all buildings, but if an owner wants to use a pathway other than the default, they would have to notify DOEE by a certain date of the second year of the cycle (with multiple options for extensions). Several TF members took exception with making this commitment within a year and supported more flexibility rather than "locking-in" to a pathway. The members also stated that building owners may need more time (for the first and future cycles) to understand requirements, hire professionals, and submit a plan.

Most reporting and verification issues have to do with the Prescriptive Pathway, which was not complete at the time of this report or discussed in TF meetings.

Recommendations:

The TF expressed general support for an opt-in to the Prescriptive Pathway versus opt-in to any pathway other than the default. Most TF members preferred giving more time at the beginning of the Compliance Cycle for pathway selection rather than the end.

Meetings Discussed:

- [March 3, 2020](#)
- [May 12, 2020](#)
- [June 23, 2020](#)

Delay of Compliance

Summary:

The CEDC Act lays out a number of conditions that could necessitate a delay of compliance with the energy performance requirements. The TF provided feedback for refinement, rather than building a new structure. The TF first discussed this issue by reviewing the recommendations of the National Housing Trust and Housing Association of Nonprofit Developers' (NHT/HAND) report for [Implementing BEPS in Affordable Multifamily Housing](#) that focused on issues related to the affordable housing sector. The discussion focused on the need for a procedure to review unique cases, and that affordable housing should not be exempt from the Standards, but instead have a specialized Compliance Pathway and targeted financing mechanisms that reflect their unique challenges.

In a review of the refined delay of compliance guiding principles and criteria on August 18, several TF members expressed concern about requiring additional savings if a delay of compliance is granted. DOEE responded that the additional savings requirements would not be automatic, but depend on the situation. A delay would not negate the need for savings in the second cycle, especially if the building was far below the Standard. TF members were split on whether to leave the delay request option open during the entire cycle, or to only allow requests during the last two years of the Compliance Cycle.

DOEE and TF discussed who would review the requests for delays. TF members thought there might be a large volume of requests in the first cycle (due to a variety of reasons) and it may not be feasible to funnel through the Green Building Advisory Council or the BEPS Task Force, but that “precedent-setting” requests could go to a body for review.

Recommendations:

No formal recommendations put forward, but TF provided feedback on the framework.

Meetings Discussed:

- [February 4, 2020](#)
- [March 31, 2020](#)
- [April 14, 2020](#)
- [April 28, 2020](#)
- [May 12, 2020](#)
- [August 18, 2020](#)

Penalties

Summary:

DOEE acknowledged early in the meetings that certain aspects of the penalty and enforcement process are outside the scope of the BEPS Task Force’s ability to influence. Namely, the penalty amounts, which shall be based on the estimated cost of compliance, and the enforcement process itself, which is determined by District government standard operating procedures. As a result, TF focused on providing recommendations to the DOEE on the goals of a penalty structure, its ability to incentivize action rather than non-compliance, and a framework that is fair, understandable, and easy to enforce.

Over several discussions, the TF provided the following feedback:

- Penalties should generally be greater than the cost of compliance, to avoid a scenario where non-compliance becomes a cost-effective approach;
- Penalties should be based on the percentage of achievement towards the goal; and
- Penalties should be based on building size (at the time, “building size” not defined yet — the TF thought “size” might be different per property type).

Commercial building representatives expressed the need for certain language in describing the penalties so that fines could possibly be passed through to commercial tenants. The TF settled on the term “alternative compliance payments” as a possible alternative (fines are called “alternative compliance penalties” in the legislation). Several members expressed concern about landlords passing down penalties to tenants, especially in affordable housing situations.

Recommendations:

- Penalties should be based on the percentage of achievement towards the goal. On February 18, 2020, all present TF members voted in favor of this.
- Penalties should be based on building size. On February 19, 2020, all TF members present voted in favor of this but requested more research on the best definition of building size.
- On May 5, 2020, there was consensus among TF members that the DOEE preference for a framework built on square footage bins and distance from the target is acceptable.

Meetings Discussed:

- [February 4, 2020](#)
- [February 18, 2020](#)
- [April 28, 2020](#)
- [May 5, 2020](#)
- [May 12, 2020](#)
- [June 23, 2020](#)

Miscellaneous

COVID-related Adjustments

Summary:

Based on several discussions in the TF and meetings with specific stakeholders, DOEE decided to make several adjustments to the BEPS program as a result of the COVID-19 PHE. These adjustments are listed below:

- A 1-year delay of the compliance deadline, from January 1, 2026 to January 1, 2027 in draft regulations.
- Proposed regulations will be postponed until at least the end of the summer and will have a public comment period of 60 days, rather than 30 days, to allow building owners more time to submit comments.
- DOEE, in partnership with the DC Sustainable Energy Utility, will provide free energy data verification per the requirements in the law.
- Calendar year 2020 data will not be factored into the setting of the Standards.

In the June 9, 2020, meeting, the TF expressed the consensus that they like the 1-year delay of the compliance deadline instead of delaying the start of the program. DOEE had already decided to write into the draft rules that building owners would be able to request either CY2018-19 or CY2019-20 for the performance baseline. TF members liked this adjustment for multiple reasons, not just COVID-based.

The TF expressed concern about the extended comment period and the ability to get the rules finalized by the end of the calendar year. General TF consensus was to get the rules out for public comment sooner, but allow for the 60-day comment period.

Meetings Discussed:

- [June 9, 2020](#)

Affordable Housing Considerations

Summary:

Affordable housing considerations are difficult to summarize in this report as they were discussed in some manner throughout all the TF meetings. The recommendations of the NHT/HAND [report](#), presented at the February 4, 2020, meeting, have been and continue to be discussed and considered throughout the rule development process. DOEE has been working with a focus group with the four TF members that represent the affordable housing industry and other participants, and issues are brought to the TF's attention as needed.

Meetings Discussed:

- [February 4, 2020](#)

Solar/Renewables

Summary:

The inclusion of solar into the BEPS program was brought up multiple times throughout the TF meetings. In the working group sessions, the participants recommended that solar be allowed on the Prescriptive Pathway, but only if paired with other energy efficiency measures like a roof replacement. In earlier meetings, the TF recommended that solar be counted for the Performance and Prescriptive Pathways. After several discussions, DOEE decided to outline its position on solar and how it could be incorporated into the BEPS program, discussed in the June 23 and July 7, 2020 meetings.

DOEE position on BEPS and solar:

- To meet 2032 goals, the District needs a program that ensures “efficiency first” — BEPS must remain primarily a demand reduction program to enable 10% solar carve out compliance AND carbon neutrality.
- BEPS already includes solar through ENERGY STAR [benchmarking](#), as electricity generated by on-site, behind-the-meter solar power has a Site:Source ratio of 1:1, and thus reduces the building's overall Source EUI and increases the building's ENERGY STAR Score.
 - Buildings can use on-site, net-metered solar photo-voltaic (PV) systems to meet the Standards, and thus avoid being placed in a Compliance Cycle during a BEPS Period.

- Buildings in property types where the ENERGY STAR local median is at or above the national median can use on-site, net-metered solar to support compliance through the Standard Target Pathway.
- Campuses with Source EUIs above their custom targets can use on-site, net-metered solar to reduce their Source EUI to meet their blended custom Standard.
- BEPS does not disincentivize buildings from installing solar.
 - BEPS does not require building owners to retire or sell Solar Renewable Energy Certificates (SRECs), and neither does ENERGY STAR certification.
 - Installing solar does not inhibit a buildings ability to install energy efficiency measures or vice versa—though buildings should aim to align the timing of solar installs and roof replacements to minimize costs
- The District already has a some of the strongest solar incentives and solar programs in the country, including:
 - DOEE’s Solar For All
 - Renewable Portfolio Standard + Solar Carve-out + SREC market

For specific discussion on solar, please see the June 23 and July 7, 2020 meeting notes. At the July 7 meeting, one TF member expressed disagreement with the DOEE position. Other TF members did not express agreement or disagreement.

Meetings Discussed:

- [May 5, 2020](#)
- [June 23, 2020](#)
- [July 7, 2020](#)

Historical Districts/Buildings

Summary:

Several times in earlier meetings, the TF expressed the concern about the ability of historical buildings or buildings in historical districts to comply with BEPS and might need special treatment in the rules. After some research and discussion with other agencies, DOEE expressed the opinion that historic restrictions do not mean efficiency work cannot happen, only that it might take longer or cost more to complete, and the delay of compliance criteria would cover these scenarios. The TF generally agreed and thinks it should be considered on a case-by-case basis.

Meetings Discussed:

- [May 5, 2020](#)

District Energy Systems

Summary:

In a January meeting, a public participant expressed concern about those buildings that are on district energy systems and their ability to make improvements. The TF considered whether buildings on district energy systems (outside of university/hospital campuses) should receive special treatment in the rules. DOEE stated that they do not think special treatment in the rules is required. The TF expressed general agreement that it's not worth creating a rule given the limited number of affected buildings in the District and that consideration needs to be applied on a case-by-case basis. The most important issue for district energy systems that serve buildings owned by multiple entities is to encourage buildings to stop relying on estimated bills and install submetering so that actual usage can be applied.

Meetings Discussed:

- [May 5, 2020](#)

Third-party Certification Programs

Summary:

The TF discussed using third-party certification programs (such as Leadership in Energy and Environmental Design (LEED), Enterprise Green Communities, etc.) as an Alternative Compliance Pathway or to report compliance. Members brainstormed several potential certifications that could be acceptable for BEPS, but agreed that the certifications must have comparable outcome-based energy performance requirements. Members also noted that compliance by way of certification added additional work over the other Compliance Pathways and advised that it is simpler to offer a pathway aligned to the certification but not require the actual certification.

After DOEE presented additional research, TF members agreed that certifications are not a good alternative to the existing Compliance Pathways. In most cases, the certification required meeting energy targets that were well above the BEPS, so building owners could use the certification frameworks as a way to organize their efforts in the Performance Path, but DOEE would not create specific pathways around the certifications. TF members felt that Enterprise Green Communities should still be considered for the affordable housing sector (still being considered at the time of this report). TF members did observe that in the future, as buildings in the District get more efficient and the average Site EUIs decrease, BEPS may need a cutoff wherein a Net Zero Energy-ready building would be considered compliant and not required to reduce energy use or emissions.

Meetings Discussed:

- [January 21, 2020](#)
- [February 18, 2020](#)

Appendix A – Meeting Note Links

BEPS Task Force Meeting Notes

- [December 10, 2020](#)
- [January 7, 2020](#)
- [January 21, 2020](#)
- [February 4, 2020](#)
- [February 18, 2020](#)
- [March 3, 2020](#)
- [March 31, 2020](#)
- [April 14, 2020](#)
- [April 28, 2020](#)
- [May 5, 2020](#)
- [May 12, 2020](#)
- [May 26, 2020](#)
- [June 9, 2020](#)
- [June 23, 2020](#)
- [July 7, 2020](#)
- [July 21, 2020](#)
- [August 4, 2020](#)
- [August 18, 2020](#)
- [September 1, 2020](#)

BEPS Working Group Session Notes

- [Financial Resources and Incentives](#)
- [Program Structure and Implementation](#)
- [Technical Assistance and Training](#)
- [Energy Efficiency Strategies](#)
- [Working Group Key Takeaways](#)

Appendix B – Acronyms

ACP – Alternative Compliance Pathway
BEPS – Building Energy Performance Standards
CEDC Act – Clean Energy DC Omnibus Amendment Act of 2018
COVID-19 – Coronavirus disease 2019
CY – Calendar year in reference to benchmarking data
DGS – Department of General Services
DOEE – Department of Energy and Environment
EPA – U.S. Environmental Protection Agency
EUI – Energy use intensity
LEED – Leadership in Energy and Environmental Design
PHE – Public health emergency
PV – Photo-voltaic
SREC – Solar Renewable Energy Certificates
TF – BEPS Task Force