

Mandating Building Efficiency while Preserving Affordable Housing: Opportunities and Challenges

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ABSTRACT

States and cities are increasingly looking at mandatory building energy performance standards (BEPS) or emission caps to reduce carbon emissions from large buildings and meet their greenhouse gas (GHG) reduction goals. The emergence of these policies raises several important equity considerations, including the potential for increasing financial burdens on providers and renters of affordable housing. This paper examines how policies to regulate energy use in buildings are and can be designed to ensure that low- to moderate-income households and communities of color are not negatively impacted. It compares the various approaches cities and states are taking to address affordable housing with these policies and the complementary policies they are adopting to help affordable housing owners comply with the requirements. It also includes a deep-dive look at the implementation of Washington, DC's BEPS policy, including the results of a stakeholder engagement process that occurred to inform how the city should reflect the unique challenges faced by affordable housing owners as part of the city's rulemaking process.

Introduction

In an effort to meet ambitious climate goals, some cities have taken bold actions to move beyond voluntary energy efficiency programs to mandatory requirements aimed at reducing carbon emissions and improving the efficiency of their buildings – often their largest sources of emissions (ACCC 2019). These policies, those passed and those on the horizon, largely target large commercial buildings. While implementation details are still being hammered out in places where these laws passed, energy efficiency is likely to be the first solution among building owners to meet performance and/or emissions standards, leading to what is estimated to be “billions in cost saving opportunities” for owners and tenants (Majersik 2019). Such policies are also expected to generate local jobs, improve community resilience, and make for healthier housing. However, as is true with all climate policies, the equitable distribution of economic, social, and environmental benefits is contingent on policy design and implementation that is inclusive of communities that disproportionately bear the burdens of energy production and consumption.

While we have seen an increasing number of localities adopt and propose policies to require benchmarking, audits, and prescriptive energy saving measures for large buildings, Washington, DC, and New York City were the first to establish laws that will require large numbers of public and private buildings to meet energy performance standards (Washington, DC's Clean Energy DC Omnibus Act and New York City Local Law 97). A major difference between the two laws is their treatment of large, affordable multifamily buildings, which are home to many low-income households as well as renters throughout cities. While they are covered under Washington, DC's law, New York City (at the present time) largely exempts

affordable multifamily buildings from the emissions caps.¹ The decision to include affordable multifamily buildings, subsidized and unsubsidized, under these laws can be a challenging one.² These buildings are part of the emissions landscape in major cities, but owners face real financial and capacity constraints that can make compliance difficult without jeopardizing affordability for residents. For these laws to be equitable, and for the sake of preserving affordable housing, they must be designed and implemented in a way that includes large, affordable multifamily housing so that residents and owners can benefit from widespread investments in building efficiency.

In this paper, we briefly describe developments in five cities that relate to the establishment of building energy performance standards (BEPS) and/or minimum energy requirements for buildings, and specifically the treatment of affordable multifamily housing in these existing or proposed policies (Boulder; Washington, DC; New York City; St. Louis; and Reno). In addition to exemption and inclusion criteria, we also provide details on their mandated processes for engaging the affordable housing community throughout the design and implementation stages (if applicable). Washington, DC, for example, recently completed a stakeholder engagement process. We summarize the more general recommendations that came from that process and that are likely to inform efforts to sustainably scale required building retrofits in affordable multifamily buildings (i.e., not place undue financial burdens on providers and residents of affordable multifamily housing). We compare the various approaches cities are taking to address affordable housing in existing and proposed legislation, as well as complementary support and services being proposed to help affordable housing owners comply with the requirements. While our main emphasis is on policies pertaining to large buildings, the affordable housing stock varies greatly across localities and the implications for affordable housing depend on the unique make-up of this sector (i.e., single-family, small, medium, or large multifamily) in each location.

Scaling Energy Efficiency in Affordable Multifamily Buildings

The Need

Mandatory energy efficiency standards can be a positive development for owners, developers, and residents of affordable multifamily buildings and can serve as a leading strategy for preserving affordability of these units (Norton et al. 2017; Samarripas and York 2019). Whole-building energy and water efficiency can reduce operating, maintenance, and utility costs for owners, while making units healthier and more comfortable for their residents (Philbrick et al. 2014). Additionally, energy affordability is a major issue for low-income households residing in multifamily buildings. Research suggests that many of these households devote more than 6% of their income to energy costs, live in less energy-efficient housing, and pay a higher utility cost per square foot than the average household (Drehobl and Ross 2016). Higher energy burdens also correlate with negative health impacts and increased stress, often forcing low-income households to choose between paying energy bills and meeting other essential needs.

For these reasons, residents and owners of affordable multifamily buildings stand to directly benefit from energy-efficient upgrades in their units and buildings. In fact, the potential

¹ While this is true at the time of writing, New York City is still making decisions regarding the treatment of buildings with rent-regulated and/or -subsidized units.

² In this paper, we use the terms “unsubsidized” and “naturally occurring affordable housing (NOAH)” interchangeably to refer to apartments with rent below the median market rent without housing subsidies.

savings are large (McKibbin et al. 2012). Still, many of these buildings suffer from historical disinvestment and low cash reserves, among other challenges that make investing in and implementing energy efficiency upgrades in this sector challenging.

Challenges

The major barriers to implementing energy efficiency upgrades for affordable multifamily building owners are upfront capital needed to make the investments, time and capacity required to undertake building upgrades, and return on investment given the responsibility for utility payments (Samarripas and York 2019).

Lack of upfront capital: Affordable multifamily property owners are less likely than other property owners to have sufficient upfront capital to invest in building upgrades and are often faced with a backlog of capital improvements (Ross, Jarrett, and York 2016). Even when low-cost financing and incentives are available, property owners may face restrictions because of existing loans or a limited timeframe to incorporate energy efficiency upgrades into a refinance or major renovation.

Limited time and capacity: Many owners of affordable multifamily buildings and/or the operations and maintenance staff lack the technical knowledge and/or time to evaluate or prioritize energy efficiency upgrades. Everyday maintenance and repairs can hinder their ability to evaluate, initiate, and pursue energy efficiency, despite an immediate need. These same staff also need to be equipped and trained to operate and maintain new building equipment, systems, and controls as intended to achieve energy savings over time.

Split Incentive: Nearly 40% of renters live in apartment buildings (ACS 2018). The lack of energy efficiency upgrades in renter-occupied buildings is often attributed to split incentives. In individually metered buildings, renters are often responsible for their energy bills, so owners do not have an incentive to reduce the units' utility bills through investing in efficiency. On the other hand, renters, especially low-income renters, have limited ability to upgrade their units on their own, especially if the measures are structural and more costly.

Segmenting the Affordable Multifamily Market

This analysis focuses on the treatment of affordable multifamily buildings under policies that mandate energy performance. The term “affordable multifamily buildings” can refer to buildings (typically 5+ units) with varying types of ownership and subsidy structures, as well as buildings that provide low-cost housing without any subsidies or income restrictions. A common way of segmenting the market includes:

Public housing authority-owned multifamily buildings: This refers to buildings owned and operated by a local public housing authority where residents typically pay no more than 30% of their income on rent and utilities.

Privately owned, subsidized multifamily buildings: These buildings are owned and operated by private individuals but receive project-based rental subsidies or low-cost financing to keep

rents affordable. This can include properties that receive Project-Based Section 8 subsidies and/or Low-Income Housing Tax Credits.

Unsubsidized, naturally occurring affordable multifamily buildings: These properties are privately owned and, because of location, building condition, and amenities, rent at rates that are below the median market rent level without housing subsidies. These properties may be subject to local rent control law where such laws exist.

In addition, depending on the market, affordable multifamily housing may be concentrated in large buildings (50+ units) or in much smaller buildings (as few as 4 units), as well as single-family houses. As we discuss below, policy must be designed to respond to the unique make-up of the affordable housing sector in each location (Bastian 2020).

Methods

To better understand the treatment of affordable multifamily buildings in recent legislation (both passed and proposed) that mandates energy saving requirements, building energy performance standards (BEPS), and/or building emissions caps, we compared legislation among cities leading the way and interviewed key stakeholders who played a role in policy design and/or implementation in each locality. Research and interviews focused on eligibility criteria relating to affordable multifamily buildings and, more qualitatively, reasoning behind the inclusion/exclusion of these property types and specific policy design, as well as the extent to which such decisions were informed by the affordable housing sector serving these communities.

We also provide a case study on the affordable housing stakeholder process that was developed to inform the implementation of Washington, DC's new building energy performance standards (BEPS) as they relate to affordable multifamily housing developers and owners in the District. This is a model that may be replicated in other cities where similar policies take hold and there is an interest in accommodating the unique challenges these owners face. Additionally, we provide an overview of the more generalizable recommendations developed from this process that can help ensure that owners have the financial and technical resources to comply with such requirements.

Existing and Proposed Policy Comparison

Table 1 presents key features of energy efficiency and/or emissions standards in five cities that have passed such legislation. It references the main requirement of the legislation, how it treats affordable multifamily buildings (i.e., whether they are covered under the policy and if additional support is provided to owners of such buildings for compliance), the percentage of affordable multifamily units covered under the policy, and whether the policy mandates an advisory board that includes representatives from the affordable housing sector. Together, these characteristics provide a sense of the effects these types of policies will have on affordable multifamily buildings and some implications of different policy designs.

Table 1. Policy Comparison of Recent and Proposed Legislation

City (Year adopted)	Standard/Requirement	Treatment of affordable multifamily/additional support for multifamily buildings	Estimated % of affordable multifamily units covered	Advisory board requirement defined in ordinance
Washington, DC (2019)	<p>The Clean Energy DC Omnibus Act of 2018 states that, starting in 2021, owners of buildings over 50,000 sq ft that are below a specific energy performance threshold will be required to improve their energy efficiency.</p> <p>The law directs the DC Department of Energy and the Environment (DOEE) to establish the building energy performance standard and requires that the standard be no lower than the District median ENERGY STAR score for buildings of each property type.</p>	<ul style="list-style-type: none"> Affordable multifamily buildings covered under law³ No-cost technical support provided to building owners regarding compliance options At least \$3 million/year assistance to support affordable housing and rent-controlled buildings with compliance with BEPS May establish an exemption criterion for qualifying affordable housing buildings to delay compliance with the BEPS for more than 3 years, provided that the owner demonstrates, to the satisfaction of DOEE, financial distress, change of ownership, vacancy, major renovation, pending demolition, or other acceptable 	75%	<p>Building Energy Performance Standards Task Force must include at least one person from each of the following groups:</p> <ul style="list-style-type: none"> Affordable housing developer Affordable housing operator Representative from a rent-controlled apartment building Representative from the city agency that administers affordable housing programs Provider of energy efficiency or renewable energy services to large buildings or affordable housing in the District

³ Under Washington, DC’s law, affordable housing refers to buildings that are primarily residential, contain 5 or more dwelling units and 1) in which use restrictions or other covenants require that at least 50% of all of the building’s dwelling units are occupied by households that have household incomes of less than or equal to 80% of the area median income, or 2) the building owner can demonstrate that at least 50% of the dwelling units rent at levels that are affordable to households with incomes less than or equal to 80% of the area median income.

		circumstances as determined by DOEE by regulation		
New York City (2019)	<p>Local Law 97 requires all buildings 25,000 sq ft or larger to meet new standards for reducing their emissions beginning in 2024.</p> <p>The law sets building emissions limits for specific building types based on the occupancy group of the building. Emissions limits are calculated by multiplying the building emissions intensity limit for the occupancy group of the building by the building's gross floor area (in square feet).</p>	<p>Most affordable multifamily buildings are exempt early in the early years of implementation. Specifically, the following entities are exempt:</p> <ul style="list-style-type: none"> • Income-restricted buildings by qualifying limited-profit housing companies (until 2035) • Buildings with rent-regulated units • City-sponsored cooperatives • Buildings that participate in project-based federal housing programs (but they are required to implement a prescriptive package of energy savings measures) • Housing development or building on land owned by the New York City Housing Authority 	<p>All deed-restricted affordable housing is exempt from meeting the 2024 requirements. However, 75% will need to meet future GHG requirements and remaining 25% are required to do the same prescriptive work as properties with one or more rent-stabilized units. NYCHA properties are exempt from meeting all GHG requirements but must try to meet a 40% reduction.</p>	<p>The mandated Advisory Board does not require inclusion of affordable housing representatives.</p>
Boulder, CO (2010)	<p>SmartRegs requires all licensed rental housing in Boulder to meet a minimum energy efficiency standard for rentals (MESR). Upgrades are often triggered by rental license renewal.</p>	<p>Exemptions:</p> <ul style="list-style-type: none"> • Mobile homes • Units built after 2001 • Units have already gone through city's weatherization program <p>Boulder offers complementary support through its EnergySmart program:</p>	<p>100% of rental housing covered under law (single- and multifamily units)</p>	<p>For design, goal setting, technical support, and outreach, Boulder consulted with the Boulder Area Rental Housing Association for direct input from property</p>

	Residential properties achieve compliance by earning more than 100 points based on installing energy efficiency measures from a prescriptive checklist or through a performance pathway by receiving a HERS score of 120 or below. ⁴	<ul style="list-style-type: none"> • No-cost technical assistance • Help scheduling contractors for energy efficiency improvements • Incentives beyond those offered by the utility 		owners (Petersen and Lalit 2018).
Reno, NV (2019)	<p>Energy and Water Efficiency Program ordinance requires city buildings 10,000 sq ft and larger and non-residential and multifamily buildings 30,000 sq ft and larger to meet building performance standards and/or complete an energy audit or retuning.</p> <p>A building owner can demonstrate compliance with the energy performance standard by receiving an ENERGY STAR score of 50 or higher, demonstrating an energy use intensity (EUI) equivalent to or better than the performance of 50 percent of all similar building types, improving its ENERGY STAR score by 15 percent over a</p>	<ul style="list-style-type: none"> • All multifamily buildings are covered, except if a low-income, multifamily housing building has an Enterprise Green Communities certification. If so, it is exempt from the requirements for 3 years from the date of the issuance of the certification or 6 years from the date of the issuance of the certification if the building owner supplies a retuning report during the first 3-year period. 	Not currently known. City has just received the first reports under the ordinance, so it is just beginning to understand the implications for affordable housing.	No mandated advisory committee.

⁴ http://rmi.org/wp-content/uploads/2018/05/Better-Rentals-Better-City_Final3.pdf

baseline year, or demonstrating a 10 percent reduction in EUI relative to a baseline year.⁵

St. Louis (2020)	The Building Energy Performance Standards require large commercial, multifamily, institutional, and municipal buildings (50,000 sq. ft. and larger) to reduce energy use to meet an energy performance standard. The law requires the performance standard to be set at no lower than the 65th percentile site EUI for buildings of each property type. ⁶	Qualified affordable building(s) will have a compliance cycle of 6 years (instead of 4 years like other covered building types) to give owners adequate time to work through financing and capacity constraints. ⁷	No analysis of what percentage of affordable housing will have to comply.	The Building Energy Improvement Board must include: <ul style="list-style-type: none">• Affordable and/or multifamily housing representative• Affordable housing tenant
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Source: Boulder 2019; District of Columbia DOEE 2019; New York City 2019; Reno 2019; St. Louis 2020.

⁵ http://renocitynv.iqm2.com/Citizens/Detail_LegiFile.aspx?Frame=&MeetingID=1725&MediaPosition=&ID=10490&CssClass=

⁶ <https://www.stlouis-mo.gov/internal-apps/legislative/upload/as-amended/BB219AACombined.pdf>

⁷ Under the proposed bill, “Qualified affordable building(s)” means a building in which a majority of the households in the building make less than 80% of the Area Median Income for the City of St. Louis.

Implications of Different Building Energy Requirements for Affordable Multifamily Buildings

In reviewing the policies and strategies outlined in Table 1, a few key takeaways emerge:

1. *Cities have varying policy approaches to require energy-saving upgrades in affordable multifamily buildings. We can learn from those already implemented and those being designed.* There is a spectrum of policy options for requiring upgrades to affordable housing units in multifamily buildings, ranging from prescriptive pathways to customized, deeper retrofits. Boulder has rolled the process into its rental licensing certification program, and owners have flexibility in deciding how they meet the minimum energy efficiency standards. On average, owners spend about \$3,000 per unit to reach compliance. Under this checklist-based approach, all rental units in multifamily buildings are covered, and in less than 10 years, all rental units are under compliance throughout the city. Cities with more-stringent energy efficiency standards will cover fewer units because of size criteria, but they will likely achieve greater savings in the buildings that are covered under the policy. With more stringency and the potential for greater savings, like in St. Louis and Washington, DC, the affordable multifamily sector will need more upfront capital and other resources to comply effectively.
2. *With proper support, policy stringency does not have to determine exemption of affordable multifamily buildings.* While the details of the more-stringent building energy/emissions performance standards are still being worked out, cities are hopeful that owners of affordable multifamily buildings will comply with proper support. Cities like Washington, DC, and St. Louis are thinking carefully about how to design compliance pathways and financial and technical resources for these owners. While New York City has initially exempted most affordable multifamily buildings from meeting the emissions caps, certain segments will face delayed compliance and/or be required to implement a prescriptive package of energy savings measures. As these three cities consider unique exceptions and support to make compliance feasible, they are likely to serve as testbeds for the inclusion of affordable housing for other cities looking to do the same. Exempting affordable housing from these policies outright will result in inequitable outcomes if it means denying under-resourced renters the benefits of living in energy-efficient, healthier homes. The key will be policy designs that are inclusive of the affordable multifamily sector, while also addressing the real technical, capacity, and financial restraints that make compliance challenging.
3. *Models for aligning financial and technical support with building energy efficiency requirements and/or energy performance standards are emerging.* For each of the cities analyzed above, building energy efficiency requirements and/or energy performance standards were introduced following existing building energy benchmarking legislation and are part of an suite of clean energy policies and resources. In all cases, the cities and the energy utilities that serve them had efficiency programs and financing tools in place to assist building owners in making the upgrades necessary to comply. Some are working on additional resources that will support compliance, like property assessed clean energy

financing (PACE financing) and high-performance building hubs to provide direct technical assistance to building owners. While resources are often available to all covered building owners, some cities, like Washington, DC, and St. Louis, are considering how distinct challenges facing the affordable multifamily sector (e.g., time, resources, preserving affordability) can be addressed through the policy itself and complementary resources. Multifamily energy efficiency programs offered by utilities can also serve as useful models for implementing comprehensive energy efficiency upgrades. A growing number of programs target the affordable multifamily sector and have a record of program designs that have been proven effective in overcoming the unique challenges of this market. Research shows that cost-effective affordable multifamily programs are saving energy, reducing costs, mitigating energy burdens, and improving quality of life for low-income households (Samarripas and York 2019).

4. *Policy can be a tool for furthering (and ensuring) stakeholder engagement.* Direct input from the affordable housing community is critical for policies to be inclusive of this sector in a way that is feasible for owners and benefits their cash flow, the residents, and the environment. While these cities engaged stakeholders during the policy proposal phase, only two cities—St. Louis and Washington, DC—mandated representatives of the affordable housing sector in official advisory groups, the working bodies who will work through the many to-be-determined elements of these policies.⁸ The extent to which the cities will conduct meaningful outreach to and engagement of renters beyond membership on the advisory board, as the policies begin to be implemented, remains to be seen. Ultimately, it is people who live in affordable housing who will be most impacted by these programs, and they should understand and be consulted about how they will be affected.
5. *Building energy performance standards and/or minimum energy requirements for buildings are just part of the solution.* One limitation of building performance standard policies is that they often do not cover the naturally occurring affordable housing (NOAH) stock. These buildings tend to be smaller than typical multifamily buildings and less likely to meet the minimum square footage threshold for compliance with the policies. In Washington, DC, 35% of the city’s NOAH buildings will not be covered by the law, even though the BEPS policy will eventually cover buildings as small as 10,000 square feet. This presents equity challenges, as residents of these buildings will not benefit from more energy-efficient housing, and owners may not be able to compete with owners of larger building for the limited amount of utility incentives and other resources that are available to help cover the cost of building upgrades. Boulder’s program, which focuses on rental units, is one pathway for reaching all affordable rentals, regardless of building size. For some cities looking to achieve savings in their rental sector, multifamily buildings under 20 units showed the greatest energy-savings potential (Bastian 2020).

⁸ The New York City law requires that two “residential tenant representatives” be appointed to the advisory board but does not specify that they should be from affordable housing.

Case Study: Washington, DC, Stakeholder Process and Consensus Recommendations

The DC City Council passed the Building Energy Performance Standard (BEPS) in 2019 as part of the Clean Energy DC Omnibus Amendment Act. The law requires owners of large buildings to meet an energy performance standard no lower than the median ENERGY STAR score for each property type. If a building's ENERGY STAR score is below the performance standard for its property type, the owner has 5 years to either follow a performance pathway that requires a 20% reduction in energy use intensity or implement a set of specific efficiency measures as part of a prescriptive pathway. Privately owned buildings larger than 50,000 square feet and District-owned buildings larger than 10,000 square feet will be subject to the law beginning in 2021. Smaller privately owned buildings will be phased in over time. Ultimately, all buildings larger than 10,000 square feet will be covered.

While including affordable housing under the law is important, the city also underscores the importance of planning for equity when enacting and implementing climate policies. Washington, DC's Climate and Energy Action Plan describes equitable climate action as "focus[ing] on providing support to those disproportionately affected [by climate change] and ensuring equal access to social benefits and opportunities" (Clean Energy DC 2018). The plan cites several potential risks to equity from climate action if strategies are not implemented carefully, including increasing financial burdens that are disproportionately carried by low- to moderate-income residents and reinforcing structural inequality by increasing social equity gaps (Clean Energy DC 2018).

To combat risks to equity, Clean Energy DC recommends that the District "create actions to directly support at-risk communities including low-to-middle income populations and populations of color" when developing and implementing climate and energy policies (Clean Energy DC 2018). Clean Energy DC cites several possible unintended consequences that could harm historically marginalized communities if climate policies are not implemented equitably. The plan acknowledges the potential added pressure on rents from the costs of complying with energy retrofit requirements. To avoid such an outcome, BEPS must be designed and implemented in a way that provides energy savings in affordable multifamily housing without exacerbating the housing affordability challenges the city faces. For that to happen, the design and implementation of BEPS must reflect the constraints and challenges uniquely experienced by affordable housing building owners, as described above.

To inform the design and implementation of BEPS for affordable housing, the National Housing Trust and the Housing Association of Nonprofit Developers (HAND) convened Washington, DC, affordable housing advocates, developers, and owners to discuss how the city should implement BEPS in affordable housing. Funding to hold the convenings was provided through a grant from the Energy Foundation via the American Cities Climate Challenge, a program funded by Bloomberg Philanthropies to provide robust technical assistance and support to cities pursuing ambitious efforts to tackle climate change. About two dozen organizations participated in two 3-hour workshops in August and September 2019. HAND led outreach to recruit participants. As a regional membership association dedicated to supporting community development in the Washington, DC, metropolitan area, HAND has strong ties to the affordable housing stakeholders. Representatives from the DC Department of Energy and the Environment (DOEE) and the DC Department of Housing and Community Development (DHCD) also participated in the sessions.

The workshops provided an opportunity to educate affordable housing stakeholders about the new policy and identify concerns stakeholders may have about complying with the requirements. In formulating the legislation, the DC City Council delegated authority to DOEE to finalize several key aspects of the policy. DC DOEE wanted to understand the perspectives of affordable housing stakeholders as they began to develop implementing regulations.

Participants discussed six key elements of the design of the policy: exemptions to delay compliance, property type definitions, compliance pathways, non-compliance penalties, technical assistance needs, and financial assistance needs. Specific recommendations were summarized in a report to DOEE (NHT and HAND 2019).

Recommendations to DOEE

The report recommended that DOEE take full advantage of the flexibility allowed under the law to accommodate the unique challenges owners face in making energy-efficient upgrades to their buildings. It also recommended close coordination and alignment among an array of Washington, DC, agencies and entities to ensure that owners have the financial and technical resources needed to comply. It provided specific recommendations for each of the key policy design elements.

Exemptions to Delay Compliance. The law requires DOEE to establish criteria for qualifying buildings to delay compliance with the building energy performance requirements for certain circumstances, including financial distress, change of ownership, and major renovation. Stakeholders recommended that DOEE consider a building owner's ability to pay for energy efficiency upgrades and general financial hardship, including whether the property has enough operating reserves to cover the cost of upgrades.⁹

Affordable housing advocates, developers, and owners also recommended that DOEE allow a delay in compliance if the owner is planning to recapitalize the building within 5 years of the compliance deadline. Affordable housing owners have difficulty taking on new debt between financing cycles. Buildings undergoing a recapitalization will have better access to capital to make major building system upgrades that can achieve deep energy savings.

Defining Property Types. The BEPS performance standard will be set based on the median ENERGY STAR score for different property types. The law grants discretion to DOEE to define the property types. The discussion focused on whether the energy performance standard should be the same for affordable housing as it is for other types of buildings.

Participants expressed concern that affordable housing properties could have ENERGY STAR scores well below the median for multifamily housing generally. To explore this further, NHT performed an analysis of Washington, DC, benchmarking data to assess the energy performance of different types of affordable housing. The analysis showed that privately owned, subsidized affordable buildings had median ENERGY STAR scores comparable to the median for the

⁹ The main source of funds to pay for building upgrades in affordable housing is property reserves. While owners of subsidized affordable housing are required to fund reserves to cover the cost of expected repairs and upgrades, the amount of reserves is often insufficient to fully fund needed improvements.

multifamily rental market generally.¹⁰ However, naturally occurring affordable housing and publicly owned affordable housing had median scores well below the median for the larger market.¹¹

Compliance Pathways. Building owners with ENERGY STAR scores below the median for their property type must follow a compliance pathway to reduce energy usage. Building owners can choose to either follow a performance pathway that requires a 20% reduction in energy use intensity or implement prescriptive efficiency measures. The law also gives DOEE discretion to develop additional pathways.

Participants recommended that DOEE incorporate flexibility in the compliance pathways. With respect to the prescriptive pathway, stakeholders recommended that DOEE allow energy efficiency measures that were installed in the preceding years of the first compliance cycle to count toward meeting the goals of the pathway. The main recommendation for the performance pathway was for DOEE to incentivize deeper energy savings by offering automatic compliance with future cycles if building owners achieve energy savings greater than the 20% required by the law. For example, buildings that demonstrate a decrease in normalized site energy use intensity by increments of at least 5% above the required 20% could be deemed automatically compliant with future compliance cycles. Such an incentive would encourage building owners to maximize energy saving measures when recapitalizing a building, which is the best time for owners to undertake major building system upgrades because they will have access to debt sources. As an alternative compliance pathway, participants recommended that DOEE incorporate an option to demonstrate compliance by achieving the operational energy requirements of the Enterprise Green Communities standard.

Non-Compliance. The law specifies that buildings that fail to comply with BEPS requirements must pay a penalty and that DOEE may impose civil infraction penalties, fines, and fees as sanctions for a violation of the BEPS ruling. Participants recommended that DOEE take into consideration the extent to which building owners pursued compliance when assessing fines. Building owners who made progress toward achieving the compliance requirement but fell short should be fined less than building owners who made no progress and are unable to justify the need for an exemption. If an owner can demonstrate a plan to comply with either the performance-based or prescriptive compliance pathway but has not been able to meet the requirements in time, DOEE should waive noncompliance fines. Flexibility is also needed if building owners are unsuccessful in securing funding necessary to comply. There are limited sources of funding available to affordable multifamily building owners to recapitalize and rehabilitate a property. Two prominent sources accessible to affordable housing owners are the Low-Income Housing Tax Credit program and the District's Housing Production

¹⁰ The relative high performance of these buildings is most likely because, since 2008, the city has required new construction or substantial rehabilitation projects financed with city funding to meet a minimum green building standard. See the Code of the District of Columbia § 2-1226.35. "Green building standards."

¹¹ The analysis found that the multifamily rental housing market had a median ENERGY STAR score of 67. Privately-owned Low-Income Housing Tax Credit and Section 8 buildings had median scores of 67 and 64, respectively. The median ENERGY STAR score for naturally occurring affordable housing was 55, while the median score of publicly owned affordable housing was 31.

Trust Fund (HPTF). Both programs are highly competitive. Building owners who seek funding but are unable to win an allocation of funding or tax credits should not be penalized for non-compliance.

Technical Assistance. Affordable multifamily building owners and managers have limited staff capacity and resources to devote to planning for and implementing energy efficiency improvements. A one-stop shop program model has been shown to successfully overcome technical and capacity challenges faced by affordable multifamily owners. Under this model, building owners have access to integrated program services through a single point of contact (SPOC). Services provided by the SPOC include help navigating program offerings and project development and technical assistance services (EEFA 2019). SPOCs act as trusted partners to building owners. Successful SPOCs build relationships with local partners, including program administrators, contractors, and lenders. One sign that DOEE is taking the technical assistance needs of affordable housing owners seriously was its decision to create a staff position dedicated to helping owners of affordable housing comply with the law.

Financial Assistance. Some affordable housing owners will need financial assistance to comply with the law. Stakeholders recommended targeting resources to buildings that will be most in need of financial support and will face challenges accessing capital. Buildings that are in the middle of a financing cycle, such as a LIHTC 15-year cycle, will struggle to find financing to meet the BEPS compliance threshold without access to additional sources of funding. Naturally occurring affordable housing and rent-controlled properties are significant sources of Washington, DC's affordable housing supply, but they are not often targeted for resources because they may be challenging to identify and reach with energy efficiency incentives. Preserving this affordable housing will be key to addressing Washington, DC's housing challenges. Rents in NOAH buildings are not subject to restrictions. Owners of rent-controlled properties are permitted to raise rents above the rate of inflation if they are making energy-saving building improvements. Funding should be available to these properties in exchange for commitments from owners to keep rents affordable.

It is not yet known exactly how much funding will be needed to help affordable housing owners comply with law. DOEE is conducting a cost-benefit analysis to determine the cost of compliance for all building types, including affordable housing. The DC Sustainable Energy Utility (DCSEU) offers several energy efficiency rebate programs for affordable housing, but savings from these programs constitute only 4.4% of its overall portfolio savings, compared to 81% of portfolio savings from commercial building programs.¹² In addition, DCSEU's performance benchmarks may need to be adjusted to align better with the goals of BEPS. DCSEU's two current benchmarks related to low-income programs include overall expenditures and savings. DCSEU should consider adopting a benchmark that reflects the importance of achieving deep energy savings in a building, such as the amount of energy saved per unit or per household to encourage implementing more comprehensive energy-saving measures.

Conclusion

¹² NMR Group, Inc. Evaluation of DC Sustainable Energy Utility FY2018 Programs. June 25, 2019.

Building energy performance standards are gaining traction in cities, and this analysis provides an overview of options for the effective inclusion of affordable multifamily buildings in those standards. Multifamily buildings generally make up a significant proportion of a city's building stock; in Washington, DC, they represent the second-largest source of building-related greenhouse gas emissions after office buildings (C40 Cities 2019). To exempt affordable multifamily housing from BEPS would often undermine a city's ability to reach its ambitious climate and energy goals and lead to inequitable outcomes for under-resourced communities. Improving the energy efficiency of multifamily buildings is necessary to alleviate the burden of high energy costs on families with limited incomes. Energy burdens disproportionately impact minorities (Drehobl and Ross 2016). This is true even when controlling for income levels. In Washington, DC, a renter who lives in a predominantly minority neighborhood has an energy burden that is one-third higher than a renter with a similar income level living in a predominantly white neighborhood (Kontokosta, Reina, Bonczak 2019).

The cities represented in this analysis demonstrate a variety of approaches to requiring energy savings in the affordable multifamily sector. A mix of flexibility and resources will likely be needed to make compliance attainable. The Washington, DC, case study provides consensus recommendations informed by its affordable housing community. Many of these recommendations are translatable across cities and should be considered when designing similar policies. All cities should strive for that level of community engagement during the policy design phase, as well. Overall, the recommendations lay out important considerations for ensuring that affordable multifamily building owners and their residents are not left behind in efforts to expand access to clean energy resources and reduce greenhouse gas emissions.

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