Equitable Decarbonization: Prioritizing Frontline Communities for Building Performance Standard Technical Support Programs

Nicole Ballinger and Amy Fowler, City of Seattle Office of Sustainability and Environment
Chad Gilless and Kelsey Friedman, Stillwater Energy

ABSTRACT

In 2020, Washington State passed the Clean Buildings Act, the first statewide building performance standard for commercial buildings larger than 50,000 ft^2. The law requires buildings to meet an energy use intensity target and includes elements of Strategic Energy Management (SEM) to produce transformative energy reductions. Many local agencies and utilities have begun rolling out programs that help building owners and operators address the law's requirements. Although the law's energy efficiency focus will elevate energy management practices and reduce consumption, this is not the same as a focus on emissions. To address this gap, the City of Seattle (the City) proposed a Building Emissions Performance Standard (BEPS) requiring commercial and multifamily buildings larger than 20,000 ft^2 to meet greenhouse gas intensity targets. In December 2023 Seattle BEPS was signed into law by Mayor Bruce Harrell.

The City's Office of Sustainability and Environment (OSE) designed and implemented the Seattle Clean Buildings Accelerator, a program that prepares owners and operators to meet the Washington law, while getting a jumpstart on emissions reduction. Importantly, the program prioritizes participation from owners/operators of buildings that are in or support BIPOC (black, indigenous and people of color) and other Frontline communities that may have less capacity to comply. This paper presents learnings from the program's first 18 months of implementation and program expansion that was co-designed with community representatives. Key findings for other BPS jurisdictions include the importance of prioritizing audience-centric approaches to design and delivery, and developing adaptable programs that can flex as policies change.

Introduction

The 5.9 million commercial buildings (i.e., buildings with conditioned space that are not used for manufacturing) in the U.S. annually consume over 6.8 quadrillion British Thermal Units (BTUs) of energy (EIA 2018). The commercial building sector generates more than 826 million metric tons of carbon dioxide emissions, which comprises 16% of energy-related emissions (EIA 2020).

Nationally, several trends are relevant to existing building decarbonization. Building benchmarking ordinances at the state, county, and city level have existed for more than ten years, with more and more jurisdictions adopting such ordinances across the U.S. Going a step further, as of December 2023, thirteen jurisdictions have passed building performance standards (BPS), which leverage the energy benchmarking and reporting process to then achieve certain levels of building-wide performance against an energy use intensity (EUI) target and/or an emissions target—typically a greenhouse gas intensity target (GHGI target)—or a percent reduction from baseline emissions (IMT 2023).

In 2019, Washington State passed HB1257, the Clean Buildings Act, a set of requirements for existing buildings that included benchmarking, energy management tactics, and the attainment of site EUI targets (EUIt). These requirements cover most non-manufacturing

commercial buildings 50,000 ft^2 and larger. In 2022, Washington State passed the Clean Buildings expansion bill, which requires commercial buildings 20,000 to 50,000 ft^2 and multifamily buildings larger than 20,000 ft^2 to benchmark their energy use as well as to undertake basic energy management practices and develop an operations and maintenance plan. It does not, however, require these multifamily buildings and smaller commercial to meet an EUI target.

Several utilities and government agencies within Washington State monitored and/or were involved in various parts of the development and rulemaking of Clean Buildings. Some utilities expanded their offerings related to supporting customers' needs around benchmarking within ENERGY STAR Portfolio Manager (ESPM). Other utilities began deploying "light" versions of Strategic Energy Management (SEM) offerings[1], requiring lower time commitments while at the same time addressing some aspects of the pending law. After the 2019 bill was signed into law, Puget Sound Energy (PSE) launched the first program focused on addressing Clean Buildings, called the Clean Buildings Accelerator (Robinweiler 2022). Other utilities leveraged PSE's experience to launch similar offerings across the state. Accelerator participants raved about the program, and in the three years since the program's launch, PSE's Accelerator has received national recognition and awards, including from E Source (E Source 2023) and the Association of Energy Services Professionals (AESP) (AESP 2024).

Although there have been developments across the state, within Seattle there have been some unique policy advancements for over ten years. Since 2012, buildings 20,000 ft^2 and larger have been required by the Seattle Energy Benchmarking law to benchmark their energy data in ESPM, with over 93% compliance as of 2021 (OSE 2023a). Since 2019, non-residential buildings 50,000 ft^2 and larger have had to assess and tune up their buildings under Seattle's Building Tune-Ups requirements, with over 700 buildings tuned up (OSE 2023a). In 2013, Seattle's Climate Action Plan specified a target of 40% reduction in building-related emissions by 2030 and to be net-zero carbon emissions by 2050, and the 2018 Seattle Climate Action Strategy directed OSE to explore the feasibility of building performance standards for Seattle (City of Seattle 2018). And in 2020, the City's Green New Deal Resolution called for more decarbonization-related investment, while prioritizing investment in communities historically most harmed by economic, racial, and environmental injustice (City of Seattle 2019).

Figure 1 illustrates how Seattle's policies fit along with the Washington law to support Seattle's Climate Action Plan goals. Of note, the Clean Buildings' current energy targets would only reduce Seattle building emissions 4% by 2030 due to Seattle City Light's already-net-zero electricity grid, whereas the Seattle BEPS will reduce Seattle building emissions 27% by 2050.[2]

[1] Strategic Energy Management (SEM) offerings focus on establishing systematic energy management practices that drive organizational alignment around energy and greater implementation of operational, maintenance, behavioral, and capital projects. SEM programs typically engage end use organizations for 1-2 years, in one-on-one or group workshops, and with a series of activities such as Energy Treasure Hunts, Energy Management Assessments, and employee engagement events.

[2] This estimate is based on the current WA State Clean Buildings' EUI targets, which have only been set through 2028 for commercial buildings larger than 50,000 ft^2. Future, more-stringent targets will require legislative action.

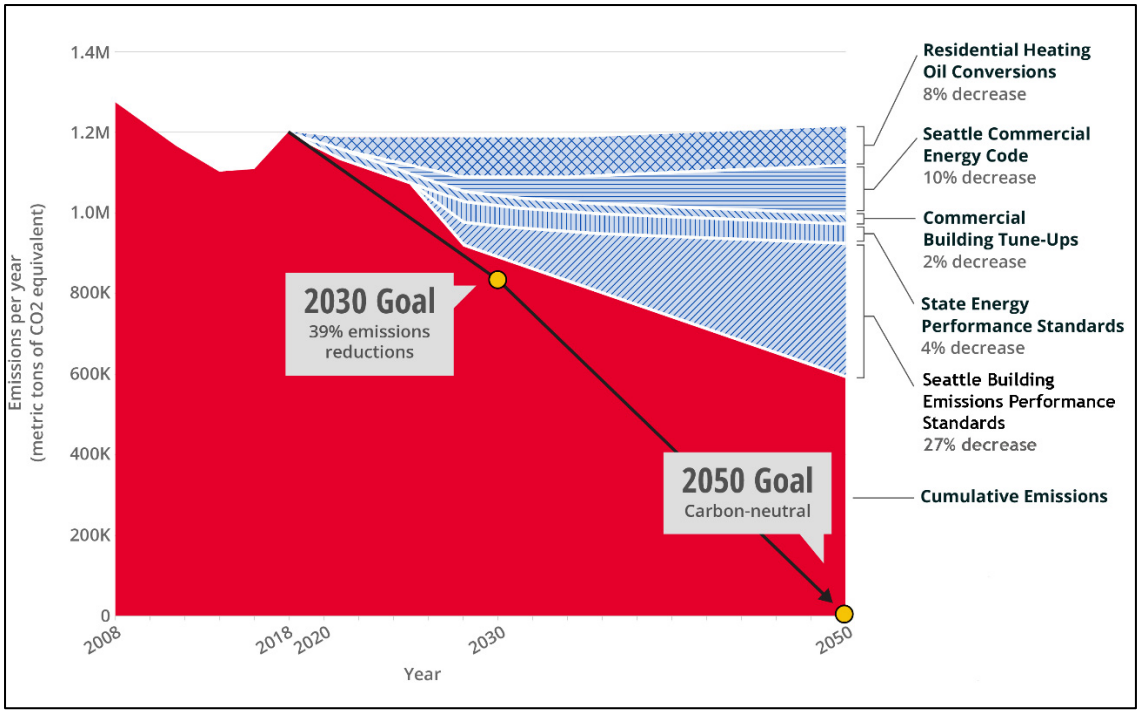

Figure 1. Projected Seattle Building Emissions Reduction by Policy. (City of Seattle 2023)

Recognizing a Need and an Opportunity for Equity

Although Seattle supported the Clean Buildings Act, OSE's deep experience with its existing benchmarking and tune-ups requirements led to a concern that this new state law would present a significant capacity and cost burden for under-resourced owners with less internal staff capacity and funding to comply. In 2020, OSE used its benchmarking data to estimate that 1,000 Seattle buildings larger than 50,000 ft^2 would need to comply with the law and at least one-third would need to implement energy efficiency improvements to meet the state EUIt.

Furthermore, OSE determined that many would need assistance with other aspects of the Clean Buildings requirements such as developing energy management and operations plans, determining their energy target, and finding service providers for audits and project implementation. OSE also determined that providing additional support could help participants access a $75M (statewide) pool of incentives at $0.85/SF for buildings to meet the standards early.[3] In addition, the Seattle Energy Code has several conditions under which many existing commercial buildings will be required to update fossil fuel-powered equipment to costlier, but more-efficient and less-polluting, electric heat pump systems. Implementation barriers for owners include finding service providers knowledgeable about electric options, upfront costs of the equipment, and costs of potential changes to a building's electrical service to accommodate the new equipment. Training of building owner staff to use the new equipment may also be needed.

OSE also recognized that building owners seeking to comply with the site EUI targets in the state Clean Buildings law might replace an inefficient piece of gas-using equipment with a

[3] Washington HB 1976 was passed in March 2024 and authorized the Department of Commerce to increase incentives, however, funding has yet to be authorized.

similar but more-efficient system. Such an action would lock a building into climate-polluting and health-impacting equipment that would last for 15-25 or more years—far beyond the City's climate goals, and also in conflict with any future emissions performance standards that were then under exploration as part of its Climate Action Strategy. Thus, as part of its exploration of BPS policies, OSE conceptualized a program that would both support lesser-resourced owners to understand and meet the state energy standards while also informing them about emissions impacts and opportunities to decarbonize their buildings. To develop the initial technical support concept, OSE led a process in 2021 supported by the American Cities Climate Challenge (ACCC) that leveraged lessons learned engaging harder to reach audiences from other existing efforts of the City, such as the Building Tune-Ups and Seattle Energy Benchmarking ordinances. OSE also used lessons learned from its US Department of Energy-supported Tune-Up Accelerator (TUA) Program, which supported smaller commercial buildings to tune-up their buildings in advance of the Building Tune-Ups requirements (Ballinger, N., Mallory, S., and Brown, T. 2020). The TUA experience confirmed that even with an incentive offering, program implementers still need to devote extra time to recruit hard-to-reach audiences like nonprofits and community-based organizations, which TUA staff did through extra targeted emails and cold calls. OSE also leveraged experience of the Washington Department of Commerce (which administers the Washington Clean Buildings law), the Smart Buildings Center, University of Washington Integrated Design Laboratory, Seattle City Light, Seattle Office of Economic Development, and Seattle Department of Construction and Inspections.

To better understand the needs of priority audiences directly, a consultant interviewed nine Seattle building owners or managers that represented nonprofits and smaller commercial and multifamily buildings, seeking their thoughts on building upgrades, the decision-making process around upgrades, and the factors that influenced those decisions. The NW Energy Efficiency Coalition (an ACCC collaborator) also conducted outreach to about 50 building owners and other community organizations in the Seattle/King County area to better understand the challenges for building owners complying with the new state Clean Buildings Law and the opportunities to go further with building decarbonization and electrification. While cost was always a concern, participants noted challenges with staff/volunteer capacity to understand and comply with requirements, aging infrastructure (equipment and buildings), need for help to explain the requirements to Board members, and lack of on-site staff with the skills to run high-performance or electric building equipment (e.g., heat pumps, building automation systems).

OSE also applied the City's Racial Equity Toolkit to the BPS concepts under exploration and the technical support hub concept. This toolkit, created by the City of Seattle's Race and Social Justice Initiative (RSJI), helps to understand how aspects of a program design may or may not generate inclusive outcomes (City of Seattle 2024).

Collectively, this work led to a more-refined definition of under-resourced buildings:

- Buildings serving or owned by Frontline communities (black people, indigenous people, sovereign tribal nations, communities of color, immigrants, youth, elders, houseless people, disabled people, LGBTQ+ people, people with low or no income, and people who work in outdoor occupations);
- Non-profit owned or operated (includes nonprofit-owned affordable housing);
- Class B/C buildings; or

- Buildings located in neighborhoods with a high Racial and Social Equity (RSE) Index.[4]

This work also led to a clearer vision of what types of offerings could meet the needs of the above audiences. And in early 2022, the City issued a Request for Proposals (RFP) for an Accelerator program focused on three tracks:

- Self-Led Educational Pathway: a web-based educational portal that provides participant-driven tools and resources to support Clean Buildings compliance and explains how it overlaps with Seattle's existing benchmarking and tune-ups requirements.
- Light Coaching Pathway: cohort-based coaching for specific buildings, potentially using SEM approaches and providing hands-on guidance on ESPM, the different Clean Buildings requirements, and emissions reduction.
- Emissions Reduction Pathway: more in-depth services on electrification, deep energy retrofits, and advanced SEM to drive substantial energy and emissions reductions for organizations with greater executive commitment. With its partners, the Accelerator performs a thorough site walkthrough and an analysis of greenhouse gas emissions and energy consumption from billing data. Participants receive an emissions reduction roadmap, which describes existing building and equipment conditions, the results of the analysis, a prioritized list of recommendations to reach the building's emissions and energy efficiency targets, and what percentage it is above or below the EUI or GHGI targets.[5]

The RFP focused the initial program on buildings greater than 50,000 ft^2, recognizing that owners of those properties had the greatest immediate need to meet the upcoming State energy targets. It also called for research into a program expansion to smaller commercial and multifamily buildings that would be impacted by the Clean Buildings expansion bill and a future Seattle BPS that would likely cover multifamily and commercial buildings larger than 20,000 ft^2. And it included funding for translation and transcreation if needed. The contract was awarded to Stillwater Energy based on their response to the RFP.

Learnings and Successes

Light Coaching Pathway

The Accelerator completed four light coaching cohorts by the end of 2023, with more than 30 building owners and operators participating. Each participant benefited from four months of engagements in their cohort with their peers that included:

- Four virtual group workshops
- Four virtual one-on-one coaching sessions
- Two virtual site walkthroughs

[4] Seattle's Racial and Social Equity (RSE) Index combines data on race, ethnicity, and related demographics with data on socioeconomic disadvantages and health disadvantages. https://seattle.gov/documents/Departments/OPCD/Demographics/RacialSocialEquityIndexUsersGuide2023.pdf

[5] This report is specific to actions to meet the targets and while it may contain details that might be in an audit, it would not fulfill the ASHRAE Level 2 audit requirements for a building taking the WA State Clean Buildings investment criteria path.

The team from each building is assigned to a specific Accelerator coach[6] who works with them throughout the training. During a video call with participants, Accelerator coaches and energy engineers conduct virtual site walkthroughs of the buildings' energy systems and equipment, looking for energy savings and emissions-reductions opportunities. Participants receive an Opportunity Register, which lists the low-cost and no-cost opportunities identified during the walkthrough. Coaches help prioritize the opportunities based on level of effort and the organizations' available resources. After the completion of the program, participants are encouraged to spend the next year implementing the energy-efficiency and emissions-reductions measures from the Opportunity Registers; at the end of this year, they send the updated registers back to their coaches. Participants are meant to use this period to lower their buildings' emissions and energy consumption, while also developing compliance documentation.

The Light Coaching Pathway utilizes a cohort-based learning model. Although the cohort model has proven to be effective with organizations enrolled in SEM-based programs (Kroll et al. 2015), it seems even more valuable for organizations with fewer resources for long-term engagement. The Accelerator participants often come with lean teams and limited capacity and the program's community-based learning approach offers the opportunity to interact with and learn from a group of peers who may face similar obstacles, be it funding, human resources, cultural barriers, or many others. Some participants from larger organizations have joined multiple cohorts to continue training their staff and receive support through compliance for additional buildings.

The City, however, had a concern that without continuous engagement during the year following their cohort experience, Accelerator participants might not implement the no- and low-cost energy savings and emissions reductions in their Opportunity Register due to limited resources and capacity. In 2024, changes to the program format will encourage continued engagement from participants with their cohort, coaches, and energy savings and emissions reductions opportunities during this period. Two cohorts are planned for 2024 and each will receive additional programming that includes quarterly workshops and coaching calls that will follow the initial, four-month intensive coaching period. The initial four cohorts from 2022-2023 will also be invited to attend the optional workshops to stay up to date on new developments and next steps for compliance. Many of these cohorts will still be within the one-year period, so continued participation will serve as a reminder to implement their energy-saving and emissions-reduction opportunities.

Self-Led Educational Pathway

The Accelerator's online Self-Led Education Portal[7] offers free resources and information about the state Clean Buildings law, how it aligns or differs from City of Seattle benchmarking and tune-ups requirements, and introductory content on emissions reduction strategies (see Figure 2 for the Portal's landing page) and the recently enacted Seattle BEPS requirements. The portal receives hundreds of visits each month, where the bulk of visitors focus on how to get started with compliance and understanding the requirements of the law.

[6] SEM programs typically utilize individuals in a "coaching" role to work with end use organizations enrolled in the program. These "coaches" may be focused on technical topics and/or organizational topics, with an appropriate level of experience and expertise to guide organizations to effectively implement SEM concepts.
[7] https://www.seattlebuildingsaccelerator.com/education-portal

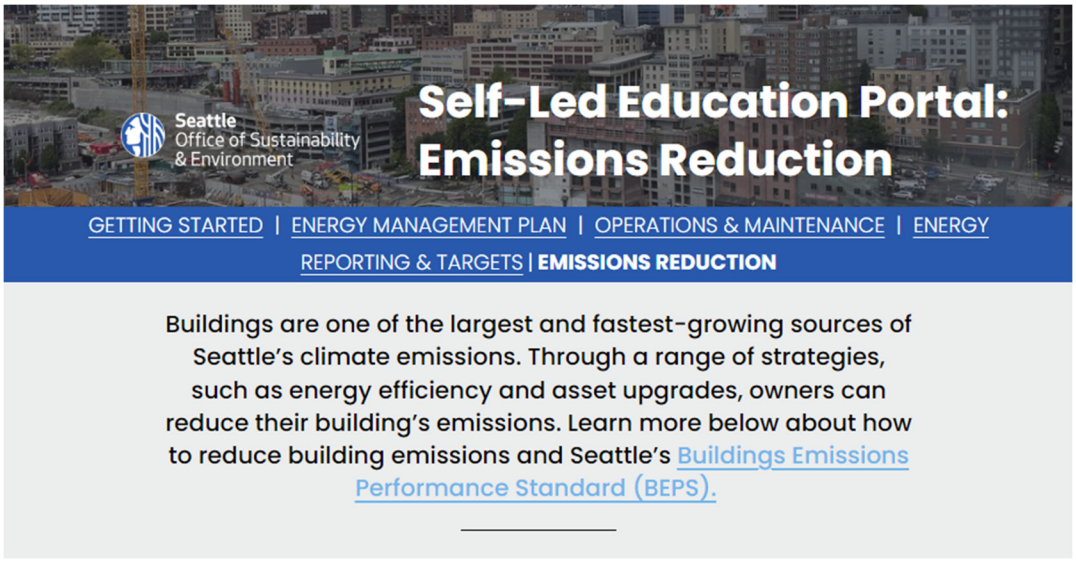

Figure 2. Emissions Reduction Landing Page from the Self-Led Education Portal on the Seattle Clean Buildings Accelerator Website: https://www.seattlebuildingsaccelerator.com/emissions-reduction.

Initially, access to the online Self-Led Education Portal required sign-up to view password-protected content, but later, OSE opened the site to all visitors, removing a barrier to accessing valuable tools and education. After removing the password, site traffic to the educational resources increased 50%. Though it is not required, users may still sign up on the site to provide more details about their buildings and needs. Many users of the educational materials do provide these additional details and after they receive communications from OSE, the City has seen conversions from using the self-led materials to participation in future cohorts for the Light Coaching Pathway. To support usability in a self-led format, OSE has focused on using plain, non-technical language that resonates in the Frontline communities that it prioritizes. Those in need of language assistance are provided with an email address so that the City can connect with participants using a contracted interpretation service, although it has yet to be used by any participants. OSE is also evaluating the use of non-English language content to optimally serve these communities and support greater participation.

Emissions Reductions Pathway

The City also offers the Light Coaching Pathway participants who meet the Frontline community eligibility criteria the opportunity to advance to the Emissions Reductions Pathway, a deeper level of assistance for building performance and decarbonization that could help prepare participants to meet future Seattle BEPS requirements.

In 2023, two Frontline community organizations from the Light Coaching Pathway were selected to advance to the Emissions Reductions Pathway. A community center in Seattle's North Beacon Hill neighborhood and a church/community center in Seattle's North Queen Anne neighborhood each received a site walkthrough, an energy and emissions analysis, and a customized strategy for prioritized building improvements and equipment replacements that will deliver energy efficiency and GHG emission reductions while also reducing energy costs. The reports listed short- and long-term recommendations so that building owners could take early

actions as feasible, while incorporating equipment replacements and other more-expensive upgrades for consideration in future budget planning.

To find enrollees for this pathway, Accelerator coaches evaluate the need and organizational readiness of cohort participants to determine their eligibility. Because only a few of the participants meet all the requirements, it is essential to begin this analysis at the start of a new cohort. Organizations that are fit to move to this pathway:

- Have buildings with large performance gaps in energy efficiency and building emissions;
- Have executive and organizational support for emissions reductions;
- Have financial need or are significantly under-resourced; and
- Meet the Frontline community criteria.

The Emissions Reduction Pathway programming described above included a full day of on-site activities, which proved to be a difficult commitment for many participating Accelerator organizations, who are under-resourced or under-staffed. To reduce the burden on the participants, OSE is evaluating ways to "right-size" the pathway's activities, with the goal of developing an approach that sufficiently engages building owners and managers in the process without undue burden, while also yielding actionable results. The approach may utilize shorter site visits with more virtual engagements, as well as being strategic around when executive management needs to be involved. OSE recognizes that reducing the level of engagement to accommodate under-resourced building owners may create gaps between the assessments' results and what building owners eventually need to do to achieve the required emissions reductions. The presence of any such gaps will need to be clearly communicated to participating building owners. As OSE works to implement Seattle BEPS, it will further adapt this pathway's services to support audiences to meet the new emissions targets.

Outreach and Recruitment

Each cohort comprises a diverse group of organizations and as part of its equity metrics, OSE has tracked participation from its priority audiences. For all priority audiences, OSE achieved nearly 60% participation or more (see Figure 3).

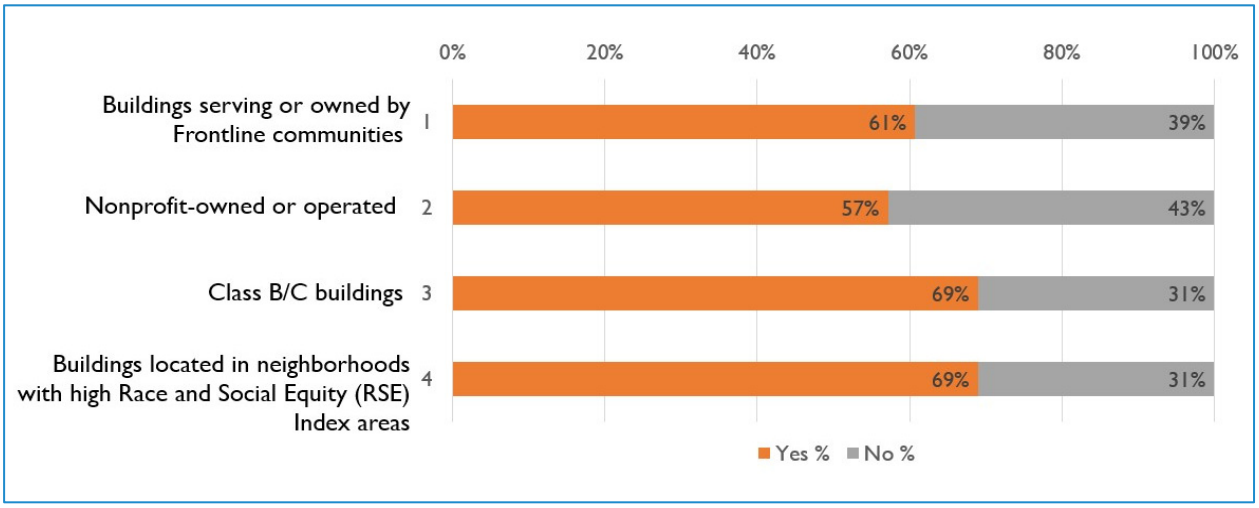

Figure 3. Makeup of Building Owners in Early Accelerator Cohorts

Even though OSE had contacts from its energy benchmarking and tune-ups requirements for nearly all building owners and managers eligible for the program, the City has found that traditional SEM recruiting tactics have not been as effective as anticipated with Frontline community organizations, who may lack dedicated facilities or sustainability leaders with the capacity to engage with recruiters. Successful recruitment for this audience relies heavily on having existing relationships within these organizations, as cold calls and direct outreach do not prove as successful. In-person outreach and recruiting are also incredibly effective for reaching Frontline communities and building relationships to help with these activities can be essential for recruiting priority audiences.

OSE is also interested in better understanding when building tenants may fit the above priority audiences, even though the owner may not. For example, community organizations that may rent space in a private building or retail stores that are vital to the communities, such as ethnic groceries. Engaging these building owners and/or their tenants may be especially important in areas experiencing the pressures of growth and development to support buildings with uses important to Frontline communities and reduce displacement. As the program expands to smaller buildings, OSE expects more buildings to fall into this category.

Similarly, OSE will face new challenges as it seeks to engage multifamily building owners. While OSE does have good contacts and relationships with subsidized affordable housing providers, it is far more difficult to identify privately owned low-rent housing or "naturally occurring affordable housing," as it is sometimes termed. As part of its analysis for the Seattle BEPS policy, OSE conducted research to identify these buildings using CoStar data, but this work needs refinement and is not a substitute for using community relationships and partners to recruit participants (OSE November 2023a).

To address these challenges, in 2024 OSE has engaged a communication consultant to help the program better identify and connect with community partners that will be vital for equitable outreach. Community partners include Community-Based Organizations (CBOs) that represent and provide services for a specific community, Community Development Organizations (CDOs) that support community revitalization, and partners that work in energy delivery, energy conservation, and energy education. Engagement with community partners can lead to more equitable outreach through:

- Assistance with in-person and virtual sessions for recruitment and program design and development.
- Raising awareness of the program within their organizations and with priority audiences.
- Empowering the organizations to refer building owners and operators within their communities to the program.

As 2024 cohorts are still being filled, the City continues to gain learnings on recruitment and outreach to Frontline communities.

Co-Design Sessions for Program Expansion & Refinement

In late 2022 and 2023, OSE and its partners conducted community engagement activities to expand and refine the program. The co-design sessions engaged community partners and priority audiences in an in-person feedback session and a virtual follow-up to assess Accelerator programming and resources and to look at the delivered program through an equity lens to

identify areas for improvement. It also included a direct survey of Accelerator participants. This work solicited feedback in several areas, including:

- Amount of available participant internal capacity & resources to plan and implement Clean Buildings requirements and building decarbonization.
- Core value propositions and resonating messaging for priority audiences.
- Nature of building ownership, management, and occupancy for the priority audiences.
- Languages and cultural norms for cohort webinars, coaching calls, and website information.
- Availability of credentialed resources for Clean Buildings and Seattle BEPS compliance (e.g., Qualified Persons[8]).
- How the City of Seattle could best conduct equitable outreach and enrollment to priority audiences as it expands to serve multifamily and smaller commercial buildings.

From these sessions, participants identified the following needs and priorities:

- Funding Access and Coordination – Priority audiences need layered and easy-to-access funds and financing with access to someone who can pull disparate funding sources into a package, including sources from federal, state, city, utilities, and other organizations in the energy ecosystem.
- Implementation Priorities – Collaboration with an energy coach, resource conservation manager (RCM), or expert in energy efficiency on how funds are used through facilitated discussions to prioritize projects for implementation.
- Procurement Advice – Building owners/operators need support to inform purchasing and procurement decisions that aid compliance.
- Translation – Culturally responsive content and in-language materials to support equitable outreach, subsequent enrollment, and program delivery.
- Program as Hub – Providing more topical and timely information and referrals so that the program is the primary source for potential participants to go to for information.
- Program Name and Branding – Potentially revising the program name and related branding so that it is optimally relevant for targeted audiences and better conveys themes like partnership or support.
- Outreach and Recruitment – Developing more specific strategies to effectively involve CBOs in the recruiting process.

[8] A Qualified Person must calculate the EUIt and verify benchmarking for compliance for Tier 1 WA Clean Buildings compliance. Per WAC 194-50-30, Section 3 Definitions, a Qualified Person is: "a person having training, expertise, and three years professional experience in building energy use analysis, and being any of the following: 1. A licensed professional architect or engineer in the jurisdiction where the project is located; 2. A person with Building Operator Certification (BOC) Level II by the Northwest Energy Efficiency Council; 3. A certified commissioning professional; 4. A qualified energy auditor; 5. A certified energy manager (CEM) in current standing, certified by the Association of Energy Engineers (AEE); 6. An energy management professional (EMP) certified by the Energy Management Association." The City of Seattle allows essentially the same qualifications for Seattle BEPS reporting and compliance. https://www.commerce.wa.gov/growing-the-economy/energy/buildings/clean-buildings-performance-standard/

The feedback from these sessions, along with the direct feedback solicited from program participants during the four months of engagements, has already informed changes to the language and messaging used for recruitment, the content of the workshops and coaching, and the resources offered on the Accelerator website. Work in 2024 will continue to investigate updates to existing curricula or new modules that meet audiences where they are. For example, the Accelerator plans to create an information session specifically geared to representatives from multifamily buildings and is also considering if shorter, introductory workshops might attract some audiences not ready to commit to the four-month, light coaching program.

Measurement of Success

As a City-funded program, the Accelerator's primary success metric is the equitable dissemination of knowledge and skills for energy management practices that lead to state and City compliance and reduced building emissions. And like many SEM programs, Measurement and Verification of energy savings is performed one year after the completion of the cohorts to understand energy and emissions impacts and to share deemed energy savings with Seattle City Light to support their energy efficiency program goals.[9] Equally important metrics for this program are whether outreach leads to involvement of priority audiences (see Figure 3) and if those priority audiences come out of the program prepared for compliance and potentially ready to use additional resources for capital implementation outside the scope of the initial coaching and education program. Below are two recent participants' program takeaways:

- *"The Accelerator made it easier to complete the tasks due under the WA State Clean Buildings Standards as well as helped to teach and explain to our board of directors, leadership, participants, and staff what we are doing, how we are doing it, and why we are doing it."* - Veronica A. Gallardo, Property Manager, El Centro de la Raza
- *"The Seattle Clean Buildings Accelerator Program... will identify opportunities where your organization can benefit from infrastructure updates, or where the organization can adjust their building controls and schedules to reduce energy loads, like HVAC and lighting."* - Todd Clark, Facilities Manager, Seattle Opera

Recent Updates

Three major changes are underway within Seattle that impact OSE's strategy related to the Accelerator program.

Seattle Building Emissions Performance Standard (BEPS)

On December 13, 2023, Seattle Mayor Harrell signed into law the Seattle BEPS, which establishes carbon emissions targets for buildings over 20,000 ft^2 to meet over the next two to three decades. By 2050 or earlier, depending on the building size and type, many Seattle buildings will be required to achieve net-zero building emissions. BEPS specifies greenhouse gas intensity targets (GHGITs) for different building activity types, with GHGITs becoming more stringent in five-year intervals between 2030 and 2050, depending on building type. In addition to GHGITs, BEPS includes a third-party energy benchmarking verification requirement and

[9] The Accelerator program leverages deemed savings values based on experience implementing similar SEM programs in the commercial building sector. The program uses these deemed values for initial savings claims, and savings are "trued-up" later using statistical models for final savings claims.

completion of a brief GHG report, requiring owners to set targets and specify future actions to meet them, that starts in 2027. BEPS also includes alternative compliance pathways to accommodate different building uses, sizes, ownership, ages, and systems, and the option of a custom decarbonization plan for buildings with severe hardships to compliance.

OSE expects that demand for support will grow significantly as more and more building owners gain awareness of the flexible, but stringent BEPS requirements. For example, OSE estimates that about 1,000 buildings will need to complete the new third-party benchmarking verification and prepare GHG reports to meet just the initial 2027 compliance deadlines. The Accelerator is a solid foundation on which to quickly ramp up outreach, tools, and individualized coaching for prioritized audiences to verify benchmarking, understand emissions and reduction opportunities, select a compliance pathway, secure funding, and implement retrofits. This comprehensive support is paramount to ensure equitable compliance with emissions targets and equal access to the benefits of less climate-polluting buildings.

Interaction of Washington Clean Buildings with Seattle BEPS

Building owners in Seattle now must comply with both the Washington Clean Buildings law and Seattle BEPS, and although BEPS was established to complement Clean Buildings, there are core differences that are meaningful to building owners and the City. Some building owners may need to reduce energy to meet the state targets but may already meet the City's emissions targets and vice versa. Other building owners may need to make changes to meet both targets. During the policy development process, OSE looked for areas to streamline; for example, BEPS allows the same reporting qualifications as the state and aligns compliance timelines.

Although OSE is only mandated to administer Seattle's new BEPS policy, it has a commitment to contextualize it with the state's requirements to demystify both policies for building owners and service providers, with a focus on serving priority audiences. Energy efficiency and emissions reduction are critical to meeting Seattle's climate goals, reducing grid impacts, and for reducing building owner costs. For example, Seattle has found that maximizing efficiency and load reduction in its own buildings, prior to updating fossil fuel systems to electric, often reduces the need for a costly electric service upgrade. This is a learning OSE is already bringing into the Accelerator program.

Funding for Engineering Design & Implementation

Property-owners providing affordable housing and nonprofit entities have limited resources to reduce emissions or "decarbonize" their properties. Traditional government and utility energy-efficiency programs, such as the existing low-income weatherization program, are sometimes limited in their ability to electrify fossil-fuel-burning equipment, requiring local jurisdictions to seek additional, external sources of funding to implement decarbonization projects, such as federal and state grants.

Fortunately, the City's 2024 budget included $4.5M specially allocated to fund capital improvements and engineering design for decarbonization retrofits in nonprofit and affordable housing buildings, as recommended by the City's Green New Deal Oversight Board. These funds are projected to support 10 to 15 buildings at $300,000 to $450,000 per project, based on a cost estimate for a concept plan to decarbonize and increase efficiency and resilience at a 50,000 ft^2 affordable housing building (City of Seattle September 2021) and an informal review of other projects. Although these funds only cover a fraction of the estimated 400 nonprofit or affordable

housing buildings that need to meet BEPS and may not necessarily fund full decarbonization, the support will help these buildings meet the initial Seattle BEPS targets and provide lessons learned on decarbonization paths. Administered by OSE, a portion of these funds are planned to be used to support eligible shovel-ready decarbonization projects managed by other City departments. Additionally, OSE plans to develop and launch a competitive grant program for other qualified building owners to apply for these funds in 2024 and will use that program should future funding be appropriated by the City or via an external award to the City.

Washington State is also providing funds for decarbonizing affordable housing, with $50M in the supplemental state budget for 2025. The state also has funding for building owners who comply with the state Clean Buildings law's requirements early, with particular support for nonprofit entities. The Bipartisan Infrastructure Law and the Inflation Reduction Act also include funding opportunities in various forms for decarbonization efforts. Targeting funding to buildings owned by or serving frontline communities will alleviate the financial burden of decarbonizing those buildings that are occupied by the communities that have faced the climate crisis first and worst.

Conclusion

Although every community is unique, as similar energy and emissions performance standards are deployed across the U.S. and Canada, numerous aspects of Seattle's policy and program landscape can inform other policy makers, program designers, program administrators and related professionals. For these individuals and their organizations, OSE offers the following takeaways:

- If policies and programs are intended to engage prioritized audiences or have an equity goal, then members of those communities should be fully integrated into the design and configuration of the policies and programs, both early and often in the development and on an on-going basis during implementation. Such integration requires a significant investment of time and resources, which needs to be considered and included when planning for policy and program development.
- Within program design and delivery, it is important to spell out which options and/or levers are available so that the program can be configured for different communities, markets, and other situations.
- Different audiences will require different recruitment approaches—a one-size-fits-all approach will yield one size of results and important audiences will be missed. Different approaches increase costs, timelines, and resource requirements.
- As more policies and programs are launched that affect given jurisdictions, the interactions of new requirements or offerings with those already in place must be considered and policies should be streamlined to the extent practicable. Jurisdictions should build support programs that integrate and reinforce policies, and collectively accelerate positive impacts across a market.
- Adaptability is critical, particularly when policies may be evolving even as a support program is being deployed: a program built atop shifting tides had better be able to surf.
- If the same audience could be helped by support from different programs, seek to integrate them up front to save participant time; especially those with limited internal capacity who don't have time to research multiple government/utility offerings or attend separate support programs. For example, engage local utility incentive program staff

early on with BPS support programs to add value to your participant's experience and reduce their costs of implementation.

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