Seattle
Office of Sustainability
& Environment

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Seattle Building Performance Standards

Online Open House | April 5, 2022

SUMMARY OF QUESTIONS AND ANSWERS

On April 5, 2022, the Seattle Office of Sustainability & Environment (OSE) hosted an online open house to share the actions the City of Seattle is considering to reduce climate-polluting emissions from large, existing nonresidential and multifamily buildings and to hear feedback from community members. **Approximately 350 people participated in the open house.**

At the outset of the open house, an interactive poll was taken to find out more about the attendees' roles. Of the nearly 300 that responded, attendees classified themselves as follows:

Facilities, engineer, or sustainability building staff	25%
Property manager	15%
Nonprofit or community-based organization representative	14%
Building owner or developer	12%
Government	12%
Energy efficiency service provider, HVAC contractor, ESCOs, etc.	7%
Other	6%
Architect or designer	4%
Business or nonprofit tenant	3%
Residential tenant	2%

The meeting was kicked off with remarks by OSE's Interim Director, Jessyn Farrell. OSE staff next provided an overview of how buildings contribute to climate pollution and the ways this pollution affects people's health and our community, especially impacting communities of color. Staff presented on building performance standards (BPS) — what they are, how they work, how they might complement current state and city policies, and what are their benefits. Following the presentation, staff responded to audience questions and comments.

This document summarizes answers to questions asked at the online open house, as well as questions sent in during registration. Some questions have been combined or edited for clarity, grammar, and readability.

To view the slides and/or a recording of the open house, visit **www.seattle.gov/building-performance-standards.** Comments and questions may be sent to **cleanbuildings@seattle.gov**.

POLICY AND TIMING QUESTIONS

- **Where can I find the recording and presentation from the webinar?**

  The recording is available at www.seattle.gov/building-performance-standards.

- **How can I remain engaged in BPS policy development? Is there an email where I can send my questions?**

  Comments and questions may be sent to cleanbuildings@seattle.gov.

- **When will the draft legislation be available to review? What are other opportunities for the public to learn about the policy and stay involved?**

  Pending further direction from the Mayor's office on timing, a draft is anticipated in summer 2022. We expect to post this on OSE's BPS website and to share policy details at an open house (date TBD). Announcements will be made in both OSE's general e-news and in OSE's benchmarking and tune-ups e-news. Sign up online here or email cleanbuildings@seattle.gov to be sent a link.

- **What are the actual BPS requirements or new energy use intensity (EUI) targets that you are looking to implement for existing multifamily and nonresidential buildings? Will there be prescribed EUIs similar to the Washington State Clean Buildings Performance Standard?**

  The details have not yet been determined. Input we receive through our stakeholder engagement process, including feedback from the open house, will shape the final policy. However, we do know that the City's focus is on carbon-based performance standards for emissions (e.g., greenhouse gas intensity). Because the State of Washington already has EUI targets established for commercial buildings over 50,000 sq. ft. (WA Clean Buildings Performance Standard), we have been seeking input from a Seattle Technical Advisory Group and others on whether the City should also have energy standards, or simply focus on emissions standards.

- **What will be the timeline of these requirements? How will they be phased?**

  The City envisions that the regulation would start with initial requirements in 2026 for the largest buildings, which would be consistent with the start of the WA Clean Buildings Performance Standards for energy being managed by the State. Other buildings would be phased in over time by size or type. Carbon-based targets would become more stringent over time, so that by 2050 we are at zero-emissions buildings. This long timeline provides more than two decades for building owners to plan for and reduce emissions in their buildings.

- **How will you get participation: voluntary, compulsory, incentivized, or some other mechanism? Will you conduct an implementation cost analysis? Specifically, will the City consider incentives for compliance, the scale of penalties for non-compliance, etc.? What happens if a building does not meet its target on time?**

  The ordinance will have required targets. Pending funding, incentives for early compliance or other circumstances are under consideration. OSE expects that fines will be levied for non-compliance. The details of the fines are to be determined and will be framed in the ordinance. Specific details on the violation process would be part of rulemaking – a public process to develop guidance for implementation of the ordinance – that would occur in 2023. The cost to comply versus the scale of penalties will be considered when the violation structure is determined.

- **Is the onus on the owner or the tenant to comply?**

  Following other requirements, like Energy Benchmarking and Building Tune-Ups, OSE expects that building owners will be required to comply; however, tenant responsibilities and the nature of equipment ownership will also be considered, likely during the rulemaking process in 2023.

- **What constitutes an "existing building"? If a new building opens in 2025, will it need to begin meeting these requirements in 2026? If so, how can we plan for new buildings to meet these requirements before they open?**

  How to phase in newly built buildings is to be determined and will be part of rulemaking – a public process that likely will occur in 2023. Developers of buildings who still have time to make changes to plans should consider adapting plans to follow the 2018 Seattle Commercial Energy Code (adopted in 2021/22), which prohibits fossil fuels in most new construction heating and cooling (HVAC) and domestic hot water. Visit the Seattle Dept. of Constructions and Inspection's website for more details.

- **How will the age of the building change the EUI target?**

  The building age as part of the targets is to be determined and will likely be part of rulemaking in 2023, after passage of the ordinance.

- **Why is the City approaching buildings by square footage, rather than an individual building's potential to bring the greatest benefits?**

  Square footage – starting with nonresidential and multifamily buildings 20,000 and larger – aligns with those buildings already required to benchmark and report energy use to the City of Seattle. These buildings also have the greatest emissions impact per building. This sizing also would correspond with the WA Clean Buildings Performance Standards for energy.

- **Is there a plan to have building owners replace gas, oil, and propane powered HVAC/generator/boiler systems with electric?**

  Each building owner will need to consider their own asset replacement plans and what makes sense for their building when transitioning off fossil fuel powered equipment. The City, pending funding, expects to provide technical support and guidance on planning and scoping, especially to owners who lack in-house capacity.

- **Will a building owner be able to get their own carbon offsets to help with compliance? Are there other clean energy sources besides electricity that are eligible for the standard?**

  The use of carbon offsets or other clean energy sources for compliance is to be determined and will likely be part of rulemaking – a public process – in 2023, after passage of the ordinance. It is important to remember that the end goal is zero emissions buildings by 2050, so offsets may be best suited for interim target phases.

- **How much is the path towards net zero achieved by usage reduction versus clean energy procurement?**

  Getting to net zero is best achieved through a combination of energy efficiency, usage reduction – both equipment and operational savings, and moving towards cleaner sources of energy. This fact sheet overviews a general path to carbon-neutral buildings. Each building will have its own opportunities.

- **Will there be an exception to the policy for health care companies? Laboratory and biotechnology facilities have much higher requirements for heating and cooling for safety (e.g., need 100% outside air for ventilation). Sustainable electrical heating requires on-site backup generation for these facilities, typically on-site diesel, where natural gas heat does not. How will the requirements for laboratory spaces be considered in the rulemaking process?**

  While we don't anticipate any wholesale exceptions or exemptions to the policy, we recognize that there are many situations, especially in health care and laboratory spaces, that may make certain electrical equipment less practical. These considerations will be addressed in rulemaking in 2023, and we are seeking input from health care and research entities.

- **Is it possible to comply with the standard outside of having a "professional" do the service?**

  The required qualifications of people doing work required to meet a Seattle BPS is to be determined and will likely be part of rulemaking – a public process – in 2023, after passage of the ordinance. In Seattle's experience, the Building Tune-Ups mandate has a Tune-Up Specialist requirement and, if "in-house" facilities staff meet the established qualifications, they can conduct and submit a tune-up. The State has qualifications requirements for the WA Clean Buildings Performance Standard, so alignment with that will also be considered.

MEASUREMENT, EVALUATION, DATA

- **How are greenhouse gas (GHG) emissions and energy use measured for an existing commercial or nonresidential or multifamily buildings? What metric will the City of Seattle be using — energy use intensity (EUI) or greenhouse gas intensity (GHGI)?**

  Emissions and energy use can be tracked in many ways. A common free online tool is ENERGY STAR Portfolio Manager, which is required for the existing energy benchmarking and reporting program. It is to be determined if the requirements will have EUI standards in addition to GHGI standards.

- **Will the City track EUI, or do building owners need to hire a vendor to do so?**

  Owners can use the EPA's free, online tool called ENERGY STAR Portfolio Manager, which is required for Seattle's existing energy benchmarking and reporting program to track emissions and energy use. Some owners have in-house staff benchmark and report annually, while others delegate to property managers or hire vendors. The City of Seattle keeps records of ENERGY STAR data reported and may require data verification to confirm accurate benchmarks in combination with Seattle building performance standards.

  Those qualified to complete data verification, if a benchmarking verification requirement is adopted, would be defined during rulemaking. Annually reported building performance data is available online via Seattle's open data portal. Pending funding, OSE expects to provide tools and support for owners to understand their emissions impact. A City tool that is already available is the interactive Energy Benchmarking Map, where owners and managers can review their building's personalized Energy Use and Emissions Report.

- **When will the 2020 or 2021 data be out on changes in Seattle's GHG emissions over time?**
  The 2020 Community Greenhouse Gas Emissions Inventory is expected to be completed in Fall 2022. For reference, check out the 2018 report here.

- **Is the City calculating additional benefits (i.e., many health benefits) from retrofitting and transitioning to clean energy?**

  The City is very interested in these additional benefits. At the national scale, transitioning buildings to clean energy will reduce mortality from pollution. A 2020 study showed pollution from building emissions is the largest cause of premature death in the U.S. and is an issue of climate justice as explained in this OSE infographic.

  At the building scale, there will be improved indoor air quality from removing gas cooking from residential units, as well as from energy efficiency improvements, such as heat recovery ventilation. The transition to heat pumps for heating will also provide the opportunity for cooling, which is increasingly becoming important during extreme heat and smoke events.

  We don't have good methods for calculating these benefits but are in the process of identifying trackable climate and equity metrics by area (e.g., at a neighborhood scale versus for individual programs) to provide additional context for evaluating emissions and energy reductions.

REBATES, INCENTIVES, OSE SUPPORT

- **Are there any kind of planned incentives from the City (e.g., for retrofitting older condos with electric vehicle (EV) charging capacity, for early adopters, for multifamily buildings, or for switching from gas to electric powered equipment? Will there be low-interest loans or grants, or credits for "in-kind" donated labor support?**

  OSE recognizes the need to support building owners to reduce emissions. We also know certain building types or situations may have more challenges. The goal is a flexible, equitable policy that reflects the need to rapidly reduce emissions from our buildings. We understand providing City support, pending funding, to help building owners make the transition, as well as ensuring a long lead time to develop programs are important for buildings to be able to meet specific emissions targets.

- **Is there any plan to do any kind of rebate proportional to energy use intensity (EUI) reduction?**

  This is to be determined but could be considered for greenhouse gas intensity (GHGI) reductions. The State of Washington has an early adopter incentive program for its EUI reduction requirements. Visit: https://www.commerce.wa.gov/growing-the-economy/energy/buildings/early-adopter-incentive-program/

- **What assistance can be provided to smaller business owners, often with just a few employees, to help change from fossil fuels to cleaner energy sources like electric?**

  This policy is focused on buildings 20,000 sq. ft. and larger, so many will be larger businesses. However, there are smaller businesses and small business tenants in buildings that are important to support. The Seattle Clean Buildings Accelerator program goal is to support building owners with less capacity and especially those in and/or serving BIPOC communities. Check the Accelerator webpage for future updates.

  Seattle City Light also has energy efficiency incentives for small businesses.

- **Would OSE be open to fund pilot projects?**

  While we don't have a funding pool currently, OSE is open to ideas for pilots that demonstrate decarbonization approaches in buildings. Knowing what the community considers as important projects is extremely valuable as the City responds to future state, federal, or other funding calls. Share your ideas at cleanbuildings@seattle.gov.

- **Will PACE (property assessed clean energy) financing be available?**

  Yes. King County has a new PACE program, called C-PACER. The C is for commercial buildings and the R means that the program can also fund resilience upgrades, such as seismic retrofits for earthquake safety. PACE programs allow building owners to finance for the cost of upgrades on the property assessment, so the loan runs with the property and transfers upon sale to the new owner. King County's C-PACER has great potential to help buildings owners finance long-term loans for retrofits that reduce emissions.

- **Will utilities like City Light offer lower rates or other incentives to encourage building owners to comply?**

  Seattle City Light — the publicly owned utility that provides GHG-emissions-neutral electricity to buildings and homes in the City of Seattle and surrounding communities — has one of the oldest utility energy efficiency programs in the country. It offers incentives and other innovative opportunities for residential and commercial customer energy efficiency deployment. Energy efficiency is an important component of decarbonization and electrification because it will help reduce overall energy consumption, which should keep energy costs lower. Additionally, energy efficiency projects like weatherization will improve the performance and comfort of HVAC systems. Learn more about the utility's energy efficiency programs for commercial and multifamily buildings.

  Current State of Washington law prohibits City Light and other publicly owned utilities from providing incentives that result in a customer switching from one energy source to another (Const. art. VIII, § 10.). Therefore, City Light does not currently have incentives (e.g., lower rates or rebates) that could cover the cost of equipment or customer-sited electrical infrastructure associated with electrification. This is an evolving policy area and City Light is committed to helping customers electrify within their authority.

- **Once the Seattle BPS are implemented, how will it affect current incentives such as Pay for Performance?**

  The Seattle BPS under consideration does not impact City Light's authority to offer incentives for energy efficiency. City Light will still be required to pursue all cost-effective energy conservation according to Washington state law (RCW 19.285.040).

  City Light's Deep Retrofit Pay for Performance program has existing methods to account for non-routine events or fuel switching that occur during a performance period. Learn more about Pay for Performance.

- **What kind of support will OSE offer to buildings that cannot replace equipment with electric alternatives due to space constraints?**

  How buildings with space constraints or other extreme barriers to upgrading to electric equipment will be further detailed in the rulemaking process. Pending funding, this is a potential area for technical support or incentives, such guidance on best practices, or

learnings from the City's work to transition its own buildings off fossils fuels by 2035.

EDUCATIONAL AND OTHER REQUESTED RESOURCES

- **Can OSE provide a list of contractors, vendor referrals, and trusted resources, as well as expected costs?**

  OSE does not have a contractor list currently, but we understand this is important. It is a support area we are considering through the future Seattle Clean Buildings Accelerator in partnership with local organizations like the Smart Buildings Center and utilities that already have contractor relationships. We have heard that matching projects with service providers, as well as promoting the growth of women, minority, and veteran-owned energy service providers are essential support areas. Washington DC's Building Innovation Hub has a "Find-a-Vendor" program that is potentially a good model.

- **Are there materials or case studies on holistic and equitable retrofitting projects that meet or exceed the Washington Clean Building Standard?**

  OSE is growing our library of case studies for projects or plans that reduce emissions. A recent example is the State of Washington Services for the Blind building that completed an all-electric retrofit that also meets the WA Clean Buildings Performance Standard energy targets. And, we have a new case study that highlights lessons learned from reducing emission in our own City buildings. For case studies on affordable housing, check out the Housing Development Consortium's Exemplary Buildings Program.

- **Where can I find more information on basic energy efficiency and electrification questions? Electric vehicle charging?**

  OSE is developing information resources on reducing emissions and electrification and will expand materials through our Seattle Clean Buildings Accelerator support program. Check out this fact sheet for an introduction on how to get to carbon-neutral buildings.

  City's Light's Lighting Design Lab has resources on electric technologies (not just lighting) and the utility has energy efficiency programs for commercial and multifamily buildings. Incentives are available for lighting, weatherization, and HVAC upgrades. The utility also provides information about electrification and has incentives for vehicle electrification. See this Construction and Inspections tips sheet on installing electric vehicle charging.

OVERLAP WITH EXISTING POLICIES AND PROGRAMS

- **How does this impact the City's existing Building Tune-Ups policy? Does this mean building tune-ups will be phased out?**

  Seattle is looking at benchmarking, tune-ups, and potential building emission performance standards as a package. We are evaluating how they fit together, align with City priorities, and offer benefits. We recognize the Building Tune-Ups policy has overlap with the WA Clean Buildings Performance Standard operations and maintenance requirement. Seattle is considering potential changes that will likely impact the third round of tune-ups. We welcome your feedback as we consider Seattle building performance standards. Please note, we anticipate building owners will need to comply with the tune-up requirement for the second "round" as deadlines are about two to three years ahead of the State Clean Building deadlines. The State has published a training video that highlights how a tune-up

can be used to help owners comply with the clean buildings policy. Additionally, in 2022, we are launching a Tune-Up Specialist mandatory training requirement that highlights how tune-up assessment elements align with the State requirement. For more information, visit Seattle's Building Tune-Ups FAQs.

- **How will Seattle's BPS work with green building certification programs, such as Built Green, LEED, ILFI, etc.? Many of these green building certification programs provide incentive programs like City of Seattle's Priority Green Program. How will Seattle BPS impact or enhance these incentive programs?**

  The Seattle Building Performance Standards policy under consideration is for existing buildings, whereas most of the green building certifications are for new construction so there is not a lot of direct overlap. Exceptions, however, include LEED O&M for existing buildings and the International Living Future Institute's (ILFL) zero energy certification, which could be used for an existing building retrofit. It is important that certification programs align with local policies and codes. Seattle's Priority Green, for example, already requires that projects eliminate fossil fuels, as does the International Living Future Institutes' Zero Energy certification with limited exceptions. OSE welcomes suggestions from certifiers about opportunities for alignment.

ELECTRICITY AND SEATTLE CITY LIGHT

- **Is electricity provided by City Light really carbon neutral?**

  City Light has achieved GHG neutrality since 2005 using industry-accepted practices and third-party verification. Every year, City Light completes an inventory of the utility's greenhouse gas emissions and reports these emissions to The Climate Registry's (TCR) voluntary greenhouse gas reporting program, which is called TCR's Carbon Footprint Registry. This inventory is third-party verified against TCR's protocols. City Light's resulting emission factors, published by TCR, are a representation of City Light's emission rates before offsets are applied. Each year, City Light purchases and retires registered and verified GHG offsets to achieve GHG neutrality against the emissions it reports to TCR, which includes the emissions associated with the energy provided to customers. Learn more about City Light's GHG emissions neutral electricity.

  Note that claims on carbon neutrality or other achievements may depend on who building owners report emissions to, how the emissions are calculated, and what instruments are applied to the emissions. There are a variety of GHG emissions reporting programs with complex calculations drawing from many, varied sources of data. Programs (state, federal, voluntary, etc.) may have their own respective methods, protocols, and/or procedures for quantifying emissions that can yield different results.

- **Can Seattle's electric grid handle new load anticipated by the adoption of this carbon-based building performance standard?**

  Yes. Seattle City Light recently concluded an electrification assessment that looked at a variety of electrification scenarios to determine how they would impact the utility's grid. The study outlines how much energy will be needed for the electrification of buildings, transportation, and commercial and industrial applications, as well as what capacity is available on the existing distribution grid. Electric retail sales have been decreasing over the

past decade due to energy efficiency and, in addition to the decarbonization and public health benefits of electrification, it is also key to maintaining affordable electric rates.

The electrification of space heating, space cooling, and water heating will cause significant increases in load over the next 20 years. To prepare for electrification, the utility is: (1) implementing a grid modernization roadmap, which includes improvements to make the grid more automated, flexible, reliable, and resilient, as well as conducting customer-facing, demand response pilots; (2) partnering with customers, agencies, and institutions to secure external funding for a portfolio of electrification-enabling solutions; and (3) continuing to invest in energy efficiency as a valuable resource for both the utility and customers. Learn more about the utility's Strategic Plan and how electrification fits into the rate path.

You can also read about the electrification potential assessment and grid modernization, as well as the utility's energy efficiency programs for commercial and multifamily buildings.

- **Are there forecasts for how this will impact the price of electricity?**

  City Light regularly forecasts near- and long-term future demand for electricity to balance supply and demand and minimize bulk electricity costs. Even as the Seattle region has experienced explosive growth over the past decade, City Light customers' energy consumption has been trending downward due to advancements in energy efficiency. Looking into the future, City Light sees electrification of buildings and transportation as key to stabilizing demand for electricity and maintaining the utility's rate path. Learn more about City Light's Strategic Plan. Individual electrification projects can have varying costs to serve depending on location, load profile, and future costs of procuring and delivering energy. Specific estimates for the retail rate impact of the BPS are not currently available but City Light will continue to study electrification impacts, including financial impacts.

- **How are we planning for new renewable energy sources to diversify beyond hydropower to meet our future needs?**

  City Light continues to invest in new technologies and approaches to energy conservation, energy storage, and other opportunities to meet our customers' energy needs. City Light has a 20-year Integrated Resource Plan (IRP) that outlines the utility's long-term strategy to supply reliable electricity to customers at a reasonable cost and risk, while protecting the environment and ensuring service equity. The IRP relies on only *new* renewables (e.g., solar and wind) and energy efficiency to meet future increases in electricity demand.

  Right now, hydropower is Washington state's primary energy source, providing 66%. Hydro projects provide affordable, low-carbon power and the flexibility to meet load when it is needed (not just when the sun is up or the wind is blowing). Hydropower projects also mitigate the impacts of climate change, manage flood risks, fund the implementation of fish and wildlife recovery and restoration programs, and more. But hydropower, like all energy sources, comes at a price. Large hydropower dams, such as the Skagit Project, would not be built today in the Northwest, because they are so disruptive to the surrounding ecosystem and communities, particularly Tribes and native fish populations.

  For those projects already built, we must focus on continuing to improve our mitigation efforts, while considering new technologies and other resource options to meet customers' future energy needs. The federal relicensing of the Skagit Project, which supplies 20% of City Light's power, is a crucial opportunity to look at how the dams affect the natural, cultural, and spiritual resources of the area. City Light is committed to continuing to work in

partnership with Tribes and state and federal agencies on relicensing to build a clean energy future and a vibrant Skagit River ecosystem.

Learn more about City Light's power supply and relicensing the Skagit River Hydroelectric Project.

- **Does increasing electrification, given City Light's high portion of hydropower energy supplies, create vulnerabilities given the impacts of climate change and potential drought conditions? Will there be enough water to make electricity in the future?**

  Hydropower provides clean, GHG-emissions-free energy now and will continue to be a valuable resource into the future, even as the climate changes. City Light is aware of and preparing for the effects of climate change on hydropower generation. To continue to provide environmentally responsible, affordable, and reliable power, City Light is planning and working to adjust to a changing climate. The utility has a Climate Change Adaptation Plan that identifies climate change impacts and vulnerabilities, and outlines actions City Light is taking to adapt their business practices to address impacts, such as drought, heat waves, and flooding. Additionally, City Light is developing a 20-year Integrated Resource Plan (IRP) that considers and plans for the potential impacts of climate change and electrification on long-term energy resource needs. The utility's IRP relies on only clean energy sources, such as new renewables (e.g., solar and wind) and energy efficiency to meet future increases in electricity demand. Learn more about City Light's climate change response.

- **Isn't electricity more expensive than gas in Seattle?**

  While electricity, as of 2022, is more expensive on a kBtu per dollar basis, equipment efficiency is a major factor when evaluating total cost. For example, heat pumps can transfer up to 300% more energy than they consume versus gas furnaces, which at best are 95% efficient. Heat pumps can also provide cooling – thereby reducing the need for chillers or other cooling equipment. OSE's recent case studies and concept plans for retrofitting buildings to carbon neutral electricity all resulted in annual utility cost savings. Other costs that should be considered include societal costs caused by the impacts fossil gas has on our climate, environment, and public health. The State of Washington and the Environmental Protection Agency (EPA) have estimated these costs to be in the range of $68 to $84 per MTCO2e.

SOLAR

- **Where do I find information on integrating solar power infrastructure for my building? Are there City or State incentive programs?**

  For City Light customers, if the solar system is up to 100 kW, customers are eligible to receive kWh credits on bills for the energy produced, known as net metering. These credits are valued at the customer's retail rate of electricity. Any solar energy generated that isn't immediately needed by the home or business goes back onto City Light's grid and is added to the account's net meter kWh credit balance, lowering the customer's future bills. Customers may also qualify for net meter aggregation, which allows them to share excess generation with one additional City Light billing meter that is under the same account name

and located on the same or a contiguous parcel. Sharing excess generation can reduce utility bills on an account not supported by the solar energy system.

All solar installations that connect to the City Light power grid are required to have an Interconnection Agreement. Since 2001, City Light has helped more than 4,500 customers link their solar electric systems to the grid. Learn more about solar, including federal and state financial incentives that may be available in addition to City Light's metering credits.

DISTRICT STEAM AND BPS

- **What is district stream?**

  District steam is an underground infrastructure where heat energy in the form of steam is piped to multiple buildings from a central energy plant or plants. In Seattle, CenTrio Energy (formerly Seattle Steam and Enwave) provides district stream to about 175 customers located in parts of downtown Seattle, First Hill, and Capitol Hill. Seattle Center and University of Washington also have centralized steam plants for their campuses.

- **How will this standard address district energy systems?**

  The standard will apply at the building level. The emissions that are generated from all energy sources used in the building would be factored into the overall emissions accounting, including the emissions associated with a district energy system. If a building were to use district energy that was reducing emissions over time to eventual carbon-neutral operations, then that could be a means to meet the standard. Alternatively, a building owner might decide to install their own on-site fossil free equipment to replace higher emission district energy.

- **If Seattle Steam (now CenTrio) is not currently considered as a "clean" or non-fossil fuel combustion distribution system, why is it allowed to be used for a newly permitted building today? (Refer to 2018 Seattle Energy Code C403.1.4, exception #14).**

  CenTrio has a franchise agreement with the City of Seattle, which was approved by the City Council, to provide thermal energy, including steam and hot water/chilled water to buildings in a very specific geography (only downtown core) of the city. We typically do not see CenTrio providing service to newly constructed buildings and they are not currently authorized to provide steam or hot water/chilled water outside of their existing service territory.

EQUITY AND ENVIRONMENTAL JUSTICE

- **How is the City incorporating environmental justice and equity considerations in policy development?**

  This work is grounded in the values of the Green New Deal. OSE has framed out the following equity goals for the building performance standards policy:

  - Include equity-focused support services for low-resource building owners, particularly alleviating cost impacts on affordable housing and small businesses.
  - Minimize the risk of displacement and ensure Black, Indigenous, and people of color (BIPOC) communities benefit from healthier living and working spaces.

- Provide clean energy career initiatives to maximize the economic benefits and opportunities of the generated economic activity for BIPOC communities and women.

As part of policy development process, we have several inclusive engagement efforts underway. These include online open houses, a technical advisory group, an affordable housing advisory group led by the Housing Development Consortium, and workforce strategy development led by Emerald Cities. OSE is also meeting with nonprofit and community-focused building owners, residential tenants, small businesses, community organizations, labor groups, and building ownership organizations.

- **I'm concerned that this policy could discourage multifamily housing in Seattle, especially for affordable housing. How will this be addressed? Will there be funding to offset the costs of compliance for affordable housing operators? How is the City interfacing with O'Brien 360 study on retrofitting existing developments? What is the City doing to make sure the cost is not passed down to the tenant, when it should be on the building owner?**

  OSE is a participant in the Housing Development Consortium's (HDC) BPS Resilient Retrofits Advisory Task Force. HDC is looking at what it takes, technically and financially, to transition existing, subsidized, affordable housing to carbon neutral.

  Seattle's participation in the American Cities Climate Challenge is funding the affordable housing retrofit study by O'Brien 360 that is underway (as part of the HDC program). This study will look at situations in different building types and conduct building audits. The Task Force is discussing and envisioning how upgrades to affordable housing can be supported and funded and how building upgrades fit within typical funding cycles. Their recommendations will be provided to the City to inform ways to ensure this policy provides benefits people living in these buildings. We are also seeking federal funding for additional capital support for affordable housing.

  Through data analysis with the Office of Planning and Community Development, we are looking at the landscape of lower-rent (more affordable) unsubsidized buildings, especially those larger than 20,000 sq. ft. A policy goal is to avoid situations where retrofits increase rents. By first understanding what buildings may be impacted, we can then develop programs, such as incentives or other policy measures, that reduce the need for an owner to pass down costs. The policy's goal of developing targets now, with a long lead time for implementation, will support the development of these important companion policies and programs.

- **How is the City taking gentrification into account? Are large private residential developments (even single-family homes) exempt from this ordinance?**

  Potential impacts of this policy on housing affordability are being addressed through the affordable housing work (see answer to question above). This policy is directed at larger multifamily and nonresidential buildings 20,000 sq. ft. and larger, so would not impact single-family homes. The City understands, however, that future policies and programs will need to be developed for single family homes, as their climate-polluting emissions are estimated to be about 44% of the emissions from buildings.

- **Will there be differing BPS established for high-intensity uses, especially multifamily housing adjacent to high-capacity roadways?**

The specific BPS targets by building use will be considered during the rulemaking process. Occupancy density is a known concern for setting appropriate multifamily space use targets so would be considered as part of the rules.

WORKFORCE

- **How will the City re-train workers from the gas industry, like pipefitters, to switch to work on building retrofits?**

  The City has been in discussion with labor trade unions on this policy. What we've learned in those conversations is that there are some gas pipefitters who work in buildings that could be retrained to work on HVAC-R (refrigerant pipes). Not all gas pipefitters would need to be retrained as there will still be a need for gas pipefitters to maintain existing pipe infrastructure. The additional retraining and any associated worker pay protections will require investments and planning, and the City is committed to working with the gas pipefitters union to identify strategies that ensure workers are not negatively harmed by this policy.

- **Are there any current building operator training requirements in Seattle?**

  Depending on the nature of the work, there are certain requirements such as the Steam Engineer & Boiler Operator Licensing required by the City of Seattle to safely operate boiler systems. For training on how to operate a building for tenant comfort and energy efficiency, facilities staff should consider the voluntary Building Operator Certification program operated by the Northwest Energy Efficiency Council.

- **Who can I get in touch with at the City regarding workforce development?**

  Various City departments are involved in workforce development policies and programs, and not one department oversees that work. We recommend that if you have questions or comments related to workforce development and building performance standards, to send an email to cleanbuildings@seattle.gov.

- **I'm concerned that this policy could cause labor and equipment shortages, with everyone upgrading energy efficiency and electrifying at the same time. This could lead to an increase in prices and delays in implementation. Are there efforts to manage this influx of demand?**

  A Seattle Building Performance Standard would be phased in over two decades, so we don't expect all buildings to perform building upgrades all at once. However, we recognize that there will be a need for workforce investments at the local, regional, and statewide levels to meet demand and that will require partnerships with trade unions, trade schools, and other organizations. Recently, the City issued a $1-million RFP to support workforce development in the clean energy construction and trades sector, and we hope to continue to build on investments like this in the future, especially with a focus on inclusion and diversity. Additionally, we expect to communicate with equipment distributors and manufacturers, and share applicable buildings data that will help them plan for equipment supply and demand.

- **Will there be training opportunities on new systems for building maintenance staff?**

  Training of facilities staff on any new systems is an important part of workforce development and will be considered as part of the broader efforts described in the question above.

BROADER BUILDINGS AND CLIMATE GOALS

- **Will the City be doing a complete detailed plan for decarbonization of all buildings in Seattle to meet the City's 2030 GHG reduction goals?**

  In November 2021, the City completed a Climate Impact Actions report that outlines the actions needed to center community needs and reduce emissions from both transportation and buildings. That report has been presented to the Green New Deal Oversight Board as a starting place for their work to explore and make recommendations to inform how the City moves toward a just clean energy future that creates jobs and advances an equitable energy transition.

  The City also continues to be guided by the 2013 Climate Action Plan, 2018 Climate Action strategy, and Equity & Environment Agenda.

- **When will the City start work on smaller buildings to meet the City's GHG goals? This is half of the buildings GHGs, right?**

  The City currently has a Clean Heat program that provides rebates for middle-income households, and full funding for lower-income households, to replace oil heating with electric heat pumps. For more information, see the resources section here: http://www.seattle.gov/environment/climate-change/buildings-and-energy/seattles-heating-oil-law. We are seeking funding to expand that voluntary program to also support transitioning folks from gas heating and hot water to electric heat pumps and from gas to electric stoves. Beginning in 2023, we will be evaluating additional policies to broadly ensure single family, townhomes, and smaller multifamily buildings are transitioned to net-zero emissions. For smaller commercial buildings, we anticipate beginning more in-depth policy evaluation when building performance standards rulemaking is complete and implementation underway.

- **Will the building performance standards address all greenhouse gas emissions (e.g., methane, refrigerants)?**

  The emission factors to be used for each of the energy sources will be determined in rulemaking but are expected to use existing and recognized data sources such as the EPA. We need to conduct further evaluation to better understand how methane leakage may or may not be accounted for in these data sources. No determination has yet been made on whether to incorporate emissions related to refrigerant use; however, we will want to be cautious about not duplicating any regulations that may be enacted at the state level.

- **Has anyone at the City or State done life cycle emissions calculations that account for factors like embodied energy and increase in mining?**

  The City has not conducted life cycle emissions calculations. We are unfamiliar with any such work by the State.

- **Have any building modeling or feasibility studies have been done to support the City's decarbonization goals?**

  At the larger scale, in terms of evaluating the overall policy impact, we are working with SBW Consulting to do technical analysis of different policy pathways. The evaluation will look at the impacts of differing emissions target levels and of a range of timelines. On the individual building level, we've also done planning case studies to model the energy and

carbon reductions from building retrofits. These, as well as case studies of decarbonization projects that have been implemented, are available on our OSE's BPS webpage.

- **It's good to see the focus on GHG reduction versus general energy efficiency. This will require energy transitions and funding is an issue. It's disappointing to see the State has not made progress with gas company regulations (e.g., SB5668/HB1766). How can Seattle address this when PSE is the natural gas provider?**

  The Seattle Building Performance Standards will focus on limiting and reducing greenhouse gas emissions from the combustion of fossil fuels, including natural gas, in buildings. The regulation would be placed on the building owner, not the gas utility. State legislation and the Utility and Transportation Commission (UTC) regulate natural gas utilities in Washington.

- **Is the City cued up for federal funding to support decarbonization work?**

  The City is actively tracking and monitoring federal and state funding opportunities and has identified building decarbonization and efficiency as critical funding priorities. We are expecting notice of funding opportunities to be released by federal agencies in the fall of this year and will be prepared to pursue all grants that align with the City's climate action goals.

- **What are the current and future requirements to eliminate gas in commercial kitchens?**

  There are currently no requirements in the City of Seattle to eliminate gas in commercial kitchens. Because Seattle Building Performance Standards would address the total emissions from each building, the emissions from cooking equipment within those buildings would be included in a building's overall emissions accounting. We are continuing to seek stakeholder input on whether there might be allowances made for kitchen equipment as part of the policy, with final guidance to be addressed during rulemaking.