



Office of the City Manager

ACTION CALENDAR
February 11, 2025

To: Honorable Mayor and Members of the City Council

From: Paul Buddenhagen, City Manager

Submitted by: Jordan Klein, Director, Planning and Development Department

Subject: Proposed Amendments to the Building Emissions Saving Ordinance (BESO)

RECOMMENDATION

Adopt the first reading of amendments to the Building Emissions Saving Ordinance (BESO), Chapter 19.81 of the Berkeley Municipal Code (Attachment 1), to establish a flexible resilience standard for residential buildings containing up to four units.

SUMMARY

Berkeley's Building Emissions Saving Ordinance (BESO) is one of the City's main programs designed to reduce energy use, water consumption, and greenhouse gas (GHG) emissions from existing buildings. In 2015, the initial adoption of BESO removed the mandatory prescriptive requirements previously required in Berkeley's predecessor legislation, the Residential Energy Conservation Ordinance (RECO), and instead focused on an assessment-based approach at time of sale. Currently, BESO relies on building owners to voluntarily complete energy upgrades to decrease their building's emissions. However, only 2-3% of building owners are known to have completed upgrades under BESO's voluntary model. In 2020, when the City Council amended BESO, it directed staff to develop upgrade requirements for Council consideration. These proposed amendments to BESO would re-establish mandatory time of sale requirements for one-to-four-unit residential buildings, ensuring upgrades that increase resilience are made alongside the existing energy assessment requirement; both are critical to achieving Berkeley's ambitious climate action and GHG reduction goals. In addition to time of sale requirements, staff will develop building performance standards for large buildings for future Council consideration.

On December 2, 2024, staff met with Council's Land Use, Housing, and Economic Development (LUHED) Policy Committee, which voted to forward the proposed amendments to City Council with a Qualified Positive Recommendation. The committee's recommendations have been addressed in this proposal.

The proposed amendments to BESO would establish a flexible resilience standard that requires owners of small (one-to-four-unit) residential buildings to complete upgrades when a property is sold. These proposed time of sale requirements allow building

owners to choose from a menu of measures to satisfy the requirements, to accommodate building conditions and owner priorities. For homes that have not met compliance prior to sale, an escrow deposit would ensure that funds are set aside to help the buyer complete the upgrades. The proposed BESO amendments include exemptions for first-time home buyers receiving Federal or State assistance, all-electric buildings, and buildings that have at least one heat pump system.

The proposed time of sale requirements cover one-to-four-unit residential buildings and would be implemented in two phases beginning in 2026.

FISCAL IMPACTS OF RECOMMENDATION

Current staffing levels within the BESO program are sufficient to accommodate these proposed BESO amendments if updates are made to BESO's compliance software. Updates to BESO's online application portal would incorporate the new workflows and application types, develop additional automations to reduce staff time, and provide additional customer support options for building owners. One-time costs to upgrade BESO's compliance software would not exceed \$100,000. There is currently \$20,000 allocated from a budget referral that can be used for that software upgrade; the remaining \$80,000 could be funded through the Permit Service Center baseline budget. The ongoing software licensing costs are covered by existing program fees and would not increase as a result of the recommended action.

Currently, the Finance Department allocates 0.5 FTE of an Accounting Office Specialist II to process escrow deposits for Berkeley's Private Sewer Lateral Program. BESO would require a similar process, requiring an additional 0.5 FTE position to process the new escrow deposits. Recovering this cost would be addressed through a new fee to obtain a BESO Certificate. This fee, of approximately \$150, will be included in an updated BESO fee structure that will be brought to City Council within the next year.

Fiscal Impacts on the Property Owner:

The seller would maintain responsibility to complete the current BESO energy assessment requirement, which currently costs an average of \$350 per dwelling unit. The cost to a buyer to complete upgrades, if compliance was not met prior to sale, varies depending on which upgrades are selected and the building characteristics and condition. Additionally, if upgrades are needed, a \$7,000 deposit for this purpose would be held by the City through escrow. Funding for the deposit would be negotiated between a buyer and a seller. The easiest and cheapest upgrade that meets compliance is to install a heat pump water heater, with a current median cost of \$6,700-\$7,900¹ in Alameda County without rebates and under \$5,000 with currently available rebates and tax credits. Additional rebates and tax credits are available to offset the costs of heat pump water heaters and other upgrade measures to reach compliance.

¹ Based on project installation data available for Alameda County from BayREN Home+ participation data (January 2020 to March 2024) and TECH Clean California (July 2021 to November 2024), <https://techcleanca.com/public-data/> accessed 12/31/2024.

CURRENT SITUATION AND ITS EFFECTS

Expanding BESO to establish a time of sale resilience standard for small residential buildings responds to City Council direction to staff in 2020² to develop energy upgrade requirements for Council's consideration. This work is a Strategic Plan Priority Project, advancing the City's goal to be a global leader in addressing climate change, advancing environmental justice, and protecting the environment.

Berkeley's BESO is one of the City's main programs to improve indoor air quality and reduce GHG emissions from existing buildings. Since BESO's adoption in 2015, more than 4,200 BESO assessments have been completed and more than 300 medium and large buildings have been regularly tracking and reporting their energy use. However, BESO has relied on voluntary uptake of the assessment recommendations to achieve Berkeley's climate action goals, and few building owners have acted. BESO currently includes an exemption pathway that allows building owners to complete energy upgrades in lieu of an assessment, and only 2-3% of building owners have opted to complete energy upgrades. The proposed amendments to BESO, which would require a flexible resilience standard at the time of sale, are critical to achieving Berkeley's ambitious climate action and GHG reduction goals and its goals of improving public health and the resilience of its built environment.

There are several benefits to requiring buildings to complete upgrades when sold, if compliance hasn't already been met. Many new homeowners renovate soon after moving in and buyers can incorporate the cost of the upgrades into their budget when purchasing a home, and negotiate with the sellers on the escrow funds for compliance. The proposed resilience upgrades can help new homeowners improve the comfort and indoor air quality of their new home, decrease utility costs, increase safety, or prepare their home for compliance with the Bay Area Air Quality Management District's (BAAQMD) upcoming zero NOx appliance standards by completing necessary electrical upgrades to ensure a seamless transition when their gas water heater or gas furnace requires replacement.

Flexible Resilience Standard:

The proposed amendments would establish a flexible resilience standard for small residential buildings based on a credit system. Building owners who have already taken steps to reduce emissions by installing a heat pump water heater or heat pump HVAC

² Staff Report and Ordinance regarding amendments to the Building Emissions Saving Ordinance (Council meeting on December 1, 2020): <https://berkeleyca.gov/sites/default/files/documents/2020-12-01%20Item%2013%20Proposed%20Amendments%20to%20the%20Building.pdf>

system would not be required to complete additional upgrades. This standard only applies to properties that are being sold.

The resilience standard would use a credit-based compliance system to ensure the greatest flexibility. Building owners can choose which measures to complete in order to accommodate the range of building conditions and owner priorities. Each measure would have a corresponding credit value based on its emissions savings. Measures that contribute to resilience but don't directly reduce emissions would have credit values based on cost. Bonus credits may be added to specific measures that provide additional health, safety, or equity benefits. Initial measures include:

- Heat Pump Water Heater
- Heat Pump HVAC
- EV Charging Station
- Bi-Directional EV Charger
- Induction Range
- Knob and Tube Replacement
- Panel Upgrade
- Pre-wiring & 240v Outlets
- Smart Panel
- Duct Sealing/Replacement
- Attic Insulation
- Wall Insulation
- Window Replacements
- Air Sealing
- Floor Insulation/Crawlspace Improvement
- Solar PV Installation
- Battery Storage Installation
- Greywater System

Staff will assemble a Technical Advisory Committee to establish guidelines for each measure, formalize the credits and scoring criteria, and vet new measures to include. See **Attachment 2** for the list of measures and example credits.

The cost of compliance will vary, as a building owner can choose which measures to complete based on their home's conditions and priorities. Buyers may also recoup costs through their monthly utility bills from upgrades measures that increase energy efficiency. Many of the measures align with current rebates or tax credits provided by Federal, State, and local programs, such as TECH Clean California and the Inflation Reduction Act. For example, switching out a gas water heater for an electric heat pump is an easy and straightforward path to compliance. Without rebates, the average purchase and installation cost of a heat pump water heater in Alameda County is approximately \$6,700-\$7,900³. Currently, a heat pump water heater installation is eligible for a \$1,100 or \$1,800 rebate (based on tank size) through TECH Clean CA and a \$2,000 Federal tax credit, reducing the average cost of a heat pump water heater to under \$5,000. An additional \$2,000 incentive is available for electrical upgrades through

³ Based on project installation data available for Alameda County from BayREN Home+ participation data (January 2020 to March 2024) and TECH Clean California (July 2021 to November 2024), <https://techcleanca.com/public-data/> accessed 12/31/2024.

TECH Clean CA. These rebates are subject to change based on available funding. See **Attachment 2** for additional compliance cost examples.

In the case where the building is not all-electric, does not have a heat pump, and has not met the requisite number of credits in the last five years, the buyer would have up to three years from the date of sale to make upgrades that comply with the flexible resilience standard.

If upgrades are needed, a monetary deposit would be held by the City through escrow, serving as an important compliance mechanism to ensure that upgrades are completed. Funding for the deposit can be negotiated between a buyer and a seller. A similar escrow deposit process is currently used to enforce Berkeley Municipal Code Chapter 17.24, Abatement of Nonconforming/Substandard Sewer Laterals on Private Property. The deposit would be set at \$7,000, roughly equivalent to the minimum cost of compliance. The escrow deposit is less than 0.5% of the average home sale price in Berkeley, \$1.5 million.

The deposit would be refunded in full once the buyer meets the flexible resilience standard. If the buyer does not complete the required upgrades before the expiration of the three-year deadline, the deposited funds would be forfeited and transferred to the City. In response to the LUHED's recommendation to incorporate a "safety valve" to ensure the buyer has sufficient time to complete upgrades, additional extensions may be granted beyond the three-year deadline for delays beyond the buyer's control, such as delays due to utility capacity or equipment supply chains, delays required to minimize disruption to tenants, or financial hardship. The flexible resilience standard may be enforced by fines and penalties, as well as forfeiture of the escrow deposit. The forfeiture of the deposit will serve as a last resort to encourage compliance. Staff will proactively work with homeowners to utilize the deposit to improve the resilience of their newly purchased home.

An escrow deposit helps to ensure upgrades are completed after the sale. It serves as a monetary incentive for buyers to complete the required upgrades in a timely manner to receive their deposit back. If upgrades are not completed by the end of the extension period, the forfeited deposit would be held in a separate fund and used to reduce emissions in low-income homes through such programs as the City's Climate Equity Fund or Just Transition Residential Electrification Program, further helping to guarantee emissions savings from BESO.

All-Electric Building and Heat Pump System Exemptions:

To increase the resilience of Berkeley homes and to reduce their GHG and air pollution emissions as soon as possible, the proposed amendments include a heat pump exemption pathway to encourage early compliance. Buildings in which all units are served by at least one electric heat pump system are deemed fully compliant and qualify for an exemption from any additional upgrades required by the flexible resilience

standard. A heat pump system would qualify a building for an exemption regardless of when the system was installed.

Gas-based water heating and gas-based space heating are the two largest sources of GHG emissions in Berkeley homes, and electrifying either one of these systems will yield significant emissions reductions. By providing a heat pump system exemption, building owners are incentivized to use currently available rebates to achieve BESO compliance and reduce their home's emissions well before they intend to sell. Based on data collected through BESO's Home Energy Score Assessments, an estimated 5-7% of Berkeley homes have at least one heat pump system and would already qualify for this exemption.

Additionally, because they have already substantially eliminated emissions, all-electric buildings that have electrified all building systems and appliances and capped all gas lines are exempt from the BESO assessment requirement and the flexible resilience standard.

Covered Buildings and Phase-In:

The proposed time of sale requirements would cover one-to-four-unit residential buildings. Accessory dwelling units (ADUs) and condominiums are exempt from the proposed time of sale requirements following the recommendation of the LUHED Policy Committee. Each year around 2-3% of Berkeley's one-to-four-unit residential building stock is sold. The following approximate number of buildings would need to complete upgrades each year, assuming compliance hasn't already been met:

Building Type	Avg. # of Buildings Sold per Year	% of Annual Property Sales ⁴
Single Family	600	61%
Duplex	60	6%
3-4 Units	50	5%

The proposed time of sale requirements would be implemented in two phases:

- **Time of Sale Phase I - Single-family homes and Duplexes:** These buildings cover ~70% of Berkeley's annual real estate sales. Requirements for these buildings would take effect January 1, 2026.
- **Time of Sale Phase II - Triplexes and Fourplexes:** These buildings are often rental properties, and many have a complex mix of shared and in-unit systems. Requirements for these buildings would take effect on January 1, 2028. The additional time will help ensure that staff have the capacity to adequately implement the program at a larger scale, and will also allow policymakers time to

⁴ The remaining 28% of sales include vacant lots, commercial buildings, industrial buildings, 5+ unit multifamily buildings, and condominiums.

consider whether to establish additional renter protections to mitigate any unintended consequences that may result from required construction projects.

BESO's time of sale requirements will continue to exclude condominiums, refinances, transfers due to inheritance, and partial transfers, such as a change in title due to marriage or divorce.

Energy Assessment Requirement:

The current BESO energy assessment requirement will be maintained, requiring sellers of one to four-unit residential buildings to complete a comprehensive energy and electrification assessment prior to listing their building for sale. The assessment will confirm whether a building qualifies for an exemption by having at least one heat pump system or if the buyer needs to complete upgrades to meet the flexible resilience standard. If upgrades are required, the assessment will recommend which upgrades to prioritize based on a building's conditions, list the current incentives for each upgrade, and provide clear instructions on how to achieve the required credits. The current ability to defer the assessment responsibility to the buyer would be eliminated to ensure the BESO compliance status of a property is communicated to all potential buyers when the property is listed for sale.

Additional Support and Exemptions:

The BESO team will create robust compliance guides and resources to help buyers and sellers understand their new responsibilities during the home sale process. Staff developed a draft compliance guide for buyers and sellers, see **Attachment 3**. Guidance will be added to the BESO website and the BESO helpdesk will continue to provide prompt and comprehensive customer service. Additionally, BESO's automated email system will notify buyers of their resilience standard requirement at frequent intervals to make sure that new homeowners utilize their escrow deposits and upgrade their homes. Staff will also continue to proactively work with the real estate community, including webinars and in-office presentations to educate the real estate professionals on requirements, timelines, and to ensure a smooth sales process.

Many of BESO's current deferrals and exemptions would no longer be relevant to small residential buildings, such as a major renovation deferral, but new exemptions and support are proposed to help building owners comply with the upgrade requirements. Some exemptions and support opportunities for building owners include the following:

- **First-time Homebuyers** – First-time homebuyers participating in an approved income-qualified first-time home-buying program or down payment assistance program would be exempt from the flexible resilience standard, as the additional costs of upgrade requirements could prevent these income-qualified buyers from purchasing in Berkeley. These owners will still receive the assessment and will be encouraged to apply for other income-qualified incentive programs to help improve the resilience of their new home.

- **Early Refund Support** – Building owners may apply for an early refund of their deposited funds if they supply sufficient evidence, such as issued building permits and a contract for qualifying work, to show the upgrades will be completed.
- **High Home Energy Score Credit** – Buildings that demonstrate a high level of energy efficiency by receiving a high Home Energy Score would receive bonus credits, so fewer upgrades would be needed to meet the standard. High-scoring buildings are often smaller buildings with lower energy use, and those that have already completed several energy efficiency upgrades in the past.
- **Hardship Deferral** – A building owner may be eligible to defer the required upgrades past two years if experiencing financial hardship. Financial hardship may be demonstrated by participating in an income-qualified energy assistance program, participating in a property tax postponement program, or providing other proof establishing a financial incapacity to complete the required upgrades within three years of the sale.

BACKGROUND

The development of time of sale energy upgrade requirements was recommended in the BESO evaluation completed in 2015, directed by Council in the 2020 BESO Amendments, and was one of the four recommended strategies of Berkeley's Existing Building Electrification Strategy (BEBES) adopted by Council in 2021.

On December 2, 2024, staff met with Council's Land Use, Housing, and Economic Development Policy Committee which voted to forward the proposed amendments to City Council with a Qualified Positive Recommendation that City Council also:

1. Remove condominiums and ADUs from the Building Emissions Saving Ordinance.
2. Provide the "Building Owner" 5% annual interest on the deposit funds held by the City prior to awarding a BESO Certificate of Compliance.
3. Include language indicating protections or a "safety valve" to avoid forfeiture of deposit funds with the City.
4. Include that after a two-year period, the City will reach out to the "Building Owner" and offer a one-year extension to boost compliance.

These recommendations have been incorporated into the proposed amendments to BESO except for providing annual interest on the escrow deposit. The Policy Committee cited as precedent for this policy the existing provision in BMC Chapter 13.76 that requires landlords to pay annual interest on a tenant's security deposit. The annual interest rate for that payment is equal to the average rates of interest paid on six-month certificates of deposit by banks doing business in the City of Berkeley, which have

typically ranged between 0.1-0.2% over the last 13 years.⁵ No City program, including the Private Sewer Lateral program, requires the City to pay interest on funds held by the City. Staff do not recommend establishing annual interest payments on the escrow deposit, primarily due to the potential budget implications and additional administrative burden associated with establishing such a payment program. Providing the building owner with 5% interest is estimated to cost the City roughly \$800,000⁶ a year, not including administrative costs.

Path to Requirements

Prior to the passage of BESO in 2015, the City maintained time of sale requirements for residential buildings since 1987 through the Residential Energy Conservation Ordinance (RECO).

RECO played an important role in advancing building energy and water efficiency and reducing Berkeley's GHG emissions. The ordinance prescribed a list of basic energy- and water-saving measures that were required to be installed in residential buildings at the point of sale or during significant remodels.

In 2015, RECO was replaced by BESO to create a more individually tailored approach to energy upgrades and achieve deeper energy savings and emissions reductions from existing buildings. RECO's prescriptive measures were out of date with building science, lacked flexibility, lagged behind the current Title 24 California Energy Code, and did not align with rate-payer funded incentive programs. BESO removed the mandatory prescriptive requirements and instead focused on an assessment-based approach. BESO currently requires building owners to complete a comprehensive energy and electrification assessment which provides information on how to best upgrade their building to decrease energy, emissions, and operating costs. By providing valuable information on energy saving opportunities as well as access to incentive and financing programs, the goal of BESO was to on-ramp building owners to local energy efficiency and electrification rebate programs, such as BayREN Home+. BESO has relied on building owners to voluntarily complete energy upgrades to decrease their building's emissions.

In 2019, an evaluation of BESO was conducted by Energy Solutions to evaluate the outcomes of the program.⁷ The evaluation assessed whether BESO was meeting its goals of being easy, affordable, and valuable and identified ways to better align BESO

⁵ <https://rentboard.berkeleyca.gov/rights-responsibilities/security-deposits/security-deposit-interest-calculator>

⁶ Estimate is based on a 5% interest rate on a \$7,000 deposit for 710 buildings sold annually. A 5% interest rate would yield approximately \$1,130 over the three-year deposit holding term

⁷ Staff Report regarding the Evaluation and Recommended Updates to the Building Energy Savings Ordinance (Special City Council meeting of July 21, 2020):

<https://berkeleyca.gov/sites/default/files/documents/2020-07-21%20Special%20Item%2002%20Evaluation%20and%20Recommended%20Updates.pdf>

with Berkeley's policy goals of electrification and community resilience. The evaluation concluded that mandatory energy upgrades are needed to achieve Berkeley's climate action goals and transition our buildings off fossil fuels.

Based on the BESO evaluation, Berkeley City Council amended BESO in 2020, further aligning BESO with the City's emissions reduction goals, streamlining requirements for small and medium-sized buildings, and directing staff to develop time of sale requirements for Council's consideration.

In November 2021, Berkeley City Council adopted the Berkeley Existing Building Electrification Strategy (BEBES)⁸, which provides a framework for the transition to all-electric buildings in a way that includes and benefits all residents, especially members of historically marginalized communities. One of the four primary electrification strategies identified in BEBES was to develop and implement time of sale energy upgrade requirements through BESO.

The proposed BESO requirements would also help prepare Berkeley building owners for the recent Bay Area Quality Management District (BAAQMD) ruling that will prohibit the sale and installation of NOx emitting water heaters and furnaces, starting in 2027. In spring 2023, BAAQMD amended two Air District rules to support improvements to regional air quality and public health, Regulation 9 – Rule 4 (Rule 9-4) and 6 (Rule 9-6). Beginning in 2027, Rule 9-6 will only allow the sale and installation of zero-NOx residential water heaters (75,000 BTU/hr or less) throughout the Bay Area. In 2029, Rule 9-4 will require zero-NOx residential and commercial furnaces. Because no gas systems can currently meet a zero-NOx standard, building owners will be required to install electric heat pumps. While this is a step forward for building electrification, some homes may need additional electrical upgrades to accommodate these all-electric systems. The proposed update would help new homeowners prepare their homes for their future heat pump installations. When their gas systems fail, a replacement with an electric heat pump will be a simple and straightforward replacement. The proposed BESO requirements and BAAQMD's new ruling complement each other by having different trigger points (time of sale for BESO and time of replacement for BAAQMD Rules 9-4 and 9-6), but are both satisfied by installing heat pumps instead of new gas systems.

Developing the Proposal

Based on extensive community outreach, staff developed six objectives to guide the development of this proposal:

- **Accelerate building electrification and resilience upgrades** – Create upgrade requirements to reduce harmful emissions and increase resilience.

⁸ <https://berkeleyca.gov/your-government/our-work/adopted-plans/berkeley-existing-buildings-electrification-strategy>

- **Promote early compliance** – Encourage building owners to complete the BESO upgrades as soon as possible, prior to selling their building.
- **Align with available resources** – Include requirements that are eligible for incentive programs or other resources to offset costs.
- **Ensure smooth sales process** – Align requirements and timelines with the selling/buying process.
- **Provide flexible compliance paths** – Allow owners to prioritize upgrades that improve the health, safety, and comfort of their building and maximize ease of compliance.
- **Ensure renters are protected** – Prevent additional burdens for renters while improving rental units.

These objectives provided the framework when working with partners and groups on the potential upgrade requirements.

Technical Advisory Committee:

Staff assembled a Technical Advisory Committee (TAC) in spring 2023 to provide expert input on energy upgrade requirements for small residential buildings to accelerate decarbonization in existing buildings. The TAC included contractors, architects, BESO assessors, and building decarbonization experts from local, state, and federal organizations, such as PG&E, Ava Community Energy, California Energy Commission, Berkeley Lab, BayREN, and the Building Decarbonization Coalition. Staff facilitated a series of meetings to discuss various policy components and developed a list of energy upgrade measures. Key takeaways from the TAC included:

- 81% of the TAC supported establishing a heat pump system as baseline compliance, with the remaining 19% noting this was either too low or too high of a requirement.
- 85% of the TAC supported allowing building owners to choose which measures to complete, using a credit-based compliance system of potential energy upgrades, to maximize flexibility.
- To ensure that building owners can access rebates and incentives for energy upgrades, an ordinance shouldn't require specific measures or technologies.

Outreach and Engagement:

In addition to the Technical Advisory Committee, staff engaged with a variety of partners and groups on the proposed requirements, including:

- Bridge Association of Realtors
- Real Estate Professionals (including realtors and title company officers)
- Berkeley Rent Board's Ad Hoc Sustainability Committee
- Berkeley Property Owners Association

- Berkeley Neighborhood Council
- Climate Advocacy Groups (including the Berkeley Climate Action Committee's Electrification Working Group, Sierra Club, Citizens Climate Lobby, and the League of Women Voters)

Staff worked with the Environment and Climate Commission at various stages throughout the policy's development. At the Commission's meeting on October 18, 2023, the Commission unanimously voted to approve the concept of a resilience standard for small residential buildings verified at time of sale, as proposed in this action. The Commission suggested that staff consider future requirements for additional upgrades and recommended that Council support staff in collaborating with the Rent Board and local and regional stakeholders. Vote: 8-0-0-1; Ayes: Tregub, Ranney, McGuire, Tahara, Allen, Guliasi, Lunaparra, Gould. Noes: None. Abstain: None. Absent: Hedlund.

Staff also presented the preliminary proposal to Council's Facilities, Infrastructure, Transportation, Environment & Sustainability Policy Committee for discussion on November 1, 2023. The Committee provided feedback on the draft proposal, and no further action was requested at that time.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

The adoption of BESO was a key implementation action of the Climate Action Plan (CAP). Existing buildings are the second largest source of GHG emissions and account for 43% of GHGs in Berkeley's most recent emissions inventory. Adopting the proposed BESO amendments would further Berkeley's environmental sustainability and climate goals, including becoming a Fossil Fuel Free City, decreasing emissions by 60.5% from 2018 levels by 2030 under the Race to Zero commitment, being responsive to the Declaration of a Climate Emergency and Just Transition framework, and spurring jobs in building electrification.

RATIONALE FOR RECOMMENDATION

In order for Berkeley to achieve its climate action, GHG reduction, resilience, and public health goals, all buildings will need to transition off fossil fuels to clean electricity. Requiring buildings to complete upgrades at time of sale is one of the four primary strategies adopted by City Council through Berkeley's Existing Building Electrification Strategy. Berkeley will not be able to achieve its GHG emissions reduction goals without adopting time of sale upgrade requirements for small residential buildings, which constitute 84% of Berkeley's building stock. BESO is one of the best tools for addressing emissions from existing buildings, and the proposed amendments would further the City's ability to reach its goals. The upgrade requirements proposed would also help building owners comply with the upcoming BAAQMD regulations by switching to heat pumps early before their gas system burns out, or by upgrading their home to ensure a seamless transition.

ALTERNATIVE ACTIONS CONSIDERED

Staff explored a variety of energy upgrade requirement options. Extensive work was done with the Technical Advisory Committee (TAC) to determine what upgrades were feasible for small residential buildings to complete at time of sale. The TAC recommended a flexible compliance pathway since each building needs a custom approach to electrification and there are limitations to requiring building owners install specific technologies or equipment.

City Council could require the City to pay interest on the escrow deposit funds held. The fiscal implications to the City for providing interest have not been determined. No City program, including the Private Sewer Lateral program, requires the City to pay interest on funds held by the City.

City Council could choose to take no action on this proposal and continue with BESO's voluntary uptake of energy upgrades. In this case, the City would fall further behind in meeting its climate action and resilience goals including commitments to become a Fossil Fuel-Free City, meet Race to Zero by reducing GHG emissions 60.5% from 2018 by 2030, and become carbon neutral by 2045.

CONTACT PERSON

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Attachments:

- 1: Ordinance
- 2: Example Credits and Compliance Costs
- 3: Draft Compliance Guide for Buyers and Sellers
- 4: Materials sent to Land Use, Housing, and Economic Development Policy Committee on 12/4/2024

ORDINANCE NO. -N.S.

**CHAPTER 19.81
BUILDING EMISSIONS SAVING**

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Berkeley Municipal Code 19.81.010 is amended to read as follows:

19.81.010 - Purpose.

The purpose of this chapter is to reduce energy use, water consumption, and greenhouse gas emissions in existing buildings, to increase the resilience of these buildings, and to promote public health. These ~~efficiency and emission reduction~~ improvements will increase comfort, safety and health for building occupants ~~lower energy and water costs~~, transition buildings away from the use of fossil fuels, and may lower energy and water costs ~~increase comfort, safety and health for building occupants~~. The provisions of the ordinance will inform decision makers about energy, and emissions, and resilience performance and improvement opportunities.

Section 2. That Berkeley Municipal Code 19.81.030 is amended to read as follows:

19.81.030 - Definitions.

A. "Administrator" means the Director of Planning and Development or their designee.

B. "Building Owner" means the owner of record of a building. In the case of a building held in cooperative or condominium form of ownership, the term "Building Owner" shall also refer to the board of managers, board of directors, homeowners association, or other representative body of the jointly-owned building with authority to make decisions about building assessments and alterations.

C. "Building Energy Score" means a measurement of how efficiently a building uses energy and/or water based on modeled simulations or actual energy use of the building over time compared to similar buildings, which can be in the form of a performance score, asset score or other comparable metric that meets standards and formats established by the Administrator.

D. "Credits" means a numerical value based on the improved resilience, emissions savings, cost, or other measured benefit associated with a Resilience Upgrade.

E. "Dwelling Unit" means a single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

DE. "Electrification" means the transition of building systems and appliances away from natural gas to electricity as the source of energy.

EG. "Energy Report" means a report submitted by a Registered Service Provider that identifies existing conditions, opportunities for water and energy efficiency in a building, opportunities to transition off fossil fuels, greenhouse gas emissions reductions, and available incentives and financing, as well as any applicable Building Energy Score, in accordance with the standards and formats established by the Administrator.

FH. "ENERGY STAR Performance Report" means an ENERGY STAR Portfolio Manager Benchmark report generated by the on-line tool developed by the U.S. Environmental Protection Agency that determines energy use intensity and an Energy Star Performance Score for a building based on utility usage data.

GI. "~~Energy Resilience~~ Upgrade" means the installation or completion of recommended measure(s) that improve the building's energy efficiency, increases the building's resilience, supports the transition off fossil fuels, and/or decreases the building's greenhouse gas emissions.

HJ. "Extensive Renovation" means any project that replaces all building space heating, cooling, and ventilation equipment and replaces at least half of the building envelope, in accordance to standards established by the Administrator.

IK. "Green Building Rating" means an approved rating by a green building verification system consistent with standards identified by the Energy Efficiency Standardization Coordination Collaborative (EESCC) of the American National Standards Institute (ANSI), including, but not limited to the following: Build It Green (BIG) GreenPoint Rated Existing Building; US Green Building Council Leadership in Energy and Environmental Design Existing Building Operation and Maintenance (USGBC LEED-EBOM); Passive House Institute (PHI) Certified Passive House and EnerPHit; Passive House Institute US (PHIUS) PHIUS+ Certified Project; and the International Living Future Institute Zero Net Energy Building and Living Building Challenge Certification; or any other rating demonstrating approved levels of energy efficiency, as determined by the Administrator.

JL. "Gross Floor Area" means the total size, as measured between the principal exterior surfaces of the enclosed fixed walls of the building(s). This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation.

KM. "Large Building" means any building with 25,000 square feet or more of Gross Floor Area.

LN. "Medium Building" means any building with between 15,000 and 24,999 square feet of Gross Floor Area, excluding Single Family Buildings1 to 4 Unit Residential Buildings.

MO. "Real Estate Listing" means any listing of a building for sale in the City of Berkeley. "Real Estate Listings" include listing a building for sale by a property owner or by a licensed agent. "Real Estate Listings" include any printed advertisement, internet

~~posting, or publicly displayed sign, including but not limited to Regional Multiple Listing Service, Redfin, Zillow, Trulia and other third party listing services. include any listing for sale by any advertisement, internet posting, or publicly displayed sign.~~

NP. "Registered Service Provider" means an entity that has been registered by the Administrator to provide an Energy Report and/or Building Energy Score as required by this ordinance.

~~O. "Sale" means the conveyance of title to real property as a result of the execution of a real property sales contract as defined in Section 2985 of the California Civil Code as well as any change of ownership described in subdivision (c) of Section 61 and subdivision (c) of Section 64 of the California Revenue and Taxation Code. "Sale" does not include transfer of title pursuant to inheritance, involuntary transfer of title resulting from default on an obligation secured by real property, change of title pursuant to marriage or divorce, condemnation, or any other involuntary change of title affected by operation of law.~~

PQ. ~~"Single Family Building1 to 4 Unit Residential Building"~~ means any building comprised of solely 1 to 4 ~~residential Dwelling U~~nits, regardless of size. ~~For the purpose of determining which buildings constitute a 1 to 4 Unit Residential Building subject to this Chapter, an Accessory Dwelling Unit (ADU) as defined in Chapter 23.502 of this Code is not a Dwelling Unit.~~

QR. "Small Building" means any building with less than 15,000 square feet of Gross Floor Area, excluding ~~Single Family1 to 4 Unit Residential~~ Buildings.

~~S. "Transfer" means the conveyance of title to real property, excluding condominiums as defined in California Civil Code Section 1351(f), as a result of the execution of a real property sales contract as defined in Section 2985 of the California Civil Code as well as any change of ownership described in subdivision (c) of Section 61 and subdivision (c) of Section 64 of the California Revenue and Taxation Code. "Transfer" does not include transfer of title pursuant to inheritance, involuntary transfer of title resulting from default on an obligation secured by real property, change of title pursuant to marriage or divorce, condemnation, or any other involuntary change of title affected by operation of law.~~

Section 3. That Berkeley Municipal Code 19.81.040 is amended to read as follows:

19.81.040 – Large Buildings.

A. *Annual ENERGY STAR Performance Report.* Owners of Large Buildings shall submit to the Administrator an ENERGY STAR Performance Report on an annual basis in accordance with the phase-in schedule below and no later than July 1 each year thereafter.

B. *Energy Report.* Owners of Large Buildings shall have a Registered Service Provider prepare and submit to the Administrator an Energy Report as specified in the phase-in schedule below and by July 1 every five years thereafter.

C. *Disclosure.* The most recent ENERGY STAR Performance Report and a summary version of the most recent Energy Report including a Building Energy Score, when available, shall be made publicly available by the Administrator and shall be provided by the Building Owner to existing lessees and to prospective lessees and buyers prior to execution of a lease or contract for sale.

D. *Phase-in and Reporting Cycle Schedule.* Owners of Large Buildings shall be in compliance with the requirements of this section by the dates specified below.

1. July 1, 2018 for buildings with 50,000 or more square feet of Gross Floor Area, with an annual ENERGY STAR Performance Reporting cycle and a 5 year Energy Report reporting cycle thereafter.
2. July 1, 2019 for buildings with 25,000 or more square feet of Gross Floor Area with an annual ENERGY STAR Performance Reporting cycle and a 5 year Energy Report reporting cycle thereafter.

E. *Evaluate and Recommend Resilience Energy Upgrades Requirements.* The Administrator of this Chapter shall develop recommendations for Energy-Resilience Upgrade requirements for Large Buildings based on building performance that are consistent with requirements of State and Federal law. The Administrator shall identify incentives, rebates or other compliance resources to off-set the costs of the Energy Resilience Upgrade requirements. The Administrator shall then report the proposed Energy-Resilience Upgrade requirements for Large Buildings to the City Council for consideration.

Section 4. That Berkeley Municipal Code 19.81.050 is amended to read as follows:

19.81.050 – Medium and Small Buildings.

A. *Annual ENERGY STAR Performance Report.* Owners of Medium Buildings shall submit to the Administrator an ENERGY STAR Performance Report on an annual basis as of July, ~~1,~~ 2021, and no later than July 1 each year thereafter.

B. *Energy Report.* Owners of Medium and Small Buildings shall have a Registered Service Provider prepare and submit to the Administrator an Energy Report:

1. Prior to the Real Estate Listing of the building for ~~s~~Sale; or
2. Within 6 months of a lender having acquired title due to foreclosure or deed in lieu of foreclosure.

The requirement at time of Real Estate Listing may be transferred to the buyer and deferred for 6 months under the provisions of Section [19.81.090.B](#) of this Chapter.

C. *Disclosure.* All compliance documentation, including the most recent ENERGY STAR Performance Report, if applicable, a deferral or a summary version of the most

recent Energy Report including a Building Energy Score, when available, shall be made publicly available by the Administrator and shall be provided by the Building Owner to existing lessees and prospective lessees, to all licensed real estate agents working on the seller's behalf, and to prospective buyers who visit the building while it is listed publicly for sale.

D. *Evaluate and Recommend Energy-Resilience Upgrades Requirements.* The Administrator of this Chapter shall develop recommendations for Energy-Resilience Upgrade requirements for Small and Medium Buildings based on building performance that are consistent with State and Federal law. The Administrator shall identify incentives, rebates or other compliance resources to off-set the costs of the Energy-Resilience Upgrade requirements. The Administrator shall then report the proposed Energy-Resilience Upgrade requirements for Small and Medium Buildings to the City Council for consideration.

Section 5. That Berkeley Municipal Code 19.81.060 is amended to read as follows:

19.81.060 – Single-Family1 to 4 Unit Residential Buildings.

A. *Resilience Standard.* When a 1 to 4 Unit Residential Building is Transferred, the property being Transferred shall achieve a required number of Credits, as determined by the Administrator, by undergoing Resilience Upgrades.

AB. *Energy Report.* Owners of Single-Family1 to 4 Unit Residential Buildings shall have a Registered Service Provider prepare and submit to the Administrator an Energy Report:

1. Prior to the Real Estate Listing of the building for sSale; or
2. Within 6 months of a lender having acquired title due to foreclosure or deed in lieu of foreclosure.

The requirement at time of Real Estate Listing may be transferred to the buyer and deferred for 6 months under the provisions of Section 19.81.090.B of this Chapter. In the event the Building Owner fails to complete the Energy Report an administrative fee shall be charged, which is set forth in Section 19.81.120 of this code.

C. *BESO Certificate of Compliance.* Upon submittal of documentation verifying that a Building Owner has achieved the required number of Resilience Upgrade credits, as determined by the Administrator, the Administrator shall issue a BESO Certificate of Compliance. A BESO Certificate of Compliance shall expire 5 years after issuance.

D. *Verification at Time of Transfer.* Prior to Transfer of title:

1. A BESO Certificate of Compliance for the subject property must be obtained, or
2. The Administrator may grant a two-year extension, with an opportunity for an additional one-year extension, to meet the requirements of BMC 19.81.060(C) if

the seller or buyer deposit funds with the City in an amount the Administrator determines to be sufficient to render compliance. The seller or buyer must execute and deliver to the Administrator or their designee a binding agreement in a form acceptable to the City providing that any funds deposited with the City shall be forfeited and transferred to the City if a BESO Certificate of Compliance for the subject property has not been obtained upon the expiration of the extension period. Forfeited deposit funds shall be used for local low-income building upgrade programs, such as the Climate Equity Fund or Just Transition Residential Electrification Programs.

a. If a BESO Certificate of Compliance for the subject property is obtained prior to the expiration of the extension period, then the buyer shall recoup their deposit in full.

b. If a BESO Certificate of Compliance for the subject property was not obtained prior to the expiration of the extension period, then the funds will be forfeited to the City unless the buyer (i) can show that one or more of the conditions in Section 19.81.090 has been met, or (ii) petitions for an additional extension of the compliance period pursuant to subparagraph c.

c. The buyer shall be granted an additional extension of the compliance period if they can show that special circumstances, such as delays due to utility capacity or equipment supply chains or delays required to minimize disruptions to tenants, warrant an additional extension of a reasonable amount of time.

E. Appeals.

1. If deposit funds are forfeited to the City pursuant to BMC 19.81.050(D)(2)(b), notice shall be mailed no more than 14 calendar days after the expiration of the extension period to the buyer of (i) the forfeiture and (ii) the opportunity to appeal. The cost of notice shall be deducted from the deposit made pursuant to BMC 19.81.050(D)(2).

2. Within 14 calendar days of mailing of forfeiture notice, the buyer may appeal the forfeiture and transfer.

a. An appeal shall be submitted to the City Manager or the City Manager's designee in writing and must state all of the reasons for the appeal.

b. Appeal fees shall be paid by the person filing the appeal (the appellant).

3. Where a timely appeal has been filed, the City Manager or the City Manager's designee shall, within 14 calendar days, set the appeal for a hearing before a Hearing Officer to be designated by the City Manager.

4. At the appeal hearing, the Hearing Officer may: (i) continue the public hearing; or (ii) reverse, affirm, or modify the decision of the prior review authority.

5. The Hearing Officer shall serve a written decision upon the appellant within 14 calendar days of the hearing, and shall send a copy to the Administrator and the City Manager. The Hearing Officer's decision shall be final when mailed.

BF. Disclosure. All compliance documentation, including ~~a deferral or~~ a summary version of the most recent Energy Report including a Building Energy Score, ~~when available,~~ and the Resilience Standard compliance status shall be made publicly available by the Administrator and shall be provided by the Building Owner to existing lessees and prospective lessees, to all licensed real estate agents working on the seller's behalf, and to prospective buyers who visit the building while it is listed for sale. The Building Energy Score shall be included in all Real Estate Listings and a URL link to the Energy Report included if links are supported by the listing service.

G. Phase-in. Owners of 1 to 4 Unit Residential Buildings shall comply with the requirements of this section starting on the dates specified below. These buildings shall be treated as Small Buildings until their phase-in date.

1. January 1, 2026 for 1 to 4 Unit Residential Buildings containing one or two residential units.
2. January 1, 2028 for 1 to 4 Unit Buildings containing three or four residential units.

H. Responsibilities. Except as otherwise provided or as allowed by the Administrator, the Building Owner is responsible for compliance with this Section. The seller of any real property shall be responsible for disclosing to prospective buyers the requirements of this Section and the compliance status of the real property in question. Upon transfer of ownership, the buyer will be responsible for the compliance with this Section, regardless of any disclosure or failure to disclose.

~~C. Reporting Schedule.~~ The requirements of this Section of the ordinance shall become effective December 1, 2015.

~~D. Evaluate and Recommend Energy Upgrades Requirements.~~ The Administrator of this Chapter shall develop recommendations for Energy Upgrade requirements for Single Family Buildings based on building performance that are consistent with requirements of State and Federal law. The Administrator shall identify incentives, rebates or other compliance resources to off-set the costs of the Energy Upgrade requirements. The Administrator shall then report the proposed Energy Upgrade requirements for Single Family Buildings to the City Council for consideration.

Section 6. That Berkeley Municipal Code 19.81.090 is amended to read as follows:

19.81.090 – Exceptions, Deferrals and Extensions.

A. High Performance Exemption. Exemptions from the Energy Report requirements for current reporting periods may be granted ~~for to~~ buildings that demonstrate effective and reasonably achievable level of efficiency, electrification of building systems and appliances, and/or emissions reduction, ~~based on the specific building type, use,~~

~~vintage, and condition,~~ that support Berkeley's commitment to become a Fossil Fuel Free City and achieve carbon neutrality by 2045 and the Berkeley Climate Action Plan (CAP) goal of 33% energy-related greenhouse gas reduction from 2000 levels by 2020 and 80% reduction by 2050. Qualified exemptions shall include, but are not limited to:

1. Any ~~Large building~~ Building that receives a Building Energy Score or Green Building Rating that demonstrates an effective and reasonable level of efficiency, as determined by the Administrator.
2. Any building, except for 1 to 4 Unit Residential Buildings, that completes a multi-measure energy improvement project with a verified minimum improvement, as determined by Administrator.
3. Any whole building that has been served by an income-qualified Weatherization Assistance program for low-income households.
4. Any new building or Extensive Renovation, except for 1 to 4 Unit Residential Buildings, with a construction completion date within ten years of the reporting deadline.
5. Any building that has electrified all building systems and appliances and capped all gas lines to the building.

B. *Deferral at Time of Real Estate Listing.* The requirements for compliance prior to the Real Estate Listing of a ~~Small or Medium B~~ building may be deferred from the seller to the buyer, and any subsequent buyers, for a period of 6 months after the original sale date. A request to defer responsibility to the buyer must be submitted to the administrator prior to the listing of the building. The deferral shall include information on the fuel source for each end use in the building and any current or future electrification requirements and incentives.

C. *Distressed Sale Extension.* A 6-month extension may be granted to a buyer of a building purchased from a lender following default or transfer by deed in lieu of foreclosure.

D. *Hardship Deferral.* The requirement for an ENERGY STAR Performance Report, ~~and the requirement for an Energy Report, or the Resilience Standard~~ for up to one reporting cycle in cases of financial hardship where one of the following is provided by the Building Owner and approved by the Administrator:

1. Proof of participation in an income qualified energy assistance ~~income-qualified~~ program, administered through the State of California or the local energy utility.
2. Proof of approved participation in Property Tax Postponement or Property Tax Assistance for Senior Citizens, Blind or Disabled, or equivalent program as determined by Administrator.

3. Proof that the property qualifies for sale at public auction or acquisition by a public agency due to arrears for property taxes, within two years prior to the due date of the Energy Report.
4. Proof that a court appointed receiver is in control of the asset due to financial distress.
5. Proof that the senior mortgage is subject to a notice of default.
6. Proof that the responsible party is otherwise not able to meet the obligations of this Chapter.

Deferrals under this Section are granted to the Building Owner and are not transferable with a building sale, at which time compliance with this Chapter shall be required.

E. *Data Unavailable.* An exemption from ENERGY STAR Performance Report requirement for any current reporting period may be granted if:

1. The Building Owner demonstrates to the Administrator that they have been unable to obtain tenant authorization to obtain tenant utility data, despite a good faith effort to obtain such consent, or
2. The building occupant demonstrates to the Administrator that such disclosure may result in the release of proprietary information which can be characterized as a trade secret, or:-
3. Any person subject to the requirements of this Chapter demonstrates to the Administrator that submission of an ENERGY STAR Performance Report would conflict with the requirements of State or Federal law.

F. *Deferral for Planned Demolition or Extensive Renovation.* The requirements of this Chapter may be deferred for 24 months if the owner or buyer has obtained a Building Permit, Demolition Permit, or Permit under the Zoning Ordinance that includes demolition or Extensive Renovation of the subject building.

Deferrals under this Section are granted to the Building Owner and are not transferable with a building sale, at which time compliance with this Chapter shall be required.

G. *Exemption for Sale of a Condominium.* The requirements to submit an Energy Report with an Energy Benchmark to the Administrator shall not apply to any sale of a residential or commercial condominium that is a unit within a building and not a detached structure.

H. *Low Energy Use Deferral.* Buildings with low energy use based on energy billing data comparing a building to similar efficient buildings or because of operations specific to their building use, such as institutions that operate less than three days a week, may be granted a Low Energy Use deferral for the current compliance cycle.

Deferrals under this Section are granted to the Building Owner and are not transferable with a building sale, at which time compliance with this Chapter shall be required.

I. *Exemption for Long-Term Tenancy under Rent Control.* The requirements of this Chapter for any building which is subject to rent control in which all of the units, excluding any owner-occupied units, have leases that date prior to January 1, 1999 may be deferred until the next reporting period.

J. *Unconditioned Floor Area Reclassification.* The size classification of a building may be reduced by the Administrator to exclude physically separated floor area that is not served by heating, ventilation or cooling equipment.

~~K. *Exemption based on building size.* Buildings 600 square feet or a higher size threshold, as determined by the Administrator, are exempt from the requirements of this Chapter.~~

~~K. *Recent Resilience Upgrades.* Buildings that completed the requisite number of Resilience Upgrades, as determined by the Administrator, within the last 5 years may obtain a BESO Certificate of Compliance if the Building Owner submits sufficient proof to the Administrator.~~

~~L. *Heat Pump System Exemption.* 1 to 4 Unit Residential Buildings in which all units being transferred are completely served by at least one electric heat pump system or electric equivalent, as determined by the administrator, may obtain a BESO Certificate of Compliance. The Energy Report shall provide confirmation for this exemption.~~

~~M. *Early Refund Exception.* Owners of 1 to 4 Unit Residential Buildings may apply for early remittance of their escrow deposit prior to completion of the Resilience Upgrades upon demonstration that the owner has obtained building permits for the requisite Resilience Upgrades and supplied sufficient evidence that the Resilience Upgrades will be completed, as determined by the Administrator. If the application for an early refund is approved, the City will refund the funds deposited pursuant to BMC 19.81.060(D)(2) to the owner so that the owner may complete the Resilience Upgrades. Once the requisite Resilience Upgrades are complete, the Owner must obtain a BESO Certificate of Compliance. In the event the property owner fails to complete the requisite Resilience Upgrades within the compliance extension period, an administrative fee shall be charged, which fee is set forth in Section 19.81.120 of this code.~~

~~N. *First-Time Homebuyer Exemption.* Buyers of 1 to 4 Unit Residential Buildings participating in an approved local, State, or Federal income-qualified first-time home buyer program or down payment assistance program are exempt from the Resilience Standard requirements of this chapter.~~

Section 7. These amendments to Berkeley Municipal Code Chapter 19.81 shall become effective on January 1, 2026.

Section 8.

Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each

branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.

1735042.1

ATTACHMENT 2 - EXAMPLE CREDITS AND COMPLIANCE COSTS

Measure	Credits ¹	Credit Criteria ²
Heat Pump Water Heater	6 (<i>Full</i>)	Emissions savings
Heat Pump HVAC	6 (<i>Full</i>)	Emissions savings
Knob + Tube Replacement	6 (<i>Full</i>)	Cost
Smart Panel	6 (<i>Full</i>)	Cost
Solar PV + Storage	6 (<i>Full</i>)	Cost
Panel Upgrade	4	Cost
Duct Sealing & Replacement	3	Emissions savings
Bi-Directional EV Charger	3	Cost
EV Charger	2	Cost
Induction Range	2	Emissions savings
Window Replacements	2	Emissions savings
Attic Insulation	2	Emissions savings
Wall Insulation	2	Emissions savings
Floor Insulation	1-2	Emissions savings
Greywater System	1-2	Cost
Air Sealing	1	Emissions savings
Prewiring & 240v Receptacles	½ per receptacle	Cost

¹ The credit values are subject to change once vetted by the Technical Advisory Committee.

² Emissions saving values were estimated through California statewide cost-effectiveness studies completed by California Codes and Standards Reach Codes program for Single Family Residential Retrofits: <https://localenergycodes.com/content/resources>. Cost data was pulled from a variety of sources including: TECH Clean CA, BayREN Home+, Statewide Cost-Effectiveness studies, and analysis from the Building Electrification Institute

Example Compliance Cost 1: Heat Pump Water Heater

Measure	Credits	Average Cost	Source
Heat Pump Hot Water Heater	6	\$6,700-\$7,900	BayREN Home+ ³ & TECH Clean CA ⁴
*Includes the \$2,000 Federal Tax Credit and \$1,100 or \$1,800 through TECH Clean CA (based on tank size).	Total	\$6,700-\$7,900	
	Total with Rebates*	\$2,900-\$4,800	

Example Compliance Cost 2: Electrification Ready

Measure	Credits	Average Cost	Source
Panel upsizing and replacement	4	\$4,300	BEI Analysis ⁵
240v outlet installation (oven, dryer, water heater, EV charger)	2	\$1,800	Statewide Cost-Effectiveness study ⁶
	Total	\$6,100	

Example Compliance Cost 3: Energy Efficiency Envelope Improvements

Measure	Credits	Average Cost	Source
Attic Insulation	2	\$2,500	BayREN Home+
Air Sealing	1	\$1,500	Statewide Cost-Effectiveness study
Duct Sealing/Replacement	3	\$4,700	BayREN Home+
	Total	\$8,700	

³ Data was provided by the BayREN Home+ for projects completed in Alameda County from January 2020 to July 2024

⁴ TECH Clean California Public Data for Alameda County from July 2021 to November 2024 (<https://techcleanca.com/public-data/data-visualizations/>, accessed 12/31/2024)

⁵ The Building Electrification Institute (BEI) completed a measure cost analysis using E3's 2019 report "Residential Building Electrification in California" and updated in 2024 based on local research for Berkeley's Existing Building Electrification Strategy

⁶ California statewide cost-effectiveness studies completed by California Codes and Standards Reach Codes program for Single Family Residential Retrofits: <https://localenergycodes.com/content/resources>; accessed 12/31/2024



Planning and Development Department
Office of Energy and Sustainable Development

Berkeley's Building Emissions Saving Ordinance (BESO) Flexible Resilience Standard Compliance Guide

I. What is BESO?

In alignment with the City of Berkeley's climate action goals, the [Building Emissions Saving Ordinance](#) (BESO), BMC Chapter 19.81, aims to reduce energy use, water consumption, and greenhouse gas emissions in existing buildings, to increase the resilience of these buildings, and to promote public health. Additionally, BESO helps new Berkeley homeowners prepare for the [Bay Area Quality Management District's \(BAAQMD\) zero NOx emissions standard](#), which prohibits the sale and installation of NOx emitting water heaters and furnaces, starting in 2027.¹

Under BESO, owners of 1-4 unit residential buildings are required to complete resilience upgrades from a menu of options when a property is sold. Building owners can choose which measures to complete to satisfy the requirements in order to accommodate the range of building conditions and owner priorities. For homes that have not met compliance prior to sale, an escrow deposit ensures that funds to help cover the cost of the upgrades have been set aside for the buyer to complete the upgrades.

Compliance Process Overview

Compliance with BESO will typically follow these steps:

- 1) Prior to listing a property for sale, the seller completes an energy assessment by a registered energy assessor and provides a copy of the assessment to all potential buyers. The seller is not required to complete upgrades.
- 2) When a buyer and sale date are established, a cash deposit will be sent to the City through escrow.
- 3) Using the escrow deposit funds, the buyer completes the upgrades within two years of the sale, with the option of an additional one-year extension. The buyer can choose which upgrades to complete from a menu of resilience measures. The buyer submits evidence of the completed upgrades to receive a BESO Compliance Certificate and a refund of escrow funds.

Exemptions

The following are exempt from the BESO upgrade requirement:

- 1) Buildings undergoing refinances, partial transfers, or inheritance transfers
- 2) Condominiums and accessory dwelling units (ADUs)
- 3) All-electric buildings that have capped gas lines
- 4) Buildings that have a verified heat pump water heater or heat pump HVAC system
- 5) Buildings purchased with assistance from an income-qualified, first-time homebuyer down payment assistance program

¹ <https://www.baaqmd.gov/rules-and-compliance/rule-development/building-appliances>

II. Seller's Responsibility

Prior to listing a building for sale, the seller must have a comprehensive Home Energy Score assessment completed by a registered BESO assessor. The list of registered BESO assessors can be found on the BESO website (BerkeleyCA.gov/BESO). The assessor will provide the seller a copy of the Home Energy Score report, which provides a 1 to 10 rating of the efficiency of the home and recommendations for emissions saving and resilience upgrades. The Home Energy Score report must be provided to all potential buyers and be included on the MLS listing for the property. Highly efficient buildings that receive a Home Energy Score of 9 or 10 will qualify for bonus compliance credits. The seller may reach out to the BESO Helpdesk (BESO@BerkeleyCA.gov) if they are experiencing financial hardship and are unable to complete the assessment.

The seller may obtain the BESO Compliance Certificate prior to sale if:

- the building has a heat pump water heater or heat pump HVAC system installed and verified through the assessment, or
- upgrades have been completed within five years of the sale that meet the requisite number of credits for compliance

If the seller obtains a Compliance Certificate prior to the sale, no escrow deposit nor additional upgrades will be required. A seller is not required to complete upgrades or obtain a BESO Compliance Certificate before selling their property.

III. Escrow Deposit

Similar to Berkeley's Private Sewer Lateral Program, a cash deposit of \$7,000 to help cover the cost of compliance will be held by the City through escrow and refunded in full once the upgrades are complete. During the closing process, the buyer and seller can negotiate what proportion of the deposit each party contributes. The buyer may receive an early refund of the escrow deposit by submitting sufficient evidence of planned work (e.g. signed contract with a contractor or permit applications) to the City. To receive a refund of any remaining escrow funds after the Compliance Certificate is obtained, a buyer will need to submit a copy of the Compliance Certificate with a Claim for Refund of Money Paid to the Finance Customer Service Center, 1947 Center Street. If the upgrades are not completed by the due date, funds are subject to forfeiture and transfer to the City.

IV. Buyer's Responsibility

Within two years of purchase, the buyer of a 1-4 unit residential building must complete upgrades from a menu of resilience measures. Building owners can choose which upgrades to complete that best fit with their preferences, budget, and building's conditions. Each upgrade measure has a corresponding credit value based on its emissions reductions and/or costs. BESO requires **six credits for full compliance**. See the following table of measures and their associated credits. Detailed information about the qualifications and verification of each measure can be found on the BESO website. Visit the [Switch is On](http://www.switchison.org/ca) for more information about current incentives for various upgrade measures.²

Measure	Credits*	Measure	Credits*
Heat Pump Water Heater ² https://www.switchison.org/ca	6 (Full)	Induction Range	2

Heat Pump HVAC	6 (Full)	Window Replacements	2
Knob + Tube Replacement	6 (Full)	Attic Insulation	2
Smart Panel	6 (Full)	Wall Insulation	2
Solar PV + Storage	6 (Full)	Floor Insulation	1-2
Panel Upgrade	4	Greywater System	1-2
Duct Sealing & Replacement	3	Air Sealing	1
Bi-Directional EV Charger	3	Prewiring & 240v Receptacles	½ per receptacle
EV Charger	2	* The credit values may be subject to change.	

The new owner of the building must complete one or more measures to meet the required number of credits within two years of the sale, with the option to extend the due date by one additional year. Additional extensions may be granted on a case by case basis through the BESO Helpdesk (BESO@BerkeleyCA.gov).

Once the measures are completed and the requisite number of credits have been achieved, the building owner must submit documentation of the completed work to the City. Upon verification of the completed measures, the City will issue a Compliance Certificate to the building owner. The Compliance Certificate remains valid for five years from the issue date, even if the building is resold during that timeframe.

V. Resources

- 1) **BESO website:** www.BerkeleyCA.gov/BESO
Visit the BESO website for general information about BESO and the list of Registered Energy Assessors.
- 2) **BESO Helpdesk email:** BESO@BerkeleyCA.gov
Email the BESO Helpdesk to ask any questions about BESO or to request an extension.



Planning and Development Department
Office of Energy and Sustainable Development

Berkeley's Building Emissions Saving Ordinance (BESO) Proposed Amendments

In December 2020, Berkeley City Council directed staff to recommend upgrade requirements for Berkeley's Building Emission Saving Ordinance (BESO) for Council's consideration. The following year, City Council adopted Berkeley's Existing Building Electrification Strategy (BEBES), which identified a time of sale upgrade policy as one of the four primary policy strategies to equitably decarbonize Berkeley's existing buildings. The proposed BESO amendments build on BESO's current requirements of energy disclosure at the time of sale and are coupled with upgrade requirements. Prior to BESO, from 1987-2015, Berkeley required prescriptive energy efficiency measures at time of sale through the Residential Energy Conservation Ordinance (RECO). The proposed BESO amendments increase resilience and can improve indoor air quality, comfort, health, and safety. They can also help new Berkeley homeowners prepare for the Bay Area Quality Management District's (BAAQMD) zero NOx emissions standard, which prohibits the sale and installation of NOx emitting gas-powered water heaters and furnaces, starting in 2027. Homeowners can install an electric heat pump early (which is a zero NOx appliance) or complete necessary electrical upgrades to ensure a seamless transition.

Flexible Resilience Standard

The proposed amendments to BESO would **maintain the current assessment and disclosure requirements** and **establish a flexible resilience standard** that requires small residential building owners to complete upgrades from a **menu of options** when a property is sold. **Building owners can choose which upgrades to complete** that best fit with their preferences and building's conditions. Each upgrade measure will have a **corresponding credit value based on its emissions reductions and/or costs**. A building owner would need to complete one or more measures to meet the required **number of credits within two years of the sale**. The cost of compliance will vary, as a homeowner can choose which upgrades they want to complete. The proposed amendments would require **6 credits for full compliance**. Here's an initial list of measures and potential credits:

Measure	Credits*	Measure	Credits*
Heat Pump Water Heater	6 (Full)	Induction Range	2
Heat Pump HVAC	6 (Full)	Window Replacements	2
Knob + Tube Replacement	6 (Full)	Attic Insulation	2
Smart Panel	6 (Full)	Wall Insulation	2
Solar PV + Storage	6 (Full)	Floor Insulation	1-2
Panel Upgrade	4	Greywater System	1-2
Duct Sealing & Replacement	3	Air Sealing	1
Bi-Directional EV Charger	3	Prewiring & 240v Receptacles	½ per receptacle
EV Charger	2	* The credit values may be subject to change.	

Installing a heat pump water heater is the simplest and cheapest way to comply. Without rebates, the average purchase and installation cost of a heat pump water heater in Alameda County is ~\$6,800¹. There are tax credits and rebates currently available to reduce this cost.

Escrow Deposit

Similar to Berkeley's Private Sewer Lateral Program, a cash **deposit** to cover the cost of compliance will be held by the City through escrow and be **refunded in full once the upgrades are complete**. The deposit will be set at an amount equivalent to the minimum estimated cost of compliance.

Heat Pump Exemption Pathway

If a building has at least one electric heat pump system, then no additional upgrades are needed. The proposed amendments include a heat pump exemption pathway that encourages homeowners to install a heat pump in advance of a home sale in order to meet full compliance. Currently, 5-7% of Berkeley homes would already qualify for this exemption, and more will become exempt as they transition to electric heat pumps.

Additional Exemptions and Support

- **First-time Homebuyers** – First time homebuyers participating in an approved income-qualified first-time home buying program or down payment assistance program would be exempt from the flexible resilience standard.
- **Early Refund Exception** – Building owners may apply for an early refund of their deposited funds if they supply sufficient evidence, such as issued building permits and a contract for qualifying work, to show the upgrades will be completed.
- **High Home Energy Score Credit** – Buildings that have received a high Home Energy Score demonstrate a high level of energy efficiency and will receive bonus credits, reducing the number of upgrades needed to meet the standard.

Phase-In Timeline for Building Types:

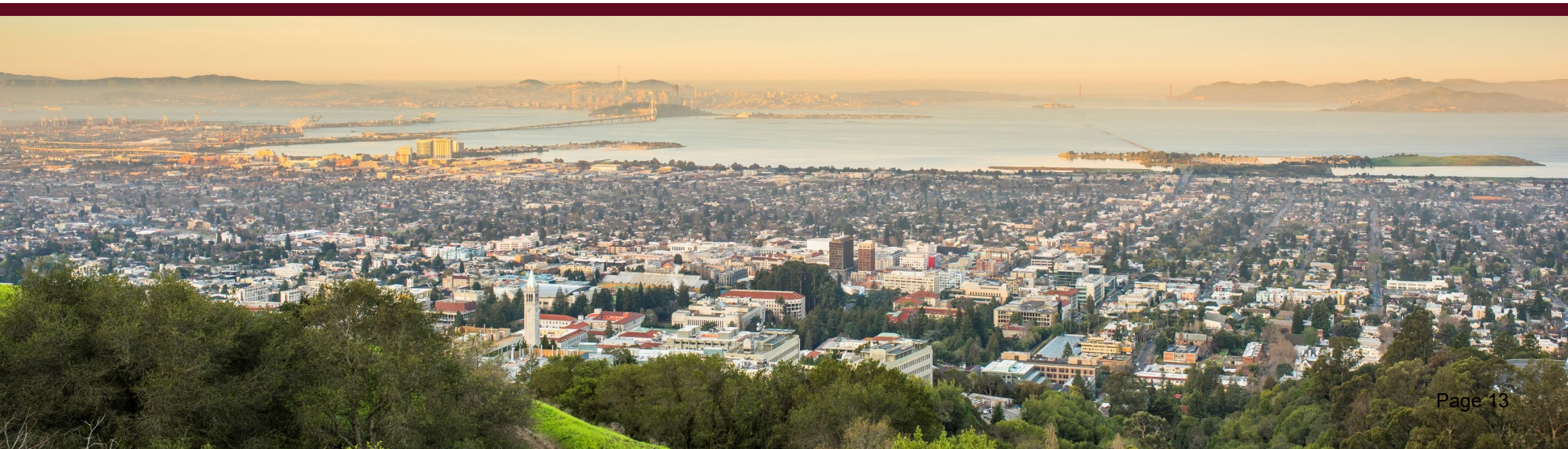
- **Phase I:** Single Family Homes, ADUs, Duplexes, Condominiums within 1-4 Unit buildings (approximately 700 homes/units each year) - expected implementation 2026
- **Phase II:** Triplexes and Fourplexes (approximately 50 buildings each year) - expected implementation 2028

¹ Based on data through TECH Clean California: <https://techcleanca.com/>

Building Emissions Saving Ordinance (BESO)

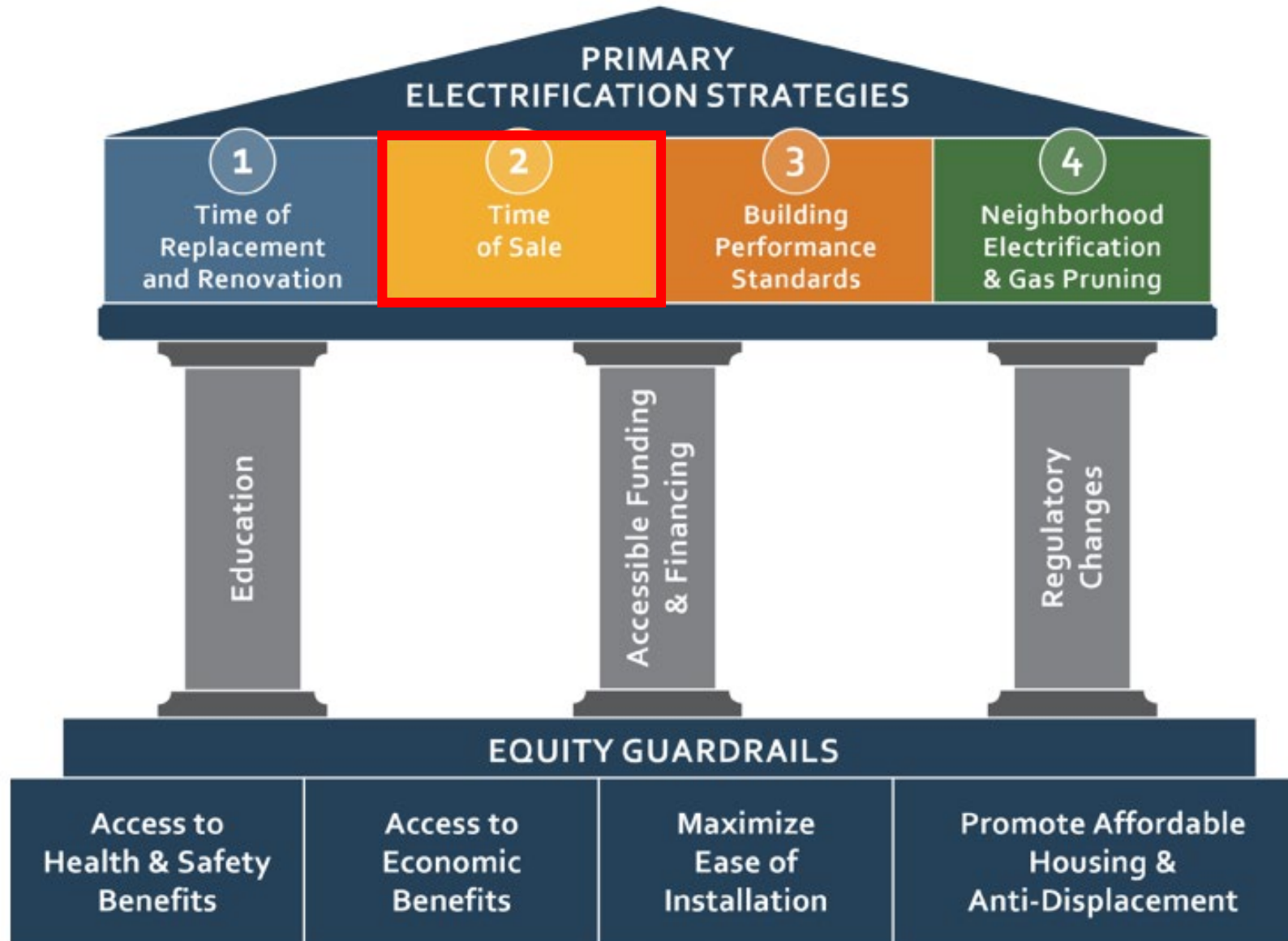
Time of Sale Upgrade Requirements

October 7, 2024



Background and Current BESO Requirements

Berkeley's Existing Building Electrification Strategy



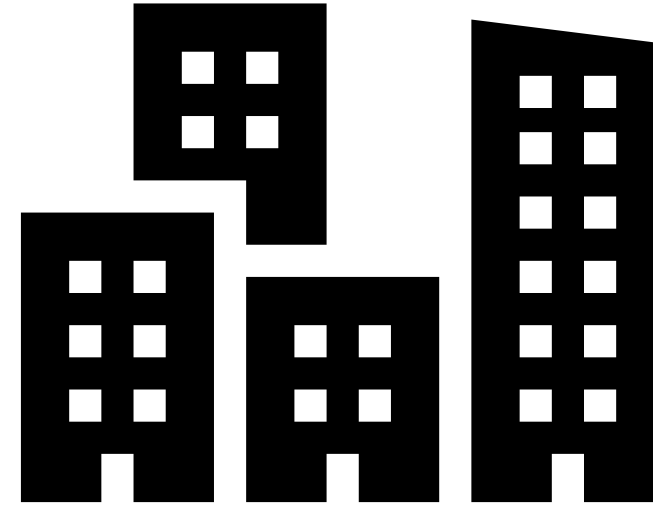
Building Emissions Saving Ordinance (BESO)

Time of Sale Program



Buildings **less** than
25,000 sqft

Large Building Program



Buildings **greater** than
25,000 sqft

Current Time of Sale Program

Page 366183



- Requires an **energy/electrification assessment** prior to listing a building for sale.
 - Home Energy Score for Single family homes
 - Provides information to potential buyers
- Refers building owners into local incentive programs to complete voluntary upgrades



Technical Advisory Committee

Page 8766183



Members:

- Building Decarbonization Experts
- BESO Assessors
- Architects
- Electrification Contractors
- Utilities
- Regional and State entities



Outreach and Engagement

- Real Estate Community
 - Realtor Offices
 - Real Estate Professionals Webinar
 - Bridge Association of Realtors
- Berkeley Rent Board – Sustainability Committee
- Berkeley Neighborhoods Council
- City Green Building Coordination Team
- Berkeley Property Owners Association
- Community and Environmental Organizations
- Council Policy Committees
- Environment and Climate Commission



Proposed Upgrade Requirements

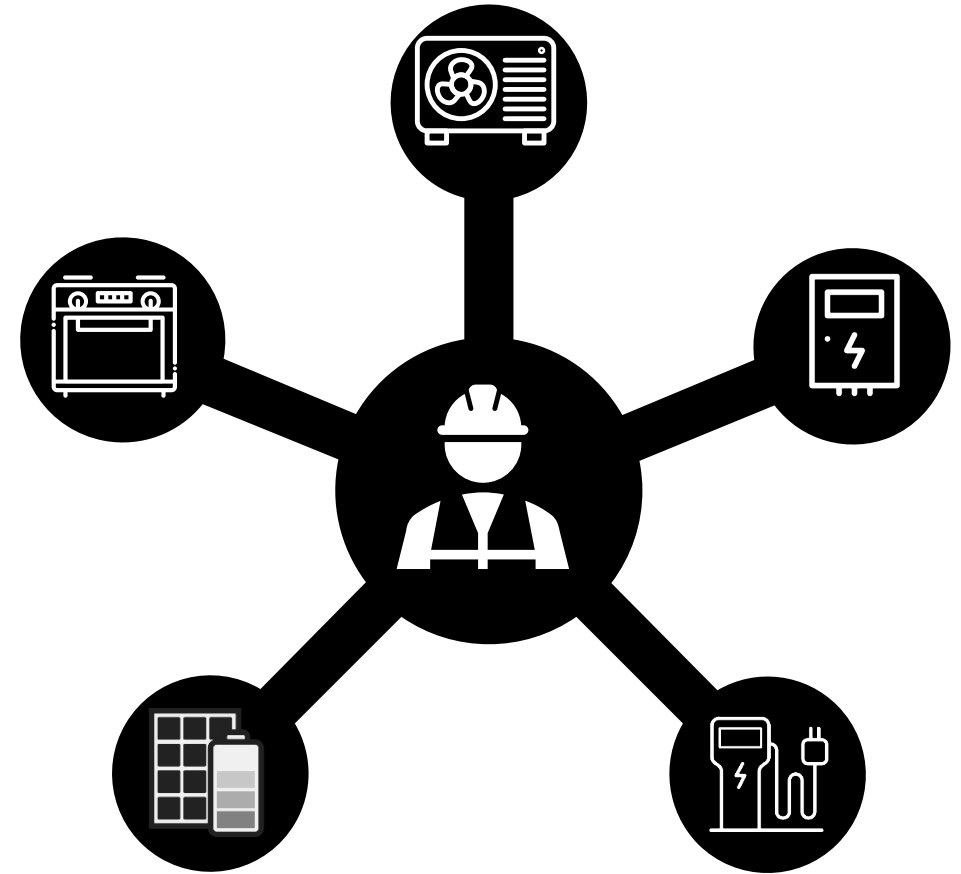
Proposed Time of Sale BESO Requirements

- Seller completes the BESO assessment
- Buyer completes the upgrade(s) within 2 years of the sale if compliance has not been met



Flexible Resilience Standard

- **Upgrade requirements:**
 - List of possible upgrades
 - Each upgrade has a corresponding credit value
 - Buildings need to achieve minimum number of credits through upgrades
- **Credit value criteria:**
 - Emissions savings
 - Cost
 - Health, safety, resilience bonus
- **Rationale:**
 - Addresses range of building conditions
 - Owner can prioritize



Potential Measures & Credits

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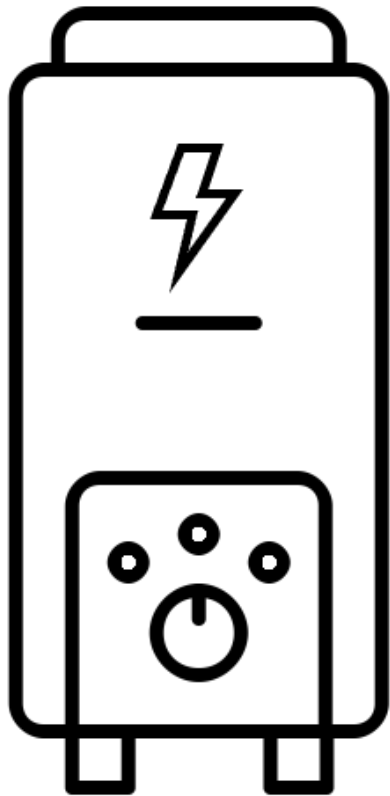
Credits Needed: 6

Measure	Credits*	Criteria
Heat Pump Water Heater	6	Emissions
Heat Pump HVAC	6	Emissions
Knob + Tube Replacement	6	Cost
Smart Panel	6	Cost
Solar PV + Storage	6	Cost
Panel Upgrade	4	Cost
Duct Sealing & Replacement	3	Emissions
Bi-Directional EV Charger	3	Cost
EV Charger	2	Cost

Measure	Credits*	Criteria
Induction Range	2	Emissions
Window Replacements	2	Emissions
Attic Insulation	2	Emissions
Wall Insulation	2	Emissions
Floor Insulation	1-2	Emissions
Greywater System	1-2	Cost
Air Sealing	1	Emissions
Prewiring & 240v receptacles	1/2 per receptacle	Cost

*The credit values are subject to change once vetted by the Technical Advisory Committee

Example Compliance Costs



Heat Pump
Water Heater

Measure	Credits	Average Cost
Heat Pump Water Heater	6	\$6,800
Total	6	\$6,800*

*Up to \$2,000 Federal Tax Credit available

Example Compliance Costs



Energy Efficiency & Envelope Improvements

Measure	Credits	Average Cost
Attic Insulation	2	\$2,500
Air Sealing	1	\$1,500
Duct Sealing/Replacement	3	\$4,600
Total	6	\$8,600*

*Up to \$1,200 Federal Tax Credit available

Example Compliance Costs



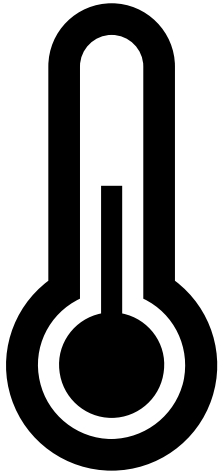
Electric Ready –
Preparing for
BAAQMD Compliance

Measure	Credits	Average Cost
Panel upsizing and replacement	4	\$4,300
240v outlet installation (oven, dryer, water heater, EV charger)	2	\$1,800
Total	6	\$6,100*

*Up to \$600 Federal Tax Credit available
(in conjunction with another energy improvement)

Benefits to Homeowners

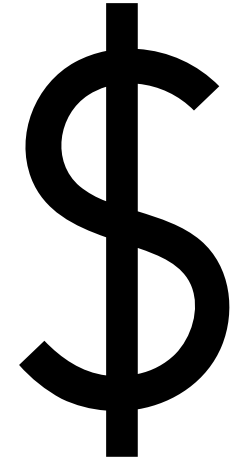
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**Improve Comfort
and Indoor Air
Quality**



Increase Safety



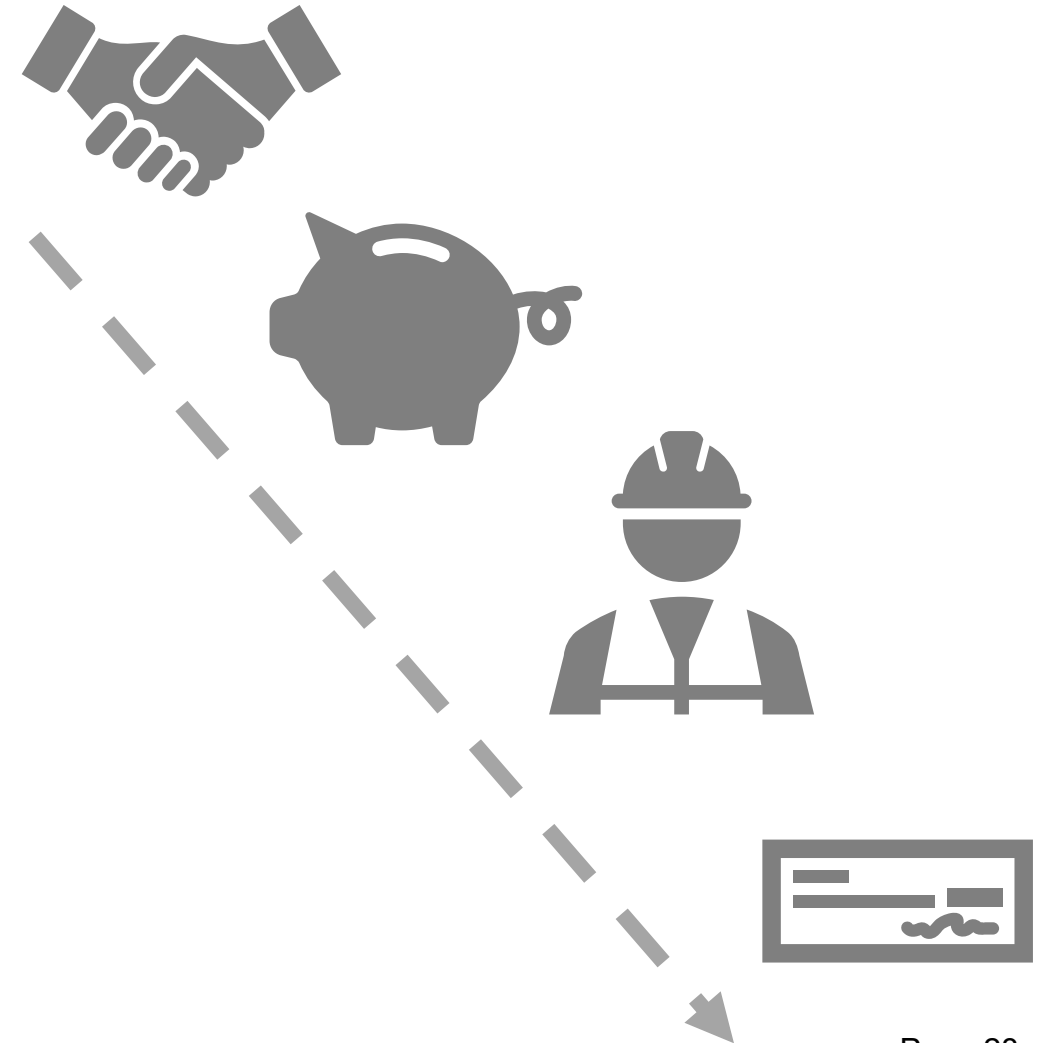
**Decrease utility
costs**

Utilize Escrow Deposit

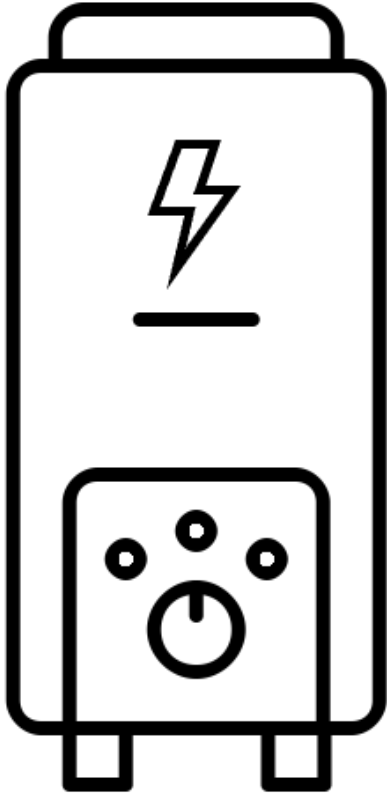
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- Deposit sent from escrow to City
- Buyer has up to 2 years to complete upgrades
- Refunded once property is compliant
- After 2-years the funds are forfeited to the City and could be used to help fund low-income electrification programs
- Operate similar to Private Sewer Lateral

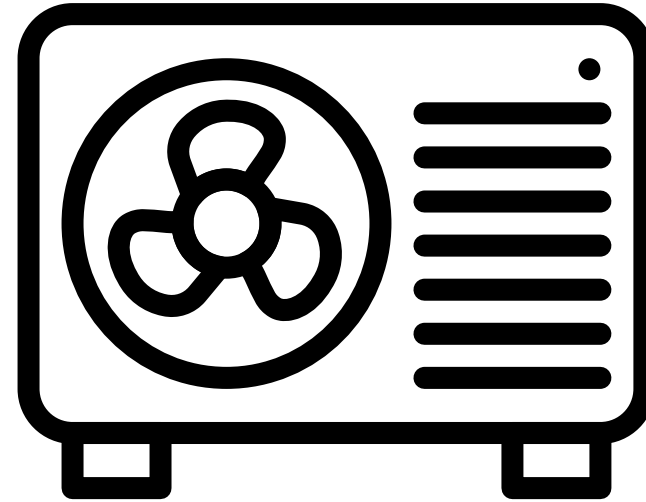


Exemption Pathway: Heat Pump System



Water Heating

OR

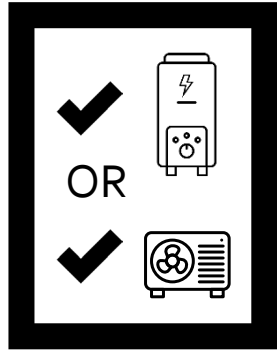


Space Heating/HVAC

Example: Home *doesn't* have a heat pump system



Example: Home *has* a heat pump system



Seller completes assessment
(Home Energy Score)



Home listed for
sale



Fully Compliant, no
upgrade needed

Phase-in by Building Type

- **Phase I: Single-family, ADUs, Duplexes, Condos within 1-4 unit buildings**
 - Expected implementation 2026
 - Likely to be owner-occupied
 - Bulk of sales
- **Phase II: 3-4 Units**
 - Expected implementation 2028
 - Likely to be rental properties
 - Complex/shared systems
 - Need to develop additional support systems



Berkeley Sales Analysis



Building Type	Avg. # of Buildings Sold per Year	% of Sales
Single Family	600	61%
Duplex	60	6%
Condominiums (within 2-4 Unit Buildings)	30	3%
3-4 Units	50	5%
Not subject buildings (Commercial, larger Multifamily, industrial)	260	25%

Proposed Exemptions/Support

- **BESO Exemptions:**
 - All-electric homes
 - Refinances, partial and inheritance transfers
 - Income qualified **First Time Home Buyers**
- **Support:**
 - **Offset BESO assessment costs** for income qualified sellers
 - Credit for **High Home Energy Score**
 - Option to obtain **early refund**
 - **Hardship** extensions and deferrals



Feedback from Additional Outreach

- **Timeline to complete upgrades**
 - *Concerns:* Some upgrades may take longer than 2 years
 - *Potential Update:* Allow 1-year with up to 2-year extension (up to 3 years total)
- **Condominiums**
 - *Concerns:* Technical feasibility, lowest entry for homeownership
 - *Potential Update:* Exclude condominiums
- **ADUs**
 - *Concerns:* Size limitations, additional costs to complete upgrades
 - *Potential Update:* Exclude ADUs
- **Escrow deposit**
 - *Concerns:* Requires buyers to have additional funds on hand for closing

Key Takeaways

- Only applies to buildings/units being sold
- Sellers are not required to complete upgrades
- Flexible upgrade options that buyers can choose from
- Upgrade Exemptions
 - Buildings with an electric water heater **OR** heat pump HVAC
 - Income qualified First Time Home Buyers
- Improves comfort, safety, and resilience

Thank You!

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Ammon Reagan

BESO Program Coordinator

Office of Energy and Sustainable Development

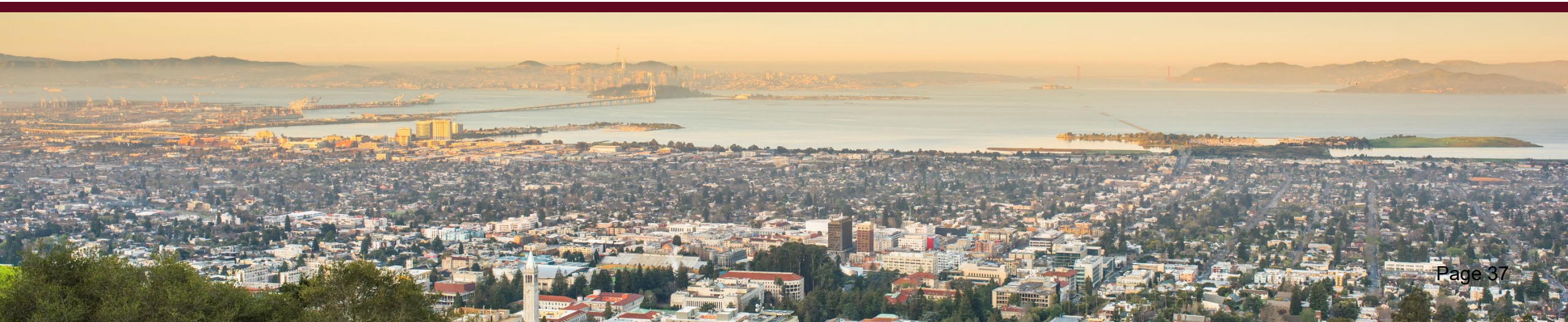
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SMoore@BerkeleyCA.gov



ORDINANCE NO. -N.S.

CHAPTER 19.81 BUILDING EMISSIONS SAVING

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Berkeley Municipal Code 19.81.010 is amended to read as follows:

19.81.010 - Purpose.

The purpose of this chapter is to reduce energy use, water consumption, and greenhouse gas emissions in existing buildings, to increase the resilience of these buildings, and to promote public health. These ~~efficiency and emission reduction improvements measures~~ will lower energy and water costs, transition buildings away from the use of fossil fuels, and increase comfort, safety and health for building occupants. The provisions of the ordinance will inform decision makers about energy, ~~and emissions,~~ and resilience performance and improvement opportunities.

Section 2. That Berkeley Municipal Code 19.81.030 is amended to read as follows:

19.81.030 - Definitions.

A. "Administrator" means the Director of Planning and Development or their designee.

B. "Building Owner" means the owner of record of a building or a unit within a building. In the case of a building held in cooperative or condominium form of ownership, the term "Building Owner" shall also refer to the board of managers, board of directors, homeowners association, or other representative body of the jointly-owned building with authority to make decisions about building assessments and alterations.

C. "Building Energy Score" means a measurement of how efficiently a building uses energy and/or water based on modeled simulations or actual energy use of the building over time compared to similar buildings, which can be in the form of a performance score, asset score or other comparable metric that meets standards and formats established by the Administrator.

D. "Credits" means a numerical value based on the improved resiliency, emissions savings, cost, or other measured benefit associated with a Resiliency Upgrade.

E. "Dwelling Unit" means a single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

~~DE.~~ "Electrification" means the transition of building systems and appliances away from natural gas to electricity as the source of energy.

EG. "Energy Report" means a report submitted by a Registered Service Provider that identifies existing conditions, opportunities for water and energy efficiency in a building, opportunities to transition off fossil fuels, greenhouse gas emissions reductions, and available incentives and financing, as well as any applicable Building Energy Score, in accordance with the standards and formats established by the Administrator.

FH. "ENERGY STAR Performance Report" means an ENERGY STAR Portfolio Manager Benchmark report generated by the on-line tool developed by the U.S. Environmental Protection Agency that determines energy use intensity and an Energy Star Performance Score for a building based on utility usage data.

GI. "~~Energy Resilience~~ Upgrade" means the installation or completion of recommended measure(s) that improve the building's energy efficiency, increases the building's resilience, supports the transition off fossil fuels, and/or decreases the building's greenhouse gas emissions.

HJ. "Extensive Renovation" means any project that replaces all building space heating, cooling, and ventilation equipment and replaces at least half of the building envelope, in accordance to standards established by the Administrator.

IK. "Green Building Rating" means an approved rating by a green building verification system consistent with standards identified by the Energy Efficiency Standardization Coordination Collaborative (EESCC) of the American National Standards Institute (ANSI), including, but not limited to the following: Build It Green (BIG) GreenPoint Rated Existing Building; US Green Building Council Leadership in Energy and Environmental Design Existing Building Operation and Maintenance (USGBC LEED-EBOM); Passive House Institute (PHI) Certified Passive House and EnerPHit; Passive House Institute US (PHIUS) PHIUS+ Certified Project; and the International Living Future Institute Zero Net Energy Building and Living Building Challenge Certification; or any other rating demonstrating approved levels of energy efficiency, as determined by the Administrator.

JL. "Gross Floor Area" means the total size, as measured between the principal exterior surfaces of the enclosed fixed walls of the building(s). This includes all areas inside the building(s) such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross Floor Area should not include interstitial plenum space between floors, which may house pipes and ventilation.

KM. "Large Building" means any building with 25,000 square feet or more of Gross Floor Area.

LN. "Medium Building" means any building with between 15,000 and 24,999 square feet of Gross Floor Area, excluding Single Family Buildings 1 to 4 Unit Residential Buildings.

MO. "Real Estate Listing" means any listing of a building for sale in the City of Berkeley. "Real Estate Listings" include listing a building for sale by a property owner or by a licensed agent. "Real Estate Listings" include any printed advertisement, internet

posting, or publicly displayed sign, including but not limited to Regional Multiple Listing Service, Redfin, Zillow, Trulia and other third party listing services, include any listing for sale by any advertisement, internet posting, or publicly displayed sign.

NP. "Registered Service Provider" means an entity that has been registered by the Administrator to provide an Energy Report and/or Building Energy Score as required by this ordinance.

~~O. "Sale" means the conveyance of title to real property as a result of the execution of a real property sales contract as defined in Section 2985 of the California Civil Code as well as any change of ownership described in subdivision (c) of Section 61 and subdivision (c) of Section 64 of the California Revenue and Taxation Code. "Sale" does not include transfer of title pursuant to inheritance, involuntary transfer of title resulting from default on an obligation secured by real property, change of title pursuant to marriage or divorce, condemnation, or any other involuntary change of title affected by operation of law.~~

PQ. "Single Family Building1 to 4 Unit Residential Building" means any building comprised solely of 1 to 4 residential- Dwelling Uunits, regardless of size. A single condominium unit within a 1 to 4 Unit Residential Building qualifies as a 1 to 4 Unit Residential Building unto itself.

QR. "Small Building" means any building with less than 15,000 square feet of Gross Floor Area, excluding Single Family1 to 4 Unit Residential Buildings. (Ord. 7740-NS § 1, 2020; Ord. 7397-NS § 5 (part), 2015)

~~S. "Transfer" means the conveyance of title to real property, including condominiums as defined in California Civil Code Section 1351(f), as a result of the execution of a real property sales contract as defined in Section 2985 of the California Civil Code as well as any change of ownership described in subdivision (c) of Section 61 and subdivision (c) of Section 64 of the California Revenue and Taxation Code. "Transfer" does not include transfer of title pursuant to inheritance, involuntary transfer of title resulting from default on an obligation secured by real property, change of title pursuant to marriage or divorce, condemnation, or any other involuntary change of title affected by operation of law.~~

Section 3. That Berkeley Municipal Code 19.81.040 is amended to read as follows:

19.81.040 – Large Buildings.

A. *Annual ENERGY STAR Performance Report.* Owners of Large Buildings shall submit to the Administrator an ENERGY STAR Performance Report on an annual basis in accordance with the phase-in schedule below and no later than July 1 each year thereafter.

B. *Energy Report.* Owners of Large Buildings shall have a Registered Service Provider prepare and submit to the Administrator an Energy Report as specified in the phase-in schedule below and by July 1 every five years thereafter.

C. *Disclosure.* The most recent ENERGY STAR Performance Report and a summary version of the most recent Energy Report including a Building Energy Score, when available, shall be made publicly available by the Administrator and shall be provided by the Building Owner to existing lessees and to prospective lessees and buyers prior to execution of a lease or contract for sale.

D. *Phase-in and Reporting Cycle Schedule.* Owners of Large Buildings shall be in compliance with the requirements of this section by the dates specified below.

1. July 1, 2018 for buildings with 50,000 or more square feet of Gross Floor Area, with an annual ENERGY STAR Performance Reporting cycle and a 5 year Energy Report reporting cycle thereafter.
2. July 1, 2019 for buildings with 25,000 or more square feet of Gross Floor Area with an annual ENERGY STAR Performance Reporting cycle and a 5 year Energy Report reporting cycle thereafter.

E. *Evaluate and Recommend Resilience Energy Upgrades Requirements.* The Administrator of this Chapter shall develop recommendations for Energy Resilience Upgrade requirements for Large Buildings based on building performance that are consistent with requirements of State and Federal law. The Administrator shall identify incentives, rebates or other compliance resources to off-set the costs of the Energy Resilience Upgrade requirements. The Administrator shall then report the proposed Energy Resilience Upgrade requirements for Large Buildings to the City Council for consideration.

Section 4. That Berkeley Municipal Code 19.81.050 is amended to read as follows:

19.81.050 – Medium and Small Buildings.

A. *Annual ENERGY STAR Performance Report.* Owners of Medium Buildings shall submit to the Administrator an ENERGY STAR Performance Report on an annual basis as of July, 1 2021, and no later than July 1 each year thereafter.

B. *Energy Report.* Owners of Medium and Small Buildings shall have a Registered Service Provider prepare and submit to the Administrator an Energy Report:

1. Prior to the Real Estate Listing of the building for ~~s~~Sale; or
2. Within 6 months of a lender having acquired title due to foreclosure or deed in lieu of foreclosure.

The requirement at time of Real Estate Listing may be transferred to the buyer and deferred for 6 months under the provisions of Section [19.81.090.B](#) of this Chapter.

C. *Disclosure.* All compliance documentation, including the most recent ENERGY STAR Performance Report, if applicable, a deferral or a summary version of the most

recent Energy Report including a Building Energy Score, when available, shall be made publicly available by the Administrator and shall be provided by the Building Owner to existing lessees and prospective lessees, to all licensed real estate agents working on the seller's behalf, and to prospective buyers who visit the building while it is listed publicly for sale.

D. *Evaluate and Recommend Energy-Resilience Upgrades Requirements.* The Administrator of this Chapter shall develop recommendations for Energy-Resilience Upgrade requirements for Small and Medium Buildings based on building performance that are consistent with State and Federal law. The Administrator shall identify incentives, rebates or other compliance resources to off-set the costs of the Energy-Resilience Upgrade requirements. The Administrator shall then report the proposed Energy-Resilience Upgrade requirements for Small and Medium Buildings to the City Council for consideration. (Ord. 7740-NS § 1, 2020; Ord. 7477-NS § 2, 2016; Ord. 7397-NS § 5 (part), 2015)

Section 5. That Berkeley Municipal Code 19.81.060 is amended to read as follows:

19.81.060 – Single-Family1 to 4 Unit Residential Buildings.

A. *Resilience Standard.* When a unit within a 1 to 4 Unit Residential Building is transferred, or when an entire 1 to 4 Unit Residential Building is transferred, the entity being transferred shall achieve a required number of Credits, as determined by the Administrator, by undergoing Resilience Upgrades.

AB. *Energy Report.* Owners of Single-Family1 to 4 Unit Residential Buildings and owners of a unit residing within a 1 to 4 Unit Residential Building shall have a Registered Service Provider prepare and submit to the Administrator an Energy Report:

1. Prior to the Real Estate Listing of the building or unit for sSale; or
2. Within 6 months of a lender having acquired title due to foreclosure or deed in lieu of foreclosure.

The requirement at time of Real Estate Listing may be transferred to the buyer and deferred for 6 months under the provisions of Section 19.81.090.B of this Chapter. In the event the property owner fails to complete the Energy Report an administrative fee shall be charged, which fee is set forth in Section 19.81.120 of this code.

C. *BESO Certificate of Compliance.* Upon submittal of documentation verifying that a Building Owner has achieved the required number of Resilience Upgrade credits, as determined by the Administrator, the Administrator shall issue a BESO Certificate of Compliance. A BESO Certificate of Compliance shall expire 5 years after issuance.

D. *Verification at Time of Transfer.* Prior to Transfer of title:

1. A BESO Certificate of Compliance for the subject property must be obtained,
or

2. The Administrator may grant a one-year extension, with an opportunity for an additional one-year extension, to meet the requirements of BMC 19.81.060(C) if the Transferor and Transferee deposit funds with the City in an amount the Administrator determines to be sufficient to render compliance. The Transferor and Transferee must execute and deliver to the Administrator or her designee a binding agreement in a form acceptable to the City providing that any funds deposited with the City shall be forfeited and transferred to the City if a BESO Certificate of Compliance for the subject property has not been obtained upon the expiration of the extension period. Forfeited deposit funds shall be used for local low-income building upgrade programs, such as the Climate Equity Fund or Just Transition Residential Electrification Programs.

a. If a BESO Certificate of Compliance for the subject property is obtained prior to the expiration of the extension period, then the Transferor and Transferee shall recoup their deposit in full.

b. If a BESO Certificate of Compliance for the subject property was not obtained prior to the expiration of the extension period, then the funds will be forfeited and transferred to the City.

E. Appeals.

1. If deposit funds are forfeited and transferred to the City pursuant to BMC 19.81.050(D)(2)(b), notice shall be mailed no more than 14 calendar days after the expiration of the extension period to the Transferor and Transferee of (i) the forfeiture and transfer and (ii) the opportunity to appeal. The cost of notice shall be deducted from the deposit made pursuant to BMC 19.81.050(D)(2).

2. Within 14 calendar days of mailing of forfeiture notice, the Transferor or Transferee may appeal the forfeiture and transfer.

a. An appeal shall be submitted to the City Manager in writing and must state all of the reasons for the appeal.

b. Appeal fees shall be paid by the person filing the appeal (the appellant).

3. Where a timely appeal has been filed, the City Manager shall, within 14 calendar days, set the appeal for a hearing before a Hearing Officer to be designated by the City Manager.

4. At the appeal hearing, the Hearing Officer may: (i) continue the public hearing; or (ii) reverse or affirm the decision of the prior review authority.

5. When acting on an appeal, the Hearing Officer will use the same decision-making criteria and shall make the same findings as the prior review authority.

6. The Hearing Officer shall serve a written decision upon the appellant within 14 calendar days of the hearing, and shall send a copy to the Administrator and the City Manager. The Hearing Officer's decision shall be final when mailed.

BE. Disclosure. All compliance documentation, including ~~a deferral or~~ a summary version of the most recent Energy Report including a Building Energy Score, ~~when available,~~ and the Resilience Standard compliance status shall be made publicly available by the Administrator and shall be provided by the Building Owner to existing lessees and prospective lessees, to all licensed real estate agents working on the seller's behalf, and to prospective buyers who visit the building while it is listed for sale. The Building Energy Score shall be included in all Real Estate Listings and a URL link to the Energy Report included if links are supported by the listing service.

G. Phase-in. Owners of 1 to 4 Unit Residential Buildings shall comply with the requirements of this section starting on the dates specified below. These buildings shall be treated as Small Buildings until their phase-in date.

1. January 1, 2026 for 1 to 4 Unit Residential Buildings containing one or two residential units and units residing within a 1 to 4 Unit Residential Building.
2. January 1, 2028 for 1 to 4 Unit Buildings containing three or four residential units.

H. Responsibilities. Except as otherwise provided or as allowed by the Administrator, the Building Owner is responsible for compliance with this Section. The seller of any real property shall be responsible for disclosing to prospective purchasers the requirements of this Section and the compliance status of the real property in question. Upon transfer of ownership, the buyer will be responsible for the compliance with this Section, regardless of any disclosure or failure to disclose.

~~C. Reporting Schedule.~~ The requirements of this Section of the ordinance shall become effective December 1, 2015.

~~D. Evaluate and Recommend Energy Upgrades Requirements.~~ The Administrator of this Chapter shall develop recommendations for Energy Upgrade requirements for Single Family Buildings based on building performance that are consistent with requirements of State and Federal law. The Administrator shall identify incentives, rebates or other compliance resources to off-set the costs of the Energy Upgrade requirements. The Administrator shall then report the proposed Energy Upgrade requirements for Single Family Buildings to the City Council for consideration. (Ord. 7740-NS § 1, 2020; Ord. 7397-NS § 5 (part), 2015)

Section 6. That Berkeley Municipal Code 19.81.090 is amended to read as follows:

19.81.090 – Exceptions, Deferrals and Extensions.

A. High Performance Exemption. Exemptions from the Energy Report requirements for current reporting periods may be granted for buildings that demonstrate effective and reasonably achievable level of efficiency, electrification of building systems and appliances, and/or emissions reduction, based on the specific building type, use, vintage, and condition, that supports Berkeley's commitment to become a Fossil Fuel Free City- meet Race to Zero by reducing GHG emissions 60.5% from 2018 by 2030.

~~and become carbon neutral by 2045, and the Berkeley Climate Action Plan (CAP) goal of 33% energy-related greenhouse gas reduction from 2000 levels by 2020 and 80% reduction by 2050.~~ Qualified exemptions shall include, but are not limited to:

1. Any ~~Large building~~ Building that receives a Building Energy Score or Green Building Rating that demonstrates an effective and reasonable level of efficiency, as determined by the Administrator.
2. Any building, ~~except for 1 to 4 Unit Residential Buildings,~~ that completes a multi-measure energy improvement project with a verified minimum improvement, as determined by Administrator.
3. Any whole building that has been served by an income-qualified Weatherization Assistance program for low-income households.
4. Any new building or Extensive Renovation, ~~except for 1 to 4 Unit Residential Buildings,~~ with a construction completion date within ten years of the reporting deadline.
5. Any building or unit that has electrified all building systems and appliances and capped all gas lines to the building or unit.

B. *Deferral at Time of Real Estate Listing.* The requirements for compliance prior to the Real Estate Listing of a ~~Small or Medium B~~ building may be deferred from the seller to the buyer, and any subsequent buyers, for a period of 6 months after the original sale date. A request to defer responsibility to the buyer must be submitted to the administrator prior to the listing of the building. The deferral shall include information on the fuel source for each end use in the building and any current or future electrification requirements and incentives.

C. *Distressed Sale Extension.* A 6-month extension may be granted to a buyer of a building purchased from a lender following default or transfer by deed in lieu of foreclosure.

D. *Hardship Deferral.* The requirement for an ENERGY STAR Performance Report, ~~and the requirement for an Energy Report, or the Resilience Standard~~ for up to one reporting cycle in cases of financial hardship where one of the following is provided by the Building Owner and approved by the Administrator:

1. Proof of participation in an energy assistance income qualified program, administered through the State of California or the local energy utility.
2. Proof of approved participation in Property Tax Postponement or Property Tax Assistance for Senior Citizens, Blind or Disabled, or equivalent program as determined by Administrator.
3. Proof that the property qualifies for sale at public auction or acquisition by a public agency due to arrears for property taxes, within two years prior to the due date of the Energy Report.

4. Proof that a court appointed receiver is in control of the asset due to financial distress.
5. Proof that the senior mortgage is subject to a notice of default.
6. Proof that the responsible party is otherwise not able to meet the obligations of this Chapter.

Deferrals under this Section are granted to the Building Owner and are not transferable with a building Sale, at which time compliance with this Chapter shall be required.

E. *Data Unavailable.* An exemption from ENERGY STAR Performance Report requirement for any current reporting period may be granted if:

1. The Building Owner demonstrates to the Administrator that they have been unable to obtain tenant authorization to obtain tenant utility data, despite a good faith effort to obtain such consent, or
2. The building occupant demonstrates to the Administrator that such disclosure may result in the release of proprietary information which can be characterized as a trade secret, or;
3. Any person subject to the requirements of this Chapter demonstrates to the Administrator that submission of an ENERGY STAR Performance Report would conflict with the requirements of State or Federal law.

F. *Deferral for Planned Demolition or Extensive Renovation.* The requirements of this Chapter may be deferred for 24 months if the owner or buyer has obtained a Building Permit, Demolition Permit, or Permit under the Zoning Ordinance that includes demolition or Extensive Renovation of the subject building.

Deferrals under this Section are granted to the Building Owner and are not transferable with a building Sale, at which time compliance with this Chapter shall be required.

G. *Exemption for Sale of a Condominium.* The requirements to submit an Energy Report with an Energy Benchmark to the Administrator shall not apply to any sale of a residential or commercial condominium that is a unit within a Small or Medium building Building and not a detached structure.

H. *Low Energy Use Deferral.* Buildings with low energy use based on energy billing data comparing a building to similar efficient buildings or because of operations specific to their building use, such as institutions that operate less than three days a week, may be granted a Low Energy Use deferral for the current compliance cycle.

Deferrals under this Section are granted to the Building Owner and are not transferable with a building Sale, at which time compliance with this Chapter shall be required.

I. *Exemption for Long-Term Tenancy under Rent Control.* The requirements of this Chapter for any building which is subject to rent control in which all of the units,

excluding any owner-occupied units, have leases that date prior to January 1, 1999 may be deferred until the next reporting period.

J. *Unconditioned Floor Area Reclassification.* The size classification of a building may be reduced by the Administrator to exclude physically separated floor area that is not served by heating, ventilation or cooling equipment.

~~K. *Exemption based on building size.* Buildings 600 square feet or a higher size threshold, as determined by the Administrator, are exempt from the requirements of this Chapter. (Ord. 7740-NS § 1, 2020; Ord. 7477-NS § 3, 2016; Ord. 7397-NS § 5 (part), 2015)~~

~~K. *Recent Resilience Upgrades.* Buildings that completed the requisite number of Resilience Upgrades, as determined by the Administrator, within the last 5 years may obtain a BESO Certificate of Compliance if the Building Owner submits sufficient proof to the Administrator.~~

~~L. *Heat Pump System Exemption.* 1 to 4 Unit Residential Buildings where all units being transferred are completely served by at least one electric heat pump system or equivalent, as determined by the administrator, may obtain a BESO Certificate of Compliance. The Energy Report shall provide confirmation for this exemption.~~

~~M. *Early Refund Exception.* Owners of 1 to 4 Unit Residential Buildings may apply for early remittance of their escrow deposit prior to completion of the Resilience Upgrades upon a showing that the owner has obtained building permits for the requisite Resilience Upgrades and supplied sufficient evidence that they Resilience Upgrades will be completed, as determined by the Administrator. If the application for an early refund is approved, the City will refund the funds deposited pursuant to BMC 19.81.060(D)(2) to the owner so that the owner may complete the Resilience Upgrades. Once the requisite Resilience Upgrades are complete, the Owner must obtain a BESO Certificate of Compliance. In the event the property owner fails to complete the requisite Resilience Upgrades within the compliance extension period, an administrative fee shall be charged, which fee is set forth in Section 19.81.120 of this code.~~

~~N. *First-Time Homebuyer Exemption.* Buyers of 1 to 4 Unit Residential Buildings or of units within 1 to 4 Unit Residential Buildings participating in an approved local, State, or Federal income-qualified first-time home buyer program or down payment assistance program may be exempt from the Resilience Standard requirements of this chapter.~~

Section 7. These amendments to Berkeley Municipal Code Chapter 19.81 shall become effective on January 1, 2025.

Section 8.

Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each

branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.

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