OSE Director's Rule 2016-01

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Table of Contents

Office of Sustainability & Environment Director's Rule

Building Tune-Up Requirement

1. PURPOSE AND BACKGROUND

Pursuant to Seattle Municipal Code (SMC) 22.930, Building Tune-ups, all buildings in the City of Seattle that meet specified size thresholds (gross square feet) and building uses must fulfill certain requirements to ensure optimized energy and water performance. The purpose of this Rule is to clarify the requirements of SMC 22.930 and the processes through which Building Owners and other affected parties may satisfactorily comply with the tune-up requirement and report the results to the City of Seattle.

In 2013, the City of Seattle adopted a Climate Action Plan (CAP) for achieving the City's vision for a carbon-neutral community by 2050. Buildings are responsible for 32% of Seattle's core emissions.[1] The City is aiming for an 82% reduction in building-related emissions by 2050, and a 45% reduction in commercial building energy use by 2050 to help achieve that goal[2]. Improving the energy and GHG efficiency of Seattle's existing building stock will most directly help reduce carbon pollution, but will also more broadly:

- promote high performing buildings;
- maintain affordability for owners and Tenants through reduced annual building utility expenses; and
- support local green jobs.

Toward those ends, SMC 22.930 requires owners of nonresidential buildings that are 50,000 gross square feet or greater, excluding parking and residential spaces, to tune-up building energy and water systems every five years. A tune-up includes (a) an inspection of building systems to identify operational or maintenance issues; (b) Corrective Actions to operational and maintenance issues identified in the inspection; and (c) a report to OSE summarizing issues identified and actions taken.

2. DEFINITIONS

A. **Alternative Compliance Pathways**: Alternative compliance pathways are optional approaches a Building Owner may take to be eligible for an exemption from the current compliance period. Alternative compliance pathways are identified in Section 9 of this Rule, and include measures that demonstrate high building energy performance, low energy consumption, or tune-up equivalent processes.

B. **Appropriate (determinant of tune-up Corrective Actions) –** In Section 11 of this Rule, an "Appropriate" corrective action in a building is a Low Cost operational adjustment and/or

[1] *2014 Seattle Community Greenhouse Gas Emissions Inventory*: www.seattle.gov/Documents/Departments/OSE/Climate%20Docs/2014GHG%20inventorySept2016.pdf
[2] *2013 Seattle Climate Action Plan:* www.seattle.gov/Documents/Departments/OSE/2013_CAP_20130612.pdf

maintenance action intended to improve energy or water efficiency in a manner that supports the needs of occupants and uses of a building.

C. **ASHRAE**: American Society of Heating, Refrigerating, and Air-Conditioning Engineers, a professional organization dedicated to the mission of advancing heating, ventilation, air conditioning and refrigeration through research, standards writing, publishing and continuing education.

D. **Assessor's Gross Square Feet (GSF)** – a building's total square footage as provided in King County Assessor records. For determining if a building or building space is subject to this requirement under SMC 22.930, a building's or space's Gross Square Feet is defined as the total gross square feet in King County Assessor's records of all nonresidential spaces, excluding parking, in the building. This calculation must include the gross square feet of all "small spaces with Tenant-owned equipment" that may be exempted as defined in Section 5 of this Rule.

E. **Building Owner –** an individual or entity possessing a fee interest in a building. Where a condominium is subject to this Rule, "Building Owner" means the owners' association. In a condominium where the powers of an owners' association are exercised by or delegated to a master association, as defined in RCW 64.34.276, "Building Owner" means the master association. A Building Owner may designate an agent to act on their behalf, such as a building manager or the net lessee. "Building Owner" refers to the ownership of the structure, even if the parcel of land is leased by a different ownership entity to the Building Owner (i.e. "land lease").

F. **Certificate of Occupancy (CoO) –** a certificate issued by the Seattle Department of Construction and Inspections (SDCI) after final inspection of permitted construction work on a building, allowing the building to be occupied.

G. **Certified ENERGY STAR Rating** – the score certified and provided by the United States Environmental Protection Agency ENERGY STAR program for commercial buildings indicating the relative energy performance of a building as compared to similar buildings nationwide, as verified and stamped by a licensed professional engineer (PE) or registered architect (RA).

H. **Corrective Actions –** Measures identified by Tune-Up Specialists in a Building Tune-Up Assessment for a Building Owner to implement in order to optimize building or equipment operations. Corrective Actions are required to be completed and documented in a report to OSE comply with SMC 22.930.

I. **Energy Benchmarking –** the assessment of a building's energy use and efficiency as required in Seattle Municipal Code (SMC) Chapter 22.920.

J. **Energy Use Intensity (EUI) –** a measurement that describes a building's energy use relative to its size. A building's EUI is calculated by dividing the total energy consumed in one year by the Gross Floor Area of the building. EUI is reported as a value of thousand British thermal units per square foot (kBtu/sf).

K. **Gross Floor Area (GFA)** – a term used in ENERGY STAR and the Seattle Energy Benchmarking program. It represents the building floor area as the total number of square feet measured between the exterior surfaces of the enclosing fixed walls, including all supporting functions such as offices, lobbies, restrooms, equipment storage areas, mechanical rooms, break rooms, elevator shafts, etc. Atriums should only include the base floor area that they occupy. The total Gross Floor Area should not include outside bays or docks.

L. **Initial Occupancy Date –** the date that a Certificate of Occupancy is issued for a building. If no certificate of occupancy was issued, the Initial Occupancy Date will be the date any utility service was first billed for the building.

M. **LEED –** Leadership in Energy and Environmental Design, an internationally recognized green building rating and certification system that provides third-party verification that a building or community was designed and built, or an existing building improved, using strategies intended to improve performance in the areas of energy savings, water efficiency, greenhouse gas emissions reduction, indoor environmental quality, and stewardship of resources. LEED certification is by Green Business Certification Inc. (GBCI).

N. **Living Building Challenge (LBC)** – A building certification standard including rigorous standards for energy and water consumption, among other requirements. To be certified, buildings must meet a series of ambitious performance requirements over a minimum of 12 months of continuous occupancy. LBC certification is conducted through the International Living Future Institute (ILFI).

O. **Low Cost –** For the purposes of this Rule, Low Cost refers to Corrective Actions to the building that are operational improvements and/or minor equipment maintenance and repairs, and that, when packaged as a group of Corrective Actions in a building, typically generate a simple payback in utility bill reductions in three years or less.

P. **Minor Repairs –** For purposes of this Rule, Minor Repairs include repairs to equipment as part of typical maintenance to ensure proper function.

Q. **Operations / Operational Actions –** For purposes of this Rule, building operations and operational actions describe the use of equipment within a building. Operational improvements refer to changing or optimizing how the equipment is used, but do not include changing the equipment itself.

R. **OSE Director –** Director of the Office of Sustainability and Environment or designee.

S. ENERGY STAR Portfolio Manager - the tool developed and maintained by the United States Environmental Protection Agency (EPA) to track and assess the relative energy performance of similar buildings nationwide, and used by Building Owners to comply with the Seattle Energy Benchmarking and Reporting program requirements.

T. Seattle OSE Building Identification Number (Building ID) - A unique building identification number assigned by OSE to each covered building to facilitate tune-up submission and compliance tracking.

U. Tenant – a person or business occupying or holding possession of any part of a building or premises pursuant to a rental agreement or condominium agreement.

V. **Transient –** For purposes of this Rule, transient refers to a residential unit, group of units, dwelling, building, or group of buildings within a single complex of buildings that is rented to guests more than three times in a calendar year for periods of less than 1 calendar month, or which is advertised or held out to the public as a place regularly rented to guests.

W. **Tune-Up Specialist** - a person qualified to conduct a tune-up assessment, identify required tune-up actions, perform tune-up actions and/or verify that tune-up actions were completed. A Tune-Up Specialist must meet the qualifications specified in Section 12 of this Rule.

X. **Zone (or Building Zone)** - One occupiable space or several occupiable spaces with similar occupancy classification per Seattle Mechanical Code Table 403.3, served by the same primary Heating, Ventilation, and Air Conditioning (HVAC) system.

3. BUILDING TYPES SUBJECT TO REQUIREMENT

Per SMC 22.930, the Building Tune-Up requirement applies to all nonresidential buildings and nonresidential spaces that are 50,000 Gross Square Feet or greater, excluding parking, as recorded in King County Assessor records, are located entirely in the City of Seattle, and that are subject to Energy Benchmarking requirements per SMC 22.920. To determine if a building is subject to this requirement under SMC 22.930, a building's or space's gross square feet (GSF) should be calculated according to the Gross Square Feet definition in Section 2 of this Rule.

This Rule further clarifies that the Building Tune-Up requirement applies to the following buildings:

A. **Non-residential buildings:** Buildings with a gross square footage of 50,000 square feet or greater, excluding parking, and falling under the authority of the Seattle Building Code, other than apartment houses or other buildings listed as not subject to this requirement under Section 4 of this Rule are considered to be Non-Residential. Some examples of the types of buildings that fall within this category include, but are not limited to, buildings used for the following:
    a. The gathering of people for purposes such as civic, social or religious functions (e.g. theaters, restaurants, libraries, places of worship, stadiums)
    b. Office, professional, or service-type transactions (e.g. banks, laboratories, professional service offices)
    c. Educational purposes (e.g. public or private schools, day care facilities)
    d. Uses in which people are cared for or live in a supervised environment (e.g. convalescent facilities, hospitals, nursing homes, prisons, detention centers)
    e. The display and sale of merchandise (e.g. department stores, drug stores, markets, retail or wholesale stores)
    f. Uses containing sleeping units where the occupants are primarily transient in nature (e.g. hotels, motels)
    g. The storage of materials (e.g. warehouses).
B. **Mixed use buildings with 50,000 square feet or greater of non-residential space**: Any building that contains some spaces categorized as Nonresidential and other spaces categorized as Residential is considered to be Mixed Use. The nonresidential portions of a mixed use building are subject to this requirement if the applicable nonresidential (as defined in Section 3.A) portions of the building, excluding parking, total 50,000 gross square feet or greater.
C. **Campus buildings**: Nonresidential or mixed use buildings as identified in Sections 3.A and 3.B above are subject to the tune-ups requirement. This includes buildings that benchmark individually and those that benchmark to the City of Seattle as part of a campus.
D. **Commercial condominiums:** Commercial condominiums that meet the criteria under this section are subject to this ordinance.

4. BUILDINGS NOT SUBJECT TO REQUIREMENT

Per SMC 22.930, and for the purposes of this Rule, the Building Tune-Up requirement does not apply to the following buildings.

A. Single family residential buildings: this includes buildings which are either subject to the Seattle Residential Code, or Subject to the Seattle Building Code with occupancies classified as Group R-3. Per the 2012 Seattle Building Code Group R-3 includes:

i. Buildings that do not contain more than two dwelling units
ii. Boarding houses (non-transient)

B. Multifamily residential buildings: buildings whose primary occupancy is classified under the Seattle Building Code as Residential Group R-2, and which contain less than 50,000 square feet of non-residential space (as described in this Section). Per the 2012 Seattle Building Code Group R-2 includes all residential occupancies containing sleeping units where occupants are primarily permanent in nature, including but not limited to:

i. Apartment houses
ii. Assisted living facilities licensed by the Department of Social and Health Services under Chapter 388-78A WAC
iii. Non-transient boarding houses, congregate living facilities, convents, dormitories, fraternities and sororities, hotels, live/work units, monasteries, and motels
iv. Residential treatment facilities as licensed by Washington State Department of Health under Chapter 246-337 WAC
v. Vacation timeshare properties

C. Mixed use buildings with less than 50,000 square feet of non-residential space: Any building that contains some spaces categorized as Nonresidential and other spaces categorized as Residential or Multifamily is considered to be Mixed Use. Residential or multifamily (as defined in this Section) portions of the building are not subject to this requirement. The applicability of this requirement to nonresidential building spaces is determined as defined in Section 3.B of this Rule.

D. Manufacturing or industrial buildings: Buildings used primarily for manufacturing or industrial purposes, as demonstrated by submitting one of the following:

b. A valid Certificate of Occupancy or construction permit documenting that at least 50% of the building gross square footage is classified under the current Seattle Building Code as Factory Industrial Group F. This includes buildings used for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair, or processing operations.
c. Office of Sustainability & Environment's tune-up exemption form, in which the Building Owner has verified that:
    i. Neither they nor OSE staff have been able to locate the Certificate of Occupancy for their building; and
    ii. Their building meets the definition of a Factory Industrial Group F building as classified in the Seattle Building Code.

Buildings previously exempted from the annual benchmarking requirement as manufacturing or industrial facilities do not need to resubmit documentation for the Building Tune-Up requirement.

5. CLARIFICATIONS AND SPECIAL-CASE SPACES

A. **Small spaces with Tenant-owned equipment**: Nonresidential spaces 2,500 square feet or smaller that are occupied by a Tenant and where the Tenant owns, operates, and maintains the mechanical equipment (e.g. heating, ventilation, air conditioning), are not subject to a Building Tune-Up under this requirement.
B. **Parking and unconditioned spaces:** Parking and other unconditioned (not mechanically heated or cooled) spaces within a building that are subject to this requirement shall be included in a Building Tune-Up per this Rule.
C. **Irrigated landscaping**: Exterior landscaping areas of a building that is subject to this requirement shall be included in a Building Tune-Up per this Rule if the total square footage of irrigated area is 500 square feet or more, and if the meter for irrigation water is associated with the building subject to compliance.
D. **Communication equipment:** Leased spaces and equipment solely for the purpose of communication (e.g, cell phone towers or rooftop antennae leases) are not subject to this requirement.
E. **Special use equipment**: Special use equipment such as equipment for cooking and industrial processing is not subject to this requirement.
F. **Data centers and server rooms**: Servers and other computing equipment are not subject to this requirement. HVAC systems serving the space are subject to the requirement.

6. PARTIES RESPONSIBLE FOR COMPLIANCE

A. **Building Owner Responsibilities**: The Building Owner as of October 1 of the required compliance year is responsible for complying with SMC 22.930 and communicating relevant compliance activities to Tenants. The Building Owner may have an agent (for example, a property manager), long-term Tenant, vendor, or an employee (for example, a building engineer) meet the requirement, but in the event of failure to comply, the Building Owner will ultimately be responsible for any fines resulting in non-compliance.
B. **Building Tenant Responsibilities**: Tenants of nonresidential building spaces subject to this requirement are required to allow Building Owners and Tune-Up Specialists reasonable access to Tenant spaces for the purpose of enabling compliance with this requirement

7. COMPLIANCE SCHEDULE

Building Owners must comply with the Building Tune-Up requirement once every five years. Compliance deadlines are by building, or space size, with deadlines for the first two cycles of compliance as follows:

Building or Non-residential Space Size:	**Initial Compliance Required by:**	**Second Compliance Required by:**
200,000 gross square feet or greater excluding parking	October 1, 2018	October 1, 2023
100,000 – 199,999 gross square feet excluding parking	October 1, 2019	October 1, 2024
70,000 – 99,999 gross square feet excluding parking	October 1, 2020	October 1, 2025
50,000 – 69,999 gross square feet excluding parking	October 1, 2021	October 1, 2026

8. COMPLIANCE EXTENSIONS

Building Owners may be granted a one-year extension from one tune-up compliance cycle for an individual building by providing documentation of any one of the conditions identified below. The grant of an extension for one cycle of tune-ups does not change compliance deadlines for subsequent cycles of tune-ups.

Unless a different timeline is specified below, requests for extensions must be submitted to the Director 180 days prior to the building's tune-up compliance date (April 1st of the year compliance is due), via an OSE-provided Tune-Up Extension application. The application must include the building address and Seattle OSE Building ID number, owner name and contact information, criteria under which the building is applying for an extension, and appropriate documentation to meet that criteria as specified below. The OSE Director will notify the applicant of a decision to approve or deny the request within 60 days of receipt of a complete application.

Extension Conditions and Documentation Requirements

A. Change of Ownership: Buildings having a date of purchase within one year prior to the compliance deadline may apply for a one-year deadline extension. Evidence of the transaction and new ownership information must be submitted with the Tune-Up Extension application. If the change of ownership occurs within 180 days of the compliance deadline, Building Owners may submit extension applications up to the tune-up compliance date.
B. Buildings with less than a 50% occupancy rate in non-residential spaces during a consecutive 6-month period within the 12-months preceding the compliance date. The Building Owner must submit clear evidence of a 50% vacancy or more with the extension application with the Tune-Up Extension application.
C. Buildings in which permitted mechanical improvements are underway, which must be complete before a tune-up can reasonably occur. The Building Owner must provide permits and work schedules with the Tune-Up Extension application.
D. If pursuing an exemption through Section 9.B.iv, which requires demonstrating 15% building energy savings, an owner may request an extension to allow time to demonstrate 12 months of post-implementation reduction in the building's EUI. The Building Owner must submit evidence that the activity projected to reduce the building EUI has been completed within the last year.

An extension for this purpose may only be granted once. If at the end of the extension period, the anticipated 15% energy savings has not been demonstrated per the standards of Section 9.B.iv, the exemption request will be denied and the Building Owner will be required to conduct a Building Tune-Up, per the requirements of this Rule, within 1 year of the date of exemption denial.

9. EXEMPTIONS FOR (1) ALTERNATIVE COMPLIANCE PATHWAYS OR (2) BARRIERS TO COMPLIANCE

Building Owners may be granted exemptions from one tune-up compliance cycle for an individual building by either (1) submitting a Tune-Up Exemption application and accompanying documentation that one of the following Alternative Compliance Pathways identified in this section has been achieved, or (2) submitting a Tune-Up Exemption application and documentation demonstrating that one of the Barriers to Compliance identified in this section applies. Exemptions are subject to approval by the Director. Requests for exemptions must be submitted to the Director 180 days prior to the building's tune-up compliance date per SMC 22.930.xxx (April 1st of the year compliance is due). Requests received after the deadline risk non-consideration. The Director will notify the applicant of a decision to approve or deny the request within 60 days of receiving a complete application.

Eligibility Timeframes: For the initial cycle of tune-ups compliance identified in Section 7 of this Rule (with compliance dates ranging from October 1, 2018 to October 1, 2021 depending on building size) the Alternative Compliance Pathways identified in this section must be achieved on or after the date of this Director's Rule's final adoption, unless a different time frame is specified below. For subsequent compliance cycles (every five years after the initial compliance dates), the Alternative Compliance Pathways identified in this section must be achieved, or re-verified by the certifying organization in cases where certifications apply, no more than three years prior to the compliance date unless a different time frame is specified below.

Exemptions for Alternate Compliance Pathways

A. **Exemplary Energy Performance or Low Energy Consumption**
   i. Certified ENERGY STAR Score of 90 or above in buildings equal to or larger than 100,000 square feet of Gross Floor Area (GFA) as defined in Section 2, or a certified ENERGY STAR Score of 85 or above in buildings less than 100,000 GFA as defined in Section 2, received in one of the two years prior to the year of compliance. For example, a building required to meet the Tune-Up requirement for October 1, 2018 can apply for this exemption if the building received a 2016 or 2017 ENERGY STAR certification. A Building Owner must submit a copy of the ENERGY STAR Certificate of Achievement and a Statement of Energy Performance stamped by a Professional Engineer or Registered Architect with their Tune-Up Exemption application submitted to the City. The Portfolio Manager property ID of the building submitting this application must match the Portfolio Manager property ID that is being reported to the City of Seattle as part of the Energy Benchmarking ordinance

ii. LEED Gold or Platinum certification under LEED-Operation and Maintenance (O+M) with at least 17 Energy and Atmosphere credits for LEED v4 or current, or with 15 Energy and Atmosphere credits under v2009. Building Owner must submit a copy of the LEED scorecard, certificate, and certification date with the Tune-Up Exemption application.

iii. International Living Future Institute (ILFI) Living Building Challenge Certification or Petal Certification with the Net Positive Energy Imperative met. A Building Owner must submit a copy of the Living Building Challenge or Petal certificate with the Tune-Up Exemption application.

iv. IFLI Net Zero Energy Building Certification. A Building Owner must submit a copy of the Net Zero Energy certificate with the Tune-Up Exemption application.

v. Buildings with a weather-normalized site EUI equal to or less than 20 kBtu/sf/year for the calendar year ending in December preceding the tune-up compliance date. Accuracy of the Portfolio Manager account must be verified by a professional meeting the qualifications of a Tune-Up Specialist as defined in Section 12, The Building Owner must submit an ENERGY STAR Statement of Energy Performance and signed Tune-Up Exemption form from the Tune-Up Specialist with the Tune-Up Exemption application.

B. **Tune-up Equivalent Processes**

i. Active monitoring and continuous commissioning of HVAC systems, lighting, water heating, and water usage systems as documented in data reports generated by building automation system or by staff no less frequently than once per quarter over the two-year period prior to the exemption submittal date. Data reports must indicate continuous monitoring and analysis of operational data, fault detection and diagnostics with actionable and measurable instructions for corrective action, and evidence that Corrective Actions consistently occur when faults are detected.

ii. Successful completion of a retro-commissioning program. Documentation accompanying the Tune-Up Exemption application may include one of the following:

a. Documentation of completing Seattle City Light's Retro-Commissioning incentive program, including SCL's Retro-commissioning Project Overview form and Retro-commissioning Scoping & Services Completion Verification form, signed by an SCL Energy Management Analyst. If natural gas is used for space heating, evidence of completing Puget Sound Energy's Comprehensive Building Tune-Up incentive program is also expected.

b. Documentation of completing of a retro-commissioning process no less stringent than the requirements outlined in the utility programs referenced in Section 9.B.ii.a, as certified by a professional meeting the qualifications of a Tune-Up Specialist in Section 12 of this Rule. Submit final retro-commissioning report and Tune-Up Specialist certification.

iii. Completion of an energy use audit no less stringent than ASHRAE Level II, conducted by a professional meeting the qualification requirements of a Tune-Up Specialist as defined in Section 12, and correction of all deficiencies and efficiency measures noted that were projected to have a simple payback of three years or less. Submit a copy of the Level II audit along with evidence that all energy efficiency measures with a simple payback of three years or less were implemented with Tune-Up Exemption application.

iv. An annualized 15% reduction in weather-normalized site Energy Use Intensity (EUI) relative to the building's prior two-year average weather-normalized site EUI. Accuracy of the Portfolio Manager and Energy Benchmarking account information for all three years must be verified by a professional meeting the qualifications of a Tune-Up Specialist, as defined in Section 12. The Building Owner must submit the three relevant years of ENERGY STAR Portfolio Manager Statements of Energy Performance stamped by a Professional Engineer or Registered Architect with their Tune-Up Exemption application submitted to the City. The Building Owner must also provide explanation for the reduction in EUI, and self-certify that it is not due to changes in Tenants, occupancy, or operating hours. Buildings are only eligible for this exemption if their normalized EUI is in the top 50% of Seattle normalized EUI's for the relevant building type for the year preceding the compliance date. Information on a building EUI's percentile in Seattle can be found as published annually through the City's Open Data website.

v. Demonstrated investment of at least $1.00/sf in energy conservation measures over the 3 years preceding the tune-up compliance date. Documentation of energy conservation incentive payments from one or more utilities is required to qualify.

vi. A completed new construction or a Substantial Alteration project, as defined by the Seattle Energy Code (SEC) Section C503.8, that was completed no more than three years preceding the compliance deadline. Provide documentation of the building's final Certificate of Occupancy with Tune-Up Exemption form.

vii. Buildings that have completed Seattle City Light Energy Analysis Assistance (EAA) for Existing Buildings program, including both an SCL-approved Energy Analysis Report, and receipt of incentive for implementing all measures with a 2 ½ year payback or less. Building Owners must submit documentation of incentives for both the Energy Analysis Report and energy conservation measures.

viii. Participation in the Tune-Ups Assistance Program and successful completion of one of the building energy efficiency improvement options identified under that program. The Tune-Ups Assistance Program is a City of Seattle run program offered through a grant from the US Department of Energy. It will be available for small to midsize nonresidential buildings (less than 100,000 SF), starting in 2017 and ending in 2019.

Exemptions for Barriers to Compliance

C. Barriers to Compliance

i. Buildings scheduled to be demolished within one year of the tune-up compliance date. Evidence must be provided in the form of a demolition permit or permit application submitted to the Seattle Department of Construction and Inspections (SDCI).

ii. Buildings undergoing, or scheduled for, a major renovation including upgrades to HVAC and lighting systems within one year of the tune-up compliance date. Evidence shall be provided in the form of a substantial alteration permit or permit application to SDCI.

iii. Buildings in severe financial distress, as evidenced by documentation of any of the following:

a. Building is the subject of a tax lien sale or public auction due to property tax arrearages,
b. Building is controlled by court appointed receiver, or
c. Building has been acquired by a deed in lieu of foreclosure.

10.TUNE-UP PROCESS

Compliance with the Building Tune-Up requirement includes the following steps:

A. **Identify a Tune-Up Specialist:** A Building Owner must identify a qualified Tune-Up Specialist as defined in Section 12 of this Rule to conduct or oversee a Building Tune-Up Assessment (described below).
B. **Building Tune-Up Assessment**: The Tune-Up Specialist must conduct a building assessment to identify existing conditions and Corrective Actions required to tune-up the building per the Tune-Up Assessment Elements in Section 11 of this Rule. The Tune-Up Specialist will note findings and identify required Corrective Actions in a report submitted to the Building Owner. It is recommended that the Tune-Up Specialist provide information to the owner via OSE's Tune-Up Reporting Form in addition to any other format. The form will be available on the OSE website, and should be filled out electronically.
C. **Tune-Up Corrective Actions**: A Building Owner must review the report and implement all required Corrective Actions, or an equivalent tune-up action if approved by the Tune-Up Specialist. Implementation of Corrective Actions may be conducted by a Tune-Up Specialist, or other professionals with relevant expertise.
D. **Verification of Completed**: The Tune-Up Specialist is required to verify that the required Corrective Actions identified in the Building Tune-Up Assessment were implemented and that all corrected equipment and systems are functioning as intended. The Tune-Up Specialist must verify the Corrective Actions by means Appropriate to the measures.
E. **Submit Report to City**: The Tune-Up Specialist completes the City's Tune-Up Reporting form and submits it to the Building Owner. Both the Building Owner or owner's agent and the Tune-Up Specialist must acknowledge the report (accept the terms and conditions) before the report is submitted. The Building Owner may submit the form or authorize the Tune-Up Specialist to submit on the owner's behalf. The Tune-Up Reporting Form must be submitted to the City by the tune-up compliance date. Forms should be submitted to OSE electronically online.

11.TUNE-UP ASSESSMENT & CORRECTIVE ACTIONS

This section specifies the actions required by Section 10.B – Building Tune-Up Assessments. All Building Tune-Up assessments and verifications must be conducted by, or under direct supervision of, a Tune-Up Specialist as defined in Section 12 of this Rule. The Tune-Up Assessment outlines a Tune-Up Specialist's review of energy use data and conditions of building systems, indicates what Corrective Actions may be needed, and whether a corrective action is required or voluntary. Tables 1 and 2 in this section distinguish between required and voluntary Corrective Actions.

Required Corrective Actions identified in the Building Tune-Up Assessment should be based on Tune-Up Specialist's opinion as to whether the operational elements listed in Section 10 of this Rule are functioning in a way that is efficient and Appropriate for the uses and occupancy of the building. If the Tune-Up Specialist finds that an element is not functioning in an efficient manner that supports the building use and occupant needs, he or she shall recommend a corrective action.

Assessments that include multiple pieces of identical equipment (e.g. heat pumps, plumbing fixtures, lighting sensors) may be limited to the assessment of a representative sample. The sample shall cover at least 12% of each identical type of equipment, but no fewer than 10 of each in buildings 50,000 – 99,999 SF and no fewer than 20 in buildings 100,000 SF or larger.

A. Building Information and Utility Data

i. Building characteristics including the following:
   a. Number, space use (such as office or retail), and gross square footage of each building Zone.
   b. Occupancy rates as a percentage of gross square feet for the building.
   c. Primary HVAC system type, age and general condition for each Zone.
   d. Primary lighting system type for each Zone.
   e. If applicable, other systems or equipment (not HVAC or lighting that account for notable energy use (e.g. heated swimming pool).
   f. Presence of any electric vehicle charging infrastructure in parking area, and number of parking spaces served by vehicle charging equipment.

ii. Review ENERGY STAR Portfolio Manager account information. Verify that all building meters are included in the account and that square footage is accurately recorded. Plot and evaluate annual energy usage to determine seasonality of energy use, and analyze bills to identify energy for heating, cooling, lighting, plug loads, and other loads.

iii. Review and evaluate water billing data for either the previous calendar year or the most recent 12 month period to identify indications of potential water leaks. Plot monthly water usage to determine if water use over time has varied significantly without explanation.

B. Operating Protocols, Calibration, Sequencing:

Table 1: Operating Protocols, Calibration, and Sequencing Elements of a Building Tune-Up

	Assessment Elements	Follow-Up Actions per Assessment Findings	
		Corrective Actions (Required)	**Recommendations (Voluntary)**
1.	**Heating, Ventilation, and Air Conditioning**		
a	Review HVAC equipment schedules (Including daily, weekly, seasonal, day/night, occupied/unoccupied hours).	Set schedules to optimize operations for actual building occupancy patterns.	
b	Review HVAC set points (including space temperatures, supply air temperatures, CO2, boiler temperatures, chilled water	Set or adjust to optimize function and energy efficiency of operations as Appropriate to support the	

	temperatures, economizer changeover temperatures, and building pressure).	building use and occupant needs.	
c	Review reset schedules (including supply air temperature, supply air pressure, boiler and chiller water temp, lockouts with outside air temp, loop differential pressure).	Establish or adjust as Appropriate.	
d	Review optimal stop/start capabilities.	Implement optimal start/stop capabilities as Appropriate to support the building use and occupant needs.	
e	Verify that HVAC sensors are functioning, calibrated, and in appropriate locations. Identify where sensors should be repaired, adjusted, calibrated, and/or moved.	Adjust or recommend repairs as Appropriate.	
f	Verify HVAC controls are functioning as intended.	Adjust control sequences as Appropriate for current facility requirements.	
g	Review HVAC controls for unintended or inappropriate instances of simultaneous heating and cooling.	Adjust HVAC controls to reduce or eliminate any unintended or inappropriate simultaneous heating and cooling.	
h	Note any indications of significant air-balancing issues (e.g. wind-tunnel effect).		Recommend rebalancing of HVAC air and water systems where significant efficiency or comfort improvements can be achieved.
i	Identify any indications that ventilation rates may vary significantly from ASHRAE 62.1 standards and be inappropriate for current facility requirements (e.g. no outside air supply or 100% outside air supply)		Recommend an analysis of ventilation system.
j	Identify Zones that are dominating multi-Zone system operations.		Recommend solutions to isolate these Zones.
2.	**Lighting**		
a	Identify any areas where lighting levels appear to be significantly higher than Appropriate for the space use and occupant needs.		Recommend areas which could benefit from dimming or de-lamping and/or where the lighting

			power density can be improved.
b	Verify lighting sensors are working and located Appropriately for the current functioning of the building.	Identify areas which could benefit from occupancy or daylight sensors.	
c	Review lighting controls schedules and sequences.	Set or adjust as Appropriate to match actual building use patterns.	
3.	**Domestic Hot Water**		
a	Review domestic hot water temperature set points.	Adjust set points to improve efficiency, as Appropriate for building use and occupant needs.	
b	Review circulation pump controls.	Set or adjust, as Appropriate, according to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-21.	
4.	**Water Usage**		
a	In irrigated areas over 500 square feet, verify irrigation schedule are in place, and review schedules.		Identify opportunities for schedule improvements to improve efficiency and recommend appropriate action (e.g. one schedule over many landscape Zones).
b	Verify irrigation rain sensors are calibrated, functioning properly, and located appropriately to collect relevant moisture data to trigger the system operating system.	Adjust, calibrate, or repair as Appropriate.	
c	Verify cooling tower conductivity meter used to control blow down is calibrated and functioning properly.	Adjust as Appropriate.	Recommend repair as appropriate.
d	Review water feature schedules.	Set to shut-down during night-time or unoccupied periods where Appropriate.	

C. Maintenance, Cleaning, and Repair

Table 2: Maintenance, Cleaning, and Repair Elements of a Building Tune-Up

	Assessment Elements	**Follow-Up Actions per Assessment Findings**	
		Corrective Actions (Required)	**Recommendations (Voluntary)**

1.	**Heating, Ventilation, and Air Conditioning**		
a	Verify HVAC equipment is clean and adequately maintained according to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-2, 5-15 (such as grilles, coils, and ducts).	Clean where adversely impacting system performance.	
b	Check filters and strainers.	Clean or replace filters and strainers where Appropriate and where they are adversely impacting system performance.	Recommend protocols to maintain them as appropriate. Refer to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-2, 5-22.
c	Verify that equipment observed during the assessment is in good working condition (such as motors, fans, pumps, belts, pulleys, bearings, and steam traps). Refer to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-2, 5-22 for standards.	Repair as Appropriate doing so is generally a Low Cost action.	Recommend repairs as appropriate for actions that are not Low Cost.
d	If ducts and pipes are visible and accessible, verify that HVAC duct and pipe insulation is in place.		Recommend installation or repair as appropriate.
e	Check valves and dampers.	Adjust according to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-9, 5-12 if not opening and closing fully.	
f	Identify equipment approaching the end of its service life, per ASHRAE Service Life Database.		Recommend replacement plan and schedule as appropriate.
2.	**Lighting**		
a	Identify inefficient lighting equipment (such as incandescent, T12, or metal halide lighting).		Recommend replacement where appropriate.
3.	**Water Usage**		
a	Check irrigation system for leaks, overspray, broken heads, foliage blocking, plugged nozzles, excess pressure, or other operational problems.	Adjust and repair as Appropriate for Low Cost actions.	Recommend repair as appropriate for actions that are not Low Cost.
b	Check plumbing fixtures for leaks.	Repair as Appropriate for Low Cost actions.	Recommend repair as appropriate for actions that are not Low Cost.
c	Check hands free sensor-activated plumbing fixtures for proper operation.		Recommend repairs as appropriate.

d	Check water flow fixtures.		Recommend low flow fixture or aerator replacements as appropriate.
4.	**Envelope**		
a	Check for roof penetrations and damage to siding that allows the entry of air or water or gaps in building envelope (such as areas requiring weather-stripping, dampers, top of elevator shaft, broken windows, and/or doors propped open).		Recommend repairs as appropriate.
b	Identify duct leaks (such as disconnects and/or holes).		Recommend repairs as appropriate.
c	Identify any uninsulated attic areas or areas where attic insulation has been disturbed.		Recommend improvements as appropriate.

12.QUALIFICATIONS OF TUNE-UP SPECIALISTS

Per SMC 22.930.080, building tune-ups must be conducted by a qualified Tune-Up Specialist. Individuals must meet the qualifications listed below in subsections 12.A through 12.C to qualify as a Tune-Up Specialist. All certifications must be current, with proof of certification and years of experience provided when the final Tune-Up Report is submitted to the City. A Tune-Up Specialist may be either a third party vendor or on-site staff, provided that they meet the Tune-Up Specialist qualifications in this Section. Tune-up reports submitted by persons not meeting the Tune-Up Specialist qualifications will be rejected.

Qualifications:

A. At least seven years of experience, including educational and/or professional experience, with building operations and/or energy management
B. One of the following:
    i. Level II Building Operator Certification (BOC) – as certified by the Northwest Energy Efficiency Council (NEEC)
    ii. Certified Energy Manager Certification (CEM) – as certified by the Association of Energy Engineers (AEE)
    iii. Existing Building Commissioning Professional (EBCP) – as certified by the AEE
    iv. Professional Engineer (PE) in mechanical engineering – Licensed by the Washington State Department of Licensing and with appropriate expertise to professionally advise on building energy efficiency in building operations, per Washington Administrative Code (WAC) 196-27A-020(2)(d).
    v. Sustainable Building Science Technology Bachelor of Applied Science (BAS) degree - granted by South Seattle College or other equivalent Bachelor's degree program focused on

commercial building energy management and conservation, as determined by the OSE Director.

vi. Certified Commissioning Professional (CCP) – as certified by the Building Commissioning Certification Board (BCCB)
vii. Graduation from an apprenticeship program that is predominantly focused on commercial building energy management and/or commercial building energy conservation, as determined by the OSE Director.

13. ENFORCEMENT GRACE PERIODS

Per SMC 22.930, the OSE Director has the authority to issue grace periods on compliance dates and/or enforcement deadlines. If enacted, grace periods will be applied consistently across all buildings within a building type and size group. Information about grace periods will be provided on the City's Building Tune-Up website.

14. CONFIDENTIALITY

Under Washington State Law (RCW Chapter 42.56, the *Public Records Act*) all records received or created by the City of Seattle are considered public records. Public records include annual energy consumption reports as required under Seattle Municipal Code, SMC 22.920.

The Public Records Act (PRA) requires that public records must be promptly disclosed by the City upon request unless the PRA or other statute specifically exempts records from disclosure.

If a Building Owner or Tenant believes any of the records they are submitting to the City in compliance with the requirements of SMC 22.930 are exempt from disclosure under the PRA, they can request that the City provide notice prior to disclosure so the Building Owner or Tenant has an opportunity to pursue court action to prevent disclosure. To do so, the Building Owner or Tenant must very clearly and specifically identify the records and the exemption(s) that may apply. Only the specific records or portions of records properly identified will be withheld for the purpose of providing notification. All other information submitted to the City will be considered fully disclosable upon request.

The City will not assert an exemption from disclosure on a Building Owner or Tenant's behalf. If the City receives a public disclosure request for any records that a Building Owner or Tenant has properly and specifically identified, the City may notify them in writing of the request and postpone disclosure. While it is not a legal obligation, the City may allow up to ten business days after notification for the Building Owner or Tenant to obtain a court injunction to prevent the City from releasing the records (per RCW 42.56.540). If the Building Owner or Tenant fails to obtain a court order within the ten-day period, the City may release the information.