

# **BMC CHAPTER 19.81 Building Energy Saving Ordinance (BESO)**

PROPOSED ADMINISTRATIVE REGULATIONS  
Version 1.0

**Posting Date: September 1, 2015**

Proposed Effective Date: October 9, 2015

PREFACE

*These regulations are proposed for adoption* by the Administrator pursuant to the Berkeley Energy Saving Ordinance (BESO), Berkeley Municipal Code (BMC) 19.81. Comments may be directed to the Administrator at:

[beso@cityofberkeley.info](mailto:beso@cityofberkeley.info)

BESO

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Except as provided below, the Administrator shall post proposed changes to the regulations on a City website and solicit feedback at least 30 days in advance of adoption. New regulations will become effective no fewer than 30 days after adoption and posting. The Administrator shall maintain a list of interested parties and provide notification to such parties when changes are proposed or adopted. The Administrator may make immediate changes to the regulations if there is a compelling need, such as improving customer service.

The Administrator shall publish and maintain a consolidated set of information materials incorporating the ordinance, these regulations and other materials to assist the public in complying with BESO requirements.

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## **Article I. Energy Reporting for Buildings within Berkeley City Limits**

### **Section I.1. Intent and Scope (ref. BMC §§ 19.81.010 - .020)**

#### A. Intent

1. Berkeley Municipal Code Chapter 19.81 (Building Energy Saving Ordinance – “BESO”) was established with the intent of lowering the cost and consumption of energy and water by mandating Energy Reports for existing buildings within City limits. Such Reports will be made publicly available to inform building owners, as well as prospective buyers and lessees, of building energy performance and worthwhile improvement opportunities. This in turn will encourage cost effective investment in energy and water efficiency, thereby lowering greenhouse gas emissions citywide while contributing to the comfort, safety and health of Berkeley residents

#### B. Scope

1. The following regulations shall apply to all residential and commercial buildings that are located in whole or in part within Berkeley city limits but shall not apply to agencies that are not subject to City authority. BESO requires all buildings with floor space served by heating or cooling equipment to report energy and water consumption in the form of a performance score and/or asset rating. Owners of homes consisting of 1 to 4 dwelling units are only required to submit a report at time of sale, while all other building owners must submit reports according to a schedule based on building size. Certain exceptions may apply (*see Section I.5*)

### **Section I.2. Building Use Types and Definitions (ref. BMC §§ 19.81.030)**

- A. “Ordinance” means the Building Energy Saving Ordinance (BESO), Berkeley Municipal Code (BMC), Chapter 19.81
- B. “Building” means a single structure wholly or partially enclosed within exterior walls, or within exterior and abutment walls (party walls), and a roof, affording shelter to persons, animals, or property
- C. “Building Agent” means the building owner or designated agent responsible for registering the building and complying with BESO
- D. Building Use Types
  1. “Single Family Building” (also referred to as a “Home” and “House”) means a Building containing up to 4 attached dwelling units, with each unit including a separate entrance and kitchen
  2. “Multifamily Building” means a Building with 5 or more dwelling units, including congregant residences that house more than 16 occupants, such as cooperatives, fraternities and sororities
  3. “Commercial Building” means a Building that is of a non-residential use, as well as a Building that provides temporary housing for transient residents,

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- such as hotels and motels, or a Building that provides permanent housing for residents receiving custodial care in a supervised residential environment, such as assisted living facilities and nursing homes
4. "Mixed Use Building" means a Building that contains both residential and non-residential uses, including live/work and work/live areas. See Section II.1.C for reporting options for Mixed Use Buildings
  - E. "Historic Structure" means a building that is a registered historic site listed on the City of Berkeley list of Landmarks, Structures of Merit and Historic Districts, found here: [www.ci.berkeley.ca.us/Planning\\_and\\_Development/Home/Landmarks\\_Preservation\\_Commission.aspx](http://www.ci.berkeley.ca.us/Planning_and_Development/Home/Landmarks_Preservation_Commission.aspx) and/or the National Register of Historic Places maintained by the National Park Service, found here: [www.nps.gov/nr/research/](http://www.nps.gov/nr/research/)
  - F. "Reporting Cycle" means the period in which a report becomes due based on the Phase-In Compliance Schedule (Section I.3.A), or in the case of Houses and Small and Medium Buildings, the date of Sale
  - G. All other definitions provided in Section 19.81.030 of the Ordinance are incorporated herein

**Section I.3. Compliance (ref. BMC §§ 19.81.040 - .060)**

- A. Phase-In Compliance
  1. Building Agents shall be required to submit reports based on the compliance schedule below. It is the responsibility of the Building Agent to cause the submission of the required documentation
  2. Compliance achieved prior to the start of the first Reporting Cycle shall be valid through the end of the first Reporting Cycle
  3. The Phase-In Compliance Schedule, based on gross floor area, is provided in Table 1 below

Table 1: Phase In Cycle

Building Type/Gross Floor Area		Phase In Cycle October 1	Compliance Required at Time of Sale	Requirement
Large Buildings	50,000 sq.ft. and above	2016	N/A	Energy Assessment (every <u>5</u> years) & ENERGY STAR® Performance Report (Annually)
	25,000 – 49,999 sq.ft.	2017	N/A	
Medium Buildings	15,000 – 24,999 sq.ft.	2018	Yes	Energy Assessment (every <u>8</u> years or at time of sale, whichever occurs first)
	5,000 – 14,999 sq.ft.	2019	Yes	
Small Buildings	5,000 sq.ft. and below	2020	Yes	Energy Assessment (every <u>10</u> years or at time of sale, whichever occurs first)
Houses	1-4 dwelling units	N/A	Yes	Energy Assessment (at time of sale)

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- B. Time of Sale Requirements
  - 1. Prior to execution of a contract for Sale
    - a. The seller must provide the buyer with a *BESO Certificate of Compliance - Form A* or a *Time of Sale Deferral-Form C* (signed and dated by buyer), and must file one of either form with the real estate transfer documents prior to close of escrow.
  - 2. The requirements of this Section shall be effective as of December 1, 2015 for the following building categories:
    - a. Houses (1 to 4 dwelling units, regardless of square footage)
    - b. Small Buildings (less than 5,000 sq.ft.)
    - c. Medium Buildings (5,000 to 24,999 sq.ft.)
    - d. Buildings Transferred Through Foreclosure
- C. Disclosure
  - 1. Building Agents are required to disclose the most current Energy Report and Building Energy Score, if applicable, to existing tenants and prospective tenants and buyers.
  - 2. Private Remedy
    - a. In the event that a seller fails to disclose or willfully misrepresents the information required above to an eventual buyer, the buyer may recover costs from the seller, or their agent (if any), including costs of compliance with the Ordinance, cost of attorney's fees, and any further incidental or consequential damages resulting from noncompliance
- D. Obligation to Comply
  - 1. Lack of notification by the Administrator does not relieve the Building Agent of the obligation to comply with the Ordinance
  - 2. No building will be cited in violation of the Ordinance without prior notification, as described in Section I.6 of these Rules and Regulations

### **Section I.4. Registered Energy Assessors (ref. BMC §§ 19.81.040 - .060)**

- A. Energy Reports may only be conducted and submitted by a service provider that is qualified to the specific Building Use Type and has a current registration with the City
- B. To qualify for registration with the City, an Energy Assessor must:
  - 1. Possess a current Berkeley Business License
  - 2. Participate in a BESO orientation hosted by the City.
  - 3. Certify that they are qualified for the specific Building Use Types, as described in Sections II.2-4
  - 4. Possess the insurance coverage specified at Appendix B - Energy Assessor Terms and Conditions
  - 5. Submit a completed Energy Assessor Registration Form to the City, including agreement with all program rules and procedures
  - 6. Complete, sign, date and file a BESO Energy Assessor Registration Agreement (see Appendix B - Energy Assessor Terms and Conditions)

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- C. REAs must complete of at least one assessment and Energy Report submission per year, or their registration will expire
- D. REAs are responsible for all filing requirements, including Benchmark Score or Asset Ratings, if applicable. It is the REA's responsibility to understand the filing requirements and to provide clients with a complete scope of work, including details about who is responsible for paying filing fees and obtaining access to the buildings, building records and energy consumption data.

**Section I.5. Exceptions, Deferrals, and Extensions (ref. BMC § 19.81.090)**

- A. Application for an Exception, Deferral, or Extension
  - 1. A Building Agent may request an exception, deferral, or extension under this section by submitting information and relevant evidence, using an application form/process prescribed by the Administrator
  - 2. All exceptions, deferrals, and extensions expire upon Sale, or at the end of the current Reporting Cycle, whichever comes first, except as follows:
    - a. The High Performance Exemption (Section I.5.C) is permanent
    - b. The Time of Sale Deferral (Section I.5.C.1 or Section I.5.D.1) expires 90 days after the anticipated closing date provided by Building Agent in the deferral application
    - c. The Deferral for Planned Demolition or Extensive Renovation (Section I.5.H) is valid for 24 months from the date of deferral application, or until the building is sold, whichever occurs first
    - d. Applications for other deferrals which are received within 1 year of the end of current Reporting Cycle will apply to the current and next Reporting Cycles
- B. Deferral Periods Not Cumulative
  - 1. For deferrals that postpone a reporting due date, including Time of Sale (Section I.5.D.1), Demolition/Renovation (Section I.5.H), and High Performance Deferral (Section I.5.L) only one such deferral may be applied to a single building at any one time, except in the case of a Distressed Sale Extension (Section I.5.D.2).
- C. High Performance Exemption. To recognize buildings that have achieved significant energy efficiency, the Administrator may grant an exemption from the Energy Report requirements
  - 1. The High Performance Exemption permanently relieves the Building Agent of the requirement to submit an Energy Report
  - 2. All High Performance Buildings are still subject to disclosure requirements
  - 3. Large High Performance Buildings are still subject to annual Energy Performance Report filing requirements
  - 4. A High Performance Exemption may be granted for any whole building that has demonstrated any of the following:
    - a. Completion of no-cost efficiency improvements from an income-qualified Weatherization Assistance program providing subsidized services, such as the Low-Income Home Energy Assistance Program

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- (LIHEAP, the US DOE Weatherization Assistance Program (WAP) or PG&E's Energy Saving Assistance Program
  - b. A DOE Commercial Asset Rating score of 80 or above
  - c. Verification as Net Zero Energy under the International Living Future Institute Zero Net Energy Building and Living Building Challenge
  - d. Verification as a Passive House under Passive House Institute (PHI) Certified Passive House standard, EnerPHit or Passive House Institute US (PHIUS) PHIUS+
  - e. Certification by Labs 21
  - f. Certification by the U.S. Green Building Council's LEED for Existing Building Operation and Maintenance (EBOM)
  - g. Certification as Build It Green GreenPoint Rated Existing Whole Building
  - h. An ENERGY STAR® Whole Home Certificate
  - i. Completion of a VERIFIED multi-measure comprehensive energy improvement project with minimum 10% energy improvement, including a City of Berkeley Money for Energy Efficiency (ME2) project or a Energy Upgrade California Home Upgrade
- D. Time of Sale Deferrals
- 1. Buyer Acceptance of Responsibility. Reporting requirements at Time of Sale may be deferred for a period of 12 months from the original date of Sale if the buyer agrees to fulfill the reporting requirements within the 12 month deferral period. Prior to execution of a contract for Sale,
    - a. The seller or buyer must file for a BESO Time of Sale Deferral-Form C (and pay the associated fee)
    - b. The Buyer must sign and date the form and
    - c. The title company responsible for facilitating the transaction must include the signed form in the escrow package
  - 2. Distressed Sale Extension
    - a. Reporting requirements at Time of Sale may be deferred for a period of 12 months from the original date of if the buyer is able to demonstrate that the building was purchased from a lender that acquired title due to default or transfer by deed in lieu of foreclosure
    - b. This extension may be granted for any Building that is currently in violation of the BESO ordinance or may be applied to extend an existing Time of Sale Deferral
- E. Contracted Registered Energy Assessor Extension
- 1. An extension of a Building's Energy Report due date may be granted for up to 6 months to a Building Agent who has paid the Energy Report filing fee and has submitted proof to the Administrator of a signed contract with a Registered Energy Assessor for a scheduled assessment of the subject Building
- F. Hardship Deferral
- 1. Reporting requirements may be deferred for a specific Reporting Cycle in cases of financial hardship

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2. To qualify for a deferral under this section the Building Agent must submit for approval by the Administrator one of the following:
    - a. Proof of participation in an income-qualified energy assistance program, administered through the State of California or the local energy utility
    - b. Proof of approved participation in Property Tax Postponement or Property Tax Assistance for Senior Citizens, Blind or Disabled, or equivalent program as determined by the Administrator
    - c. 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
    - d. Proof that a court appointed receiver is in control of the asset due to financial distress
    - e. Proof that the senior mortgage is subject to a notice of default
    - f. Proof that the responsible party is otherwise not able to meet the obligations of this Chapter shall be considered by the administrator
  3. Deferrals under this Section are granted to the Building Agent and are not transferrable past time of Sale, foreclosure, or transfer by deed in lieu of foreclosure, at which time compliance with this Chapter shall be required. Any building granted a Hardship Deferral that is not otherwise in compliance may be sold only if the Buyer files for a Time of Sale Deferral
- G. Data Unavailable Deferral
1. An exemption from the Building Energy Score requirement for any current Reporting Cycle or, in the case of Large Buildings, each annual filing requirement may be granted if:
    - a. The Building Agent certifies to the Administrator that he or she has been unable to obtain tenant authorization to access tenant utility data, despite a good faith effort to obtain such consent
      - i) To demonstrate a good faith effort to obtain consent, the Building Agent must submit a tenant-signed copy of the ENERGY STAR® Tenant Authorization Notice indicating one or more tenants have refused to authorize disclosure of their energy use data
    - b. Or, 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
    - c. An exemption needs to be filed and approved prior to the Building Energy Score due date
- H. Deferral for Planned Demolition or Extensive Renovation
1. All reporting requirements under this Chapter may be deferred for 24 months if the Building Agent submits to the Administrator a Building Permit, Demolition Permit or Permit under the Zoning Ordinance that includes complete demolition or Extensive Renovation of the subject building
  2. Deferrals under this Section are granted to the Building Agent and are not transferrable past time of Sale, foreclosure, or transfer by deed in lieu of foreclosure, at which time compliance with this Chapter shall be required
- I. Exemption for Sale of a Condominium



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1. The requirement to submit an Energy Report at time of sale shall not apply to any residential or commercial Condominium that is a unit within a Building and not a detached structure, unless all units in the building are sold to the same buyer. The Owner of such a condominium unit must provide the range of addresses and square footage for the whole building and contact information for the Home Owner's Association, or other controlling entity, as part of their application for the exemption
  2. However, the building must be brought into compliance whenever a sale results in all units belonging to a single owner
  3. Any condominium that is part of a Small, Medium or Large Building, is still subject to the requirements of the BESO ordinance under the Phase In schedule
- J. Low Energy Building Use Deferral
1. Deferrals for a specific Reporting Cycle may be granted for buildings with low energy use
  2. Single Family Buildings (1-4 units)
    - a. This deferral is not applicable to Single Family Buildings, which are only subject to the requirements at the time of sale
  3. Multifamily Buildings (5 or more units)
    - a. A Multifamily Building with 20 units or more with an ENERGY STAR® Score of 80 or greater is eligible for a Low Energy Use Deferral and should apply for a High Performance Deferral
  4. Commercial Buildings
    - a. A medium or large commercial building with an ENERGY STAR® Score of 80 or greater is eligible for a Low Energy Use Deferral and should apply for a High Performance Deferral
    - b. A Building Agent may submit proof of hours of operation averaging less than 24 hours per week with procedures or controls in place to power down all heating, ventilation, air conditioning and lighting systems when the building is not occupied
  5. Deferrals under this Section are granted to the Building Agent and are not transferrable past time of Sale, foreclosure, or transfer by deed in lieu of foreclosure, at which time compliance with this Chapter shall be required
- K. Deferral for Long-Term Tenancy under Rent Control
1. All reporting requirements under this Chapter may be deferred, upon application, for a specific Reporting Cycle for any building which is subject to rent control (as defined by Berkeley Municipal Code Chapter 13.76) in which all of the units, excluding any owner-occupied units, have leases that date prior to January 1, 1999
- L. High Performance Building Deferral
1. The Energy Assessment requirement for any building that meets the criteria below may be deferred until the next Reporting Cycle
    - a. ENERGY STAR® Portfolio Manager Certification with a score of 80 or greater for the current year or for a minimum of 3 out of 5 years prior to due date

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- b. Any new building or Extensive Renovation with a construction completion date within ten years of the reporting deadline. An extensive renovation involves replacement of all the energy-related equipment and at least half of the building envelope.

M. Unconditioned Floor Space Reclassification

- 1. A building's size classification may be reduced to exclude unconditioned floor space, determined by subtracting the amount of physically separated floor area not served by heating, ventilation, or cooling equipment from a Building's Gross Floor Space total, as verified by a Registered Energy Assessor or by providing other satisfactory evidence to the Administrator.

**Section I.6. Fees and Enforcement (ref. BMC §§ 19.81.100 – .130)**

- A. Fees are specified in Table 2 below

Table 2: Fees

Building Size/Type	Filing Frequency	Fee
Large Buildings, ≥ 25,000 sq.ft.	Every 5 years	\$240
Medium Buildings, 5,000 to 24,999 sq.ft.	Every 8 years, and/or at point-of-sale	\$152
Small Buildings, < 5,000 sq.ft. (excluding 1-4 unit Houses)	Every 10 years and/or at point-of-sale	\$79
Houses with 1-4 dwelling units	At time-of-sale only	\$79
Time of Sale or Distressed Sale Deferral of compliance to buyer	At time-of-sale only	\$48

B. Determination of Compliance

- 1. The Administrator is authorized to determine whether any or all Building Agents have complied with the requirements set forth in the Ordinance.

C. Violations

- 1. If reporting requirements of the Ordinance have not been met, the Administrator may issue a request for compliance in the form of a Notice to Correct, giving any and all persons subject to the Ordinance 90 days to come into compliance.
- 2. After 90 days, if any and all persons subject to the Ordinance fail to comply with the reporting requirements, the Administrator may issue an administrative citation in the form of a Notice of Violation, according to BMC Chapter 1.28.030.

D. Penalty

- 1. If a Building Agent fails to meet the reporting deadlines established by a Notice of Violation, the Administrator may impose fines according to BMC Chapter 1.28 and Resolution No. 61, 748-N.S.

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2. Any person who violates the Ordinance may be subject to a fine of \$100 for each violation, and an additional fine of up to \$25 for each day that the violation continues, up to a maximum of \$1,000 per violation
  3. Upon Sale of a Building or transfer of title due to default or deed in lieu of foreclosure, any and all fines accrued under this section remain the responsibility of the original Building Agent to whom they were assessed
- E. Suspension of Fines
1. Accrual of fines imposed due to a violation of the Ordinance based upon a missing or incomplete Energy Report may be suspended by the Administrator for a period of up to ninety days if the Building Agent demonstrates that they have made a deposit with a Registered Energy Assessor contracted to provide an Energy Report for the building in violation.
- F. Appeals
1. Any recipient of a Notice of Violation under this section may contest the existence of a violation through a hearing request submitted to the City Manager or his/her designee in accordance with BMC Chapter 1.28.060

### **Section I.7. Early Compliance and Transition Phase (ref. BMC §§ 19.81.060)**

- A. Any Energy Report completed after December 31, 2014 and prior to October 9, 2015 that otherwise otherwise meets the requirements specified in these Regulations shall be deemed as a qualified Energy Report for purposes of the first reporting cycle and may be submitted directly to the City by the Building Agent
- B. Between October 9, 2015 and December 1, 2015 a Building Agent may proceed with the Sale of a property if one of the following applies to the building being sold:
  1. It is compliant with Time of Sale reporting requirements under this Chapter
  2. It is compliant with Time of Sale retrofit requirements under the Residential or Commercial Energy Conservation Ordinances (BMC Chapters 19.16 and 19.72)
  3. The Building is not currently in violation of the Residential or Commercial Conservation Ordinances and the Buyer has, on or before June 1, 2015, filed to accept the responsibility to comply with said ordinance
- C. Fulfillment of requirements under either the Residential or Commercial Energy Conservation Ordinances will not constitute compliance with any reporting requirements under this Chapter

## **Article II. Energy Assessment and Reporting Requirements**

The following Article outlines specific standards and formats, as established by the Administrator, required for completion of a sufficient “**Energy Report**”, “**Building Energy Score**”, and “**ENERGY STAR® Performance Report**” according to the size and use classification of the individual building being evaluated. (ref. BMC § 19.81.030)

### **Section II.1. Registered Energy Assessor (REA) Reporting Procedures**

- A. Registered Energy Assessor Qualification
  - 1. In order to prepare an Energy Report or generate a Building Energy Score for a particular building, a service provider must be listed by the City as a REA for the applicable Building Use Type, as defined in Section I.2.D
- B. Multiple Assessors
  - 1. Only one REA may submit an Energy Report for any single Building to the City. If multiple REAs are involved in the preparation of such reports, such as the case may be for Mixed-Use Buildings, any one REA involved in the preparation may complete the submittal, subject to consent of the Building Agent
- C. Mixed Use Buildings
  - 1. In Mixed Use Buildings, each section of the building shall be subject to the regulations pertaining to the corresponding Building Use Type (Section I.2.D) unless 80% or more of the conditioned space is dedicated to one Building Use Type, in which case the entire building may be treated as if it were of that Building Use Type.
  - 2. In the case of building occupancies of a hybrid live/work nature, the REA may treat the Building Use Type use as either a Multifamily Building or a Commercial Building, or, if the building is less than 5,000 square feet, as a Single Family Building
- D. REAs will receive a secure log in to report building energy information on the City’s website. This log-in is for use by the REA only and may not be shared.
- E. Building Registration
  - 1. If a building is not already registered with the City, the REA shall be responsible for registering it prior to submitting the Energy Report
- F. Energy Report Requirements
  - 1. All Energy Reports shall:
    - a. Be prepared and submitted in accordance with the requirements for each Building Use Type as described in the appropriate sections below
    - b. Be provided by the REA directly to the Building Agent, and to the Administrator through the City of Berkeley’s online BESO reporting platform, within 2 weeks of conducting an assessment
  - 2. Submission of required information shall imply that it is complete and has been verified by the REA and conforms with the Terms and Conditions at Appendix B - Energy Assessor Terms and Conditions
- G. General Assessment Requirements

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1. All assessments conducted by REAs shall:
  - a. Be performed in a professional and timely manner
  - b. Provide clear and accurate information to customers about opportunities for improvements to efficiency, health, and comfort related to water and energy systems in their buildings
  - c. Be completed based on visual observations and/or usage analytics including the following:
    - i) Interview with customers to understand priorities and goals for building improvements and health and safety issues
    - ii) List of energy and water systems and visual examination of current conditions
    - iii) Review of existing and potential renewable generation opportunities
    - iv) Sample inspection for multifamily buildings of at least one in seven of every unit type (defined as having same/similar floor plan), with representation from differing building floors and including all four building orientations. In no case shall the inspection of units be less than 10% of total units
2. Include an analysis of energy and water saving opportunities and recommended efficiency measures, by providing the following:
  - a. Energy use information including benchmark comparing actual energy use or modeled energy use to similar buildings
  - b. Efficiency opportunity analysis using the appropriate method as specified for each building type in the Sections below

**Section II.2. Home Assessment and Reporting Requirements**

- A. Covered Buildings
  - 1. Buildings covered by this Section include all residential buildings with up to 4 attached dwelling units. See Section I.2.D for Building Use Type definitions
  - 2. Houses with 2 to 4 attached units may follow the requirements applicable to either Single Family Buildings or Multifamily Buildings
- B. Energy Assessor Qualifications
  - 1. Registered Energy Assessors shall possess expertise, as follows:
    - a. All houses up to 4 attached dwelling units must be Qualified Home Energy Score Assessor affiliated with StopWaste partnership, meeting qualifications specified in Table 3 below
    - b. REA's for houses with 2 to 4 attached units must also be a participating Contractor or participating Rater with an Energy Upgrade California Home Upgrade Program provided in the City of Berkeley, such as PG&E's Advanced Home Upgrade or BayREN's Home Upgrade Program

*Table 3: Summary of the requirements for becoming a Qualified Home Energy Score Assessor*

	Qualification Requirements
Credentialing Prerequisites	Current credentials recognized by leading building-related industry organizations (e.g. ASHI, BPI, InterNACHI, NARI, NATE, RESNET and others)
Practical Test	Candidate uses the Home Energy Score 3-D simulation tool to retrieve home characteristics data and to score - Three "Practice/Challenge" Homes (80 or better) - Two Test Homes (90 or better)
Written Exam	Score of 80 or better on multiple choice test comprised of 20 questions covering the Home Energy Score program only
Quality Assurance	5% of homes must be rescored under a DOE approved quality assurance plan
Mentoring	First home scored with a mentor; counts toward quality assurance requirement

- C. Registration
  - 1. Energy Assessors must be approved as Registered Energy Assessors, per Section I.4
- D. Energy Report Content
  - 1. A complete Home Energy Report shall consist of the following elements:
    - a. Home Energy Score report and supporting documentation for score-able units (detached or townhouse-style) or Energy Upgrade California analysis for 2 to 4 non-score-able units (stacked)
      - i) A description of the building and existing energy characteristics

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- ii) The type of building energy analysis used (see approved methods in Section II.2.E)
- iii) Recommended energy upgrades
- iv) A description of non-energy benefits for recommendations, including indoor air quality, noise, comfort, deferred maintenance and durability
- v) A list of applicable incentives, rebates, financing and tax deductions or credits and web addresses for each
- vi) Estimated energy annual cost savings, as a percentage of baseline costs
- vii) Referral to
  - 1) Home Energy Advisor [www.bayareaenergyupgrade.org/](http://www.bayareaenergyupgrade.org/) with phone number provided (866-878-6008), and
  - 2) A solar assessment provided by [www.energysage.com/smartsolar/](http://www.energysage.com/smartsolar/)
- b. A Supplemental Water Efficiency and Safety Form For Houses (see Appendix A - List of Forms) consisting of
  - 1) A natural gas safety assessment
  - 2) A water plumbing SB 407 compliance assessment
- c. Building summary data, as specified in Table 4 below

Table 4: Required Single Family Reporting Fields on BESO Website

BESO Reporting Field	Data Type
Assessment Date	Date
Assessment Cost	number
Building Use (House, MF, Comm, MU)	text
EstGrossFloorArea	number
ConditionedFloorArea	number
ResUnitNum	number
Historic Building	y/n
Green Building Certification (optional write in)	text
All Plumbing Fixture verified as Water Conserving per (Cal. Civ. Code §§ 1101, 1102.155)?	y/n/don't know
Water supplement	upload
Summary version Energy Report	upload
Submission status : note any outstanding issues related to the submission	text
Number of HES attached scorable units (townhouse-style, cannot be stacked or connected at rear)	number
Unit Name (if more than 1)	text
Home Energy Score	number
Home Energy Score Reference Number	text

E. Methods and Standards

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1. A building energy analysis shall be conducted using one of the following methods
    - a. Home Energy Score tool for individual units and townhouse-style units up to 4
    - b. For 2 to 4 units in non-scorable buildings, eligible energy modeling software includes those approved for use for under Energy Upgrade California Home Upgrade Program (EnergyPro, Cake, Optimiser, SuggPro, TREAT).
  2. Other assessments
    - a. The natural gas safety assessment will be based on a visual inspection of all natural gas appliances serving the building
    - b. The water plumbing SB 407 compliance shall be based on a visual inspection of the appliance labels
    - c. The analysis of rooftop solar potential shall be conducted using a software tool that provides an estimate for a solar photovoltaic system on the roof of the building, such as SmartSolar's Energy Sage marketplace portal ([www.energysage.com/smartsolar/](http://www.energysage.com/smartsolar/)) or other software tool that is based on the actual site conditions
- F. Assessment Options for Duplex to Fourplex (2 to 4 unit) Buildings
1. Houses with an accessory dwelling units (also known as an in-law unit) of less than 25% of floor area of main residence and less than 600 square feet in floor area, may be assessed as a single unit house or as a duplex
  2. Townhome-style houses sharing a side wall or side walls with independent roofs and foundations can be assessed on a per unit basis using Home Energy Score
  3. Stacked units and those sharing a back wall may not use Home Energy Score, and may choose from among the compliance options below:
    - a. Use modeling software approved for use by EUC Advanced Home Upgrade Program. Blower door tests are required in a minimum of 2 units
    - b. Use any energy modeling tool approved for multifamily buildings
  4. Registered Service Providers of houses with 2 to 4 attached units may follow the requirements applicable to either Single Family Buildings or Multifamily Buildings
- G. Report Submission Requirements
1. Reports and data shall be provided by a Registered Energy Assessor (REA) through a City website and submission of this information shall imply that it is complete and has been verified by the REA
  2. Incomplete information will be returned to REA for correction within 2 weeks. The report will not be valid until it is accepted by the Administrator.
  3. The REA shall log on to the BESO web portal, register the building (if it is not already registered) and provide the information in the following manner:
    - a. A copy of the Building Energy Score report shall be uploaded in a PDF format
    - b. The summary version of the Energy Assessment and supporting documentation shall be uploaded in a PDF format



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- c. The Solar Assessment shall be uploaded in PDF format. If using Energy Sage a PDF of the screen shot is acceptable
- d. The Supplemental Water and Safety Assessment Form shall be uploaded in PDF format
- e. The Building Summary Data shall be entered into the appropriate fields

### H. Disclosure

- 1. A Building Agent shall provide a summary version of the most recent Energy Report including a Building Energy Score, when available, to existing lessees, as well as prospective lessees and buyers prior to execution of a lease or contract for Sale
- 2. The Administrator shall make the information in this section available to the public through a website maintained by the City of Berkeley.

### **Section II.3. Multifamily Assessment and Reporting Requirements**

- A. Covered Buildings
  - 1. Buildings covered by this Section include all Multifamily Buildings with 5 or more attached dwelling units. See Section I.2.D for Building Use Type definitions
  - 2. Houses with 2 to 4 attached units may follow the requirements applicable to either Single Family Buildings or Multifamily Buildings
  - 3. See Section II.1.C for Mixed Use Buildings
- B. Energy Assessor Qualifications
  - 1. Multifamily Energy Assessments shall be conducted by a service provider possessing any two of the following qualifications listed below:
    - a. HERS Whole House (HERS II) Rater
    - b. BPI Certified Multifamily Building Analyst
    - c. GreenPoint Rater Existing Home Multifamily Rater
    - d. Certified Energy Analyst through California Associate of Building Energy Consultants
  - 2. Energy Assessors for Large Mixed-Use Buildings with over 20% Commercial floor area must also have one of the following qualifications in addition to those above:
    - a. Building Energy Assessment Professional Certification (BEAP)
    - b. Association of Energy Engineers Certified Energy Manager or Certified Energy Auditor
    - c. Professional Engineer licensed through the National Society of Professional Engineers
- C. Registration
  - 1. Energy Assessors must be approved as Registered Energy Assessors, per Section I.4
- D. Energy Report Content
  - 1. A complete Multifamily Energy Report shall consist of the following elements:
    - a. A Building Energy Assessment consisting of the following elements:
      - i) A description of the building, its occupancy, use and existing energy and water systems
      - ii) Energy modeling or interval data use analysis using method indicated in Section II.2.E.1
      - iii) A Supplemental Water Efficiency Form for Multifamily, Commercial, and Mixed Use Buildings (see Appendix A - List of Forms)
      - iv) A description of the metering configuration and responsibilities
      - v) Verification of property details and meter information used to generate ENERGY STAR Performance Score
      - vi) Verification of gross and conditioned square footage
      - vii) Identification of existing conditions and any planned capital projects or changes in use
      - viii) Identification of on-site energy production capacity
      - ix) A description of opportunities for:
        - 1) Low cost measures

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- 2) Operations and maintenance measures
- 3) Measures pursuant to planned capital projects
- 4) Opportunities for capital intensive measures
- 5) Opportunities for retrocommissioning measures (buildings 25,000 sq.ft. and over)
- 6) A list of applicable incentives, rebates, financing and tax deductions or credits and web addresses for each
- 7) Estimated potential savings of each measure or group of measures

b. Building summary data, as specified in Table 5 below

*Table 5: Required Multifamily Reporting Fields on BESO Website*

BESO Reporting Field	Data Type
Assessment Date	Date
Assessment Cost	number
Building Use (House, MF, Comm, MU)	text
EstGrossFloorArea	number
ConditionedFloorArea	number
ResUnitNum	number
Gross MF Floor Area	number
Conditioned MF Floor Area	number
Gross Commercial Floor Area	number
Conditioned Commercial Floor Area	number
Historic Building	y/n
Green Building Certification (optional write in)	text
All Plumbing Fixture verified as Water Conserving per (Cal. Civ. Code §§ 1101, 1102.155)?	y/n/don't know
Water supplement	upload
Summary version Energy Report	upload
Submission status : note any outstanding issues related to the submission	text
ENERGY STAR Reporting Period Year Ending mm/dd/yyyy	date
Energy Star Portfolio Manager Score	number
Energy Star weather normalized Site EUI	number

E. Methods and Standards

1. A Building Energy Analysis using Title 24 ACM approved modeling software or utility interval data analysis including:
  - a. Modeling software – Energy Pro modules Residential Performance, Non Residential Performance and GreenPoint Rated, EnergyPro Lite and Treat
  - b. Interval Data Analysis Software - WEGOWise, FirstFuel and Energy Scorecards

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2. A Building Energy Score, in the form of a US EPA ENERGY STAR® Portfolio Manager Benchmark Score, or If an ENERGY STAR® Benchmark Score is not available for the specific building occupancy type(s), an ENERGY STAR® EUI (site energy) for multifamily buildings with 20 or more residential units or mixed use buildings 5,000 sq fee or more.
  3. Energy Assessment
    - a. The Building Energy Assessment shall be conducted in accordance with the Bay Area Regional Energy Network Multifamily Program standards, the Existing Multifamily Assessment Protocols Multifamily Subcommittee (California Home Energy Retrofit Coordinating Committee California Tax Credit Allocation Committee), the BuildItGreen Existing Home Multifamily protocols or an equivalent method, approved by the Administrator on a case-by-case basis, that conforms to standards and protocols accepted by a State agency, such as the California Energy Commission
    - b. The water plumbing SB 407 compliance shall be based on a visual inspection of the appliance labels
    - c. Sample inspection for multifamily buildings of at least one in seven of every unit type (defined as having same/similar floor plan), with representation from differing building floors and including all four building orientations. In no case shall the inspection of units be less than 10% of total units
    - d. The analysis of rooftop solar potential shall be conducted using a software tool that provides an estimate for a solar photovoltaic system on the roof of the building, such as SmartSolar's Energy Sage marketplace portal ([www.energysage.com/smartsolar/](http://www.energysage.com/smartsolar/)) or other software tool that is based on the actual site conditions
- F. Report Submittal Requirements
1. Reports and data shall be provided by a Registered Energy Assessor (REA) through a City website and submission of this information shall imply that it is complete and has been verified by the REA
  2. Incomplete information will be returned to REA for correction within 2 weeks. The report will not be valid until it is accepted by the Administrator.
  3. The REA shall log on to the BESO web portal, register the building (if it is not already registered) and provide the information in the following manner:
    - a. A copy of the Building Energy Score report shall be uploaded in a PDF format
    - b. The Narrative Energy Assessment and supporting documentation shall be uploaded in a PDF format
    - c. The Building Summary Data shall be entered into the appropriate fields
  4. For Large Multifamily Buildings with 20 or more residential units, an Energy Star Performance Score report shall be reported to BESO website by May 1 of each year that covers the prior calendar year.

## **Section II.4. Commercial Energy Assessment and Reporting Requirements**

- A. Covered Buildings
  - 1. Buildings covered by this section include all non-residential buildings. See Section I.2.D for Building Use Type definitions
  - 2. See Section II.1.C for Mixed Use Buildings
- B. Registration
  - 1. Energy Assessors must be approved as Registered Energy Assessors, per Section I.4
- C. Energy Assessor Qualifications
  - 1. Commercial Energy Assessors shall possess one of the minimum qualifications listed below:
    - a. Licensed Professional Engineer
    - b. Association of Energy Engineers (AEE) Certified Energy Manager or Certified Energy Auditor
    - c. ASHRAE Building Energy Assessment Professional
  - 2. Large Commercial Buildings must also be a Certified Energy Analyst through the California Association of Building Consultants
  - 3. Small Commercial Building assessments may be conducted by either a Commercial or Single Family Registered Energy Assessor
- D. Energy Report Content
  - 1. A complete Commercial Energy Report shall consist of the following elements:
    - a. A US EPA ENERGY STAR® Portfolio Manager Performance Score, or if an ENERGY STAR® Benchmark Score is not available for the specific building occupancy type(s), an ENERGY STAR® weather normalized site Energy Use Intensity (EUI)
    - b. A Building Energy Assessment shall include:
      - i) Assessment of building energy systems and site conditions;
      - ii) Analysis and evaluation of equipment and energy usage;
      - iii) Recommended strategies to optimize building resource utilization and
      - iv) Description of the building, its occupancy and use and existing energy and water systems
      - v) A Multifamily and Commercial Water Efficiency Supplement
      - vi) A description of the metering configuration and tenant owner responsibilities
      - vii) Verification of property details and meter information used to generate the ENERGY STAR Score, including gross square footage
      - viii) A Supplemental Water Efficiency Form for Multifamily, Commercial, and Mixed Use Buildings (see Appendix A - List of Forms)
      - ix) Verification of gross and conditioned square footage

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- x) Identification of existing conditions and any planned capital projects or changes in use
- xi) Identification of on-site energy production capacity
- xii) A description of opportunities for:
  - 1) Low cost measures
  - 2) Operations and maintenance measures
  - 3) Measures pursuant to planned capital projects
  - 4) Opportunities for capital intensive measures
  - 5) Opportunities for retrocommissioning measures (buildings 25,000 sq.ft. and over)
  - 6) A list of applicable incentives, rebates, financing and tax deductions or credits and web addresses for each
  - 7) Estimated potential savings of each measure or group of measures

c. Building summary data, as specified in Table 6 below

Table 6: Required Commercial Reporting Fields on BESO Website

BESO Reporting Field	Data Type
Assessment Date	Date
Assessment Cost	number
Building Use (House, MF, Comm, MU)	text
EstGrossFloorArea	number
ConditionedFloorArea	number
ResUnitNum	number
Gross MF Floor Area	number
Conditioned MF Floor Area	number
Gross Commercial Floor Area	number
Conditioned Commercial Floor Area	number
Historic Building	y/n
Green Building Certification (optional write in)	text
All Plumbing Fixture verified as Water Conserving per (Cal. Civ. Code §§ 1101, 1102.155)?	y/n/don't know
Water supplement	upload
Summary version Energy Report	upload
Submission status : note any outstanding issues related to the submission	text
ENERGY STAR Reporting Period Year Ending mm/dd/yyyy	date
Energy Star Portfolio Manager Score	number
Energy Star weather normalized Site EUI	number

E. Methods and Standards

1. The Building Energy Assessment shall meet or exceed standards established in the 2011 edition of *ASHRAE's Procedures for Commercial Building Energy Audits*, 2<sup>nd</sup> Edition, as follows:

## BESO Proposed Administrative Regulations

- i) Small and Medium Buildings shall meet minimum or exceed requirements established by ASHRAE Level I Site Assessment
  - b. Large Buildings shall meet or exceed requirements established by ASHRAE Level II Energy Analysis
  - c. The water plumbing SB 407 compliance shall be based on a visual inspection of the appliance labels
  - d. The analysis of rooftop solar potential shall be conducted using a software tool that provides an estimate for a solar photovoltaic system on the roof of the building, such as SmartSolar's Energy Sage marketplace portal ([www.energysage.com/smartsolar/](http://www.energysage.com/smartsolar/)) or other software tool that is based on the actual site conditions
  - e. Provide estimated costs and savings analysis including simple payback & Net Present Value (NPV) of cost effective measures
- F. Report Submittal Requirements
- 1. Reports and data shall be provided by a Registered Energy Assessor (REA) through a City website and submission of this information shall imply that it is complete and has been verified by the REA
  - 2. The report will not be valid until it is accepted by the Administrator.
  - 3. The REA shall log on to the BESO web portal, register the building (if it is not already registered) and provide the information in the following manner:
    - a. A copy of the Building Energy Score report shall be uploaded in a PDF format
    - b. The Narrative Energy Assessment and supporting documentation shall be uploaded in a PDF format
    - c. The Building Summary Data shall be entered into the appropriate fields
  - 4. For Large Buildings, a Building Energy Score report shall be uploaded to the BESO website by May 1 of each year that covers the prior calendar year. The report may be submitted by an REA or the Building Agent.

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Appendix A

**Appendix A - List of Forms**

Form A – Certificate of Compliance (generated with application)

Form C – Time of Sale Deferral (generated with application)

Supplemental Water Efficiency and Safety Form for Houses

Supplemental Water Efficiency Form for Multifamily, Commercial, and Mixed Use Buildings

ENERGY STAR® Data Disclosure Tenant Authorization Notice

Energy Assessor Registration Form

[Registered Energy Assessor Agreement](#)

Commented [NDS1]: hyperlinks



BESO Proposed Administrative Regulations  
Appendix B

**Appendix B - Energy Assessor Terms and Conditions**

**1. Compliance with Standards**

By signing below, Energy Assessor agrees to abide by the *City of Berkeley Building Energy Saving Ordinance and Administrative Regulations*, and the Energy Assessor Registration Terms and Conditions below. Energy Assessor ensures that they have the necessary qualifications, licensing insurance, competence and experience required to fulfill their respective responsibilities in providing the services and deliverables detailed in program standards. Energy Assessor understands that registration with the City of Berkeley does not constitute an endorsement of any kind on the part of the City. Energy Assessor shall not state or imply any such endorsement, either directly or indirectly, and shall not claim association with the City of Berkeley in any capacity other than as an independent assessor for the BESO Program. Energy Assessor shall be solely responsible for all representations made to customers regarding the Program or work performed for a customer under the Program.

**2. Minimum Insurance Requirements**

Type of Coverage	Minimum Coverage Limits	
	Occurrence	Aggregate
<b>Commercial General Liability (CGL)</b>		
Bodily Injury (BI), Property Damage (PD) Or Combined Single Limit (CSL)	\$1 M \$1 M	\$2 M \$2 M
<b>Business Automobile Liability (BAL)</b>	<b>Individual</b>	<b>Accident</b>
Bodily Injury (BI), Property Damage (PD) Or Combined Single Limit (CSL)	\$1 M \$1 M	\$1 M \$1 M
<b>CA Statutory Workers' Compensation (WC) – exempt if no employees</b>	<b>Employee</b>	<b>Aggregate</b>
Bodily Injury and Illness Or Combined Single Limit (CSL)	\$1 M \$1 M	\$1 M \$1 M

**3. Customer Satisfaction**

Energy Assessor agrees to:

- A. Train internal staff, as applicable, to field customer inquiries about the BESO Program;
- B. Correct, without charge, any requests for correction from the City related to any failure to abide by program standards, such as insufficient or untimely reporting of assessment results, within ten (10) working days of the request;
- C. Repair, without charge, damage to a customer's property resulting from an assessment or other action or inaction arising under or related to the Program;
- D. Immediately report to the City of Berkeley, all customer conflicts that are not resolved to customer's full satisfaction.

**4. Indemnification**

Energy Assessor agrees to release, defend, indemnify, and hold harmless the City, including its officers, directors, employees and agents, from and against any claims, actions, demands, costs, damages or lawsuits, arising out of or connected with participation in the BESO program. Energy Assessor acknowledges that the City has developed the Building Energy Saving Ordinance solely for the purpose of promoting energy efficiency assessments and improvements, and that the City has no responsibility of any kind for, and shall have no liability arising out of the performance of, any service, installation, operation, or maintenance of services provided.

**5. Changes in the Berkeley BESO Program Terms; Severability**

BESO Program Eligibility Requirements and Standards are available on line at [www.ci.berkeley.ca.us/BESO](http://www.ci.berkeley.ca.us/BESO) and upon request by emailing [BESO@cityofberkeley.info](mailto:BESO@cityofberkeley.info). The City reserves the right to change these BESO Program Terms at any time without prior notice. If any provision of these BESO Program Terms is determined to be unlawful, void, or for any reason unenforceable, then that provision shall be deemed severable from these BESO Program Terms and shall not affect the validity or enforceability of any remaining provisions.

**6. Termination**

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Appendix B

Energy Assessor or the City of Berkeley may terminate this Agreement at any time upon written notice to the other party. The termination takes effect immediately and Assessor shall stop any and all work performed under this Agreement. In the event of termination, Assessor agrees to waive any claim for damages, including loss of anticipated profit of any inspection, resulting from termination.

Name \_\_\_\_\_ Title \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_