SF Environment

Existing Commercial Buildings Energy Performance Ordinance:

Overview

Energy is the single largest controllable operating cost in commercial facilities, but you can't manage energy costs if you don't know where to begin. The Existing Commercial Buildings Energy Performance Ordinance will help decision-makers for every commercial building have the information needed to control utility costs, improve energy efficiency, and benefit your bottom line. Adopted in 2011, the ordinance is being phased-in over three years. For existing nonresidential buildings 10,000 square feet and larger, the ordinance requires:

- **An Actionable Plan:** An energy efficiency audit once every 5 years identifying specific cost-effective measures that would save energy.
- **A Benchmark:** Annually summarize the energy used by the entire building. This enables tracking of trends as well as an understanding of how your building is performing compared to similar buildings under similar conditions.
- **Transparency:** Annually share an overview of energy benchmarking results with tenants and the City. San Francisco Department of Environment is required to make this information available to the public.

The Ordinance was informed by the recommendations of the Mayor's Task Force on Existing Commercial Buildings, which suggested policies, actions, and partnerships to meet local and state goals for greater energy efficiency. By reducing energy costs, this effort will improve the competitiveness of commercial stock, support the local economy, reduce greenhouse gas emissions, conserve resources, and help electricity reliability.

It is the building owner's decision how to benefit from opportunities identified in the energy efficiency audit. Commercial properties in San Francisco are eligible for rebates (www.sfenergywatch.org), federal tax benefits, and special financing that enhances both the bottom line and cash flow. The opportunity is compelling. Implementing specific cost-effective recommendations from credible experts helps cut operating costs, reduce exposure to utility rate increases, and improve asset value.

How to Comply

This document explains how to fulfill the benchmarking requirement and the audit requirement. The two requirements are separate and distinct, with different minimum qualifications, timing, reporting method, and exemptions. Some buildings will be exempt from an energy audit, but benchmarking is required for all occupied nonresidential buildings of 10,000 square feet or larger that have been in operation for at least one year.

The information in this briefing can also be found at: www.sfenvironment.org/ecb.

Benchmarking

Each whole non-residential building larger than 10,000 square feet must be benchmarked using Energy Star Portfolio Manager (www.energystar.gov/benchmark.) Portfolio Manager is an online tool provided at no cost to the user by the U.S. Environmental Protection Agency.

Building owners or their representatives must annually electronically report key benchmarking results to the Department of Environment and to tenants. This report is an "Annual Energy Benchmark Summary", and is based on data from the prior calendar year. For example, a 2012 report will be based on energy used from January to December 2011.

An Annual Energy Benchmark Summary includes:

- Contact information and gross square footage
- Energy Use Intensity (how much energy the building used per square foot for the year)
- 1-100 Performance Rating provided by Portfolio Manager, where applicable
- Greenhouse gas emissions from energy usage
- Assessor's Parcel Number (APN or block/lot)

The Annual Energy Benchmark Summary does not include commodity energy use (kWh or therms) for the whole building, nor for any meters.

Benchmarking with Portfolio Manager will also be required under California Public Resources Code 25402.10 (also known as AB 1103.) Where the San Francisco Existing Commercial Buildings Energy Performance ordinance requires annual benchmarking and public disclosure of limited statistics summarizing overall performance, the complimentary state law will require private disclosure of all energy usage information between parties to the sale, lease, or refinance of the entire building. For additional information: www.energy.ca.gov/ab1103/

For the first year that an Annual Energy Benchmark Summary report is required from buildings larger than a given size, the Department of Environment must keep the report confidential. In subsequent years, the Department of Environment is required to make the Annual Energy Benchmark Summary public.

Exemptions to Benchmarking Requirements

An Annual Energy Benchmark Summary is not required for:

- **New Buildings:** (The Certificate of Occupancy from the Department of Building Inspection is dated less than two years prior to the Annual Energy Benchmark Summary due date.)
- **Unoccupied Buildings:** (The building had less than one full-time equivalent occupant for the previous calendar year.)

In all other cases, the Annual Energy Benchmark Summary is required. To obtain an exemption to benchmarking requirements, please write to: benchmark@sfenvironment.org. In the message, include:

- Contact information for the owner, and the owner's agent if applicable.
- Assessor Parcel Number (block and lot)
- Gross square footage of the building(s)
- Reason for exemption:
    - Date and Permit Number for Certificate of Occupancy, or a copy.
    - Statement that the building was unoccupied for the 12 months of the prior calendar year.

Benchmarking Timeline

Annual Energy Benchmark Summary reports are due April 1 every year, with one exception: In 2011, the reports were due October 1.

The Annual Energy Benchmark Summary is based upon the energy performance data for the prior calendar year. For example, a report due in 2011 will be based upon measured energy use January through December 2010.

Due Date	Benchmarking	Status of Public Disclosure
October 1, 2011	Buildings larger than 50,000 square feet must benchmark	None
April 1, 2012	Buildings larger than 25,000 square feet must benchmark	Public disclosure begins for buildings greater than 50,000 square ft (only)
April 1, 2013	Buildings larger than 10,000 square feet must benchmark	Public disclosure for buildings greater than 25,000 square feet
April 1, 2014 and beyond	Buildings larger than 10,000 square feet must benchmark	Public disclosure applies to all affected buildings

How to Submit an Annual Energy Benchmark Summary

Reports must be sent to SF Dept of Environment electronically using the Portfolio Manager tool. Clicking the appropriate links listed in this section will lead your internet browser to a Portfolio Manager login page. By accessing your account through the appropriate link, the Annual Energy Benchmark Summary reporting template provided by the City will be added to your Portfolio Manager account. The reporting template will securely send only the data required to meet the ordinance (and no more). The report is sent once – only when you click "Release Data." If you need to correct an error, you may do so and then click "Release Data" again.

For a report due April 1, 2012, use the Annual Energy Benchmark Summary 2012 reporting template by clicking this link: http://1.usa.gov/wYnFOX

For a benchmark report that was due in 2011, use the Annual Energy Benchmark Summary 2011 reporting template by clicking this link: http://bitly.com/rtAK9C

(To avoid typing one of the links above, you can go to www.sfenvironment.org/ecb, and click the link.)

Step-by-step instructions will pop up each time you open the report template. If you prefer, you can also download a copy of the instructions from the Department of Environment: www.sfenvironment.org/ecb.

For the first year that an Annual Energy Benchmark Summary report is required from a building, the Department of Environment must keep the report contents confidential. However, the Department of Environment will publicly post which buildings have complied. In subsequent years, the Department of Environment is required to make the Annual Energy Benchmark Summary public.

When reporting, it is critical to use Portfolio Manager's "Notes" field to identify the building by block and lot. To look up the block and lot(s) for a property, visit: http://propertymap.sfplanning.org

The Department of Environment will accept an Annual Energy Benchmark Summary for the entire building from any party with the necessary information about the entire building, including the owner's representative or a whole-building tenant.

Training and Technical Assistance

SF Environment regularly offers presentations and webinars on how to meet the new requirements, and benefit from them. To sign up for a free webinar, go to www.sfenvironment.org/ecb. To request a presentation for your organization, please call: (415) 992-6373

In-Person Step-by-Step Workshops

Pacific Gas & Electric Company provides free classes on benchmarking, and how to use your benchmark results to save energy and money. Classes are available online, at and the Pacific Energy Center at 851 Howard Street. Additional classes are available throughout Northern California: www.pge.com/energyclasses

The PG&E course is divided into two sessions. In the morning session, "Benchmarking Energy Use in Commercial Buildings," you will be provided with a computer and walk step-by-step with your own data through the process of benchmarking your building. This includes instructions on how to benchmark a building with Portfolio Manager, setup PG&E's Automated Benchmarking Services (ABS) to automatically update energy use data, and prepare an Annual Energy Benchmark Summary. Participants receive free follow-up technical support with benchmarking. The optional afternoon session puts your benchmarking results into practice, helping you ask, "You've Benchmarked Your Building: What's Next?"

Sign Up Now

Date	Sign Up
March 14	http://svy.mk/zytks9
April 17	http://svy.mk/zIENLX
May 8	http://svy.mk/A4T5AK
June 12	http://svy.mk/yFxTV1
Visit www.pge.com/energyclasses for more info.	

Additional Free Training

US EPA's ENERGY STAR program provides webinars and on how to benchmark with Portfolio Manager. (Note: These videos and webinars are provided for a national audience. They do not cover local ordinances or PG&E's Automated Benchmark Service.) www.energystar.gov/benchmark

Energy Efficiency Audits

Benchmarking provides perspective about how a building performs relative to its peers. To identify specific opportunities for savings, weigh costs against benefits, and prioritize investments, an energy audit is necessary. The owner of each non-residential building larger than 10,000 square feet must obtain a comprehensive energy efficiency audit of the entire building from a qualified energy auditor at least once every five years. The auditor is responsible for submitting a detailed report to the building's decision makers, and the point is to provide a reliable catalog of opportunities to cost-effectively improve energy efficiency. The priority should be to obtain specific recommendations that empower action to save both energy and money.

The complexity of an energy audit and the potential for savings vary with the size, intricacy, and use of a building. The Ordinance requires audits to meet or exceed the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) *Procedures for Commercial Building Audits*, with larger facilities required to receive a more rigorous evaluation than smaller facilities. The audit requirements are:

Building Size	Minimum Level of Effort
50,000 square feet and larger	ASHRAE Level II – An "intermediate" survey and energy analysis
10,000 to 49,999 square feet	ASHRAE Level I – A basic energy analysis

For a summary of what each level of effort entails, ASHRAE has provided the Department of Environment with an excerpt from the *Procedures for Commercial Building Audits*, which can be downloaded from: www.sfenvironment.org/ecb

The full *Procedures for Commercial Energy Audits* are available directly from ASHRAE: www.ashrae.org

Large facilities and buildings with complex systems are encouraged to consider retrocommissioning as an alternative way to meet the audit requirement. Retrocommissioning is the systematic, detailed examination of all systems and operations in a building to ensure they are operating as designed, and to identify opportunities for operational and capital improvements. The California Commissioning Collaborative provides an excellent guide to selecting a retrocommissioning provider: http://www.cacx.org

Audit Timeline

All building owners must have at least 12 months between the notice that an audit is required, and the date when the Confirmation of Energy Audit is due. Notification of audit requirements is sent to the party listed by the Office of the Assessor Recorder as the contact for property tax, and the owner is responsible for filing a Confirmation of Energy Audit on or before the due date assigned to the parcel.

Important: The due dates for benchmarking are not related to the due dates for an energy efficiency audit.

Due Date	Audit	Public Disclosure
November 15, 2012	Confirmation of Audit due for initial group of buildings, approximately 1/3 of stock.	Cost-effective energy efficiency opportunities in individual buildings are confidential. Confirmation of compliance (or exemption) will be published.
April 1, 2013	Confirmation of Audit due for second group of buildings, approximately 2/3 of stock.	
April 1, 2014	Confirmation of Audit due for final group of buildings.	
2017 and beyond	Confirmation of Energy Audit due for 20% of stock every year	

Energy audits completed since 2008 may be used to fulfill the audit requirement, provided that the audit is an evaluation of the whole building meeting the applicable ASHRAE Level of Effort, or retrocommissioning. If only portions or specific systems in the building have been evaluated, or if the energy efficiency evaluation was conducted prior to 2008, a current and comprehensive audit is required.

Audit due dates for individual buildings have been established on a rolling deadline determined by the Dept of Environment. Spreading audits over three years will help the engineering community be able to meet demand.

Qualifications for Energy Auditors

The Energy Efficiency Auditor responsible for the Energy Efficiency Audit Report must possess one of the qualifications in the following table.

Qualifications recognized by the Department of Environment for providing energy audit services:

	Certification or License	AND	Minimum Experience
(1)	Licensed Engineer (PE) **OR** PhD in mechanical engineering*	**AND**	• At least 2 years experience performing energy efficiency audits or commissioning of existing buildings; **OR** • Any certification listed in #2 below.
(2)	• ASHRAE Building Energy Assessment Professional (BEAP); • Association of Energy Engineers Certified Building Commissioning Professional (CBCP);* • Association of Energy Engineers Certified Energy Manager (CEM); • Association of Energy Engineers Existing Building Commissioning Professional (EBCP); **OR** • Northwest Energy Education Institute Energy Management Certification	**AND**	• At least 2 years experience performing energy efficiency audits or commissioning of existing buildings
(3)	• BOC International Building Operator Certification Level II; **OR** • International Union of Operating Engineers Certified Energy Specialist	**AND**	• At least 10 years experience as a building operating engineer; **OR** • At least 5 years experience as a chief operating engineer
(4)	Equivalent professional qualifications to manage, maintain, or evaluate building systems, as well as specialized training in energy efficiency audits and maintenance of building systems, as determined by the Director of the Department of Environment		

* Credentials noted with an asterisk (*) have been approved by the Director as substantially equivalent to the credentials cited in the ordinance.

How to File a Confirmation of Energy Audit

A Confirmation of Energy Audit must be filed with the Department of Environment identifying the building, the owner, energy auditor, what type of audit was performed, and a list of the cost effective measures that were identified.

It is the building owner's decision whether to implement retrofits, and to take advantage of incentives that may be available from the utility, state, and federal government by implementing the opportunities identified in the energy efficiency audit.

It is not necessary to file an entire Energy Audit Report with the Department of Environment; only a Confirmation of Energy Audit will be required. The Confirmation of Energy Audit will be filed online; the tool for providing a Confirmation of Energy Audit to the Department of Environment is not yet complete. However, no Confirmation of Energy Audit is due until November 2012 at the earliest, and a reporting mechanism will be provided at least 180 days before any audits are due. The Confirmation of Energy Audit will include:

- Contact information for the building and building owner
- Auditor, their qualifications, and when the audit was completed
- A list of all cost-effective retrofit (or retro-commissioning) measures identified. For reporting purposes, "cost-effective" means energy efficiency measures that are estimated by the auditor to either:
    - Each have a simple payback of 3 years or less,
    - Each have a beneficial net present value,
    - Comprise an integrated package with an overall simple payback of approximately 3 years, OR
    - Comprise an integrated package with beneficial net present value.

Exemptions to Audit Requirements

An Energy Efficiency Audit is not required if the building is new or is recognized by a third party as high performing:

- **High Performance Buildings:** The building has received the ENERGY STAR in 3 of the past 5 years, or LEED for Existing Buildings certification in the past 5 years.
- **New Construction:** The building was constructed (i.e. received a final Certificate of Occupancy) in the past 5 years.

Buildings that meet these criteria are exempt from an audit until the next audit cycle, and will remain exempt if they maintain current recognition for high performance.

Buildings are also exempt from the audit requirement for as long as any of the following conditions apply:

- **Unoccupied Buildings:** (The building had less than one full-time equivalent occupant for the previous calendar year.)
- **Financial Distress:** Examples of qualifying financial distress include:
  - Properties qualified for sale at public auction by the Treasurer and Tax Collector due to arrears of property taxes that resulted in the property's qualification for sale at public auction, or acquisition by a public agency within two years prior to the due date of an energy efficiency audit report
  - A court appointed receiver is in control of the asset due to financial distress
  - Buildings owned by a financial institution through default by the borrower
  - Buildings acquired by a deed in lieu of foreclosure
  - Buildings where the senior mortgage is subject to a notice of default.

In all other cases, the Confirmation of Energy Audit is required.

Enforcement

The priority of the Department of Environment is education; we will work with property owners, managers, operators, and tenants to improve energy management. As such, enforcement will emphasize outreach and education, and we will collaborate with the commercial sector to draw attention to facilities and teams who are demonstrating leadership in energy management.

If necessary, the ordinance directs the Department of Environment to take the following steps:

1. **Warning –** A written notice of violation.
2. **Public Notice –** 30 days or more after a deadline, the Department of Environment will indicate via a public website that a building is not in compliance with local law.
3. **Fine –** Fines can be levied 45 days after the written notice. Buildings of 25,000 square feet and larger can be subject to fines of $100 per day, up to a maximum of $2,500 per violation. Buildings smaller than 25,000 square feet can be subject to fines of $50 per day, up to a maximum of $1,500 per violation.

For More Information

Web: www.sfenvironment.org/ecb
Call: (415) 992-6373
Email: benchmark@sfenvironment.org