



# Engaging Building Occupants: LEED's Pilot Credit

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# THE PRESENTER



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# LEED's Pilot Credit: Occupant Engagement

## Overview

Discuss occupant experience as a KPI for building performance

Introduce LEED's Pilot Credit: Occupant Engagement

Explain how YOU can participate in the pilot credit process

The LEED program is the preeminent global green building program and is currently **in use in more than 120 countries.**


**Every day 1.6 million SF of building space is certified to LEED** — with existing buildings outpacing new construction by 15 million sf on a cumulative basis.





# Building Performance Partnership

A partnership between USGBC and building owners to optimize building performance through data collection, analysis and action. BPP will transform the way the world views efficient building operations.



# Performance Reports

## General Facility Characteristics

LEED PROJECT NAME:

**Sample Building**

ADDRESS:	Sample Street San Francisco, CA
BUILDING OWNER:	Property Management
BUILDING TYPE:	Office
LEED CERTIFICATION:	LEED EB O&M, Core & Shell April 2010
GROSS SQUARE FOOTAGE:	1,052,296
YEAR BUILT:	1973
# OCCUPANTS:	3977
# PCs:	3714
Weekly Hours:	55

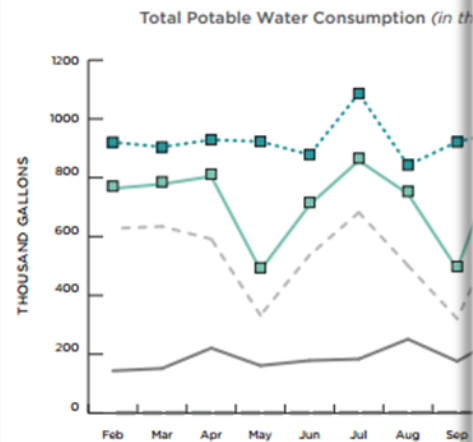
### Energy Efficiency Measures from LEED Certification Documents

Existing Building Commissioning- Implementation  
Whole Building Metering

## Water Performance

### Water Use Over Time

Sub-metered cooling tower and irrigation water use data was collected from meter readings. An abnormally high or low meter reading could indicate a problem.



## Energy Performance

### Site Energy Use Intensity (EUI)

This facility is currently using 51% less energy per square foot than similar facilities in the U.S. Total site EUI has decreased 2% from the baseline year.

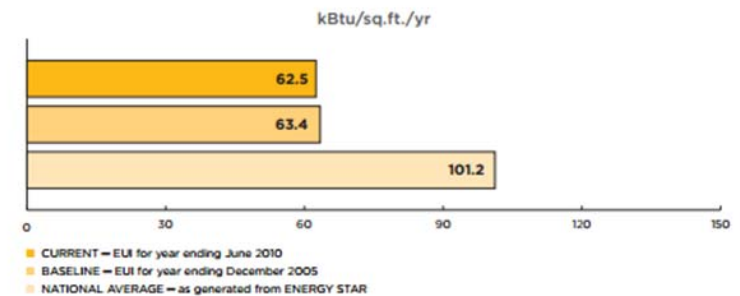
The ENERGY STAR Rating has increased indicating an improvement in energy performance relative to other similar buildings in the U.S.

Energy Use:  
(Current EUI: 62.5 kBtu/sq.ft./yr)

Current ENERGY STAR Rating:  
(baseline is 87)

↓ 2%

88



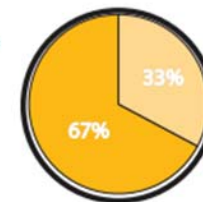
### Total Greenhouse Gas Emissions

With the current fuel mixture in this facility, approximately 2.0 Btu's of energy are lost in transmission and distribution for every Btu used on site.

For the 12-month period ending June 2010, this facility was responsible for 5,918 MtCO<sub>2</sub>e attributed to energy use. This is a 2% increase from the emissions from the baseline year ending December 2005.

Source EUI  
(186.7 kBtu/sq.ft./yr)

■ Site EUI  
■ Generation & Distribution Losses



EMISSIONS:  
(5,918 MtCO<sub>2</sub>e for 07/09-06/10)

↑ 2%





# LEED's KEY METRICS

TRANSPORTATION

WATER

ENERGY

WASTE

EXPERIENCE



## MEASURING THE IMPACT OF OCCUPANT EXPERIENCE ON BUILDING PERFORMANCE



```
graph TD; A[MEASURING THE IMPACT OF  
OCCUPANT EXPERIENCE ON BUILDING  
PERFORMANCE] --> B[Occupant  
Satisfaction]; A --> C[Occupant  
Behavior]
```

Occupant  
Satisfaction

Occupant  
Behavior





## PILOT CREDIT 59: OCCUPANT ENGAGEMENT OCCUPANT BEHAVIOR

### FOCUS

Enable occupants to exhibit and perform efficient behavior in buildings in order to improve overall performance

Determine metrics to use when measuring the influence of occupant behavior on building performance (e.g., kWh/FTE, therms/FTE, gallons/FTE)

### APPROACH

LEED Pilot Credit 59: Occupant Engagement

**INTENT:** improve the performance of the building by enabling energy efficient behavior in building occupants







## PILOT CREDIT 59: OCCUPANT ENGAGEMENT OCCUPANT ENGAGEMENT PROGRAM

# COMPONENTS

Education

Empowerment

Feedback

Performance goals

# Engagement

## Pilot Credit Library

1. Try it out
2. Provide feedback
3. Submit your own!



**LEED**

Search the site



Rating systems

Certification

Applying LEED

Developing LEED

Credentials

**CREDIT LIBRARY**

Existing buildings | v2009

## Occupant engagement

EApc59 | Possible 1 point

Language

Resources

Interpretations

All credits

Glossary



- Share on Twitter
- Share on Facebook
- Share on LinkedIn
- Send to a friend
- Print to PDF

### Intent

To improve the performance of the building by enabling energy efficient behavior in building occupants.

### Requirements

#### Establishment

##### Consumption feedback

Implement one or more modes of communication to inform occupants about the actual energy consumption of the building and/or their workspace. This may be done in real-time, or through regular reporting mechanisms, but must be communicated at least on a monthly basis. Occupants must be given information with a relevant comparison point; the comparison point(s) may either be comparable buildings or spaces, or historical energy consumption data for the same space (at least 1 years worth of data, or predicted usage if 1 years data is not yet available).

##### Occupant empowerment

#### Sample forms

No sample form available for this credit.

new.usgbc.org/credits

THANK<sub>you</sub>

for your attention



# CONTACT



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