



Amendments to the Building Performance Ordinance

City Council
May 17, 2017

www.BoulderBuildingPerformance.com

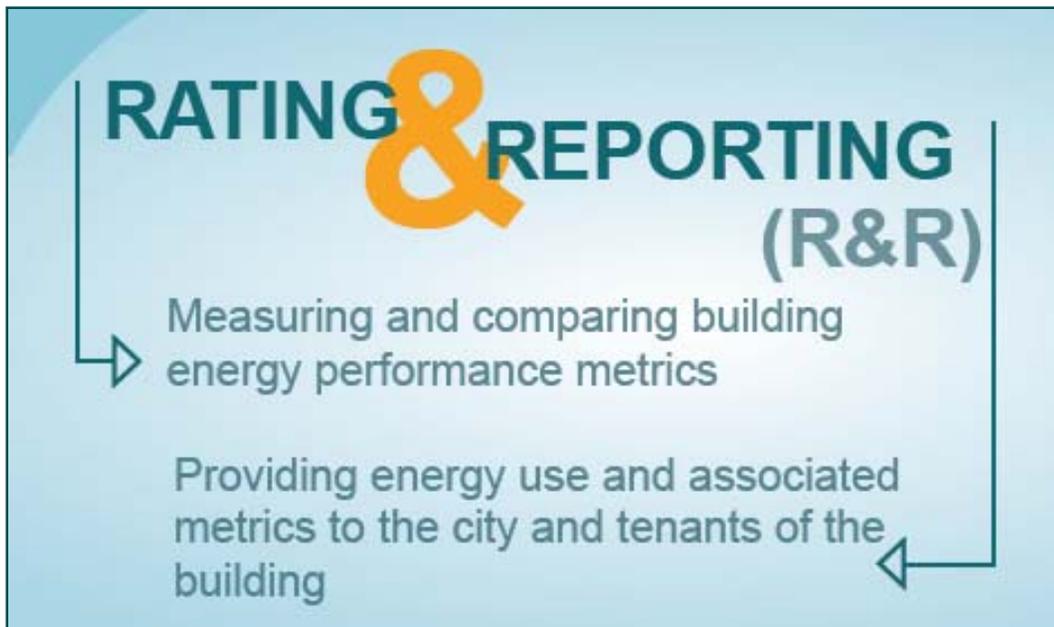
Meeting Purpose

Second reading of amendments to update and clarify regulations on the energy performance of existing buildings

Public Hearing and Council Feedback

These amendments are proposed to be adopted by emergency to finalize before the annual reporting deadline for Large Industrial Campuses of June 1, 2016.

Defining Key Terms



“Large Industrial Campus” (LIC) - means a facility in which three or more buildings, at least partially used for manufacturing uses, are served by a central plant or a single utility meter.

Overview of Current Requirements

TYPICAL C&I BUILDINGS

- ✓ **Annually Rate and Report***
- ✓ **One Time Lighting Upgrades**

Every 10 years:

- ✓ **Energy Assessments**
- ✓ **Retrocommissioning (RCx)**
(implement measures with payback < 2 years)

LARGE INDUSTRIAL CAMPUSES (LICs)

- ✓ **Annually Report *aggregate* energy data**

- ✓ **One Time Lighting Upgrades**

Every 10 years:

- ✓ **Energy Assessments**
(implement measures with payback < 1 year)

Public Process/Community Engagement

★ **ORDINANCE ADOPTED: Oct 22, 2015**

2010-2012

Peer networking, consultant studies

2012-2013

Rating & Reporting Pilot Program

Oct 2014 - Jan 2015

Working Group

Feb – Apr 2015

Business Group Outreach

March 2015

Webinar and mailing for all affected building owners

June - Aug 2015

Large Industrial Outreach and Split Incentive Workshop

Nov 2015 – Apr 2016

Additional engagement with LICs

Proposed Amendments

- 1) Specifies the agreement for handling energy information which is considered “confidential” under CORA guidelines
 - (Attachment D) Non Disclosure Agreement
- 2) Modifies the energy reporting requirements for Large Industrial Campuses
 - Requirement to report aggregate energy use for all LICs has been replaced with an annual meeting with city staff
 - (Attachment C) Agreement related to Annual Report required for Large Industrial Campuses

Justification for Changes

- LICs are not suited for individual building benchmarking, and even year to year comparisons of total energy use are inconclusive.
- LICs do not participate in the competitive commercial real estate market

Boulder Building Performance

- Questions?
- Public Hearing
- Council Discussion

Reference Slides

Overview of Current Requirements

1. Rate and Report building energy use, and
2. Implement certain energy efficiency actions.

Energy use info will be publically disclosed after a 2 year grace period.

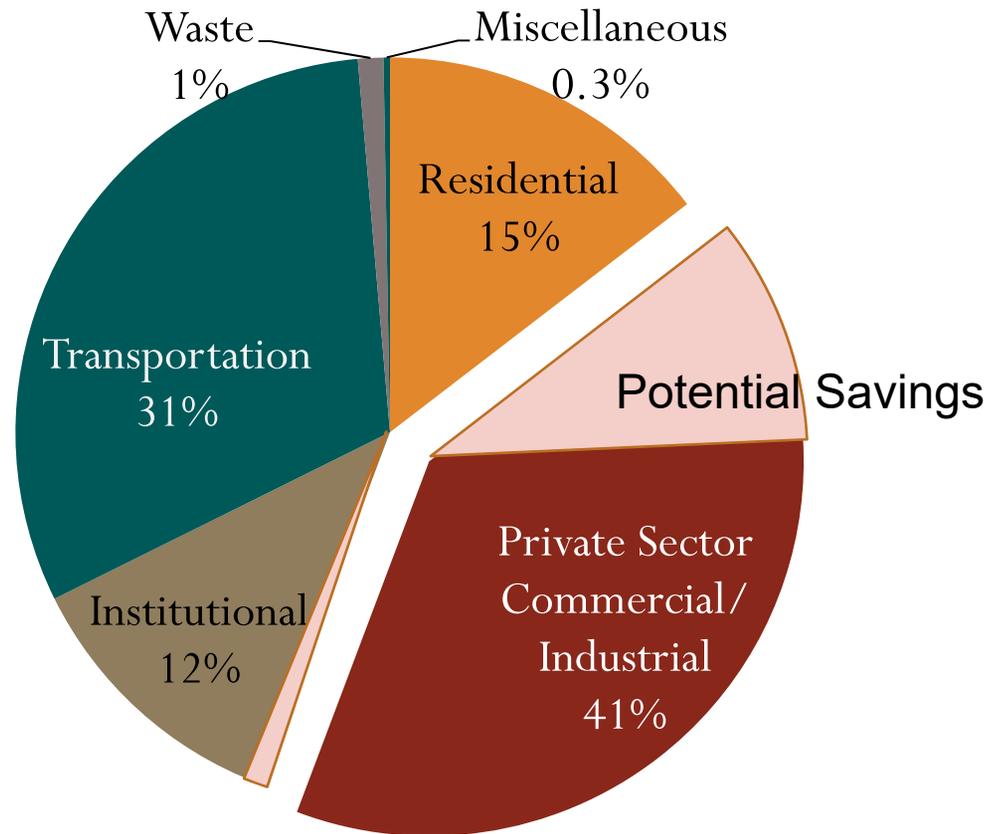
Scope

- Private sector Commercial and Industrial (C&I) buildings: $> 20,000$ sf
- City owned buildings $> 5,000$ sf
- Newly built* C&I buildings $> 10,000$ sf

* *Any buildings permitted since the last energy code update (January 31, 2014)*

Climate Commitment

Reduce GHG Emissions 80% by 2050



**~10% reduction
in total GHG
Emissions**

CORA Exemptions

CORA includes the following exemptions:

- *(3)(a) The custodian shall deny the right of inspection of the following records, unless otherwise provided by law; except that any of the following records, other than letters of reference concerning employment, licensing, or issuance of permits, shall be available to the person in interest under this subsection (3):*
- *(IV) Trade secrets, privileged information, and confidential commercial, financial, geological, or geophysical data, including a social security number unless disclosure of the number is required, permitted, or authorized by state or federal law, furnished by or obtained from any person.*

Public Disclosure

Public Disclosure

- Following a 2 year grace period, building specific total energy use and associated ratings will be display via a public website
- Exemption for proprietary information (i.e. a threat is posed to a business's trade secrets or privileged information)

Who Benefits?



Community Members



Business Tenants



Building Owners



Policymakers

Objectives

- ✓ **Reduce** GHG Emissions
- ✓ **Improve** quality of the commercial building stock
- ✓ **Realize** cost effective efficiency
- ✓ **Increase** awareness of building energy performance metrics
- ✓ **Drive** market transformation
- ✓ **Inform** design of future programs and services

Compliance Schedule

Start Year

2016 Buildings > 50,000 sf
New Buildings > 10,000 sf
City Buildings > 5,000 sf
Large Industrial Campuses

2018 Buildings > 30,000 sf

2020 Buildings > 20,000 sf

Rating and Reporting

↓ 3 yrs

Energy Assessments

↓ 2 yrs

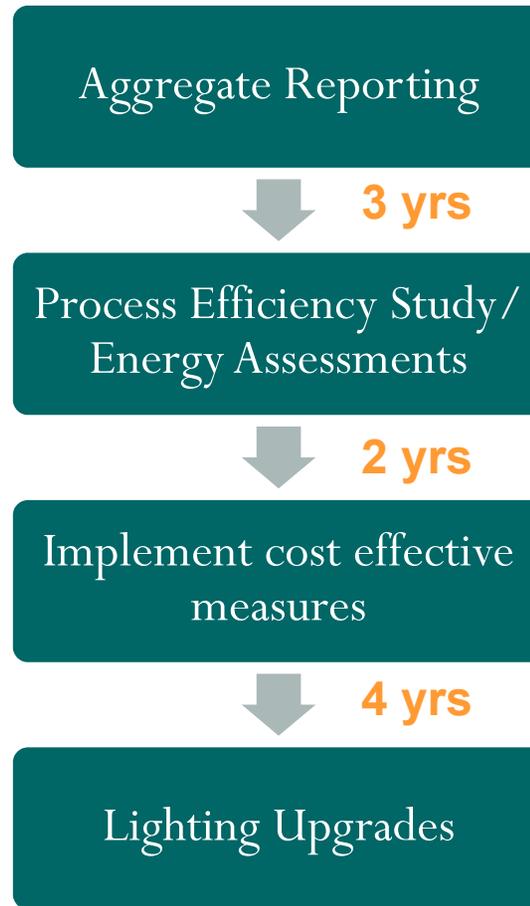
Lighting and RCx

↓ 2 yrs

Implement cost effective
RCx Measures

Compliance Schedule for Large Industrial Campuses

Start Year: 2016



Proposed Exemptions

Rating and Reporting:

- Less than one year of energy use data
- Unconditioned and unlit buildings

Energy Efficiency:

- Current ENERGY STAR Certification
- Current LEED for Existing Buildings Certification
- A demonstrated pattern of significant and consistent improvements in energy efficiency or greenhouse gas emissions
- Others upon review and request

Budget: On-going Program Costs

Personnel and Program Administration	\$ 150,000
Outreach, Education and Training	\$ 30,000
Early adopter rebates for Energy Assessments	\$ 150,000
TOTAL	\$330,000
+ New custom rebates under EnergySmart Budget	\$ 150,000

~10% of the annual Climate Action Plan (CAP) Tax Budget will go to program administration.

EXISTING advising services and rebates

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Partners
for a Clean
Environment



 Energy Efficiency/Renewable Energy

 Waste Reduction

 Water Conservation

 Employee Transportation Options

FREE R&R assistance

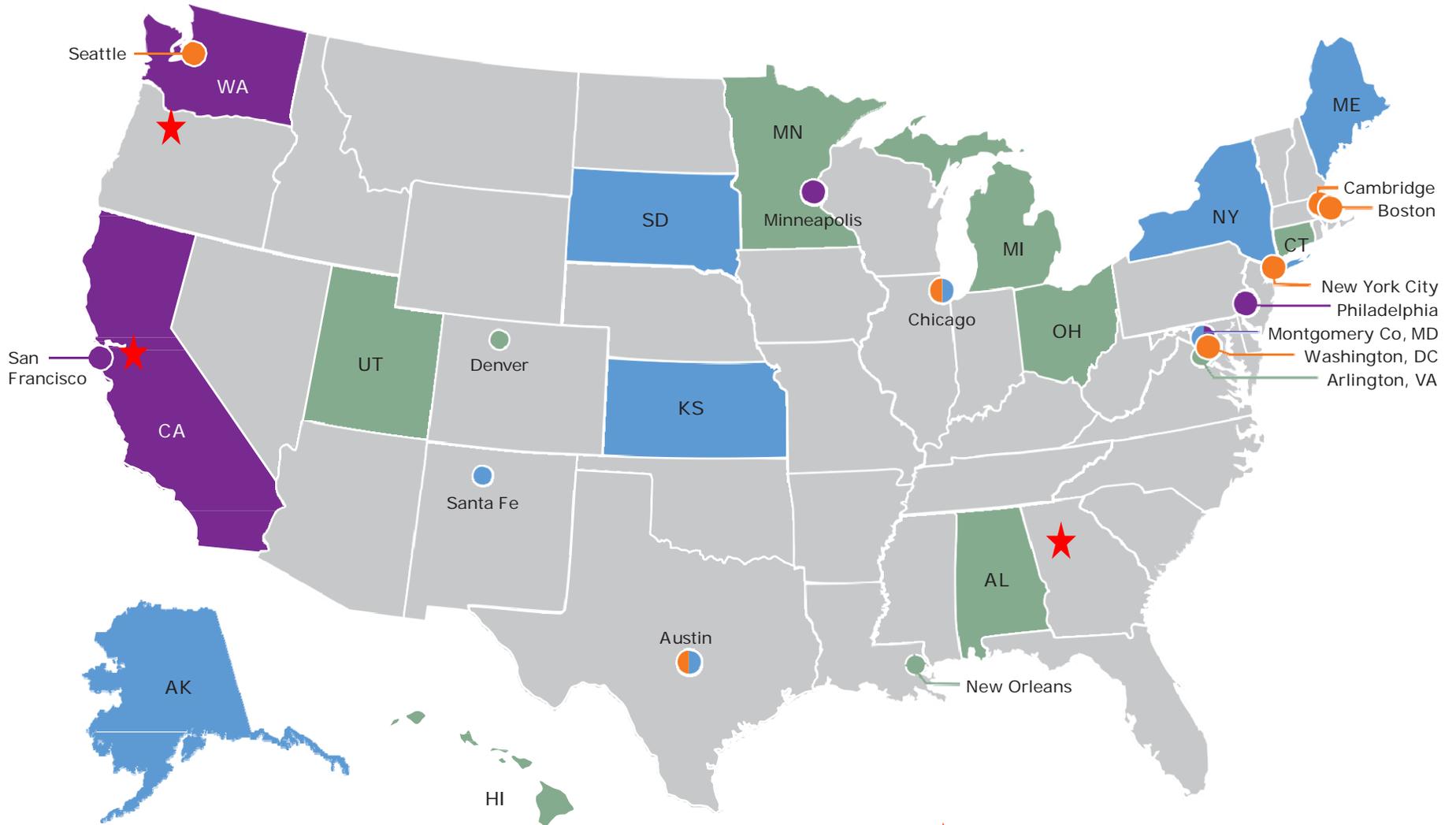
FREE Level I Energy Assessments



Financial Impact to Building Owners

Requirements	Up Front Costs	Simple Payback
Annual Rating & Reporting	\$500-\$2,400 per building OR 4-8 hours staff time OR FREE with PACE	< 1 year
Energy Assessments (every 10 years)	FREE PACE Level I audit (buildings smaller than 50,000 sf) Level II: \$0.16-0.42 per sf	Varies
Retrocommissioning (every 10 years)	\$0.11-0.35 per sf	0.5 – 2.5 years
Lighting Upgrades (one time)	\$0.10-0.20 per sf	3-4 years

U.S. Building Benchmarking and Transparency Policies



- ★ Commercial policy Apr-May 2015
- Commercial policy adopted
- Commercial & multifamily policy adopted
- Public buildings benchmarked
- Single-family transparency adopted



Potential GHG Reductions

2005 GHG Emissions = 1.8 million metric tons CO₂ (MTCO₂)

2005 GHG Emissions for private sector and city owned C&I buildings = 565,000 MTCO₂

	Estimated Annual GHG Savings (MTCO ₂ /yr)	Emissions Savings for Private Sector & City Owned C&I Buildings
Rating & Reporting	~33,000 – 38,000	~6-7%
Efficiency	30,000 – 125,000 (varies with options)	~5-22%
Total	33,000 – 163,000	6-29%

2-9% savings in total GHG Emissions