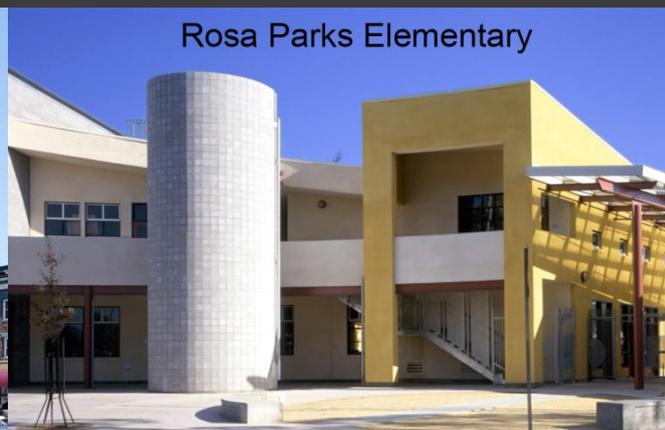
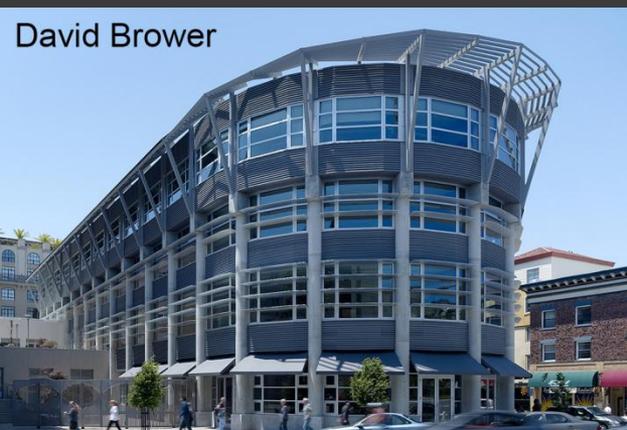


SAVING ENERGY IN EXISTING BUILDINGS: BENCHMARKING IN *BERKELEY*

BayREN Codes and Standards
March 19, 2014

Updating RECO/CECO

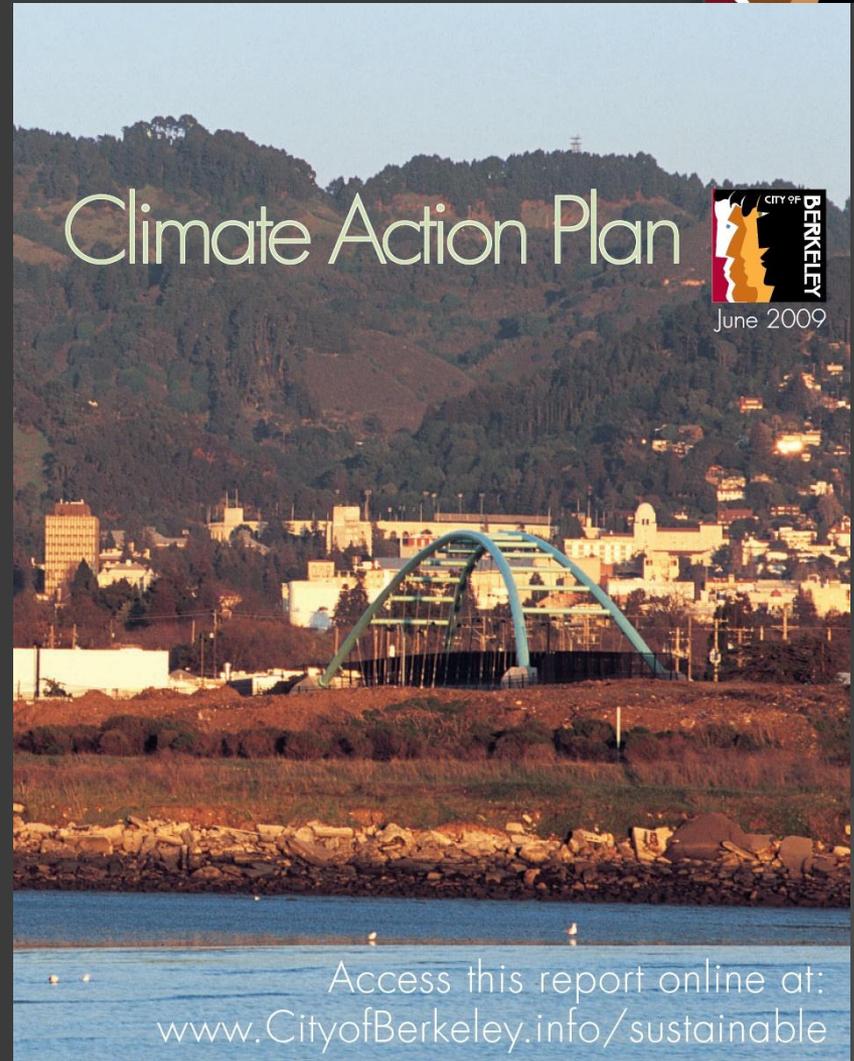
In Sept. 2013, City Council directed staff to update Berkeley's existing Energy Conservation Ordinances and to incorporate energy information disclosure to accelerate energy improvements.



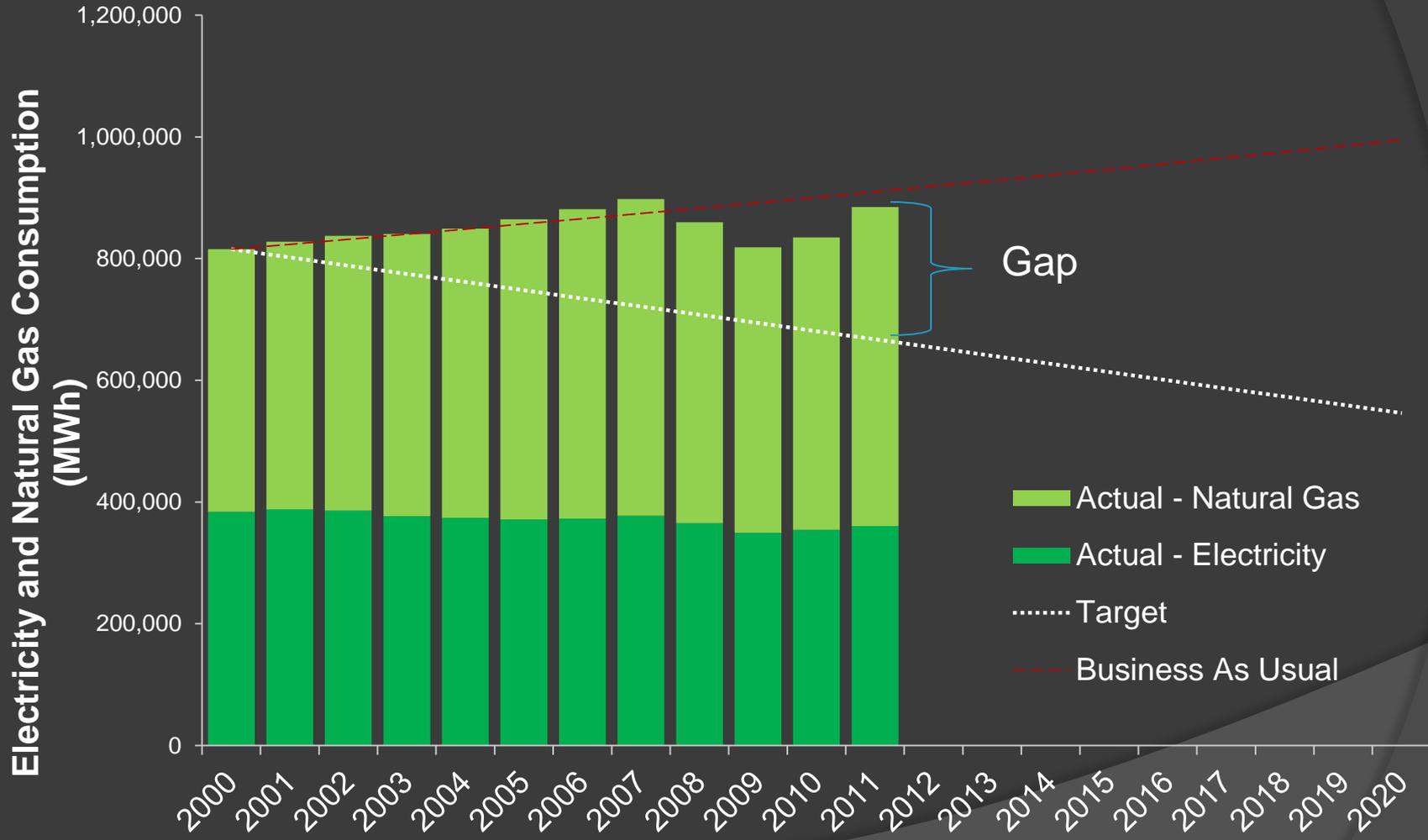
Green House Gas Emission Reduction Goals

33% Reduction
below 2000
levels by 2020

80% Reduction
below 2000
levels by 2050



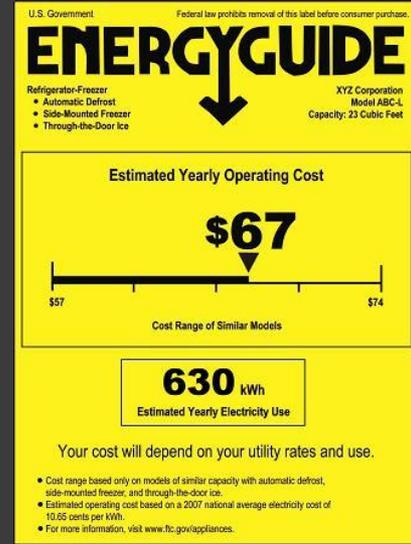
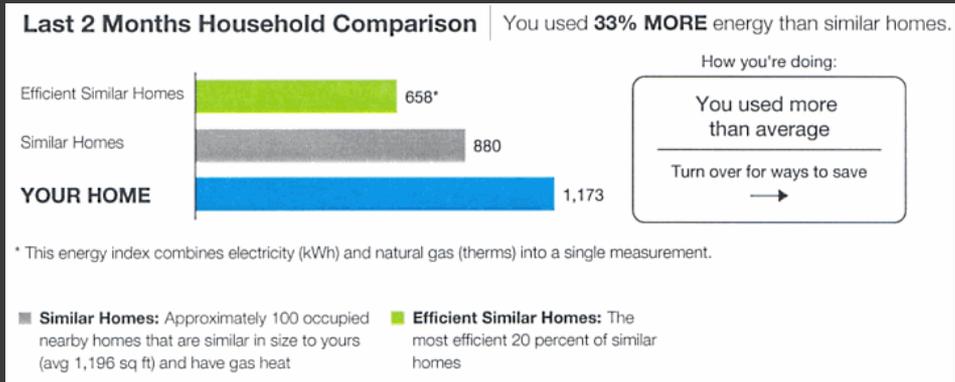
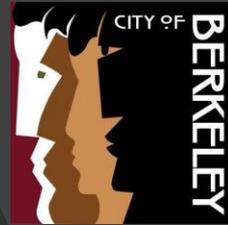
Commercial Energy Consumption



Discussion On Desired Policy Outcomes

- ◎ **Make compliance VALUABLE**
 - Harness market forces with energy performance information to achieve reductions
 - Recognize energy leaders
- ◎ **Make compliance AFFORDABLE**
 - Leverage incentives and rebates
- ◎ **Make compliance EASY**
 - Provide user-friendly compliance, technical assistance and improved tracking

Make it VALUABLE – Energy Information Disclosure



Item	Calories
Hot Cakes	450
Hot Cakes with Egg	600
Hot Cakes with Egg & Cheese Breakfast	580
Hot Cakes with Egg	660
Hot Cakes with Cheese Breakfast	560
Hot Cakes	570

Nutrition Facts

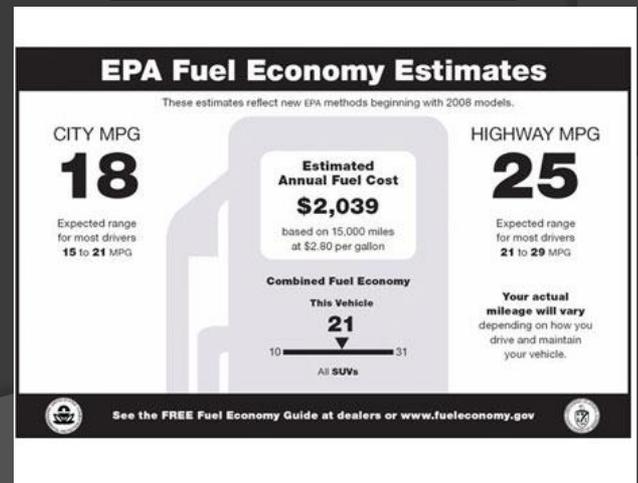
Serving Size 1 cup (228g)
 Servings per Container 2

Amount Per Serving	Calories 280	Calories from Fat 120
	% Daily Value*	
Total Fat 13g	20%	
Saturated Fat 5g	25%	
Trans Fat 2g		
Cholesterol 2mg	10%	
Sodium 660mg	28%	
Total Carbohydrate 31g	10%	
Dietary Fiber 3g	0%	
Sugars 5g		
Protein 5g		
Vitamin A 4%	Vitamin C 2%	
Calcium 15%	Iron 4%	

*Percent Daily Values are based on a 2,000-calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Fiber		25g	30g

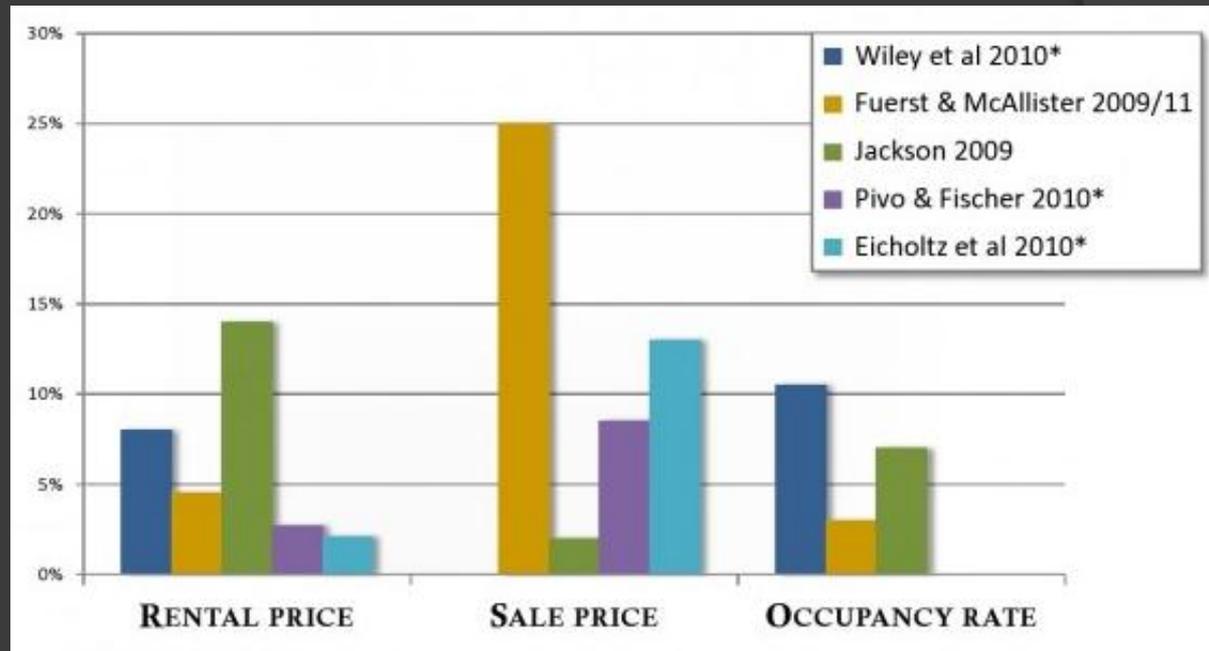
Calories per gram:
 Fat 9 • Carbohydrate 4 • Protein 4



Efficiency has market VALUE

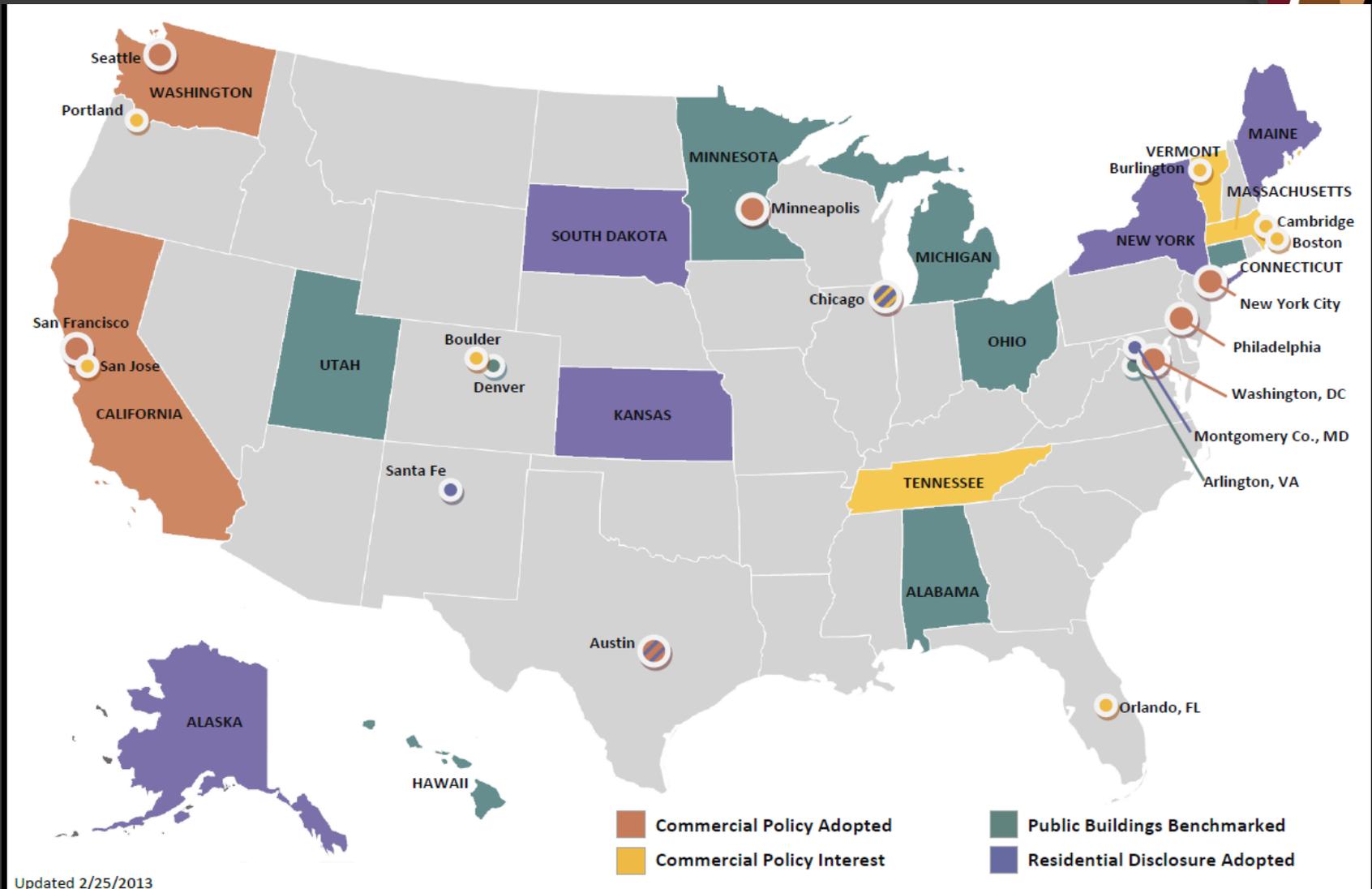
Green Labeling Increases

- ⦿ Occupancy Rate
- ⦿ Rental Price
- ⦿ Sales Price



Report by the Center for Market Transformation

National Energy Disclosure Policies



Summary of Existing Policies

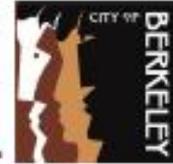
- San Francisco: Existing Commercial Buildings Energy Performance Ordinance
 - Annual benchmarking
 - Energy efficiency audit or Retro-commissioning every 5 years (ASHRAE level 2 \geq 50,000 sf / Level 1 \geq 10,000 sf)
- New York City: Energy Audits and Retro-Commissioning
 - ASHRAE Level 2 Audits for buildings \geq 50,000 sf and Retro-commissioning every 10 years
 - Municipal buildings must implement all improvements with payback w/in 7 years
- Chicago: Building Energy Use Benchmarking
 - Annual benchmarking with 3rd party verification every 3 years
- Boston:
 - ASHRAE Level 2 or alternative assessment or Energy Actions to produce energy, reduce energy use, or reduce GHG emissions every 5 years
- SEE Action Sample Policy Language

Voluntary Recognition Program

**Berkeley Business
Owners:**

**HOW
DOES
YOUR
BUILDING
RATE?**

Get an ENERGY STAR® score to find out how energy efficient your building is and receive a **Berkeley Energy Smart Award**.



City lauds 29 'energy smart' businesses in Berkeley

January 31, 2014 3:35 pm by [Emilie Raguso](#)



Local businesses that are taking steps to track and reduce greenhouse gas emissions were recognized Thursday night. Photo: Mark Coplan

The city of Berkeley recognized more than two dozen local businesses Thursday night for their efforts to track and cut down on greenhouse gas emissions as part of the second annual Energy Smart Awards program.

Berkeley's Commercial Buildings

Conditioned space	# Buildings	% Buildings	Rentable Area sf	Rentable Area %
Very Small <10,000	1,350	74%	7.0 mil	33%
Small 10,000 – 25,000	300	16%	3.5	17%
Medium 25,000 – 50,000	100	5%	3.5 mil	17%
Large >50,000	70	4%	7.0 mil	34%

50% bldg area

City Contact Info

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www.cityofberkeley.info/energyordinanceupdate/