

Philadelphia Energy Benchmarking
ACEEE Symposium on Market Transformation
Rich Freeh, Mayor's Office of Sustainability
Tuesday, April 21, 2015

GREENWORKS

PHILADELPHIA

Energy

PHILADELPHIA REDUCES ITS VULNERABILITY TO RISING ENERGY PRICES



Environment

PHILADELPHIA REDUCES ITS ENVIRONMENTAL FOOTPRINT



Equity

PHILADELPHIA DELIVERS MORE EQUITABLE ACCESS TO HEALTHY NEIGHBORHOODS



Economy

PHILADELPHIA CREATES A COMPETITIVE ADVANTAGE FROM SUSTAINABILITY



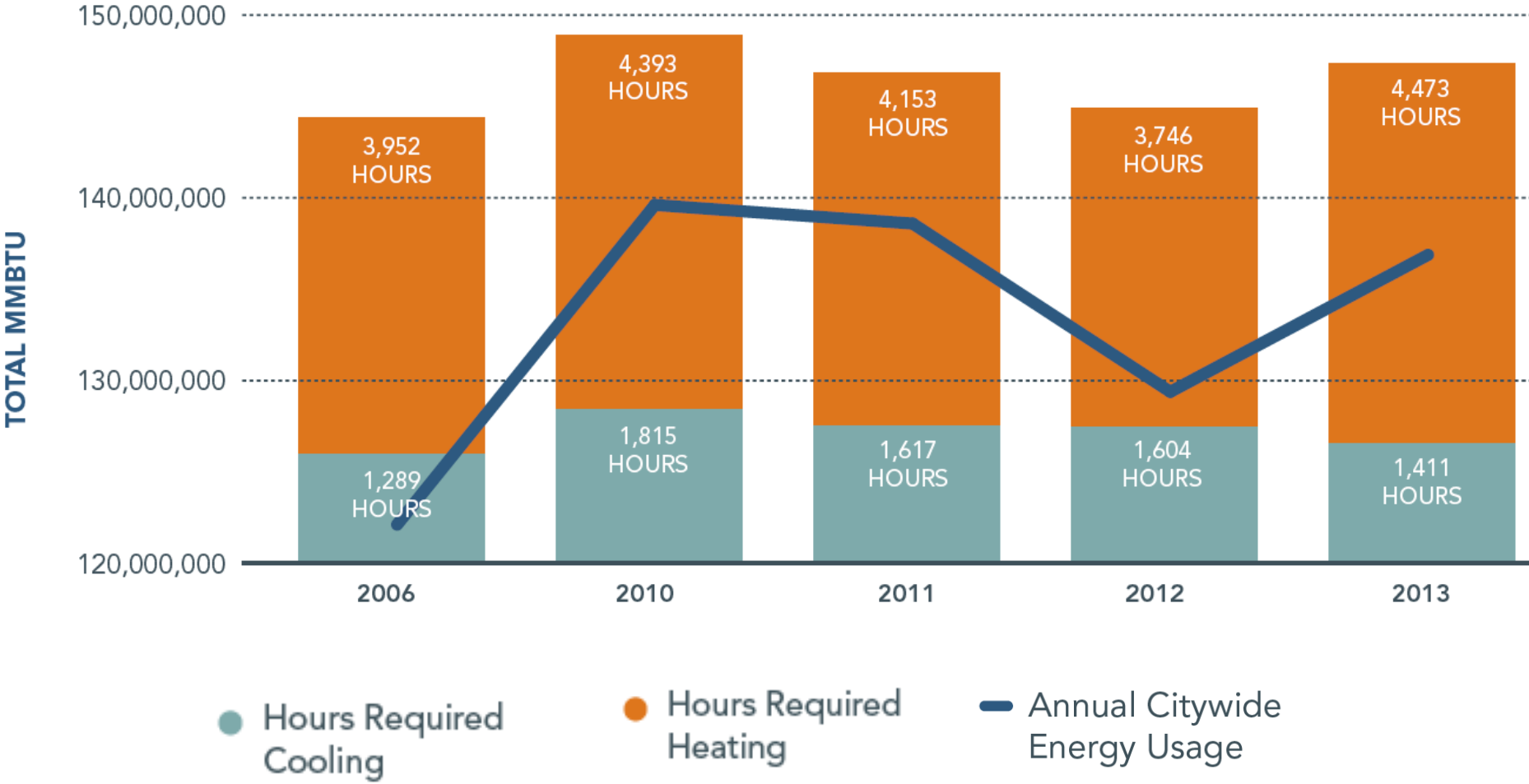
Engagement

PHILADELPHIANS UNITE TO BUILD A SUSTAINABLE FUTURE

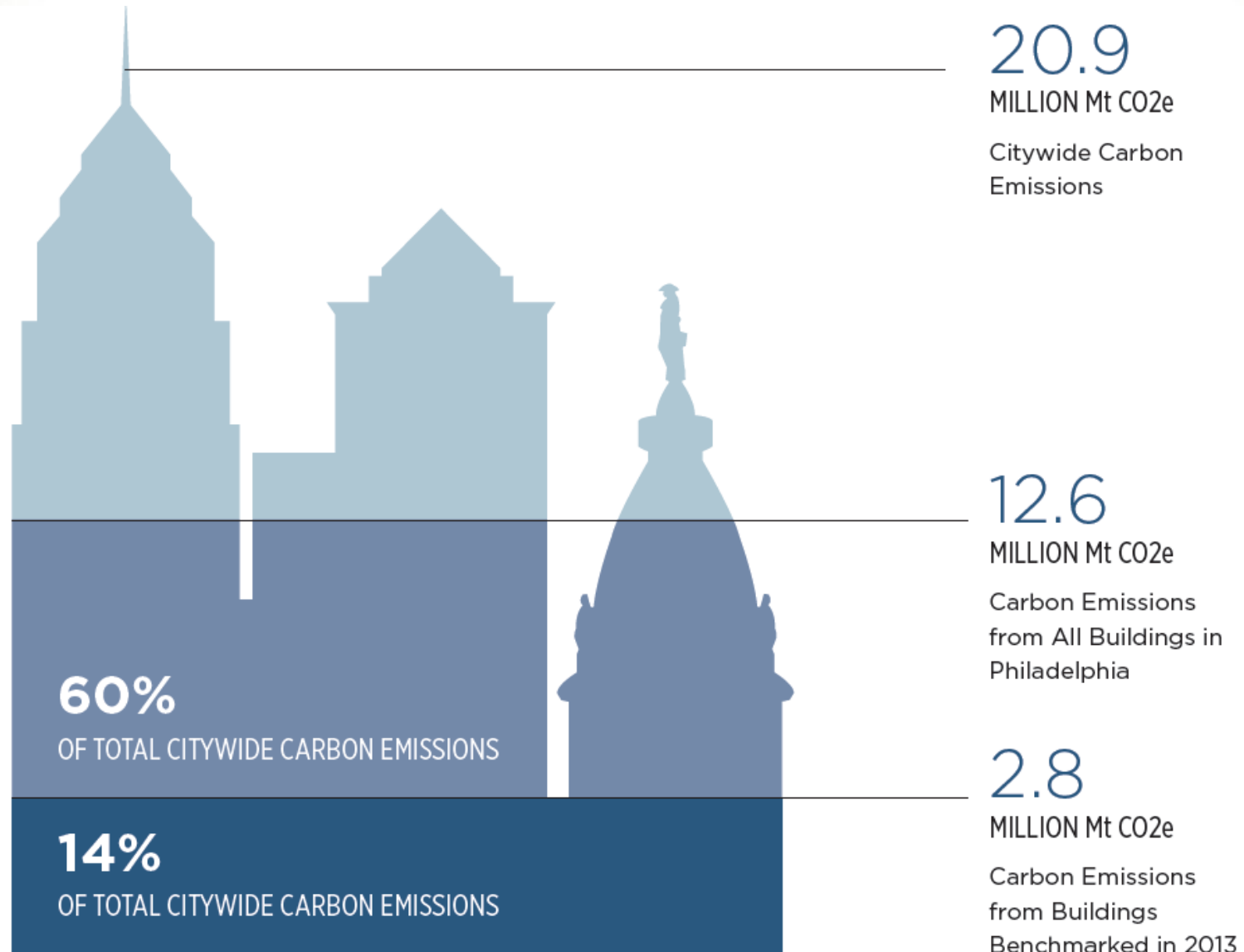


5 goals, 15 targets, over 150 initiatives

Weather Drives Energy Use



Buildings and Carbon Emissions



Why Benchmarking?

Item	Calories
Platters	450
Hot Cakes	600
Hot Cakes	580
Big Breakfast	660
Deluxe Breakfast	560
Breakfast	570

Nutrition Facts

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

Amount Per Serving		Calories from Fat 120
		% Daily Value*
Calories	280	
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

U.S. Government Federal law prohibits removal of this label before consumer purchase.

ENERGYGUIDE

Refrigerator-Freezer
 • Automatic Defrost
 • Side-Mounted Freezer
 • Through-the-Door Ice

XYZ Corporation
Model ABC-L
Capacity: 23 Cubic Feet

Estimated Yearly Operating Cost

\$67

Cost Range of Similar Models: \$57 to \$74

630 kWh
Estimated Yearly Electricity Use

Your cost will depend on your utility rates and use.

- Cost range based only on models of similar capacity with automatic defrost, side-mounted freezer, and through-the-door ice.
- Estimated operating cost based on a 2007 national average electricity cost of 10.65 cents per kWh.
- For more information, visit www.ftc.gov/appliances.

EPA Fuel Economy Estimates

CITY MPG	Estimated Annual Fuel Cost	HIGHWAY MPG
19	\$1,957	31

Expected range for most drivers 15 to 23 MPG

Estimated Annual Fuel Cost based on 15,000 miles at \$3.00 per gallon

Expected range for most drivers 25 to 37 MPG

Your actual mileage will vary depending on how you drive and maintain your vehicle.

Combined Fuel Economy This Vehicle: **23**

10 ——— 33
All Subcompacts

No information = No action

Cities are looking at what drives demand and competition in other industries

Based on standard U.S. Government units

ENERGYGUIDE

Compare the Energy Use of this Refrigerator with Others Before You Buy.

This Model Uses
82 kWh/year

Energy use (kWh/year) range of all similar
Uses Less

Refrigerator - Freezer
With Automatic Defrost
Without Through-The-Door-ice Service
Capacity: 20.8 Cubic Feet

Model(s) 6818-99, 6819-99, 6817-99, 6816-99, 6815-99, 6814-99, 6813-99, 6812-99, 6811-99, 6810-99, 6809-99, 6808-99, 6807-99, 6806-99, 6805-99, 6804-99, 6803-99, 6802-99, 6801-99

Based on standard U.S. Government units

ENERGYGUIDE

Compare the Energy Use of this Refrigerator with Others Before You Buy.

This Model Uses
62 kWh/year

Energy use (kWh/year) range of all similar
Uses Less

Refrigerator - Freezer
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Capacity: 20.8 Cubic Feet

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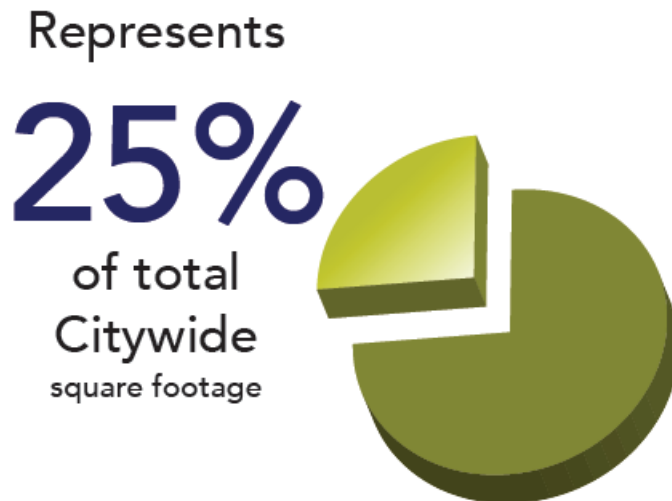
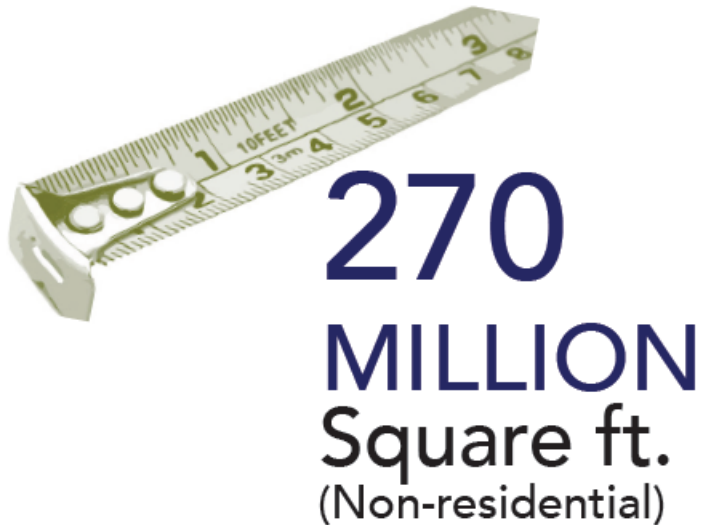
This Model Uses
601 kWh/year

Energy use (kWh/year) range of all similar
Uses Less

Refrigerator - Freezer
With Automatic Defrost
Without Through-The-Door-ice Service
Capacity: 20.8 Cubic Feet

Model(s) 6818-99, 6819-99, 6817-99, 6816-99, 6815-99, 6814-99, 6813-99, 6812-99, 6811-99, 6810-99, 6809-99, 6808-99, 6807-99, 6806-99, 6805-99, 6804-99, 6803-99, 6802-99, 6801-99

Year Two Benchmarking Results

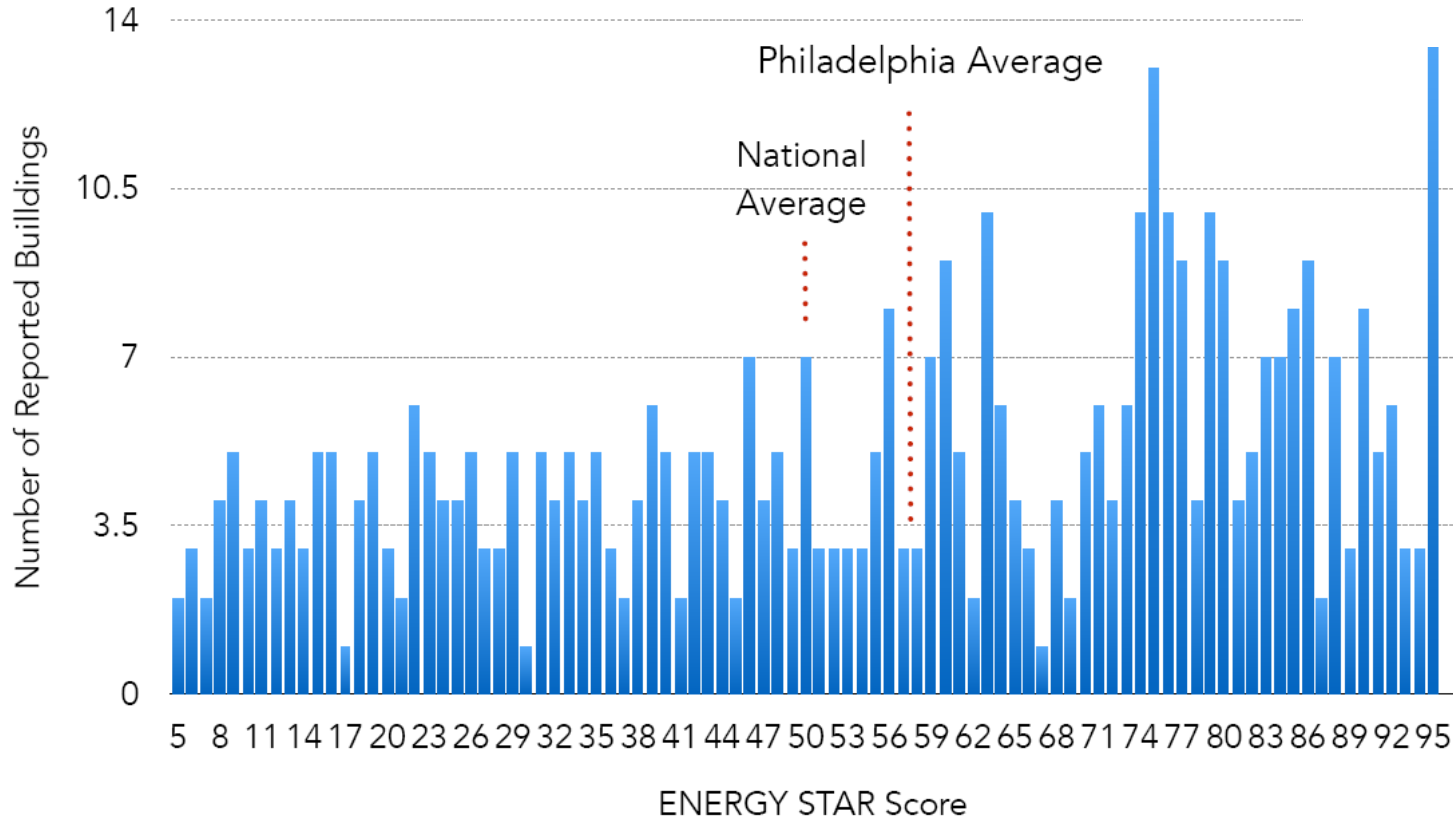


Year Two Benchmarking Results

58
Average
ENERGY STAR
Score



ENERGY STAR Ratings of Reported Buildings



Tailored Feedback to Building Owners



2013 Building ENERGY Performance Profile

ADDRESS: 1515 Arch St
YEAR BUILT: 1962
GROSS FLOOR AREA (SQUARE FEET): 502,000
OPA ID#: 772059100

Compare Your Building's ENERGY STAR® Score to Similar Buildings in the U.S. & Philadelphia

(1-100 Score, 100 is most efficient building)



Below is how your building's annual ENERGY STAR® Score compares to other National and Philadelphia Office buildings reported in 2013.

NATIONAL
AVERAGE SCORE



YOUR BUILDING'S
SCORE



PHILADELPHIA'S
AVERAGE SCORE



Your Building Ranks # **132**
out of **165** similar buildings



- Ranking is based on self-reported data provided by building owners and operators.
 - Buildings 75 or above are eligible for ENERGY STAR certification
- Visit www.energystar.gov/benchmark to learn how.

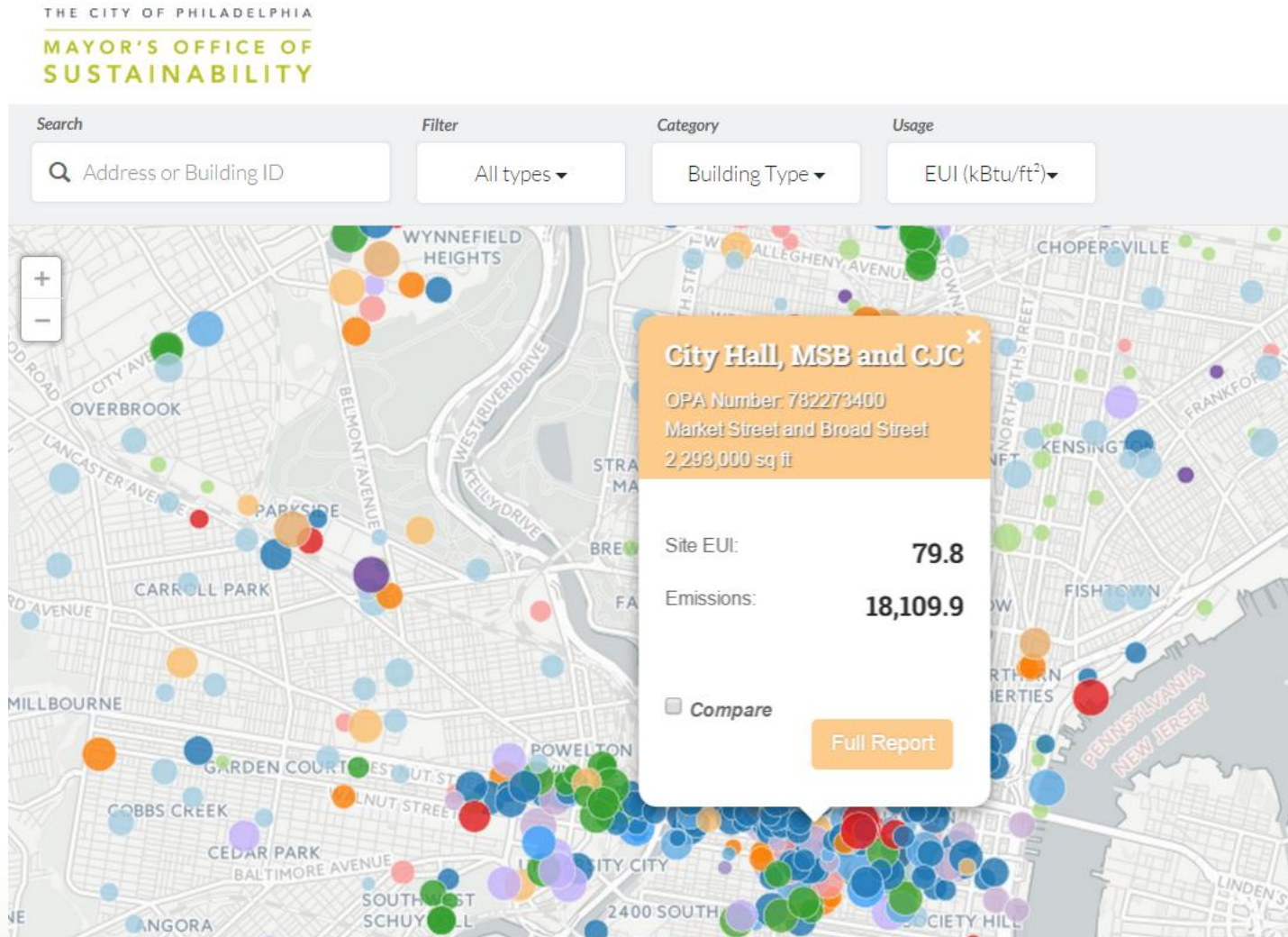


Creating Competition to Save Energy



- Commit to a one year reduction of 5%
- Attend free building operator training
- Share energy efficiency project plan

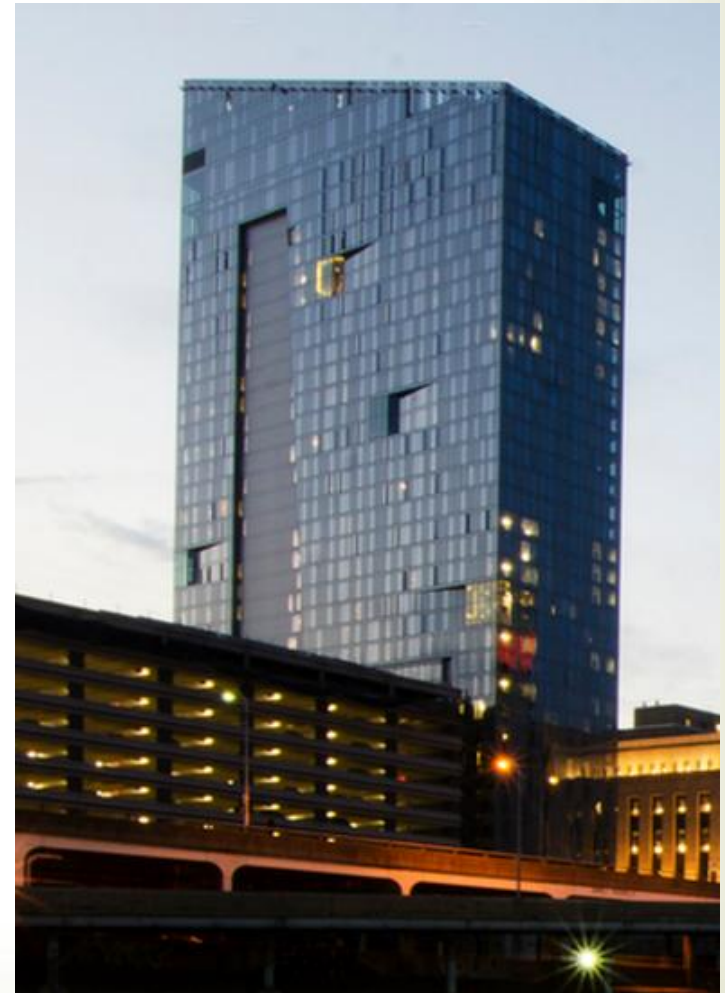
Delivering More Impactful Information to the Marketplace



<http://visualization.phillybuildingbenchmarking.com>

What's next?

- Multi-Family Benchmarking
- Building Operator Training
- Expanded Outreach



Support from Partner Organizations

LOCAL PARTNERS



DELAWARE VALLEY
GREEN BUILDING
COUNCIL

UTILITY PARTNERS



NATIONAL PARTNERS





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www.phila.gov/benchmarking