



City Energy Project:

Tapping into the transformative power of energy transparency

ESC Conference | September 1, 2015
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Natural Resources Defense Council

CITY ENERGY PROJECT: ADVANCING ENERGY EFFICIENCY IN 10 LEADING AMERICAN CITIES

Funders

Bloomberg
Philanthropies

THE
KRESGE
FOUNDATION

DD

DORIS DUKE
CHARITABLE FOUNDATION

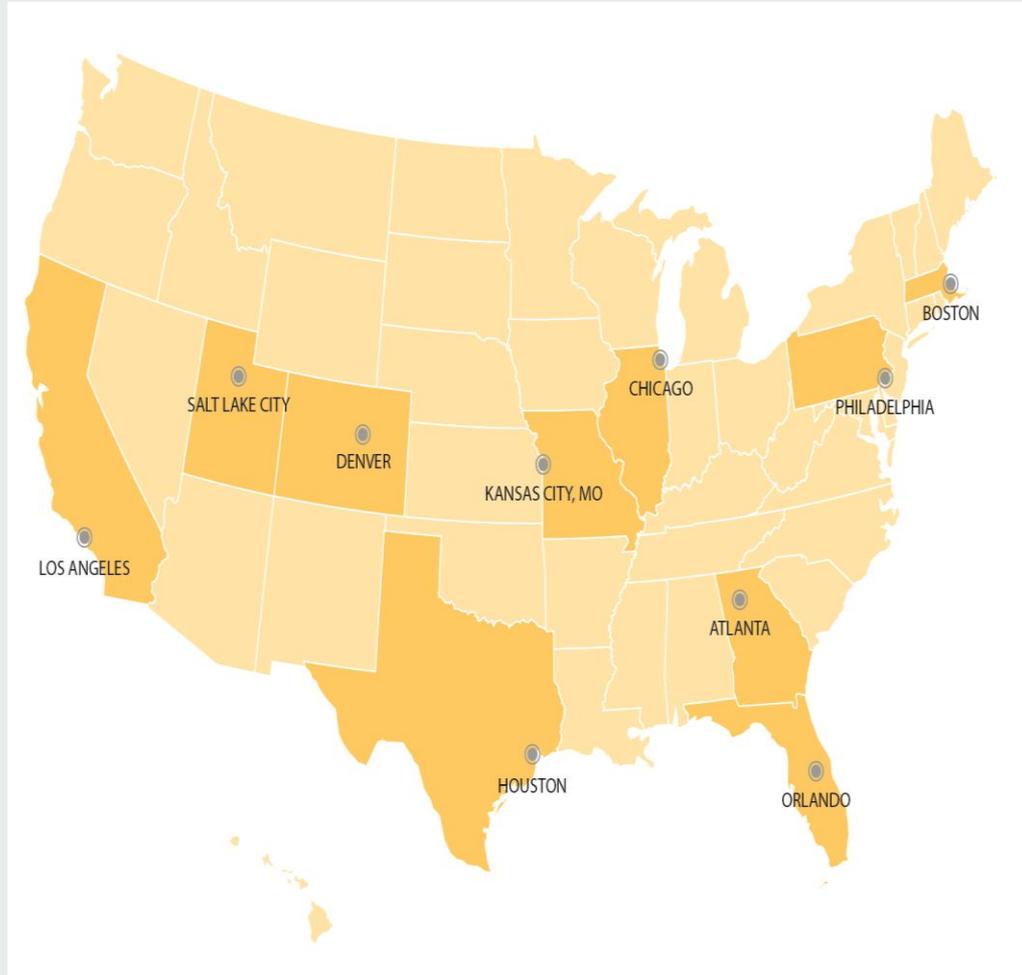
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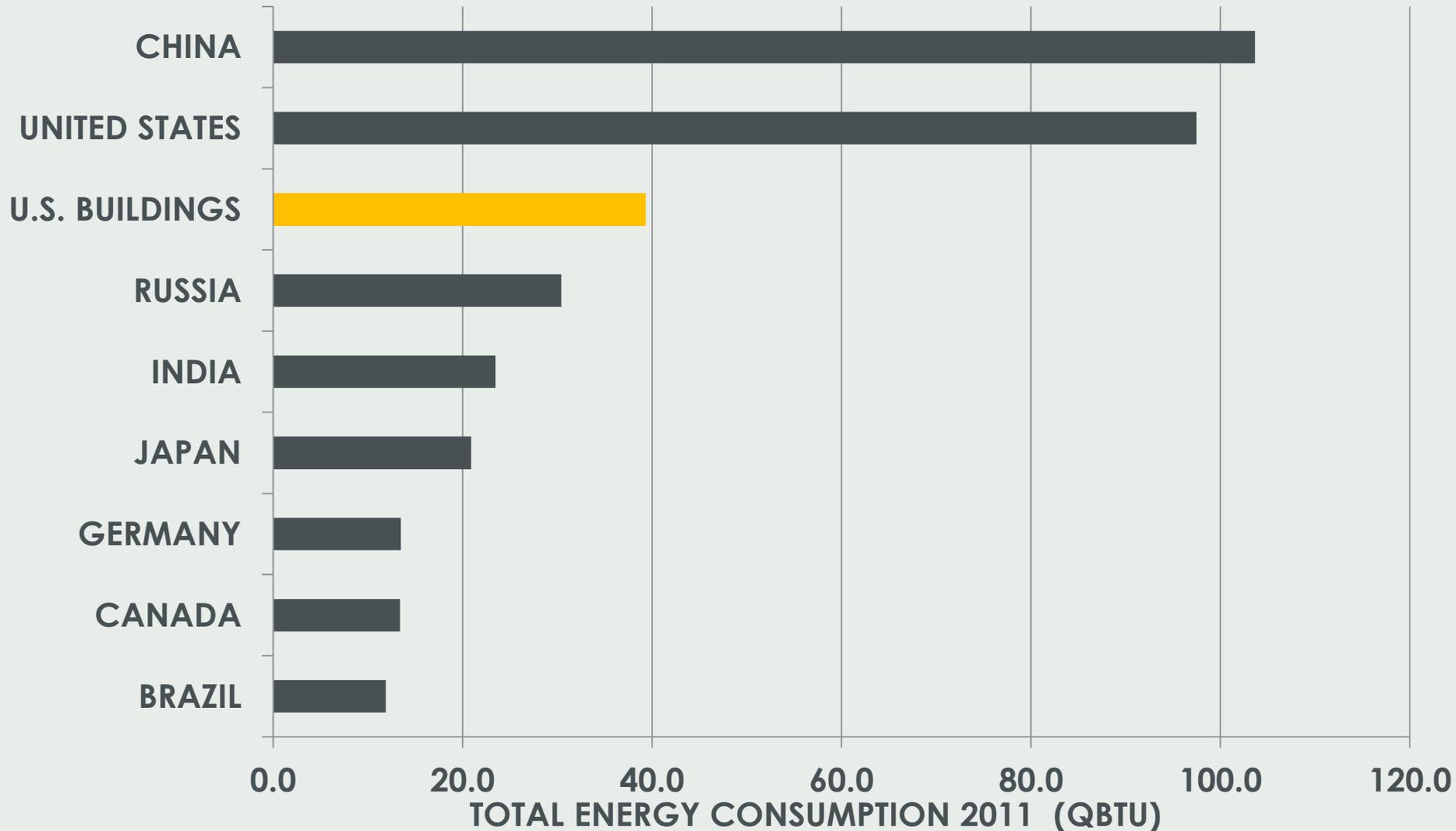
Implementing
Partner



10 Cities

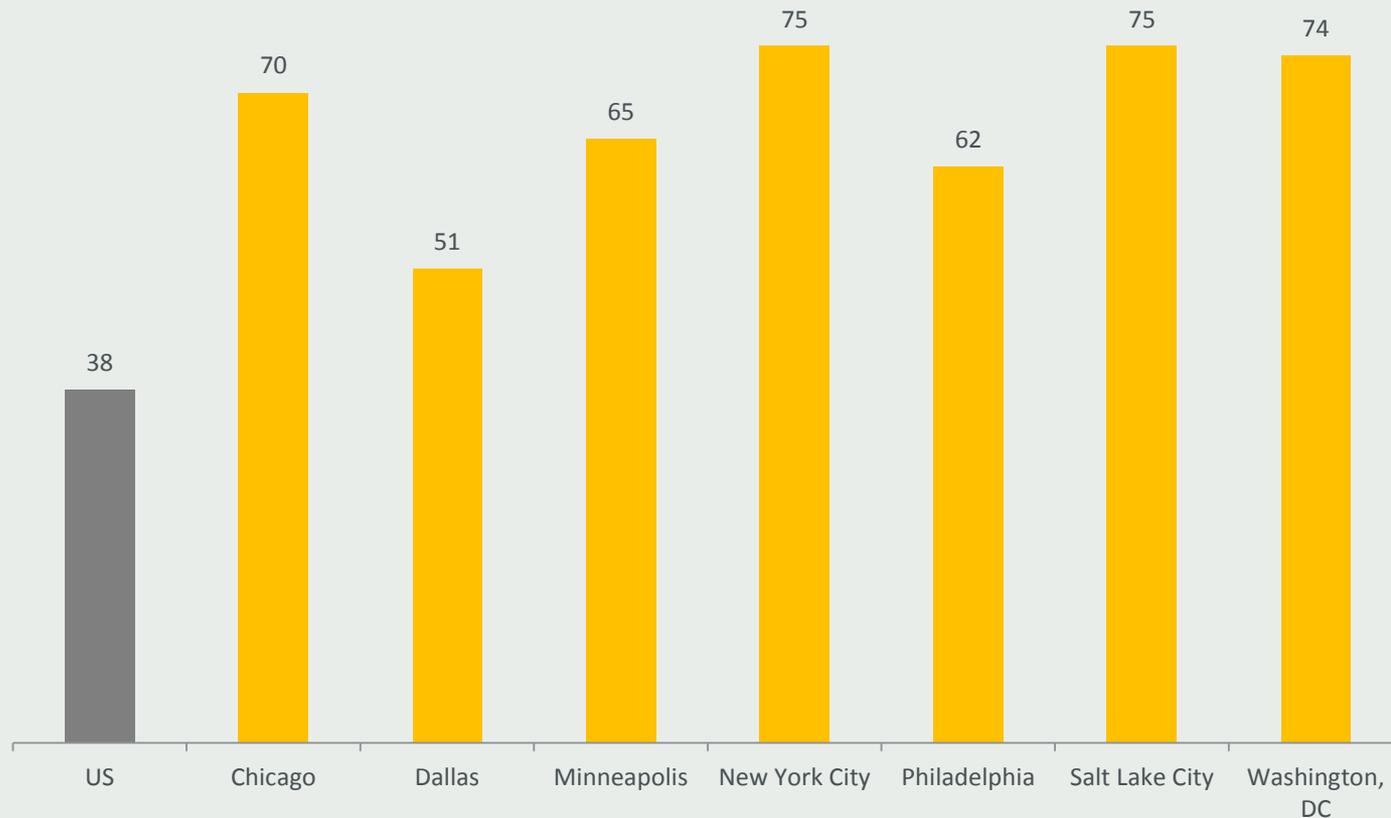


PROBLEM: U.S. BUILDINGS USE MORE ENERGY THAN MOST COUNTRIES IN THE WORLD



IN CITIES, BUILDINGS CONTRIBUTE ABOUT 50-75% OF POLLUTING GHG EMISSIONS

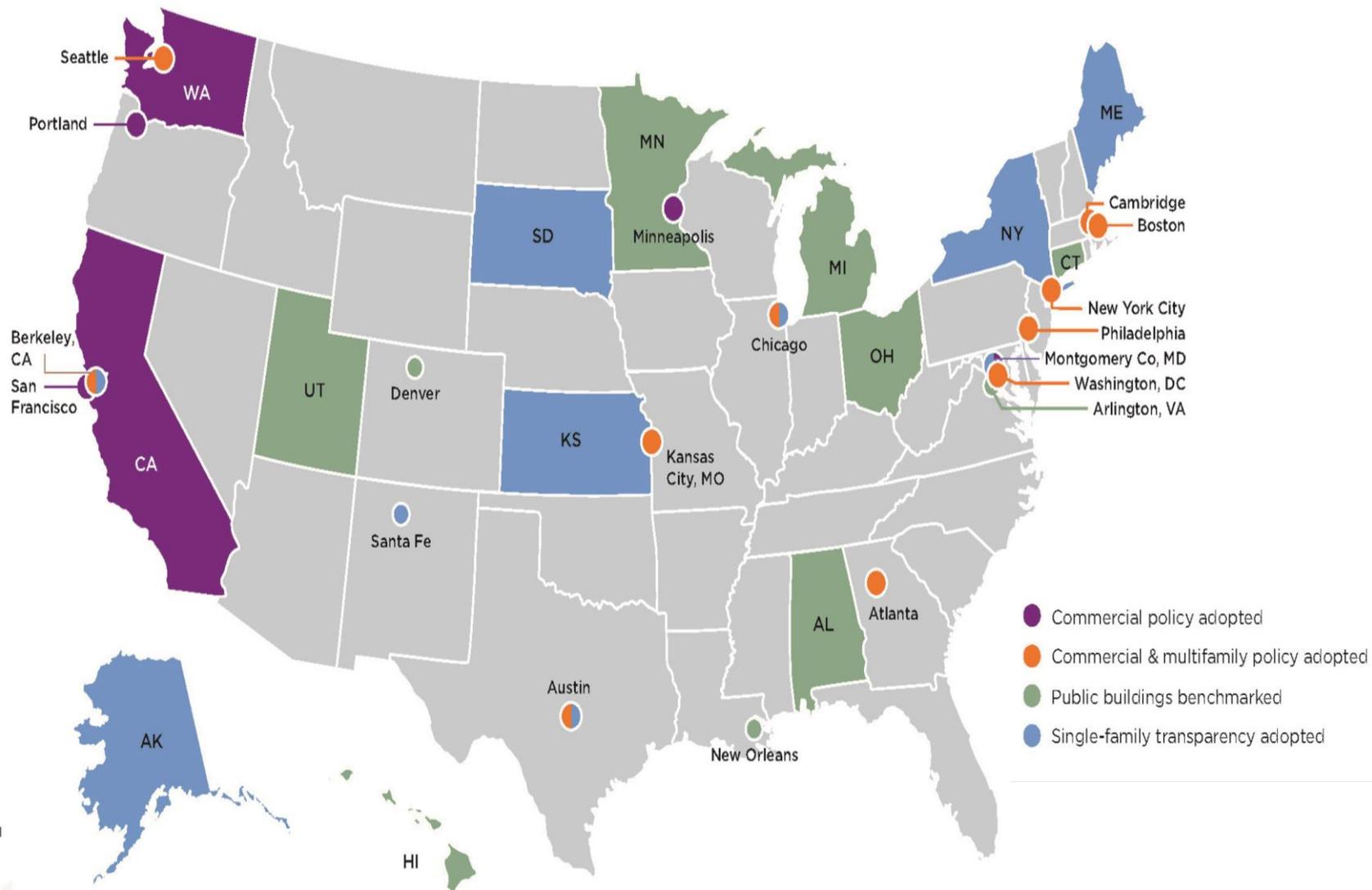
Percentage of Total Carbon Emissions
from Building Sector



SOLUTION: ENERGY TRANSPARENCY DRIVES EFFICIENCY IN EXISTING BUILDINGS



THERE IS MOMENTUM IN THE MARKET FOR BENCHMARKING AND TRANSPARENCY



U.S. Building Benchmarking and Transparency Policies

RAPID INCREASE IN DATA ABOUT BUILDING CHARACTERISTICS AND PERFORMANCE

Tax Assessor Data

Utility Data

Contact Information

Building Use Information

Audit Data

Benchmarking Results

Retrocommissioning

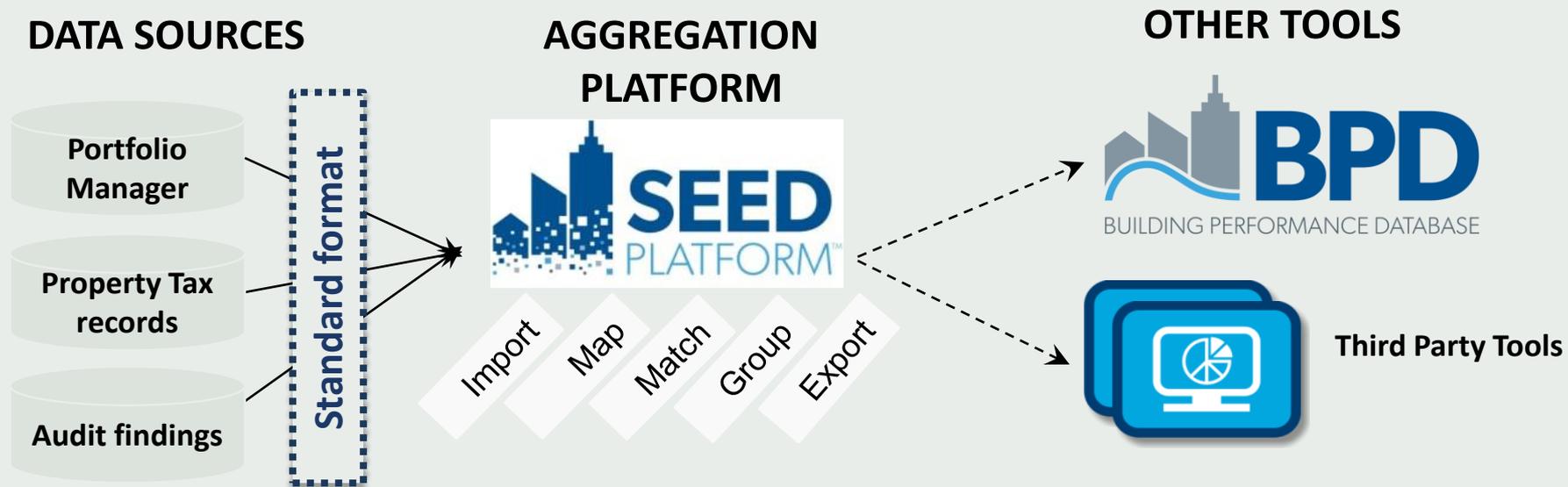


Calendar Year 2012 Disclosure | Sheet 1: Whole Building Data
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District Department of the Environment Energy Performance Benchmarking for Privately

DC Real Property ID	Address of Record	Owner of Record	Vard	Property Name	Address 1	City	State	Postal Code	Primary Property Type	Year Built	Reported Building Gross Floor Area (ft ²)	Site (kBTU)
00080808	2500 VIRGINIA AV NW	WATERGATE EAST INC	2	Watergate East, Inc.	2500 Virginia Avenue, N.W.	Washington	DC	20037	Multifamily/Housing	1966	400,000	
00080808	2600 VIRGINIA AV NW	GREENPENZ 2600 VIRGINIA AVENUE LLC	2	Watergate Building	2600 Virginia Avenue	Washington	DC	20037	Office	1963	217,716	
00080811	8600 NEW HAMPSHIRE AV NW	WATERGATE HOLDINGS I LLC	2	8600 New Hampshire Avenue NW (Watergate)	8600 New Hampshire Ave NW	Washington	DC	20037	Office	1972	280,211	
0040068	2550 M ST NW	CARR CRHP DCVA PROPERTIES LLC	2	Westbridge Office Building	2550 M Street NW	Washington	DC	20037	Office	1978	208,325	
00160053, 00160663	0950 25TH ST NW	CLARIDGE H COOPER TVE	2	350 25th Street NW	350 25th Street NW	Washington	DC	20037	Multifamily/Housing	1960	373,216	
0024-0024	1250 24TH ST NW	WORLD WILDFL FUND INC	2	1250 24th Street NW	1250 24th Street, NW	Washington	DC	20037	Office	1968	150,905	
00240112	2400 N ST NW	AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION	2	2400 N Street NW	2400 N Street NW	Washington	DC	20037	Office	1965	251,707	
00240870	2401 M ST NW	LHCW HOTEL HOLDING (2002) LLC	2	2401 M Street, NW	2401 M Street, NW	Washington	DC	20037	Hotel	1965	386,390	
00240871	2445 M ST NW	WRIT 2445 M LLC	2	2445 M Street NW	2445 M Street NW	Washington	DC	20037	Office	1966	321,863	
00250808	2400 M ST NW	EDP-IBG 2400	2	2400 M Street NW	2400 M Street NW	Washington	DC	20037	Multifamily/Housing	2006	267,750	
00251646	1111 25TH ST NW	ATLAS CONDOMINIUMS	2	1111 25th Street NW	1111 25th Street NW	Washington	DC	20037	Multifamily/Housing	2004	237,911	
00251782	2425 L ST NW	THE COLUMBIA RESIDENCES CON	2	The Columbia Residences Condominiums	2425 L Street NW	Washington	DC	20004	Multifamily/Housing	2006	543,000	Not Avail
00280000	950 24TH STREET NW	COMMERCIAL CO	2	City Hall	950 24th Street NW	Washington	DC	20004	Residence Hall/Dormitory	1969	157,672	
00300337	2475 VIRGINIA AV NW	POTOMAC PLAZ APARTMENTS INC	2	Potomac Plaza	2475 Virginia Avenue, N.W.	Washington	DC	20037	Multifamily/Housing	1957	316,550	
00330887	2400 VIRGINIA AV NW	COLUMBIA PLAZ	2	Columbia Plaza All Bldgs	2400 Virginia Avenue, N.W.	Washington	DC	20037	Multifamily/Housing	1968	368,819	
00360048	2300 N ST NW	TR 2300 N STREE	2	2300 N Street	2300 N Street	Washington	DC	20037	Office	1966	304,484	
00360859	1201 24TH ST	HYATT EQUITIES I	2	Park Hyatt Washington	1201 24th Street NW	Washington	DC	20037	Hotel	1966	361,400	
00370953	2300 - 2330 M ST NW	MEDICAL FACUL T ASSOCIATES INC	2	2300-2330 M St	2300-2330 M Street NW	Washington	DC	20037	Office	1964	161,222	
00400036	300 23RD ST	GEORGE WASHINGTON UNIVERSITY	2	George Washington University	300 23rd Street NW	Washington	DC	20037	Hospital (General Medk)	2002	465,000	
00410040	2300 I ST NW	GEORGE WASHINGTON UNIVERSITY	2	Ross Hall	2300 I St, NW	Washington	DC	20052	College/University (Campus-Level)	1973	420,653	
00420055	2301 G ST	GEORGE WASHINGTON UNIVERSITY	2	Health and Wellness Center	2301 G St, NW	Washington	DC	20052	Recreation	2001	167,864	
00430026	616 23RD ST	GEORGE WASHINGTON UNIVERSITY	2	616 23rd St, NW	616 23rd St, NW	Washington	DC	20037	Residence Hall/Dormitory	2004	283,531	
00500085	1250 22ND ST NW	EMBASSY/SHAW D C	2	1250 22nd Street NW	1250 22nd Street NW	Washington	DC	20037	Hotel	1987	306,123	
00500086	1255 23RD ST	CAPITOL 50 ASSOCIATES	2	1255 23rd Street NW	1255 23rd Street NW	Washington	DC	20037	Office	1963	353,362	
00510079			2	Capitol Hill		Washington	DC	20037	Hotel	1990	269,000	
00540841	2200 PENNSYLVANIA AV	GEORGE WASHINGTON UNIVERSITY	2	2200 Pennsylvania Avenue	2200 Pennsylvania Avenue NW	Washington	DC	20052	Office	2011	541,360	
00560030	2201 G ST NW	GEORGE WASHINGTON UNIVERSITY	2	Funger, Duques & Tompkins Halls	2201 G St and 725 23rd St, NW	Washington	DC	20052	College/University (Campus-Level)	1970	344,663	
00670059	2100 MASSACHUSETTS	NOIPD SOUTH LLC	2	Fairfax at Embassy Row	2100 Massachusetts Ave	Washington	DC	20008	Hotel	1927	217,504	
00680088	421 21ST ST NW	2130 P STREET	2	WestPark Apartments	2130 P Street NW	Washington	DC	20006	Multifamily/Housing	1975	184,255	
00700195	1200 NEW HAMPSHIRE AV NW	NH STREET PARTNERS HOLDINGS LLC	2	1200 New Hampshire Avenue	1200 New Hampshire Avenue	Washington	DC	20036	Office	1979	386,378	
00700887			2	33770-Washington West END Marriot	1221 22nd St NW	Washington	DC	20037	Hotel	1981	304,053	
00715159	1177 22ND ST NW	22 WEST CONDO	2	22 West A Condominium	1177 22nd St, NW	Washington	DC	20037	Multifamily/Housing	2008	225,414	



STANDARD ENERGY EFFICIENCY DATA PLATFORM: DOE TOOL FOR BUILDING DATA MANAGEMENT



ASSESSING SEATTLE'S CITYWIDE INFORMATION

Building Type

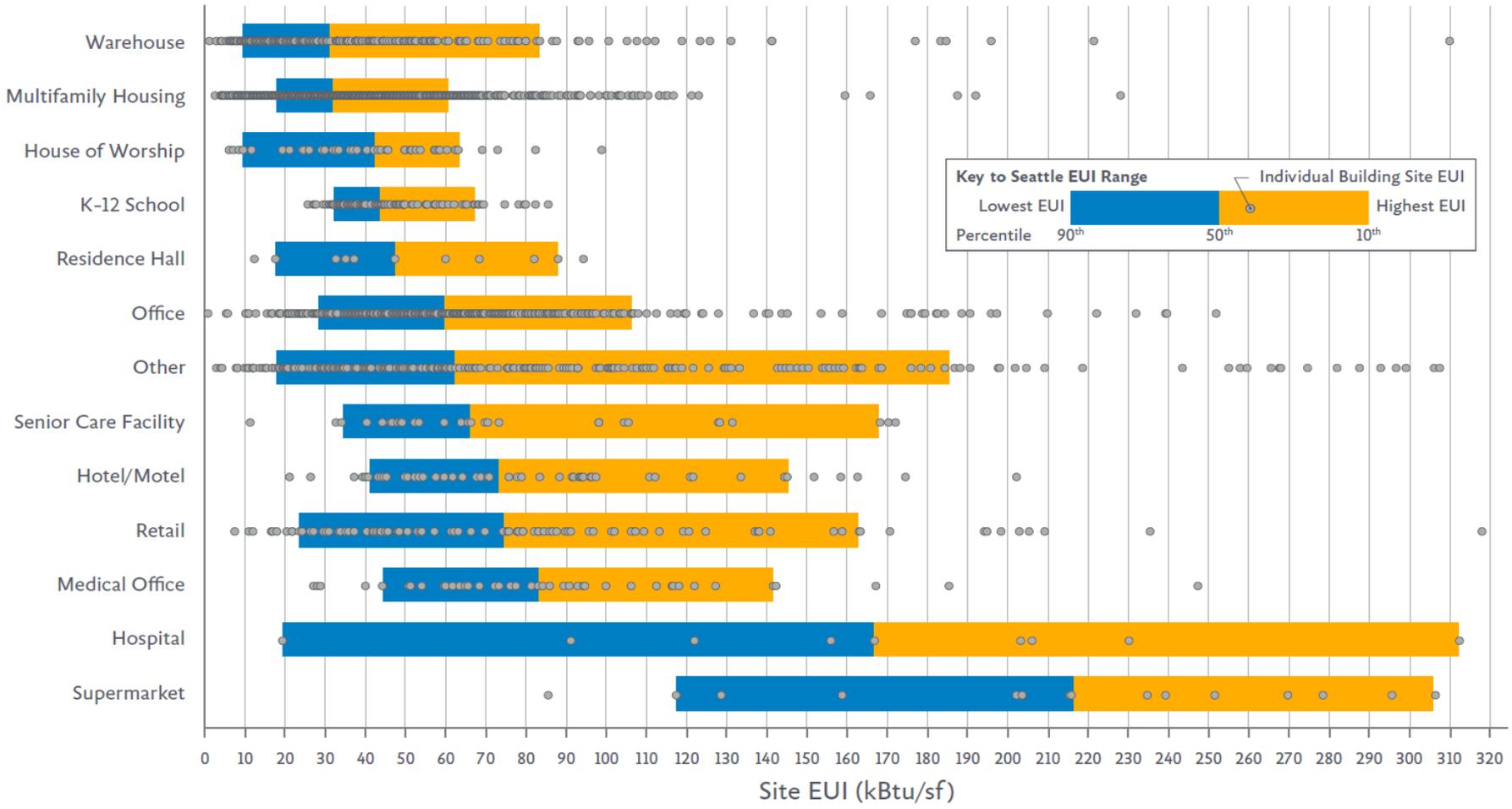


Figure 11: 2012 EUI Performance Range and Distributions by Building Type

LOOKING AT INDIVIDUAL BUILDINGS IN PHILLY

PHILADELPHIA

Address Building Type 2014

Energy Efficiency

Energy Use

Climate Emissions

Total GHG Emissions [MORE INFO](#)

Water

Building Info

BUILDING COMPARISON

ENERGY STAR ... x	ENERGY USE ... x	TOTAL GHG ... x
AVERAGE	AVERAGE	AVERAGE
62	74.7 KBTU/FT ²	789.1 M TONS ...

AVERAGES BASED ON RANGES SET IN FILTERS

OPPORTUNITY FOR SYSTEMATIC DATA COLLECTION BEYOND BENCHMARKING

Program	Who/ How often?	Performance & Use Metrics	Energy systems inventory	Recommended ECMs & est'd costs, impacts	Implemented ECMs & costs	Actual impacts (M+V)
Benchmark & Transparency	All / Annual	✓				
Audits	Some/ Every 5-10 yrs	✓	✓	✓ **		
RCx	Some/ Every 5-10 yrs	✓	✓ *	✓ **	✓	
Leading by Example	Some /Once	✓	✓	✓ **	✓	✓
Challenges	Some /Once	✓	✓	✓ **	✓	✓
Financing	Some /Once	✓	✓	✓ **	✓ ***	✓

Programs may or may not have M+V



* If a city doesn't require audits, it could require energy systems data to be collected as part of RCx
 ** Cost data may or may not be included
 *** Plus amount of incentive and/or financing applied

FINAL THOUGHTS

- Building performance, use, and efficiency data is expanding rapidly
- Local governments, especially cities, are on forefront of data collection
- Opportunity for data-driven program design, assessment, and investment

THANK YOU

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