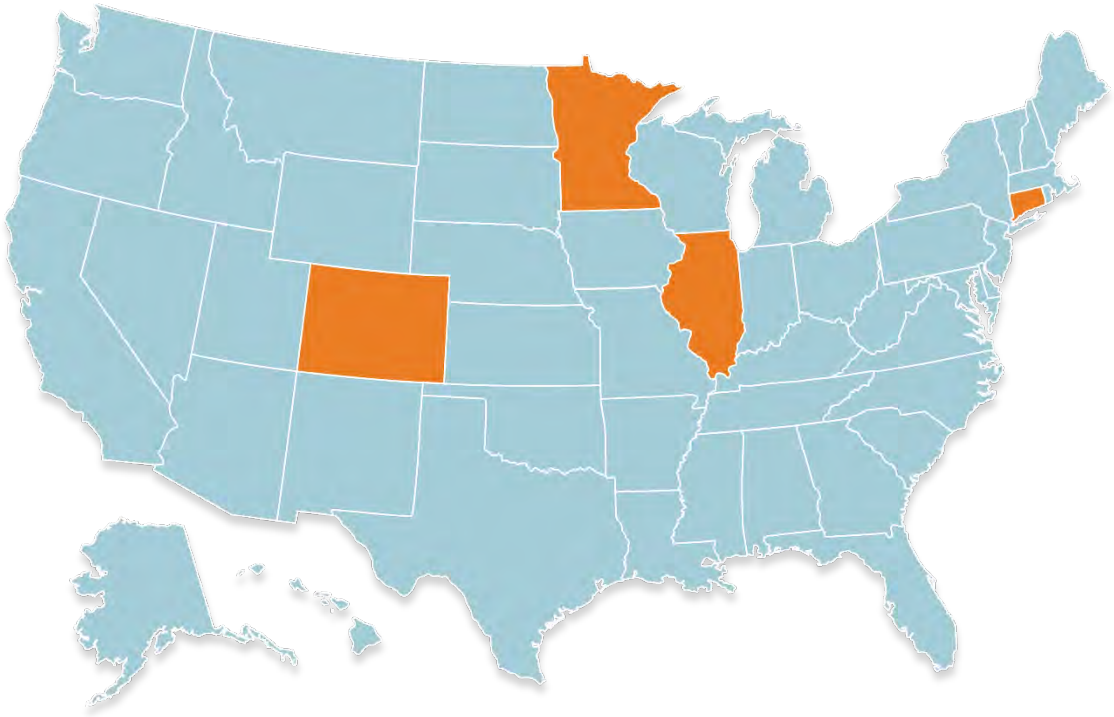
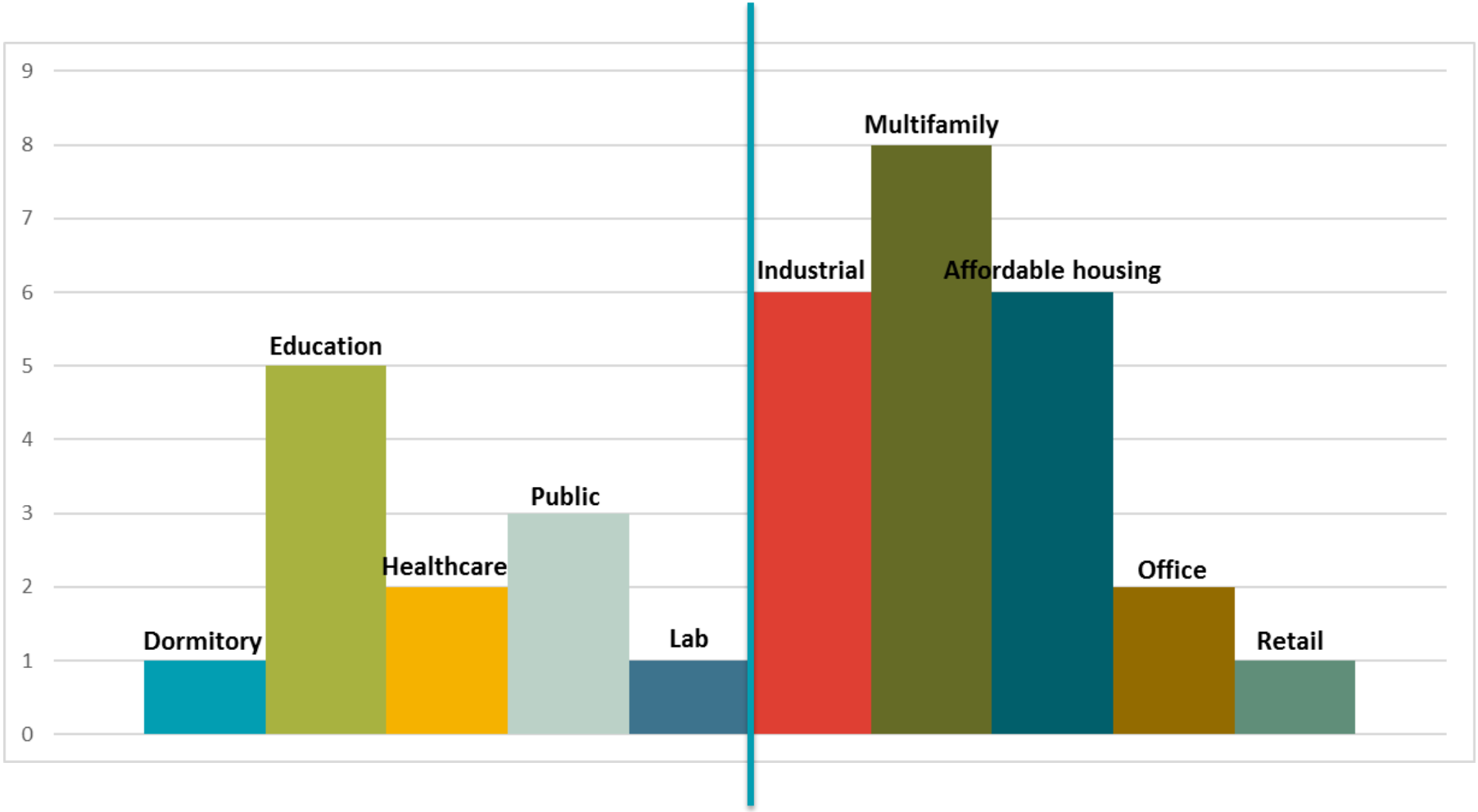
Eligibility requirements for Accelerate Performance



- **Applicable to new construction and major renovation**
- **Commercial, industrial or multifamily buildings**
- **Projects must be in the pre-planning phase to participate (before the design team is under contract)**
- **35-70% energy reduction goals**

Current Projects



Partner Structure

DEVELOPER

BUILDING OWNER

+

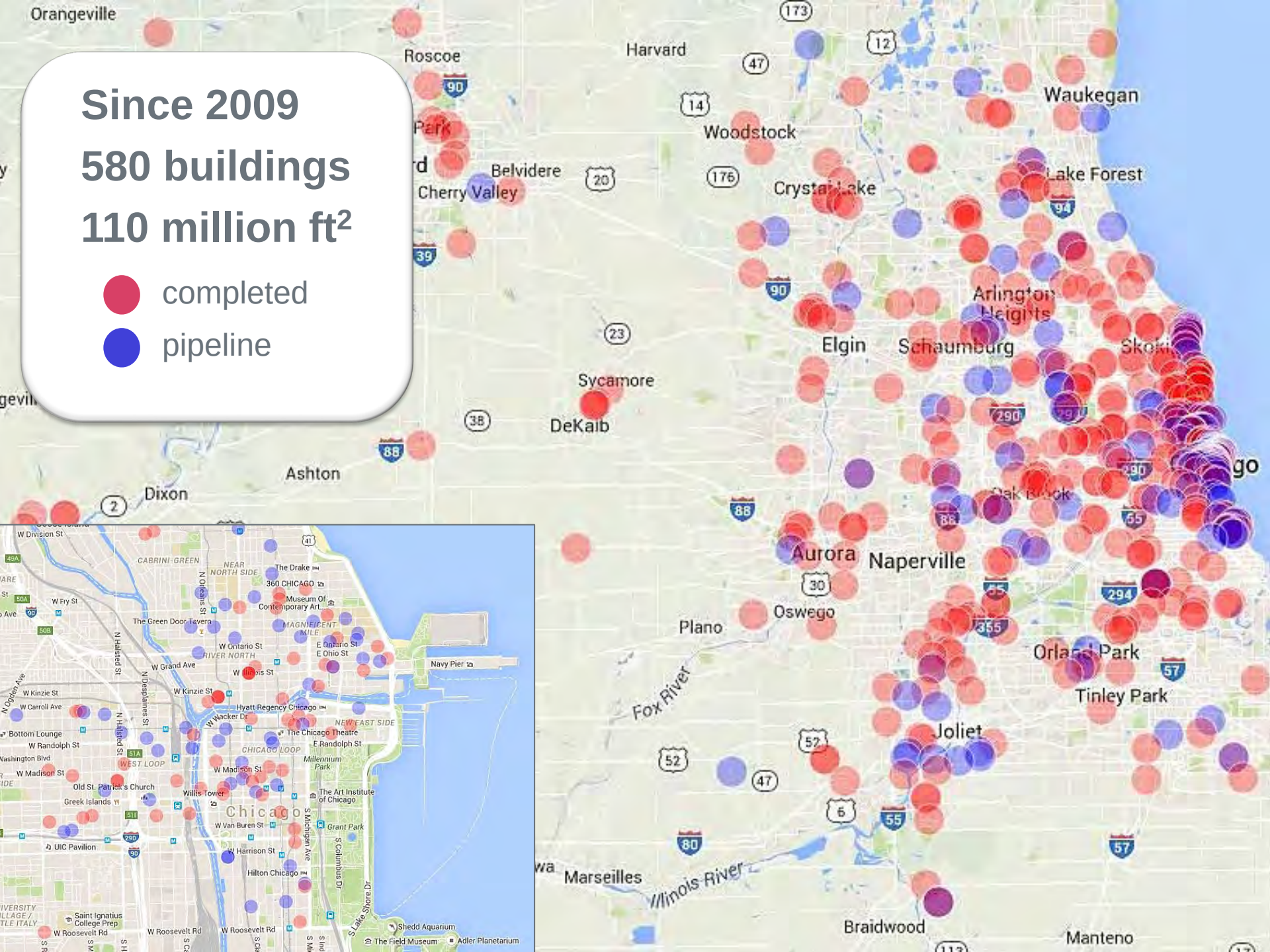
UTILITY

Why Accelerate Performance - Utilities

UTILITIES

Top motivations:

- New codes present an opportunity instead of limitations
  - Portfolio savings goals are increasing
  - Support deep energy saving projects
- Deemed vs actual savings
  - Prepare programs for outcome based codes
- Directly support owners (customer service)
- Develop an industry leading program

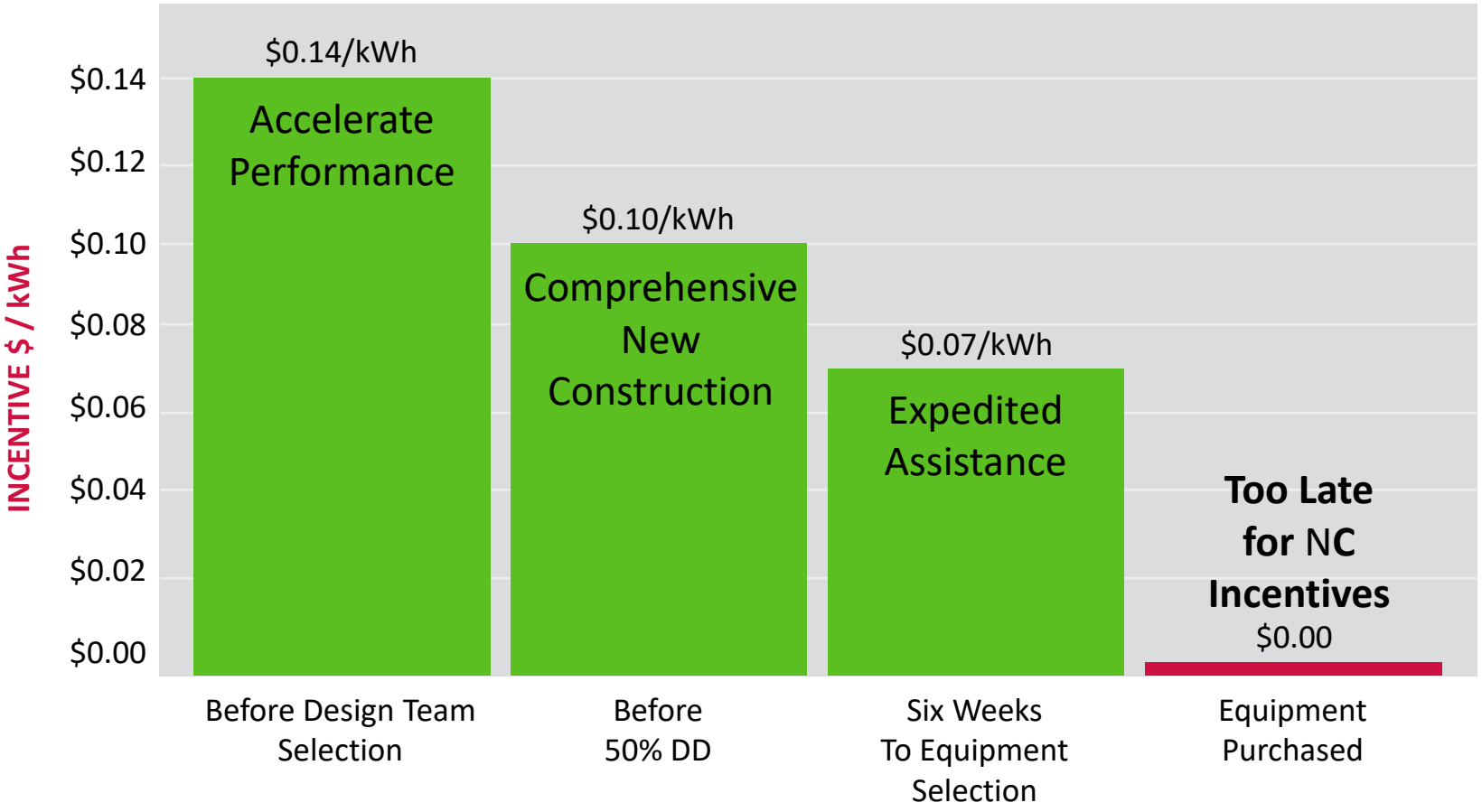

Since 2009
580 buildings
110 million ft²
completed
pipeline
Orangeville
Roscoe
Harvard
Waukegan
Woodstock
Belvidere
Cherry Valley
Crystal Lake
Lake Forest
Elgin
Schaumburg
Arlington Heights
Sycamore
DeKalb
Ashton
Dixon
Aurora
Naperville
Oswego
Plano
Fox River
Joliet
Tinley Park
Orland Park
Oak Brook
Marseilles
Illinois River
Braidwood
Manteno
Chicago
Navy Pier
The Drake
360 CHICAGO
Museum Of Contemporary Art
The Green Door Tavern
Hyatt Regency Chicago
The Chicago Theatre
Millennium Park
Willis Tower
The Art Institute of Chicago
Grant Park
Hilton Chicago
Shedd Aquarium
The Field Museum
Adler Planetarium
UIC Pavilion
Old St. Patrick's Church
Greek Islands
Bottom Lounge
Saint Ignatius College Prep
CABRINI-GREEN
NEAR NORTH SIDE
RIVER NORTH
MAGNIFICENT MILE
NEW EAST SIDE
CHICAGO LOOP
WEST LOOP

New Construction Program Benchmarking

PROGRAM DESIGN COMPARISON									
	ComEd	Xcel MN	Xcel CO	Focus on Energy	MidAm	NGrid	ETO	SBD	NYSERDA
Single TA provider	■	■		■	■				
Closed network			■			■			
Open network							■	■	■
Multiple tracks	*	■	■		■	■	■	■	
Scaled incentives based on performance					■	■	■	■	
Scaled incentives based on technology								■	
Design firm incentive	■	■		■	■	■	■	■	■
per kWh incentive	■	■	■	■	■	■	■	■	■
per kW incentive		■						■	
per therm incentive	■	■	■	■	■	■	■	■	
per SF incentive						■	■		
EUI incentive									
Minimum savings threshold		■	■		■	■		■	■
Incentive cap							■	■	■
Post-construction support					■	■	■	■	■
Net Zero support							■		
LEED support		■	■		■		■		■

Incentives Linked to Engagement

Higher $/kWh earned for earlier engagement



Why Accelerate Performance – Developers/Owners

DEVELOPER

BUILDING OWNERS

Top motivations:

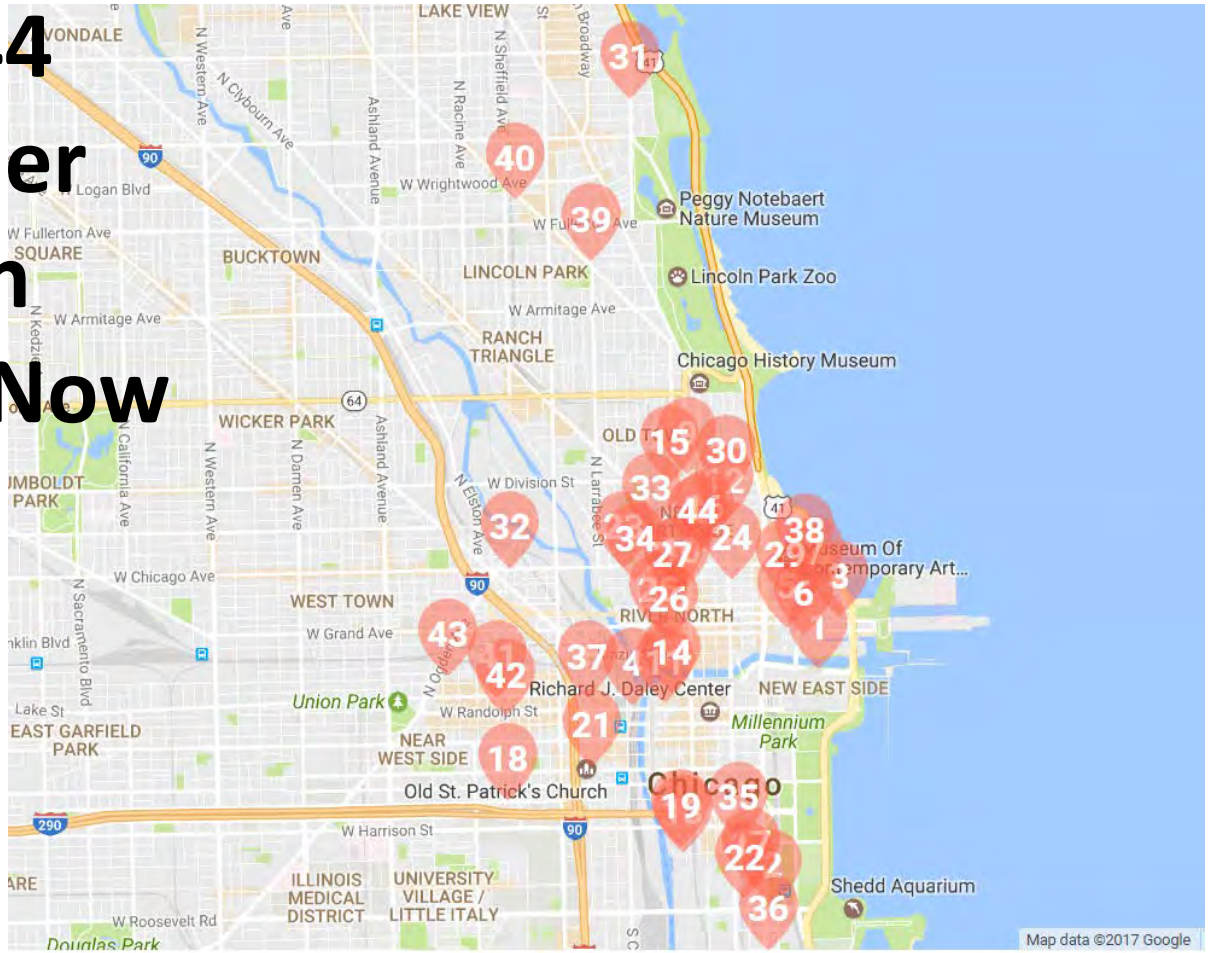
- Due diligence in the design and construction
  - Keep design and contractor team focused on clear, measurable goals
  - Disappointed with performance of new buildings
- Process to meet performance goals
  - Desire to reach campus/portfolio carbon reduction goals
  - Wants to achieve net zero but needs a process to get there
- Realize actual operations savings and ensure return on investment

Chicago construction boom

Mapping the 44 High-rises Under Construction in Chicago Right Now

January 12th 2017

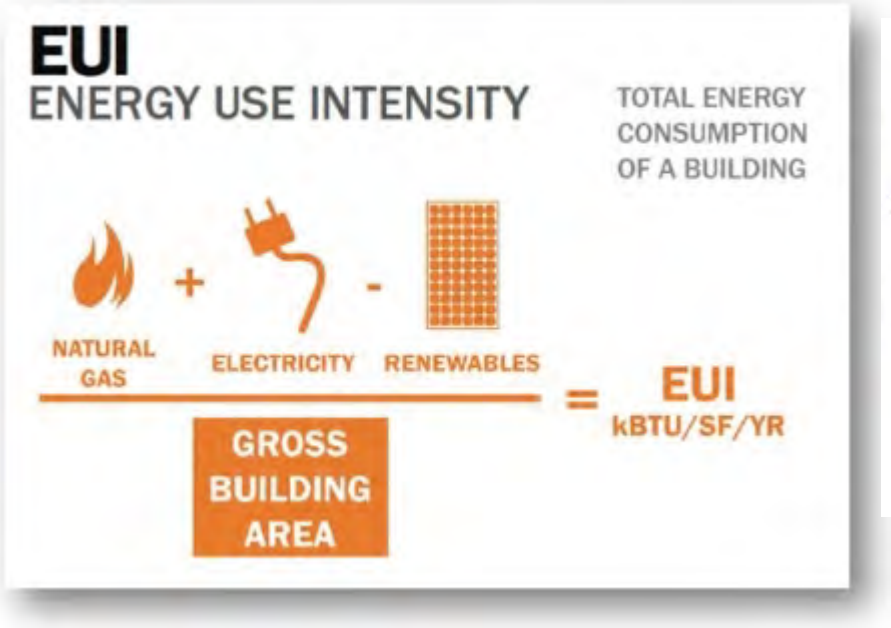
Chicago.curbed.com

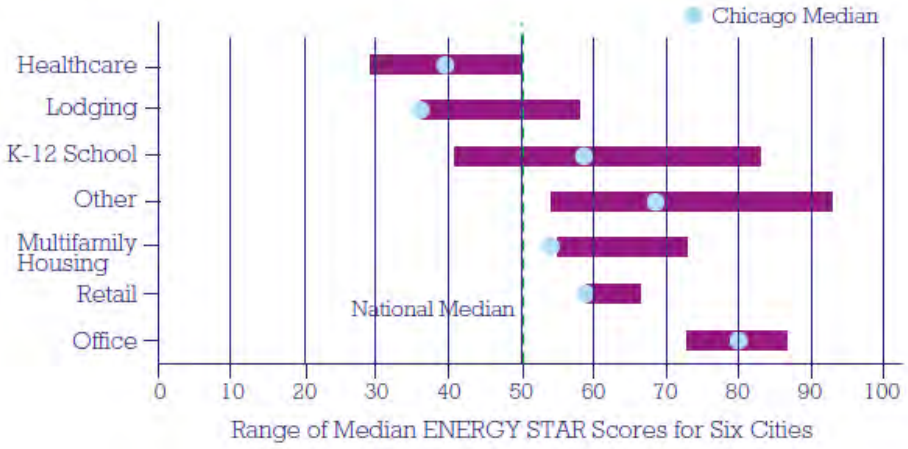


Define an energy requirement

Project energy goals			
A	Sustainable building	Lack of clarity with unbounded interpretation. Rating schemes help resolve this, but do not drive a certain metric.	Same budget
B	30% savings over energy code	Often this is a comparison between simulated results. There is very little opportunity to verify actual savings.	Same budget
C	An annual energy use intensity (EUI) of 45 kBtu/sq ft/year	This is a measurable target; requires up-front research to establish a realistic benchmark.	**Same budget**

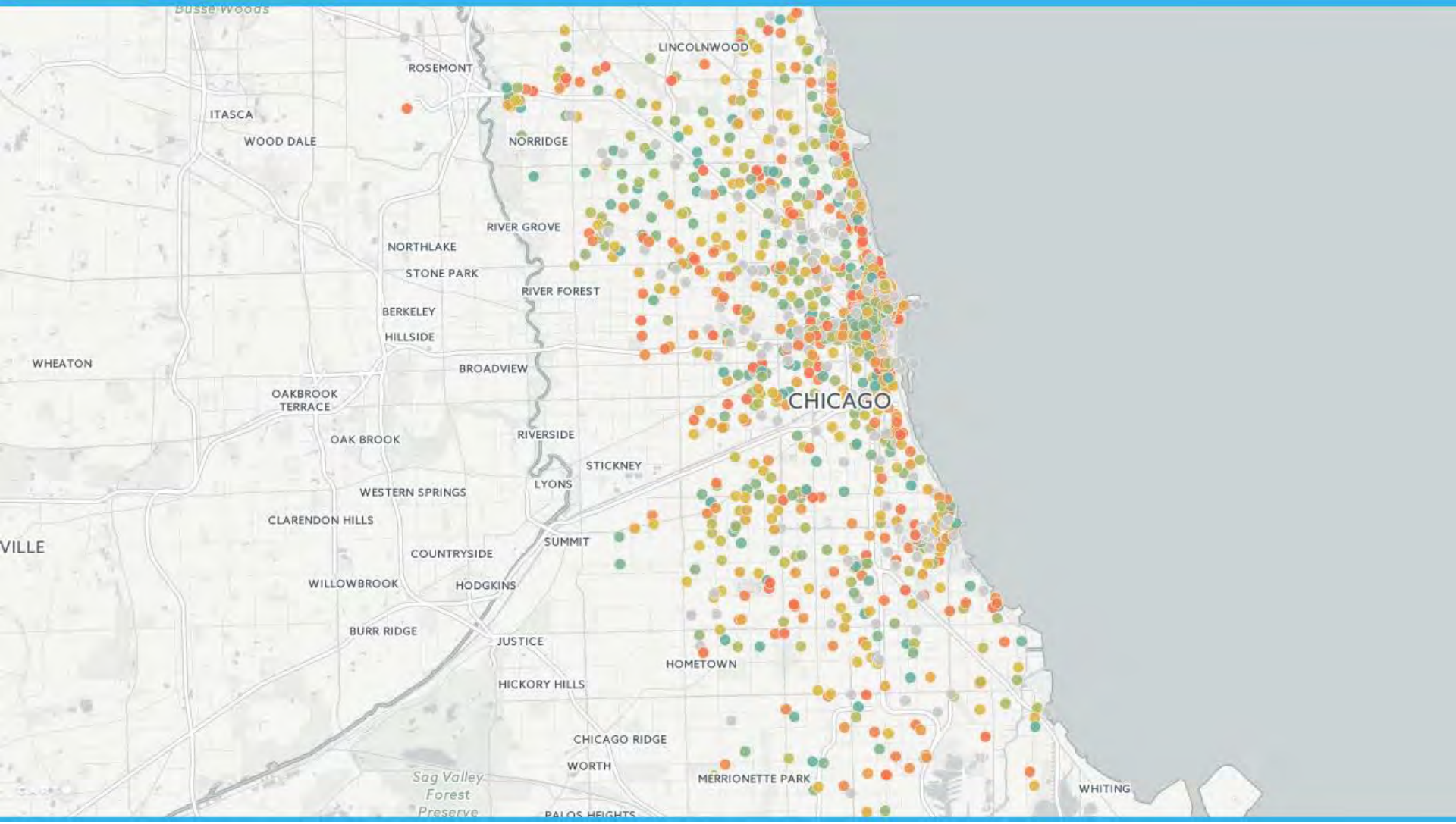
CITY OF CHICAGO ENERGY BENCHMARKING

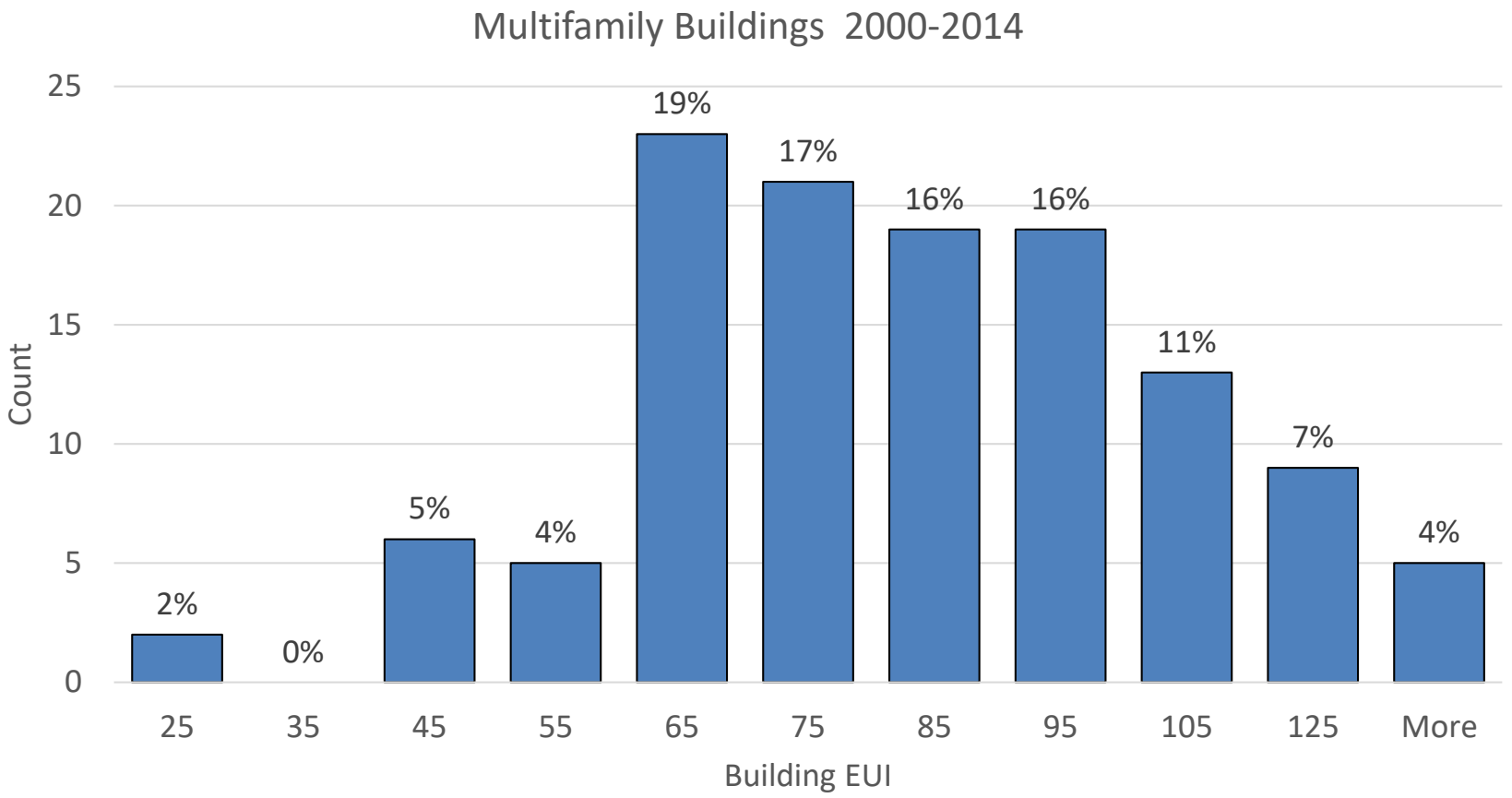




BENCHMARKING

Neighborhood | Property Type

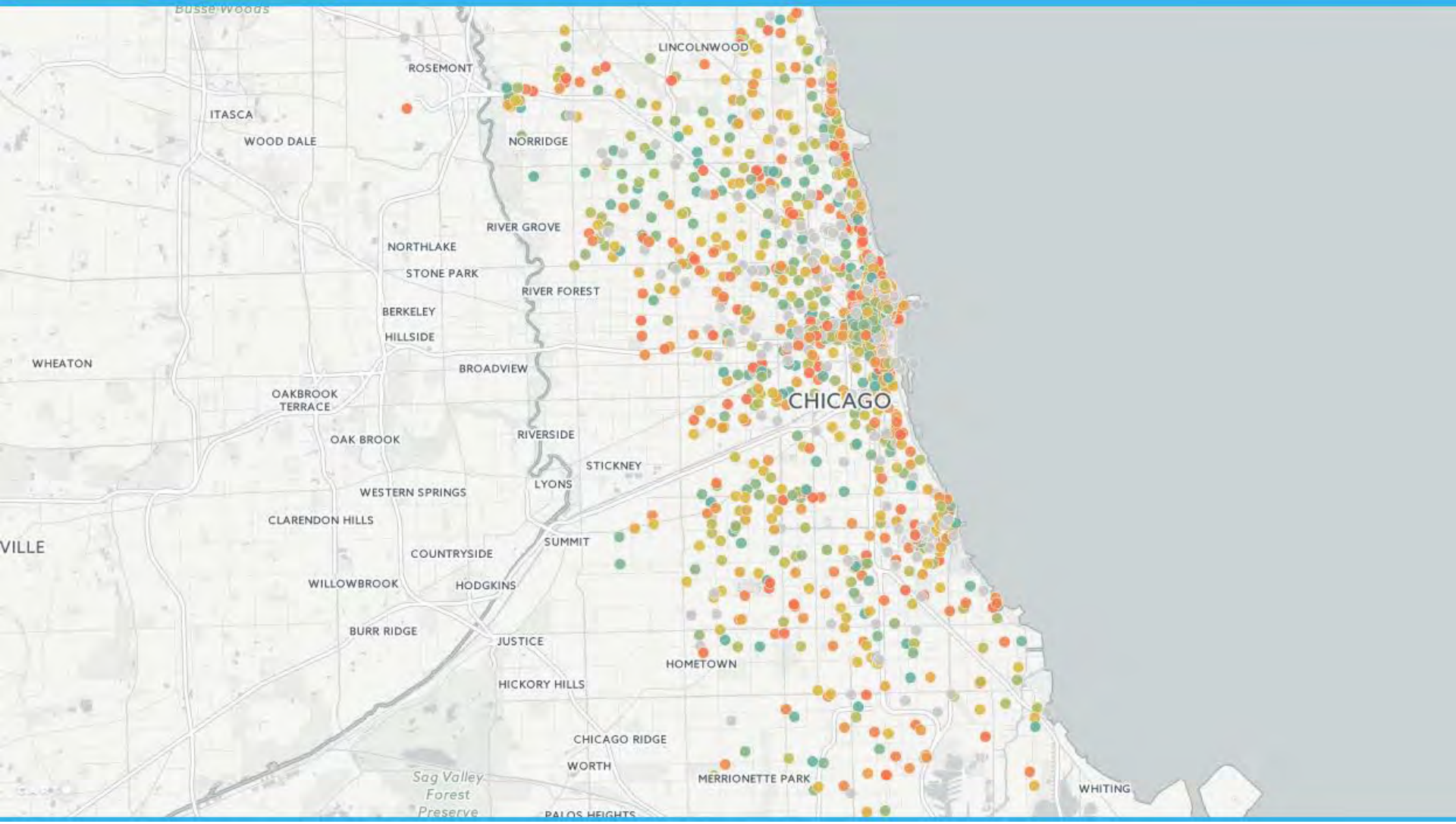




Chicago Median EUI 81

BENCHMARKING

Neighborhood | Property Type



500 Lakeshore - Related
62 EUI

EnV – Lynd Co
56 EUI

Chicago Architecture Today - Flickr

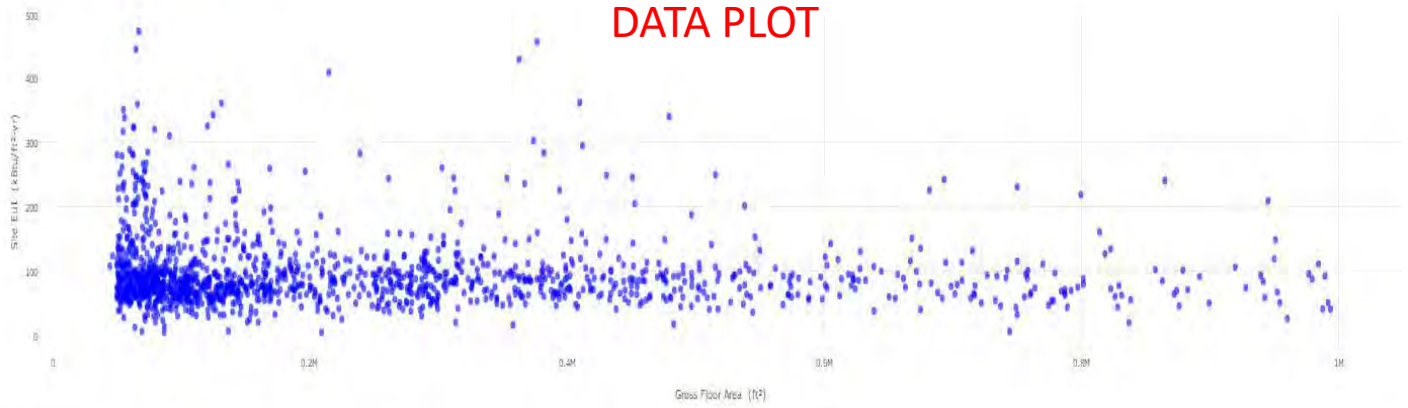
Xavier -Gerding Edlen
48 EUI (design)

Clark st Lofts - AMLI
40 EUI

Google Streetview

seventhwave | ACCELERATE PERFORMANCE

DATA PLOT



INDUSTRY BENCHMARKS

- Code
- AIA 2030
- Energy Star

DATA SELECTION

13 databases

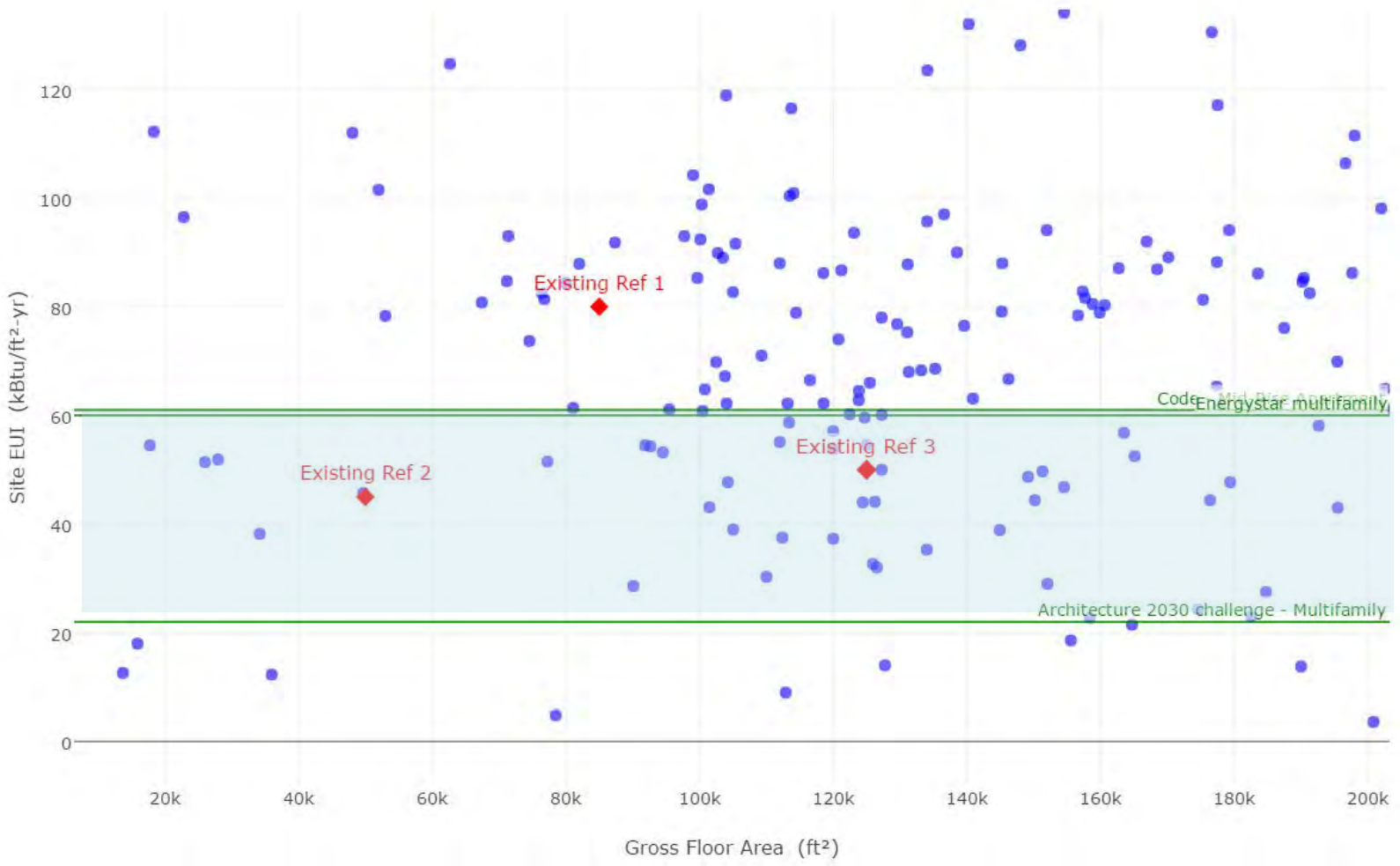
> 25,000 Buildings

BUILDING TYPES

FILTERS

CBECS Nomenclature

Property Address	City/Location	Parent Database	Primary Building Type	Secondary Building Type	Year Built	Number of Buildings	Gross Floor Area [sf]	Energy Star Score	Electricity Use [kBtu]	Natural Gas Use [kBtu]	Site EUI [kBtu/sf]	Source EUI [kBtu/sf]
358 W. De Koven St.	Chicago	2016 Chicago Energy Benchmarking	Education	Adult Education	1970	1	60235	83.1	147.3	88	83.1	147.3
1300 W. Jackson Blvd.	Chicago	2016 Chicago Energy Benchmarking	Education	Adult Education	1970	1	160000	140.6	282.5	146.4	140.6	282.5
401 S. State St.	Chicago	2016 Chicago Energy Benchmarking	Education	Adult Education	1893	1	517424	39.9	101.4	40.9	39.9	101.4
5758 S. Maryland Ave.	Chicago	2016 Chicago Energy Benchmarking	Health Care (Inpatient)	Ambulatory Surgical Center	1956	1	538052	201.1	446.4	201.1	201.1	446.4
1100 N. CLARK ST	Chicago	2016 Chicago Energy Benchmarking	Mercantile (Retail Other Than Mall)	Automobile Dealership	1929	1	131250	67.9	134	70.8	67.9	134
1111 N. CLARK ST	Chicago	2016 Chicago Energy Benchmarking	Mercantile (Retail Other Than Mall)	Automobile Dealership	1910	1	90000	127.7	227.6	133.8	127.7	227.6


Site EUI (kBtu/ft²-yr)
120
100
80
60
40
20
0
Existing Ref 1
Existing Ref 2
Existing Ref 3
Energystar multifamily
Architecture 2030 challenge - Multifamily
20k
40k
60k
80k
100k
120k
140k
160k
180k
200k
Gross Floor Area (ft²)

RFP and contract language

PROJECT GOAL LIST: Project goals help design teams prioritize their focus on the MEP and building performance design. Goals are categorized in three main sections:

Mission critical goals—required by contract and critical to success

Highly desirable goals—not required by contract and have influence on the recommended design

If possible goals—influence recommended design and are considered highly beneficial if included in the solution

MISSION CRITICAL

- Maximum energy target of 65 KBTU/gsf annually; lower is preferred
- LEED NC Silver Certification
- Superior occupant comfort
- EnergyStar certified building

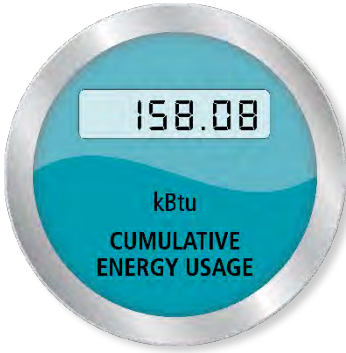
HIGHLY DESIRABLE

- Maximum energy target of 55 kBtu/gsf annually; lower is preferred
- Passive design strategies (i.e. daylighting, passive solar heating, etc.)
- Ease of maintenance
- Visual displays of current energy efficiency
- Exceed LEED NC version 4, Silver Certification

IF POSSIBLE

- Living Building full certification
- Net Zero Energy Design

Track and verify from design through operation



RFP | SD | DD | CD | OPERATIONS | VERIFY PERFORMANCE

Send out RFP

Specify contractual energy requirement

Set a firm price

Confirm energy requirement is met

Design team
+ Contractor
+ Capital project team
+ Operations staff

PERFORMANCE-BASED PROCUREMENT

Thank you

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