

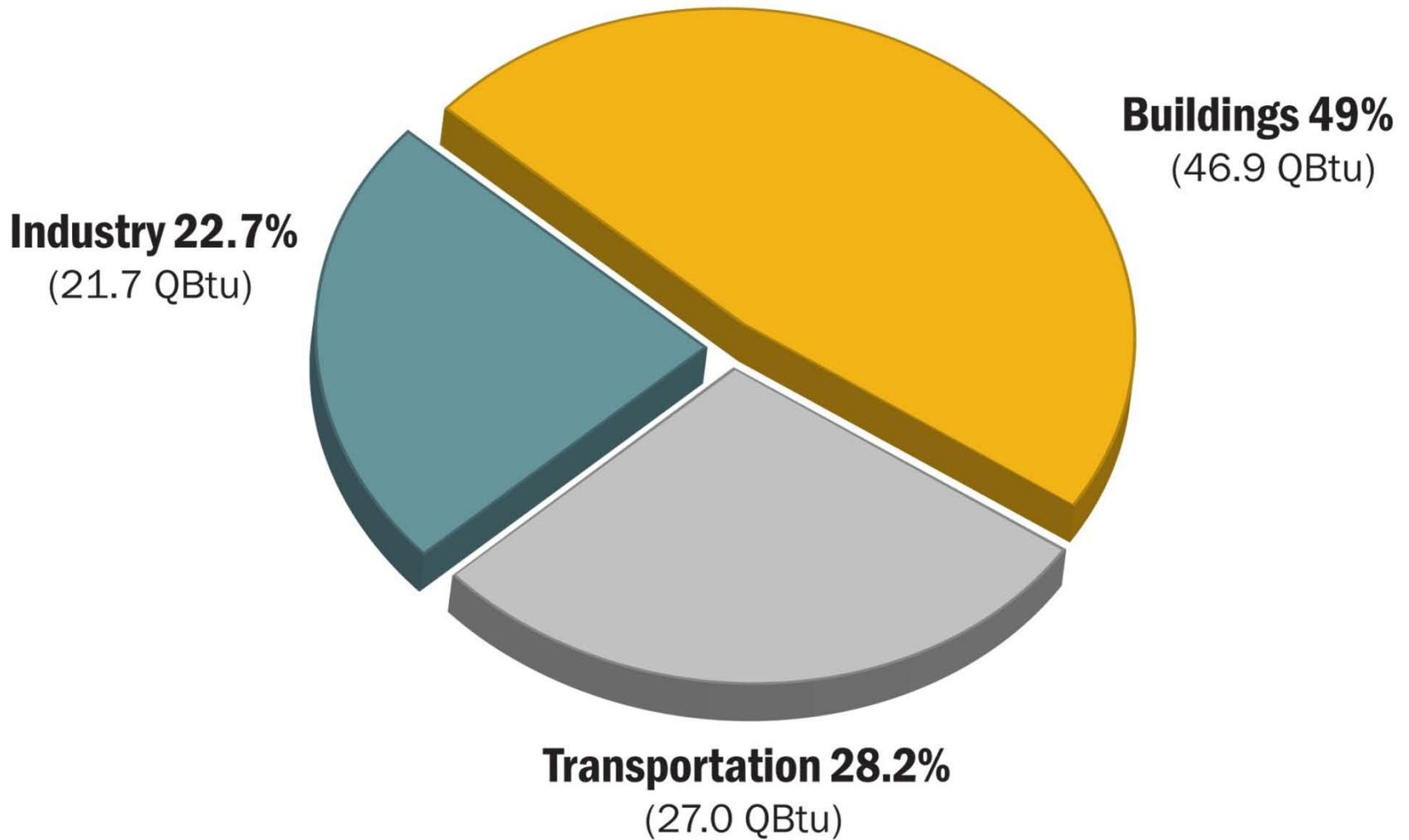


SEATTLE  
2030  
DISTRICT

**A Groundbreaking High-Performance  
Building District in Downtown Seattle**

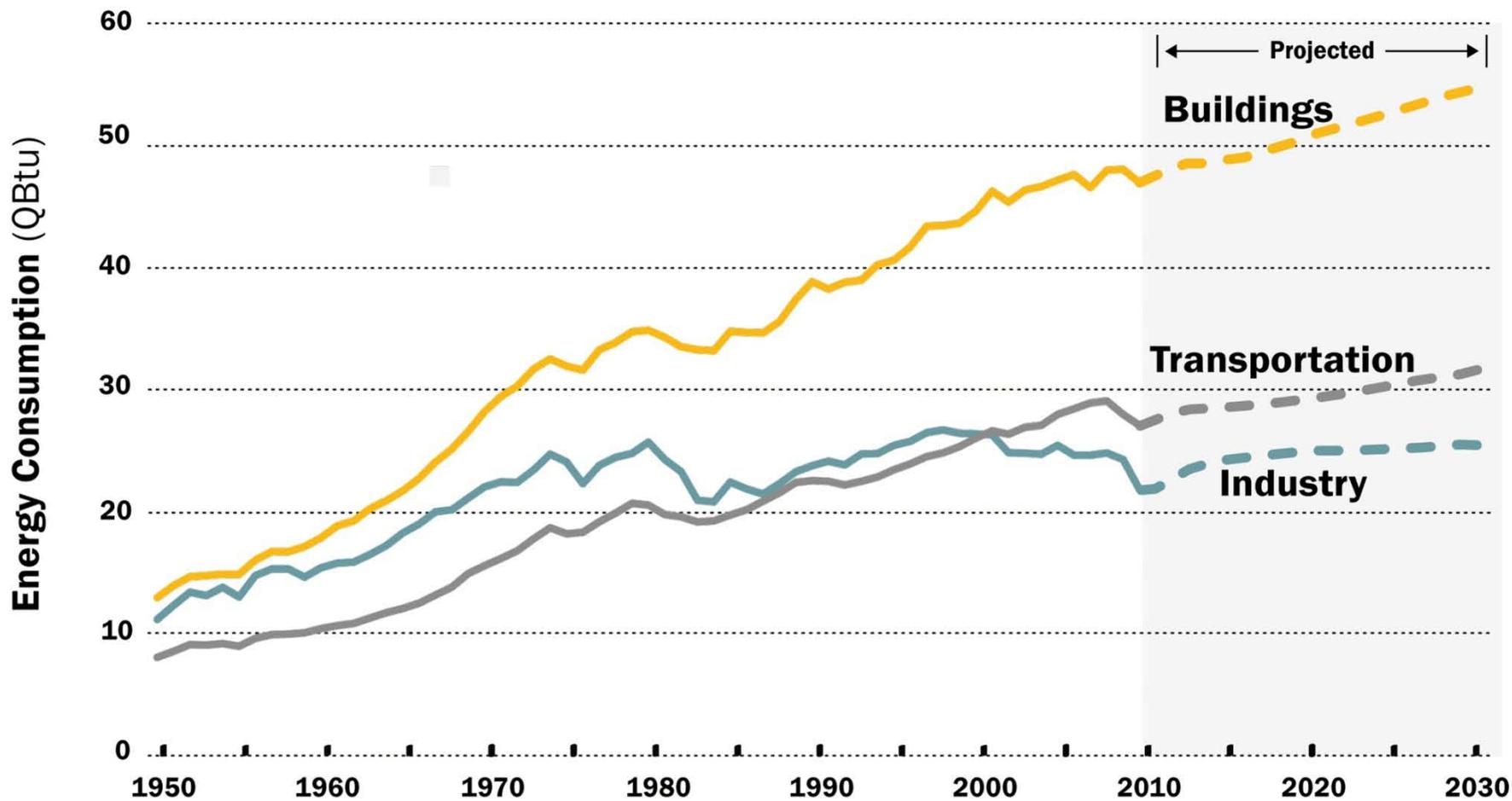
**Brian Geller, Executive Director**





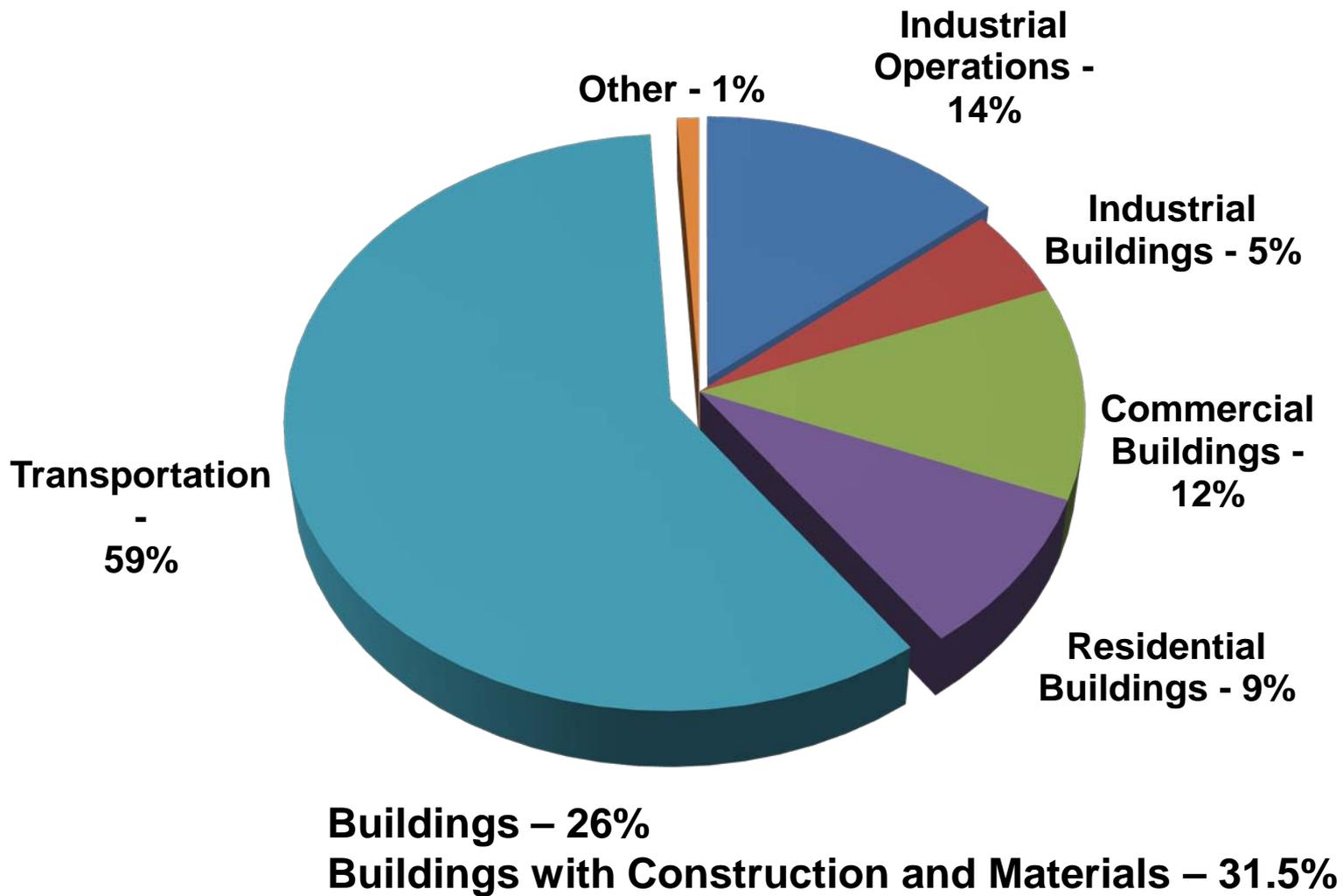
## **U.S. Energy Consumption by Sector**

Source: ©2010 2030, Inc. / Architecture 2030. All Rights Reserved.  
Data Source: U.S. Energy Information Administration (2009).



## U.S. Energy Consumption by Sector (Historic / Projected)

Source: ©2010 2030, Inc. / Architecture 2030. All Rights Reserved.  
 Data Source: U.S. Energy Information Administration.



## Seattle Energy Consumption by Sector

2008 Seattle Community Greenhouse Gas Inventory

## 2010 Citywide CO<sub>2</sub>e Emissions by Sector

Total = 54.3 million metric tons

Buildings = 75%

■ Residential

■ Commercial

■ Industrial

■ Institutional

Transportation = 21%

■ On-road transportation

■ Transit

Wastewater, fugitive = 2%

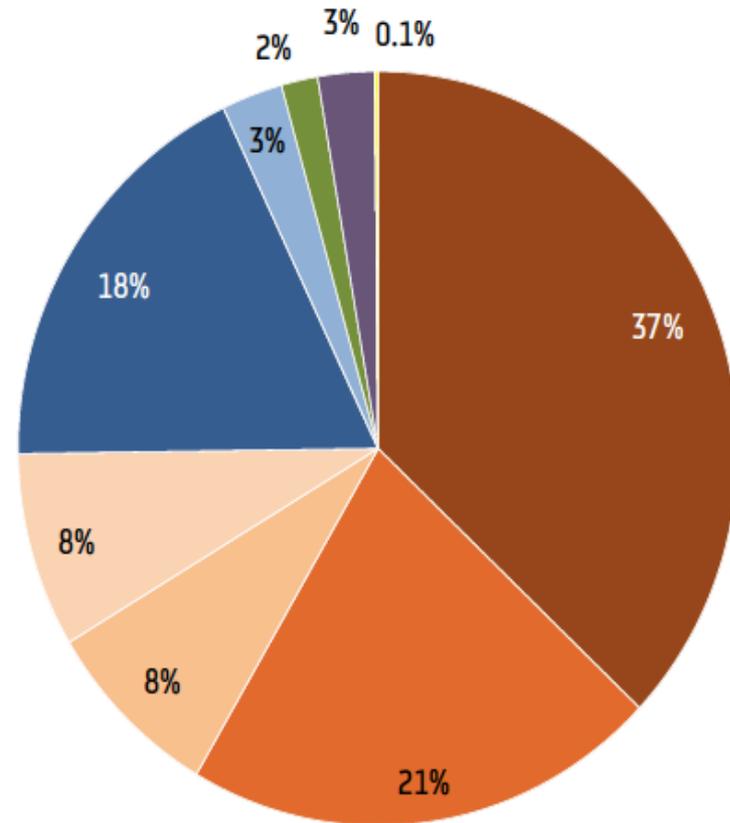
■ Wastewater, fugitive

Solid waste = 3%

■ Solid waste

Streetlights and traffic signals = 0.1%

■ Streetlights and traffic signals



## New York City CO<sub>2</sub> Emissions by Sector

2010 plaNYC Greenhouse Gas Inventory





Central Business District and First Hill Area  
Seattle, Washington

- High Pressure Steam System
- Low Pressure Steam System
- Customer Locations
- Steam Plant Locations







Central Business District and First Hill Area  
Seattle, Washington

- High Pressure Steam System
- Low Pressure Steam System
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Central Business District and First Hill Area  
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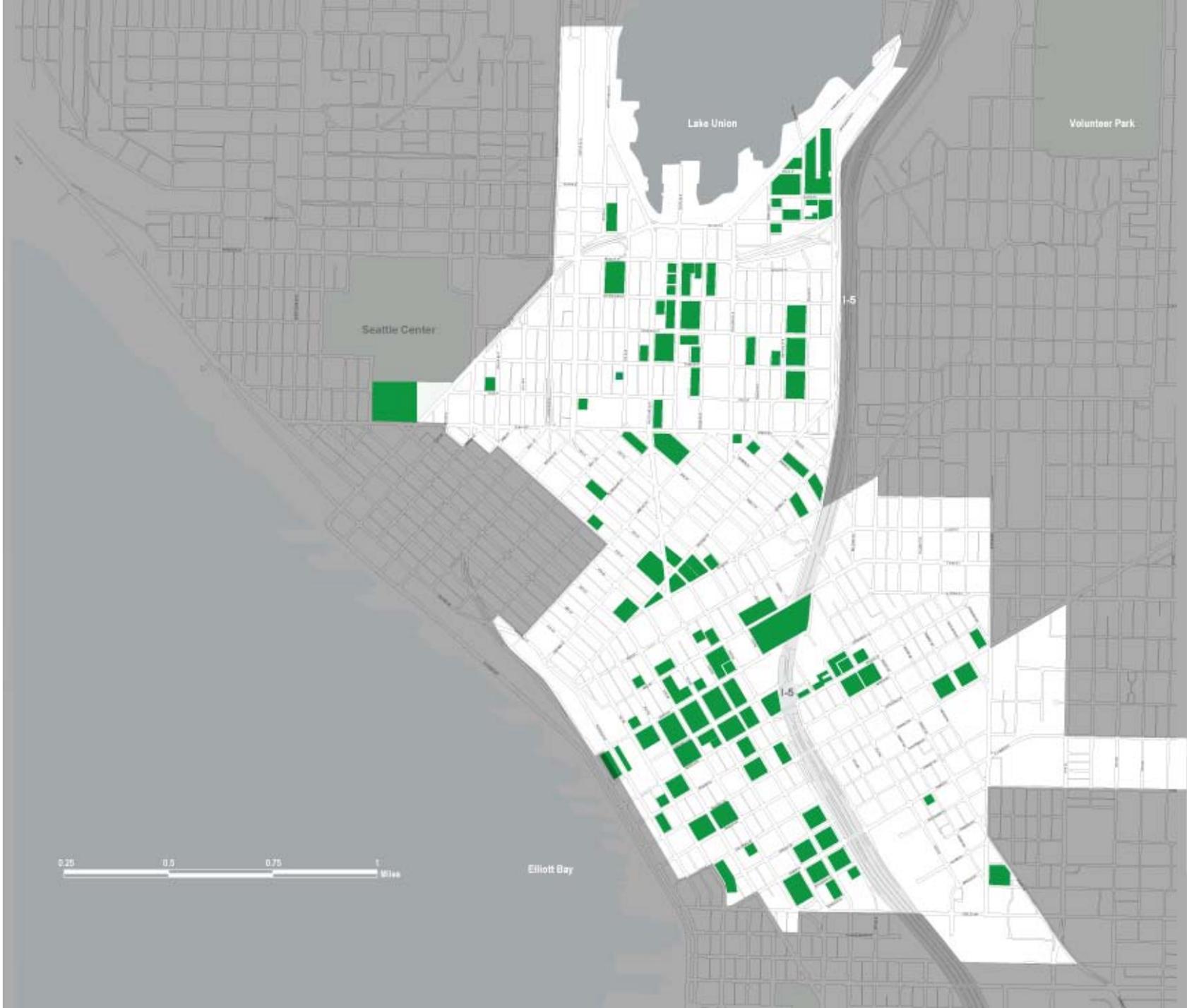
- SEATTLE STEAM CUSTOMERS
- UNICO/UW METRO TRACT
- HINES
- CBRE
- CITY OF SEATTLE
- KING COUNTY
- BEACON CAPITAL
- WRIGHT RUNSTAD
- GVA KIDDER MATHEWS
- CLISE



Central Business District and First Hill Area  
Seattle, Washington

# The first high-performance urban building district





Lake Union

Volunteer Park

Seattle Center

I-5

I-5

Elliott Bay



# The Regulatory Perfect Storm



## State of Washington

- Legislation SB 5854  
Energy Code reductions to 70% by 2030



## City of Seattle

- Ordinance CB 116731  
Public energy disclosure

Other cities subject to Disclosure: New York,  
San Francisco, Washington DC, Austin

# ENERGY PERFORMANCE STATEMENT

2008

One Washington Plaza  
1234 New Hampshire Avenue, NW  
Washington, DC

Building ID: DC00001

## U.S. Environmental Protection Agency's Energy Performance Scale

The energy use of this building has been measured using the U.S. Environmental Protection Agency's (EPA's) Energy Performance Scale of 1-100, with 1 being the least energy efficient and 100 the most energy efficient. For more information, visit [energystar.gov/buildingrating](http://energystar.gov/buildingrating).

This building's score

22

1 50 100

Least Efficient Average Most Efficient

This building uses 342 kBtu per square foot per year.\*

\*Based on source energy intensity

Buildings with a score of 75 or higher may qualify for EPA's ENERGY STAR®.

I certify that the information contained within this statement is accurate and in accordance with U.S. Environmental Protection Agency's measurement standards, found at [energystar.gov](http://energystar.gov).

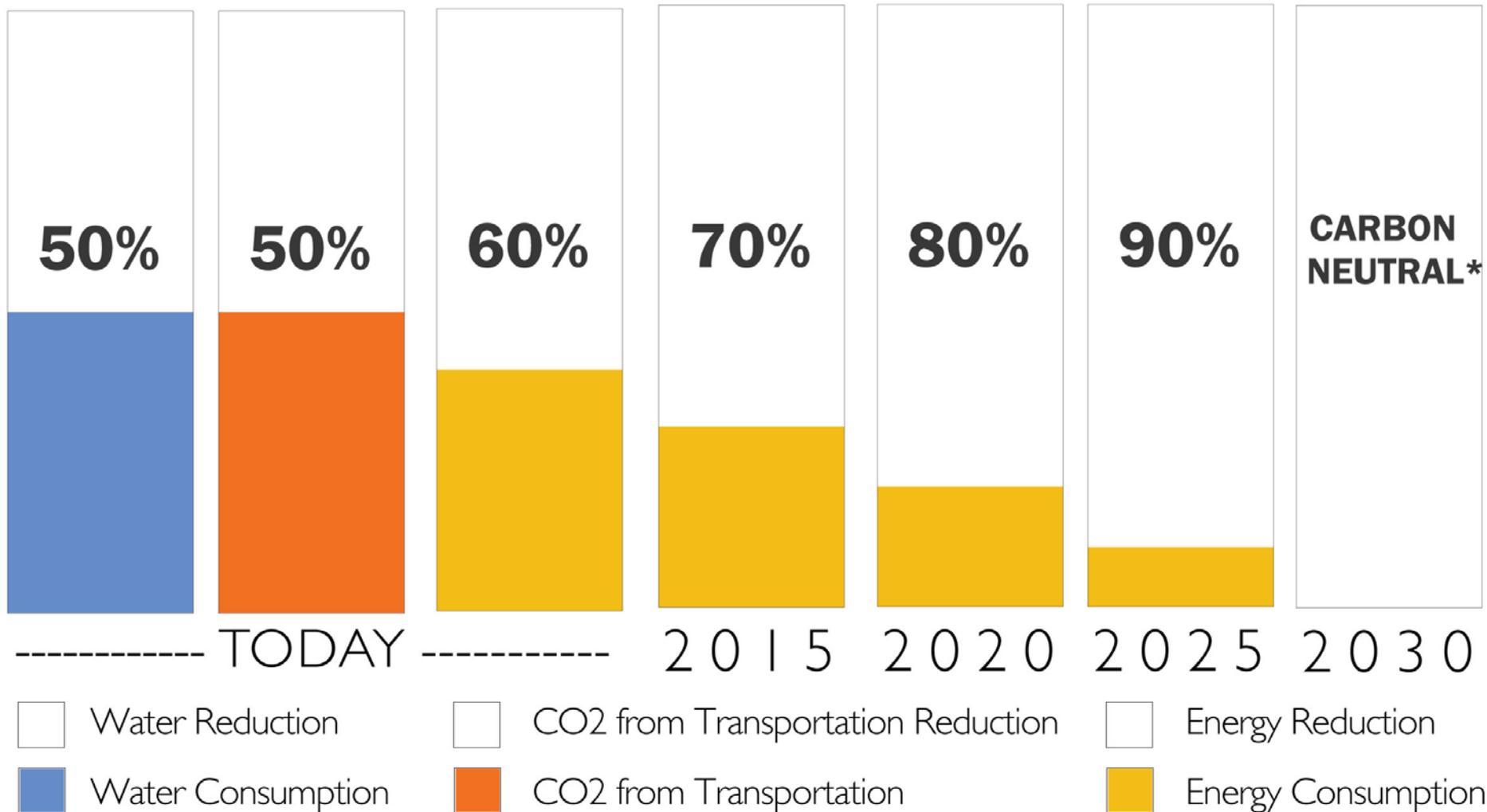
Date of certification



In compliance with the District of Columbia Clean and Affordable Energy Act of 2008  
For more information, visit [www.dc.gov](http://www.dc.gov)



# Performance Targets

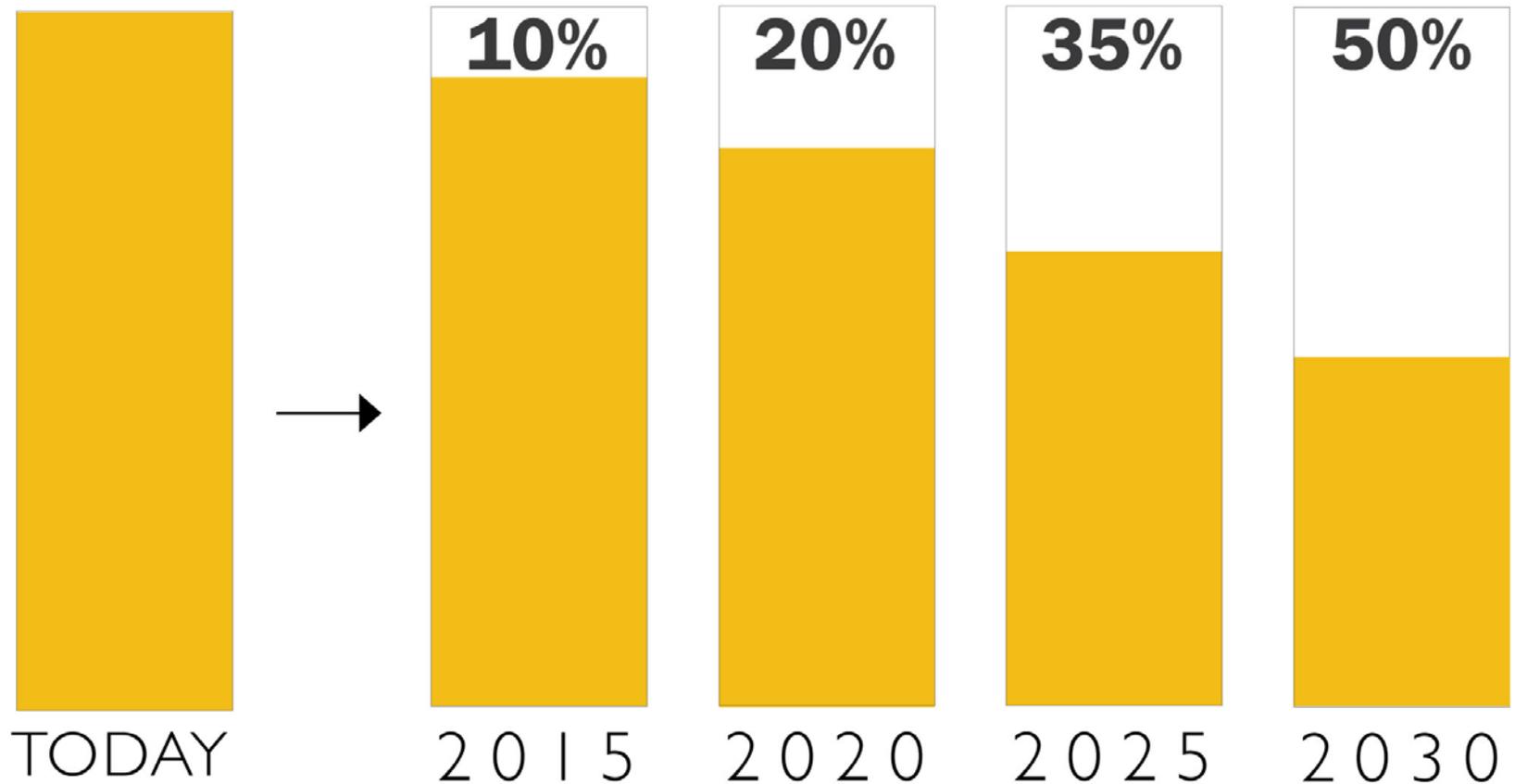


## The 2030 Challenge for Planning: New Buildings & Major Renovations

Source: © 2011 2030, Inc. / Architecture 2030. All Rights Reserved.

*\*Using no fossil fuel GHG-emitting energy to operate.*

# Performance Targets



□ Energy, Water, and CO2 from Transportation Reduction

■ Energy, Water, and CO2 from Transportation Consumption

## The 2030 Challenge for Planning: Existing Buildings

Source: © 2011 | 2030, Inc. / Architecture 2030. All Rights Reserved.

# Performance Targets - Energy

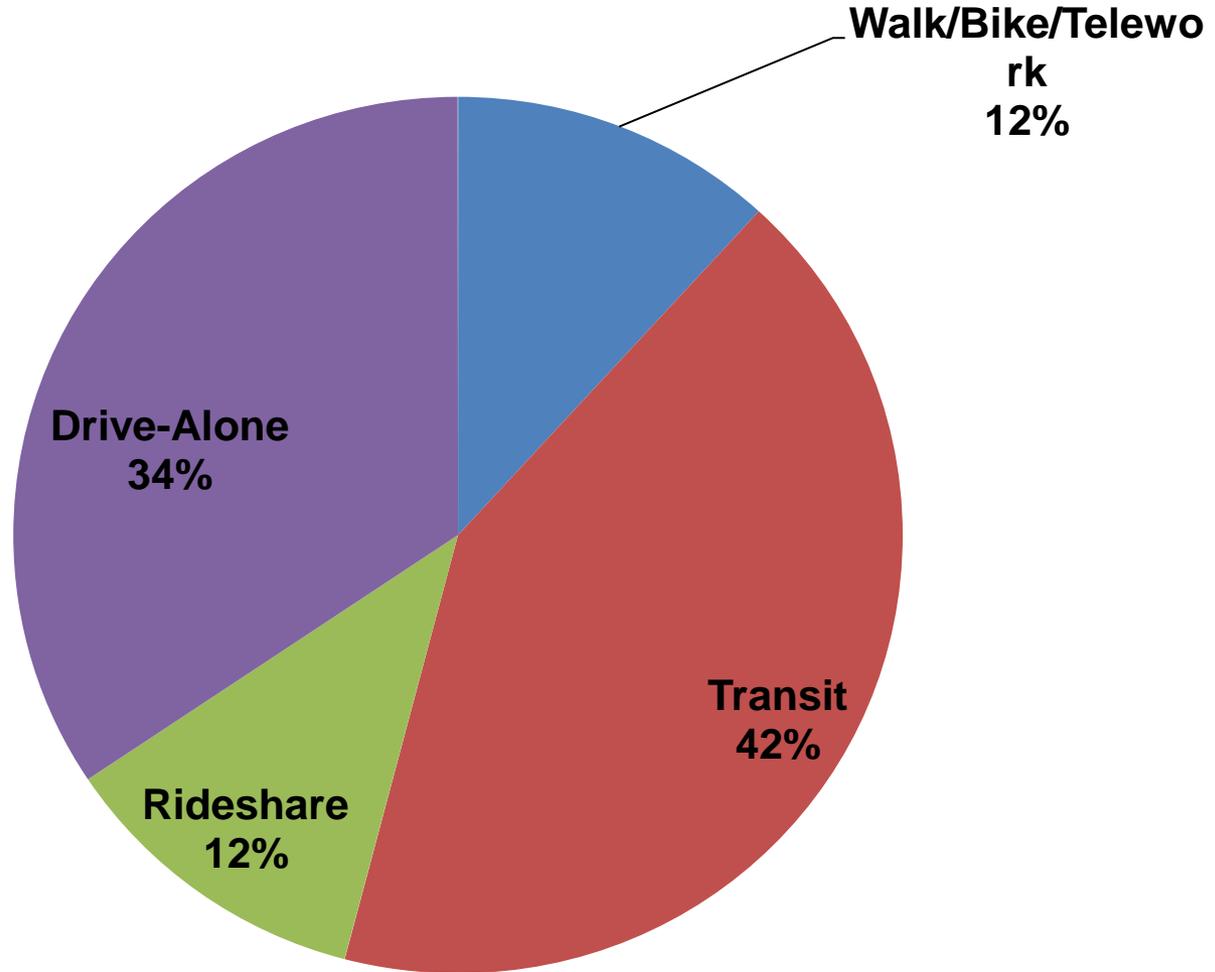
| BUILDING TYPE DESCRIPTION                        | # OF BUILDINGS | FLOORSPACE (SF)   | AVG ENERGY USE (kBtu/sf/yr) |
|--|----------------|-------------------|-----------------------------|
| Bank/Financial Institution                       | 4              | 36,501            | 96                          |
| Convenience store (with or without gas station)  | 4              | 6,572             | 241                         |
| Courthouse                                       | 2              | 642,902           | 100                         |
| Entertainment/culture                            | 13             | 1,808,711         | 95                          |
| Fast food  | 4              | 17,098            | 534                         |
| Hospital   | 6              | 2,956,960         | 314                         |
| Hotel  | 37             | 4,533,136         | 74                          |
| House of Worship                                 | 12             | 298,289           | 27                          |
| Industrial                                       | 13             | 308,062           | 200                         |
| K-12   | 15             | 837,411           | 73                          |
| Library  | 1              | 412,000           | 104                         |
| Medical Office                                   | 31             | 3,873,403         | 91                          |
| Multifamily Housing                              | 196            | 8,134,107         | 40                          |
| Nursing/Assisted Living                          | 5              | 615,388           | 124                         |
| Office   | 265            | 23,567,325        | 77                          |
| Other  | 7              | 268,661           | 104                         |
| Residence Hall/Dormitory                         | 1              | 45,288            | 81                          |
| Restaurant/cafeteria                             | 9              | 116,945           | 302                         |
| Retail (non-mall stores, vehicle dealerships)    | 8              | 178,096           | 82                          |
| Retail Store                                     | 84             | 2,480,167         | 70                          |
| Service (vehicle repair/service, postal service) | 20             | 270,658           | 77                          |
| Social/meeting                                   | 7              | 213,540           | 52                          |
| Supermarket/Grocery Stores                       | 2              | 12,338            | 287                         |
| Warehouse  | 40             | 806,604           | 23                          |
| <b>Seattle 2030 District</b>                     | <b>786</b>     | <b>52,440,162</b> |                             |

# Performance Targets - Water

| <b>BUILDING TYPE</b>                             | <b>BASELINE GAL/SF/YR</b> |
|--|---------------------------|
| Restaurant                                       | 125.99                    |
| Hotel  | 50.07                     |
| MultiFamily                                      | 41.14                     |
| Social/meeting                                   | 36.95                     |
| Industrial                                       | 32.53                     |
| Nursing/Assisted Living                          | 30.11                     |
| SF Residential                                   | 27.63                     |
| Hospital   | 26.12                     |
| Retail   | 24.77                     |
| Medical Office                                   | 21.00                     |
| Office   | 14.21                     |
| Warehouse  | 13.00                     |
| Entertainment/culture                            | 12.88                     |
| Service (vehicle repair/service, postal service) | 11.74                     |
| House of Worship                                 | 11.31                     |
| K-12 School                                      | 11.09                     |

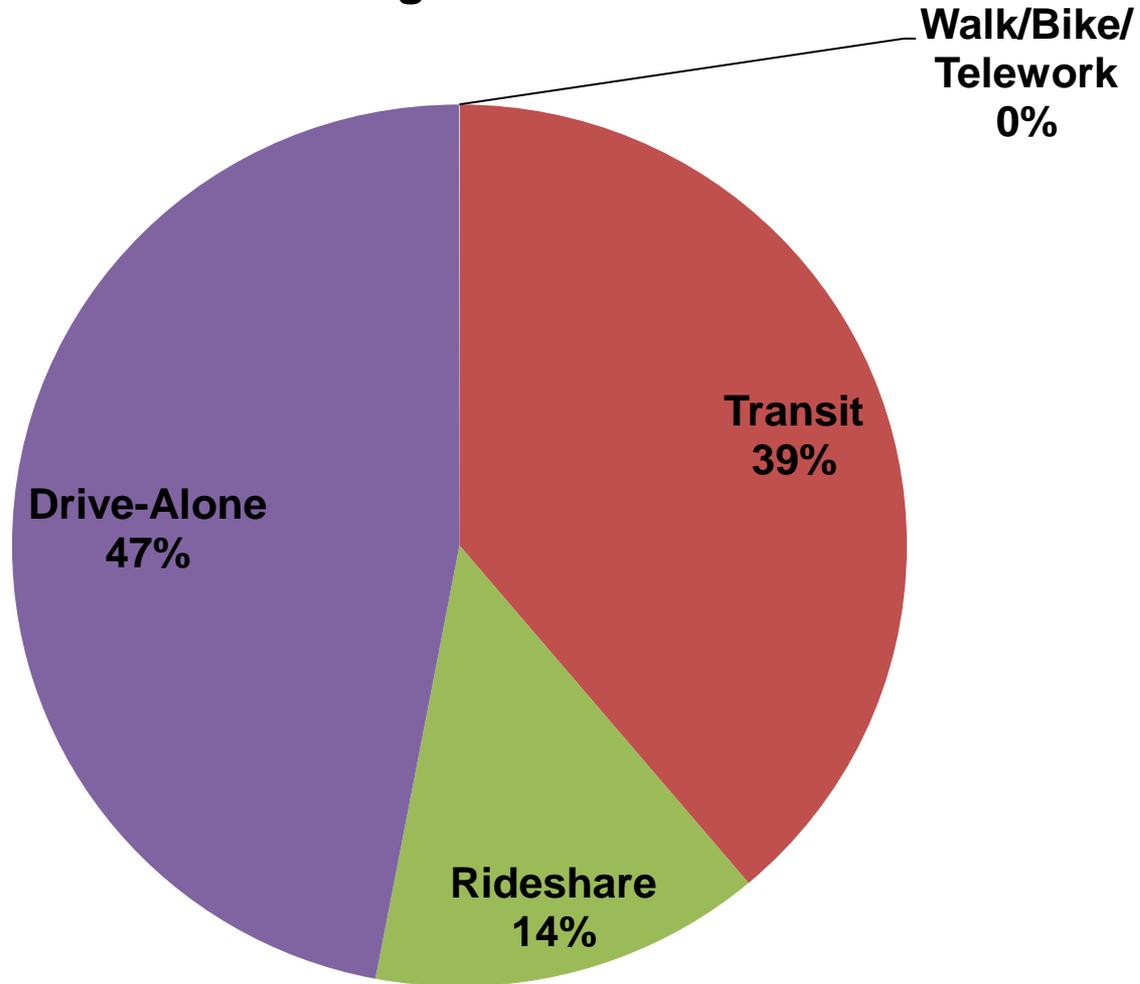
# Performance Targets – Transportation CO2

District Average Mode Split



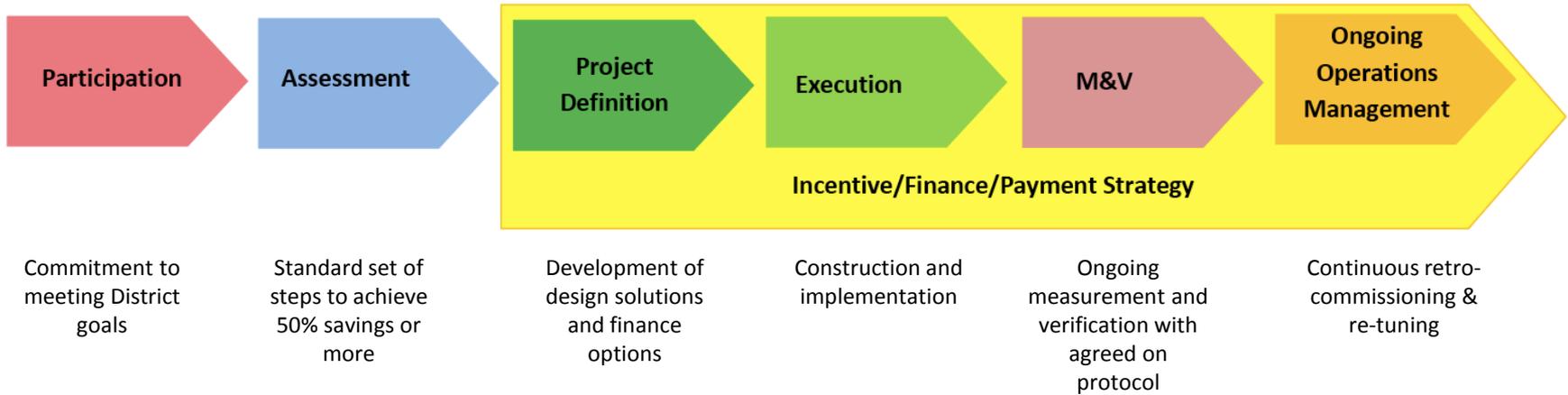
# Performance Targets – Transportation CO2

District Average CO2 Breakdown



# Roadmap to 2030 / Existing Buildings

## Seattle 2030 District Energy Efficiency Contracting Services



## Training and Education



## Preferred Purchasing



# New Construction

## Streamlined Permitting Services

## Case Studies

# Roadmap to 2030 / Existing Buildings

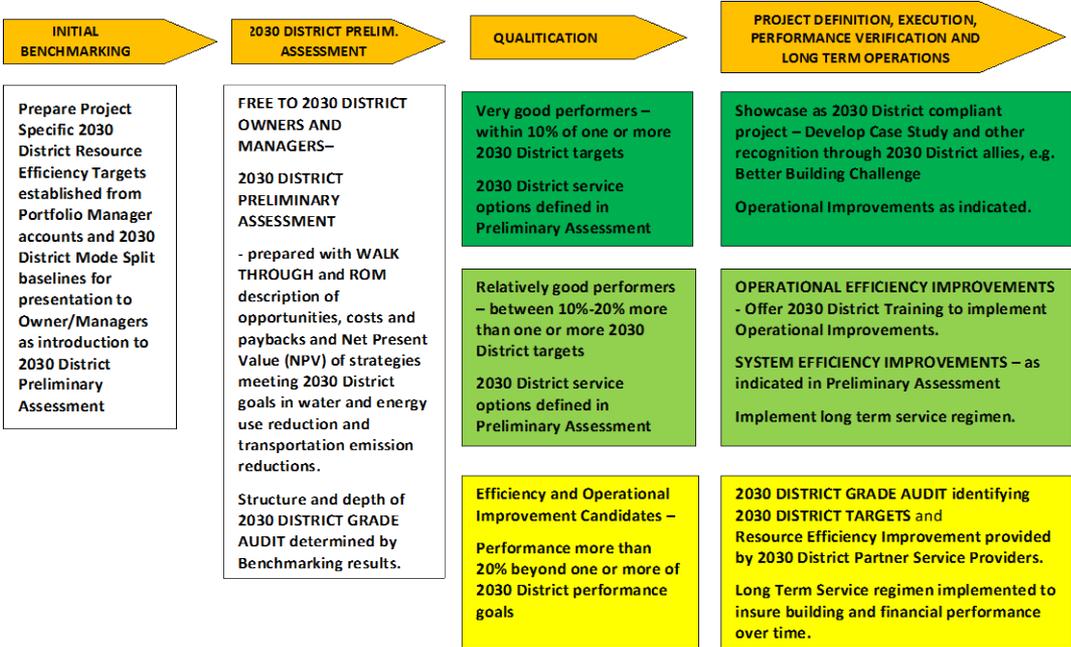


## ASSESS – TARGET – DELIVER

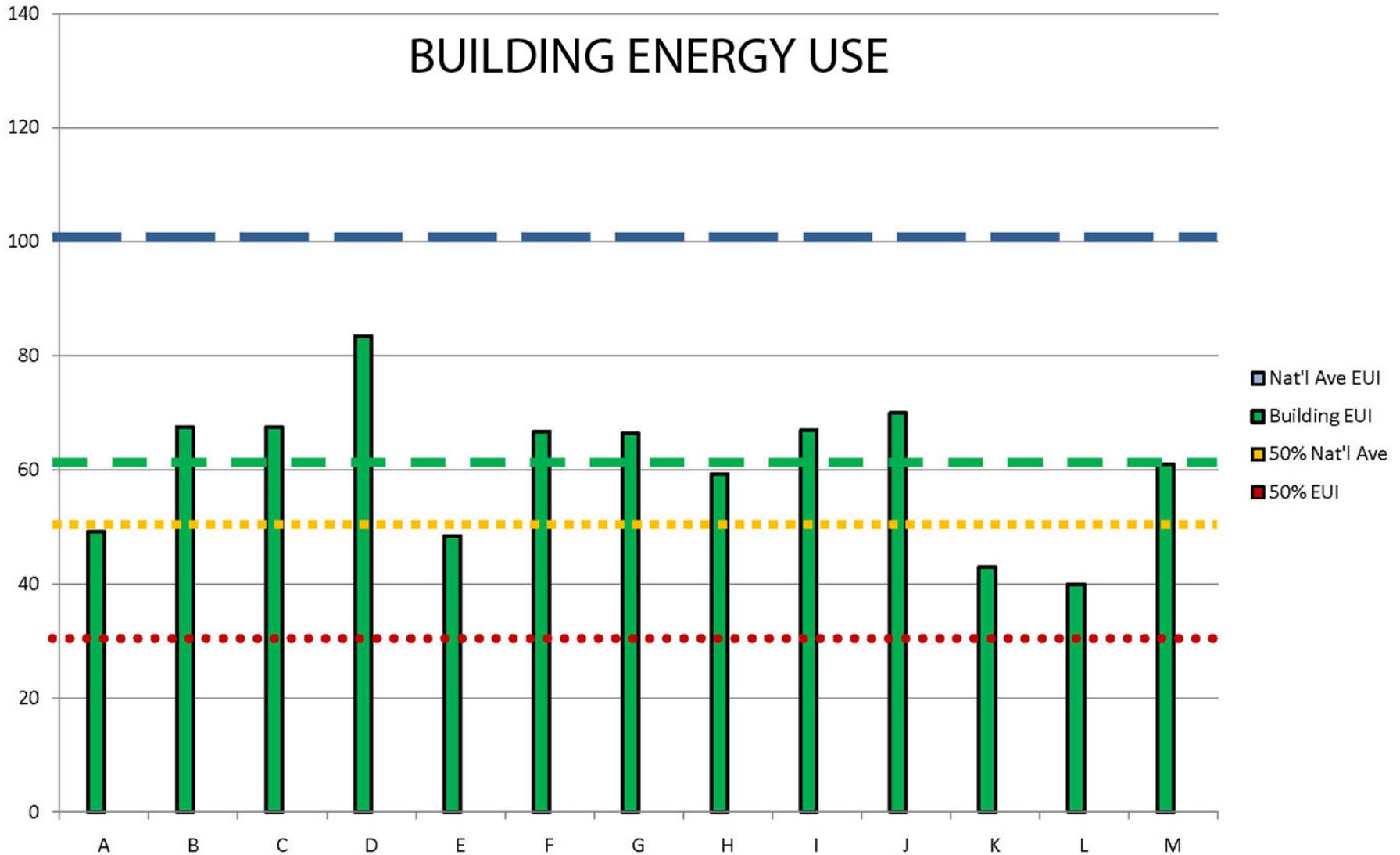
Seattle 2030 District Member Services

In becoming members, Founding Member Property Owners and Managers have committed to meeting the goals of the 2030 District and will expect **Initial Benchmarking** and the **2030 District Preliminary Assessment** to describe what will be required to meet the goals of the District for their building(s), whether individually or as a portfolio.

The intention of the **2030 District Grade Audit** is that 2030 District Service Providers will employ the auditing process of their choice, and will be expected to describe through that audit what is required to meet the **2030 District Target** to meet the expectation of Founding Members. This avoids the dilemma of only selecting the “low hanging fruit” which often makes longer payback strategies prohibitively expensive on their own.



# Seattle 2030 District Profile



# Case Studies

## Existing Buildings



520 Pike Tower



1201 3rd Avenue



Seattle US Courthouse



Dexter Horton Building



Jackson Federal Building

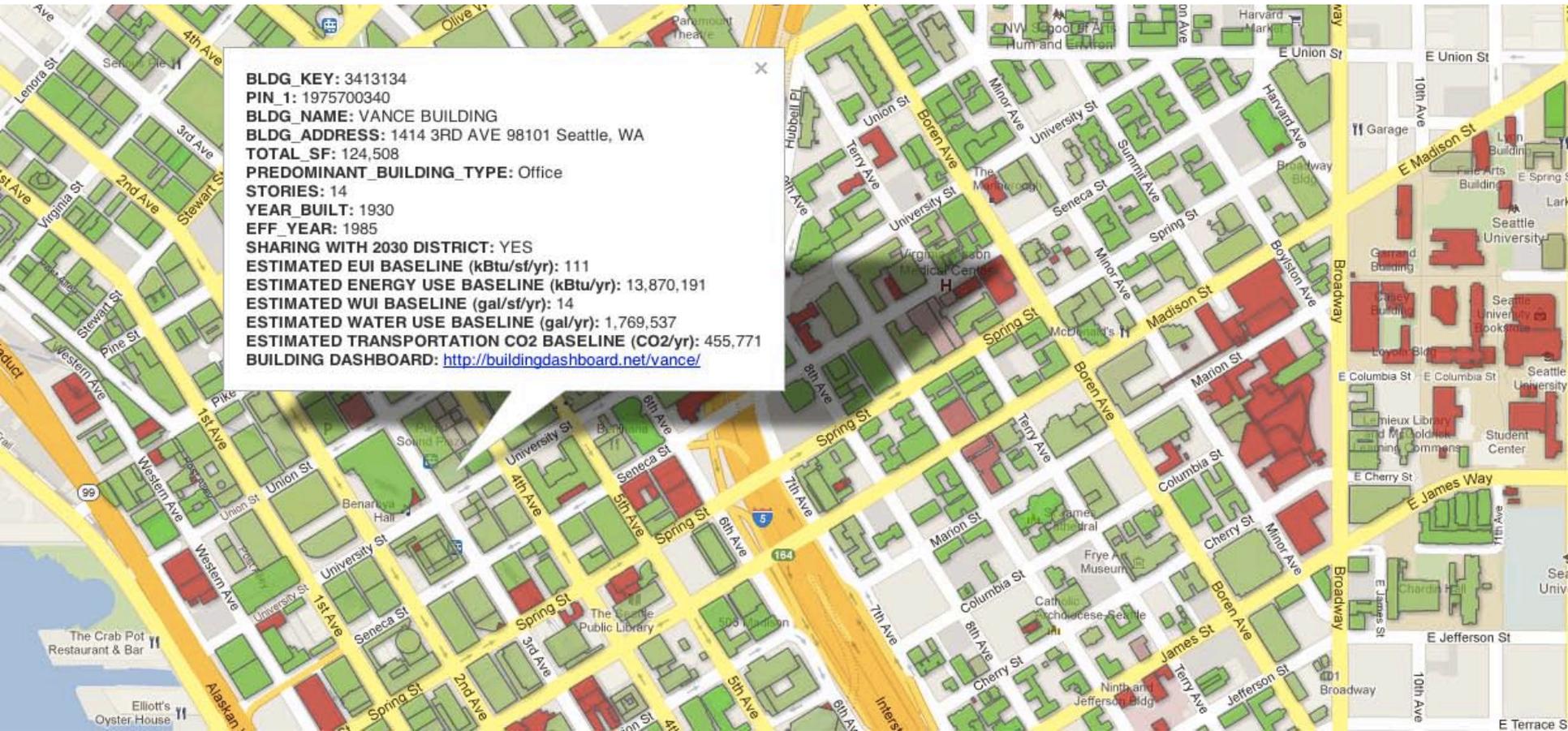


Russel Investments Center

# Seattle 2030 District Data



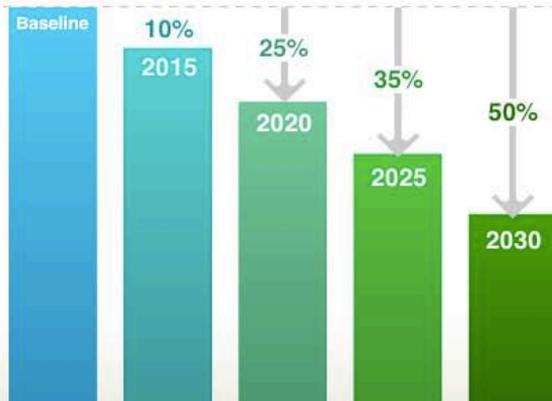
# Seattle 2030 District Data





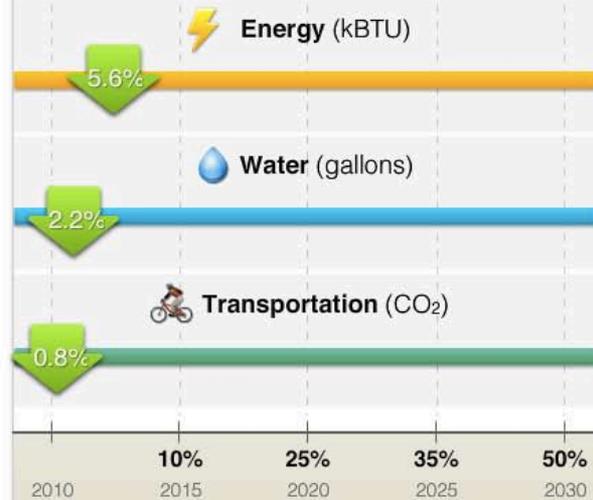
Homepage

### 2030 District Goals



Goal: To reduce energy and water consumption and CO<sub>2</sub> from transportation by 50% by 2030

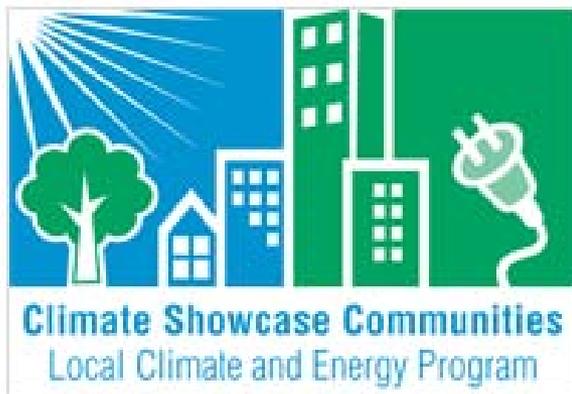
### 2030 Progress So Far



#### Seattle 2030 District - Additional Information

[The Seattle 2030 District Website](#)

[About The Seattle 2030 District](#)



## 1. Summary Information Page

a. Project Title

### Activating the Seattle 2030 District A Public-Private Alliance to Achieve Carbon Reduction

b. Applicant Information

**City of Seattle**

**City of Seattle—Department of Planning and Development**

P.O. Box 34019, Seattle, Washington 98124-4019

Contact: Peter Dobrovolny, Green Building Specialist

phone (206) 615-1094 | fax (206) 233-7883 | e-mail [peter.dobrovolny@seattle.gov](mailto:peter.dobrovolny@seattle.gov)

c. Funding Requested

**\$454,292**

d. Total Project Cost

**\$683,874**

See budget summary and budget narrative for funding from other sources, cost share, and in-kind contributions from project partners. As indicated in the attached letters of support, in-kind contributions of staff participation from the 2030 District members total more than **\$225,000**, significantly exceeding the budgeted contributions of \$66,275.



COMBATING CLIMATE CHANGE: CLINTON CLIMATE INITIATIVE

# Better Buildings Challenge: Place-Based Ally Agreement

The **Better Buildings Challenge** is a Presidential leadership initiative which calls on chief executive officers, university presidents, and state and local leaders to create American jobs through building energy efficiency. Challenge partners will make 'public commitments to action' and implement their plans to achieve lasting energy savings, improve our environment, and reduce our dependency on foreign oil. They will receive technical and implementation support from the Department of Energy in collaboration with other federal agencies and the William J. Clinton Foundation's Clinton Climate Initiative. BBC Place-Based Allies are asked to support the BBC by advocating for energy efficiency and transparently demonstrating their approaches and accomplishments.

### Place-Based Ally Agrees to:

✓ Commit

### The Department of Energy (DOE) Agrees to:

✓ Assist

# 2030 District Replication:



**2<sup>nd</sup> New City: Pittsburg, PA**

**More cities to come!**



SEATTLE  
2030  
DISTRICT

**A Groundbreaking high-performance  
building district in Downtown Seattle**

