



P O R T L A N D
2030
D I S T R I C T[®]

**Groundbreaking High-
Performance Building
District**

Portland 2030 District – 10.26.17

Agenda/Discussion

- ① What is a 2030 District?
- ① 2030 Districts Network
- ① Resource Reduction Metrics
- ① District Success
- ① Commitments/Benefits
- ① Network Programs/Affiliations
- ① Portland 2030 District Status



Consumption
Reduction



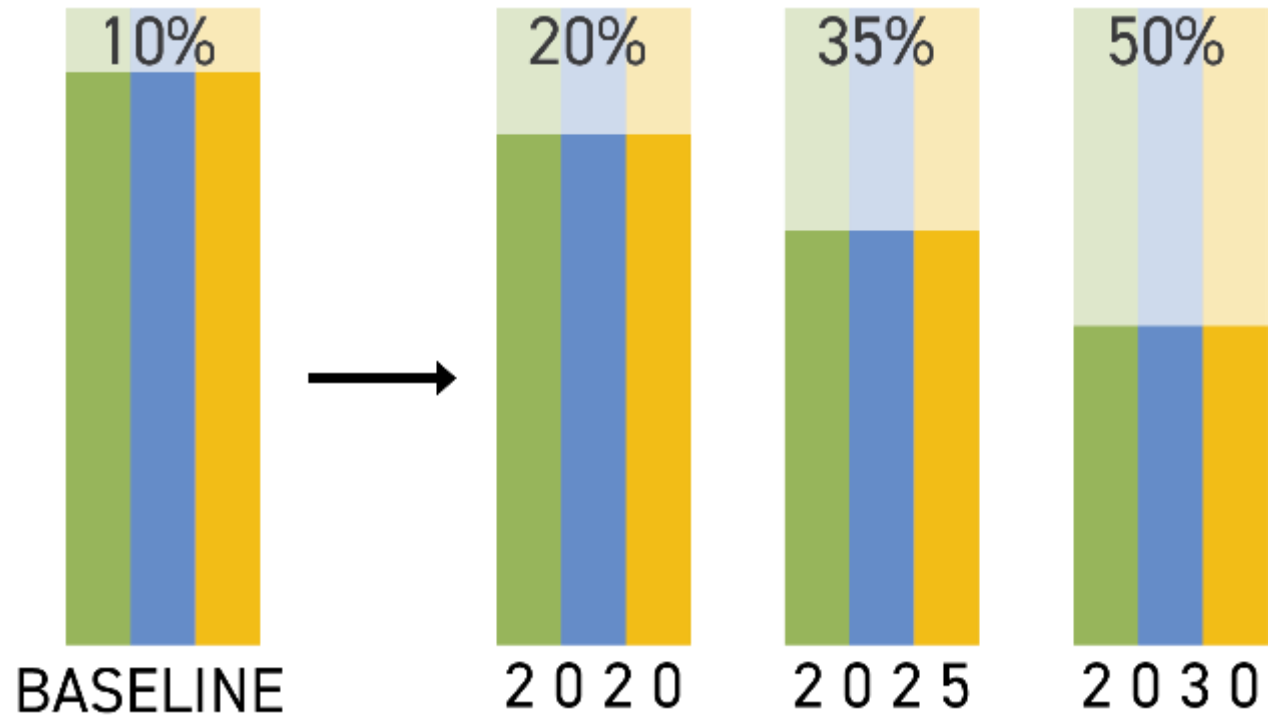
Energy



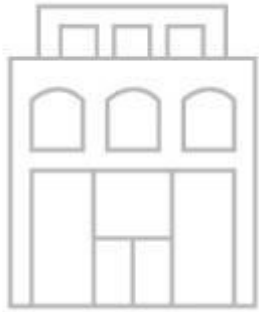
Water



CO₂ from
Transportation



A Successful 2030 District is a PRIVATE-PUBLIC PARTNERSHIP, comprised of:

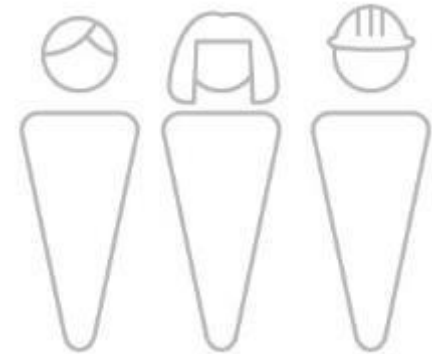


**PROPERTY OWNERS,
MANAGERS,
DEVELOPERS,
INSTITUTIONAL
INVESTORS**

within a District boundary



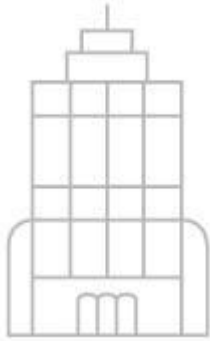
**SERVICES
STAKEHOLDERS**
providing related
services within a
District boundary



**COMMUNITY
STAKEHOLDERS**
representing either
non-profit
organizations or
local government



2030 Districts commit to reducing



**BUILDING
ENERGY USE**



**WATER
CONSUMPTION**

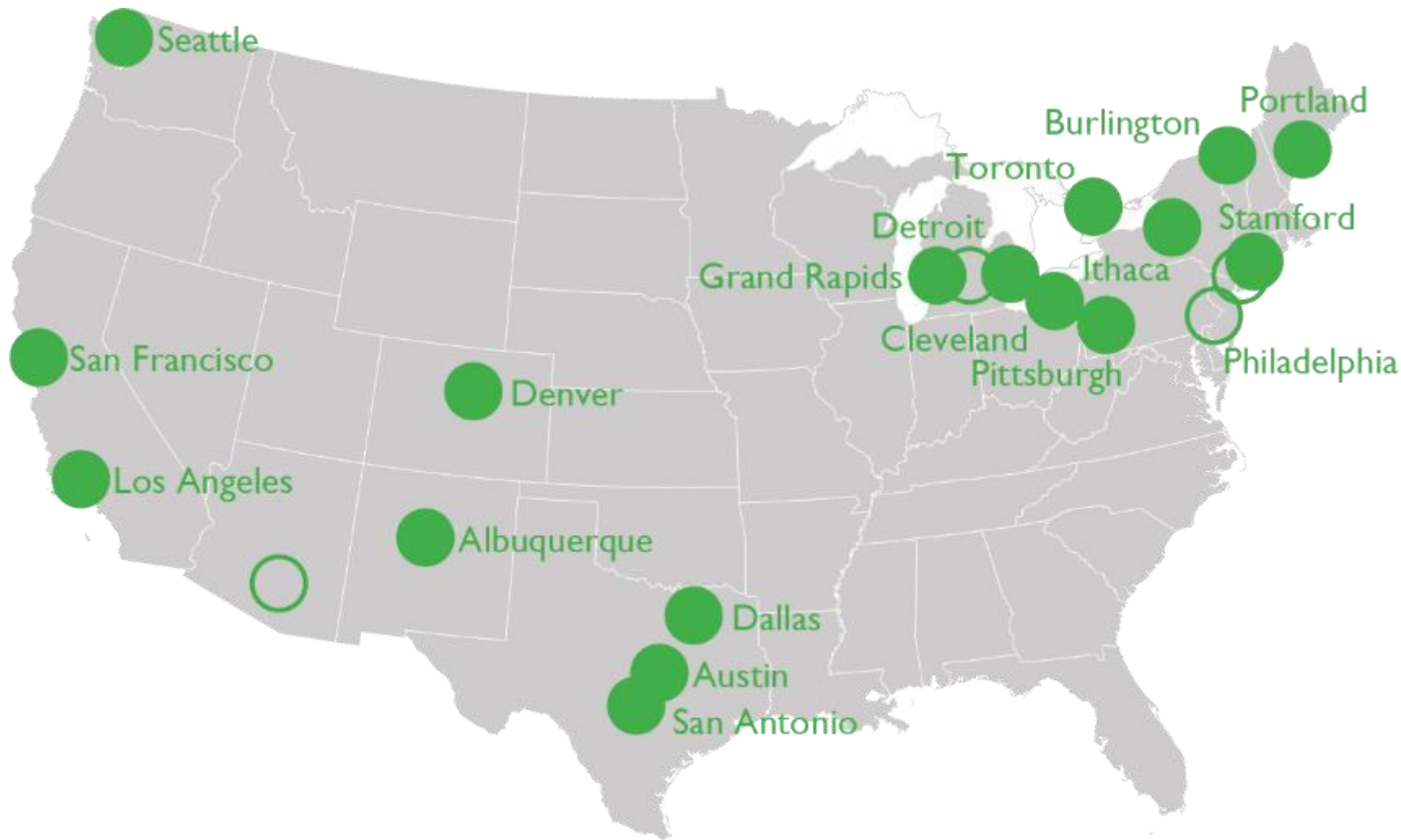


**TRANSPORTATION
GHG EMISSIONS**

**50% BY 2030 for EXISTING BUILDINGS
CARBON NEUTRAL BY 2030 FOR NEW CONSTRUCTION**

Unique private/public partnerships

- ① Property owners, managers and developers
- ① Local governments
- ① Business and community stakeholders
- ① Private Sector Led/Public Sector Supported
- ① Voluntary
- ① Common Mission and Goals
- ① Connected to Market Realities



● Established 2030 District ○ Emerging 2030 District



Established Districts

- 18 Districts
- 1400 Buildings
- 390 Property Members
- 223 Professional Stakeholders
- 168 Community Stakeholders

Emerging Districts

- Ann Arbor
- NYC
- San Diego
- Tucson

Energy Consumption Baselines



STATEMENT OF ENERGY PERFORMANCE Seattle 2030 District Office Building

Building ID: 0000000

For 12-month Period Ending: April 1, 2011¹

Date SEP becomes ineligible: N/A

Date SEP Generated: May 07, 2011

Facility

Seattle 2030 District Office Building
2030 District
Seattle, WA 98104



Year Built: 1987

Gross Floor Area (ft²): 110,000

Energy Performance Rating² (1-100) 80

Site Energy Use Summary³

Electricity - Grid Purchase(kBtu)	5,539,625
Natural Gas - (kBtu) ⁴	2,374,125
Total Energy (kBtu)	7,913,750

Energy Intensity⁵

Site (kBtu/ft ² /yr)	72
Source (kBtu/ft ² /yr)	191

Emissions (based on site energy use)

Greenhouse Gas Emissions (MtCO ₂ e/year)	762
---	-----

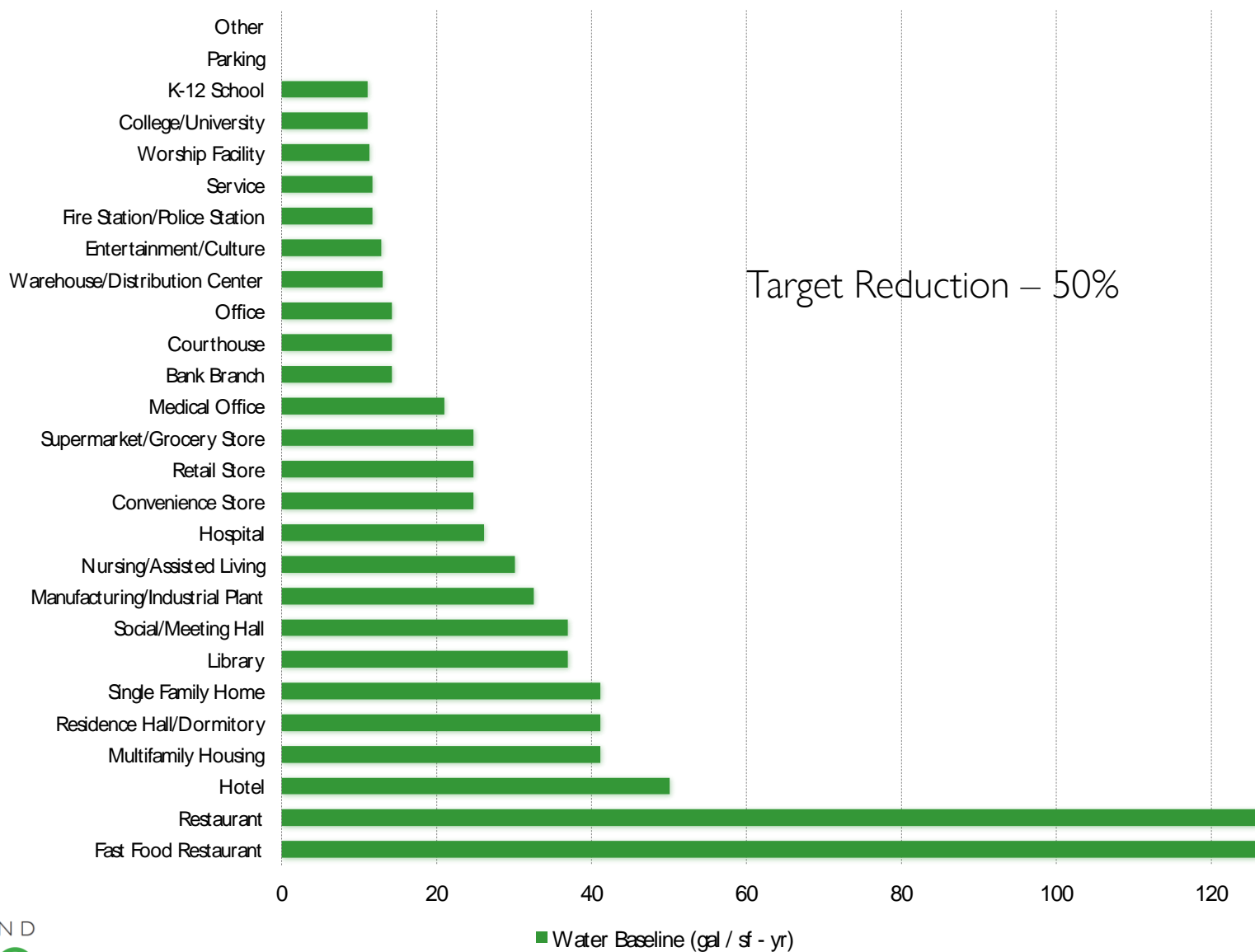
Electric Distribution Utility

Seattle City Light

National Average Comparison

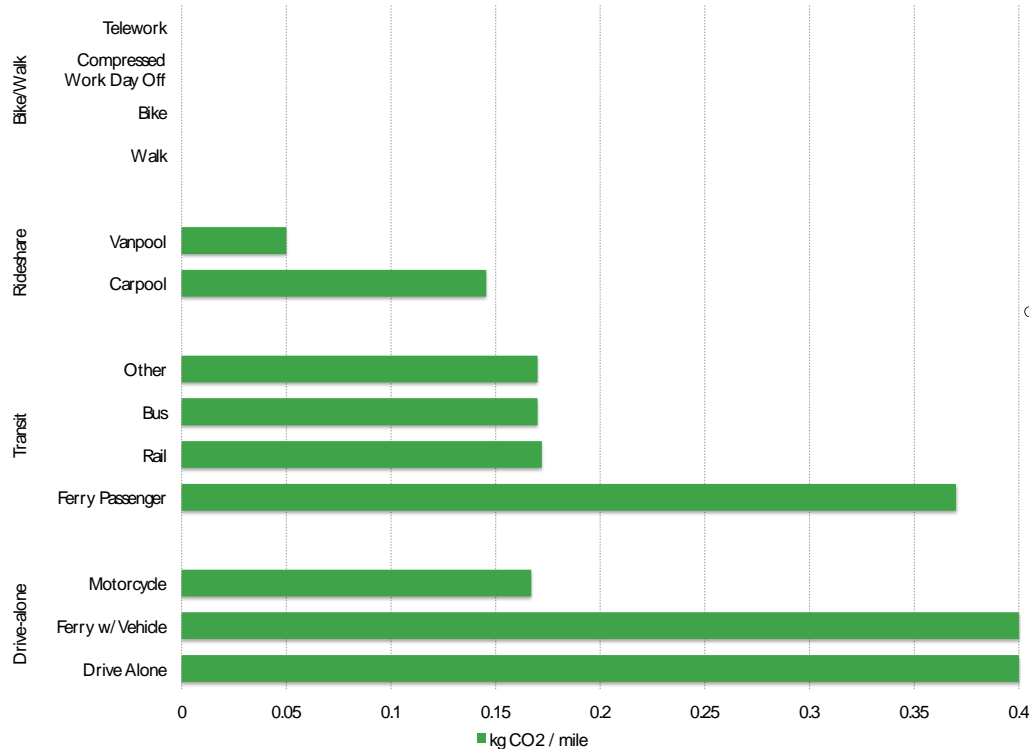
National Average Site EUI	103
National Average Source EUI	274
% Difference from National Average Source EUI	-30%
Building Type	Office

Water Consumption Baselines

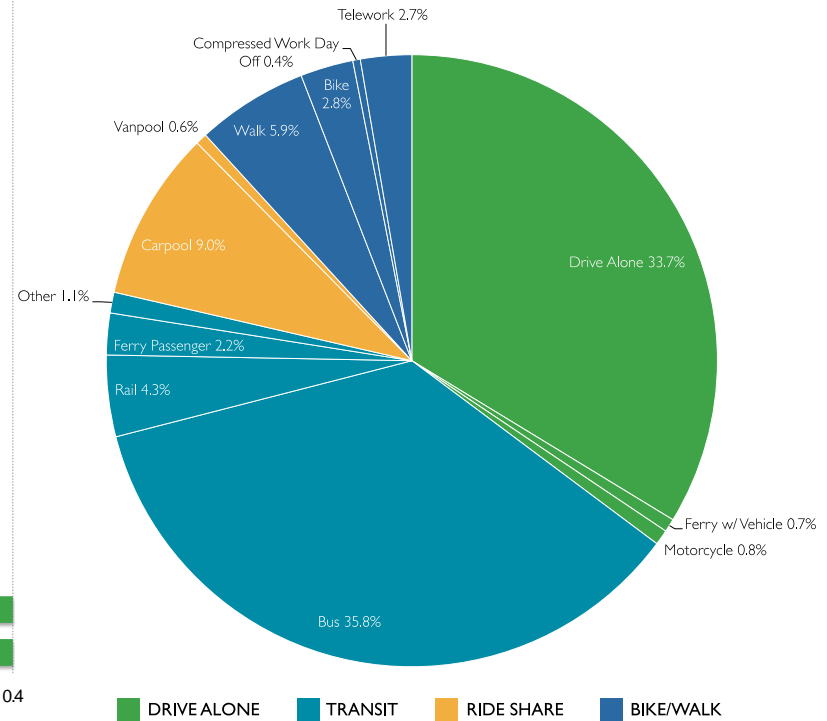


Commuter Transportation Baselines

Transportation Baselines: kg CO₂ / Mile

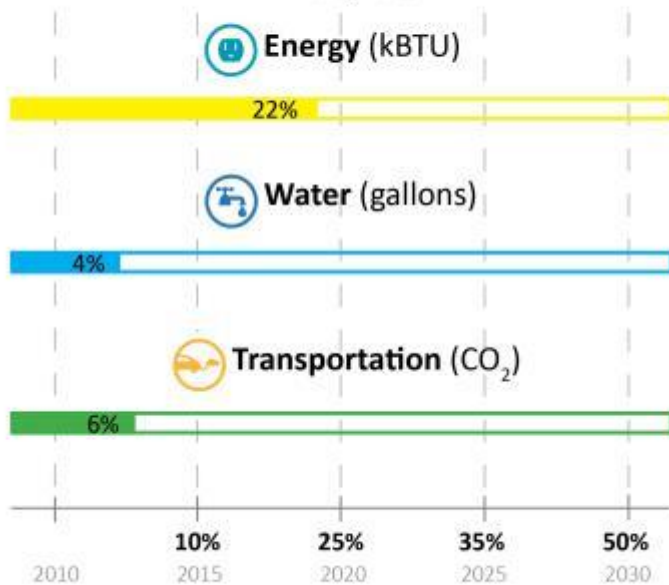


Mode Split

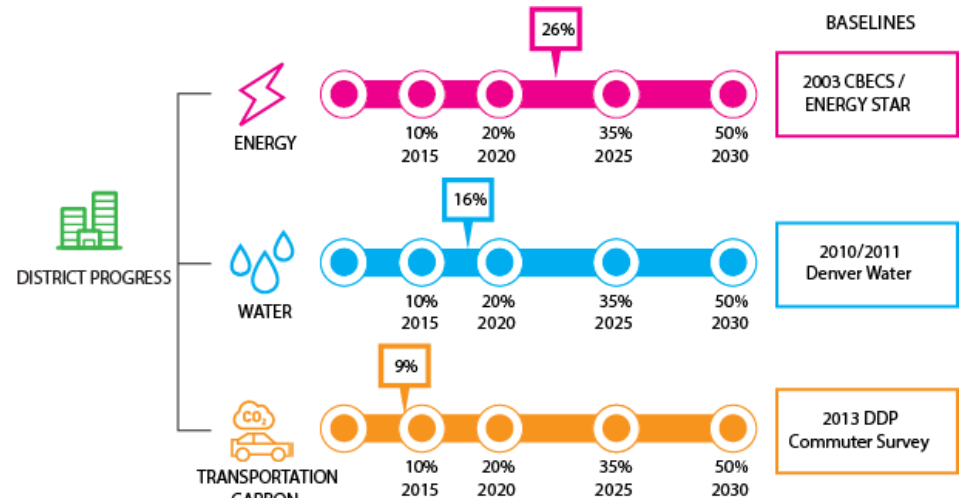


Seattle 2014

2030 District Progress So Far
Shared Buildings Reductions
July 2015



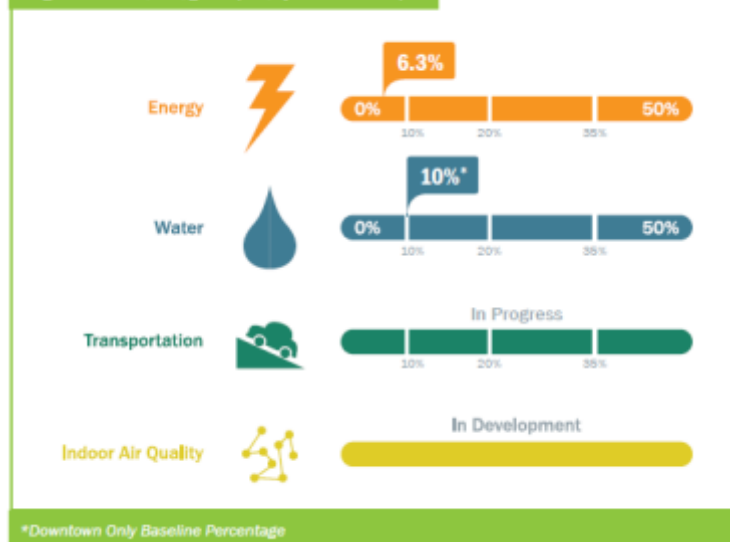
Denver 2014



2014 PROGRESS TOWARD GOALS

Pittsburgh 2014

Figure 1. District Progress (as of year end 2014).



Member/Partner Commitments



Property Owner /Property Manager or Developer

Agree to support District performance goals by sharing:

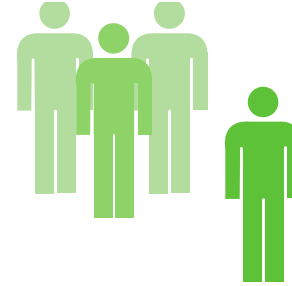
- ⦿ Building energy use, water use, and transportation data (confidentially*)
- ⦿ Best practices and lessons learned for case studies
- ⦿ Challenges in further improvements

*Data Disclosure: No energy use, water use, or transportation data specific to any building will be released outside of the 2030 District without the express permission of the Building Owner and/or Property Manager.

Benefits For Building Owners, Managers and Developers



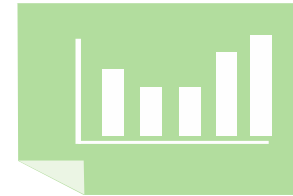
Utilize special
Financing programs



Improve competitive
positioning



Access exclusive
incentives, discounts
& programs

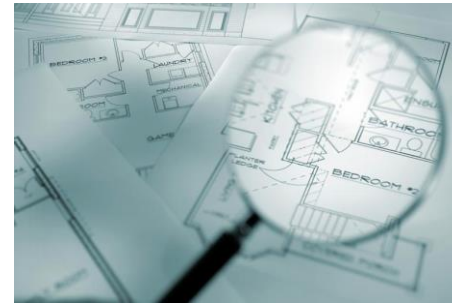


Receive comparative
analysis reports

Efficiency Road Map



Facility Audits



Car2Go



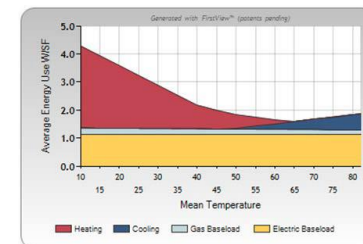
Community Power Works Rebates and Financing



Wegowise Pro



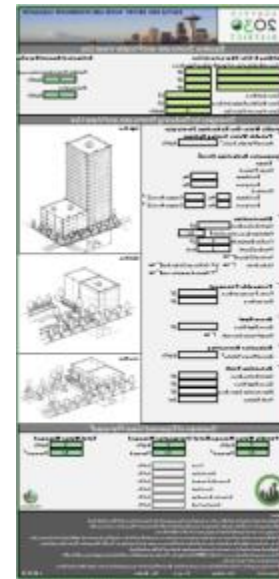
FirstView™ Reports



Smart Building and Energy Solutions



Storm Water Calculator



Streamlined Permitting



PITTSBURGH
2030
DISTRICT[®]
DOWNTOWN - OAKLAND

Pittsburgh 2030 District Progress Report Reception

April 28th, 2016 4-6:30pm

David L. Lawrence Convention Center, Allegheny Overlook



Join us to learn about the progress in both Downtown and Oakland toward achieving the aggressive energy, water, and transportation emission reduction goals. Beer, wine, and light refreshments will be served, followed by a formal presentation by the Pittsburgh 2030 District and County Executive.

SEATTLE
2030
DISTRICT[®]

SEATTLE 2030 DISTRICT LUNCH & LEARN

March 15th, 2016 12:00 to 1:00 PM - Brown Bag Event
901 5TH AVE BUILDING, 5TH FLOOR CONFERENCE ROOM



SAVE MONEY WITH GREEN INFRASTRUCTURE

Bring your lunch & learn about our new Green Stormwater Program and how Vulcan saved \$70,000 on the EMP Little Wing Office Building with green stormwater infrastructure (GSI). By incorporating rainwater harvesting and a green roof into new construction, the need for an additional stormwater connection and underground stormwater detention were eliminated from the project.

Introduction to Seattle 2030's Green Stormwater Program

Amy Waterman, MPS
Seattle 2030 Green Stormwater Program Manager

2030 Stormwater Calculator Planning Tool for GSI

Meghan Feller, PE
Hemera Environmental Consultants

LITTLE WING CASE STUDY - EMP ADMINISTRATION BUILDING & GSI COST SAVINGS

Rainwater Harvesting

Dave Nehren, PE, LEED A.P. BD+C
Engineering/CAD Manager, Hermanson Company LLP

Green Roof Component

Andrea Saven, PLA, ASLA
Technical Director, Columbia Green Technologies



Amy Waterman



Meghan Feller



Dave Nehren



Andrea Saven

SEE YOU THERE!

PORTLAND
2030
DISTRICT[®]

Small Commercial Program Tools



www.2030districts.org/tech_tool/add/rtr/1074

LIGHTING RETROFIT TOOL

PROJECT: 123 Main Street SESSION: [] [NEW SESSION] [SAVE TO RESULTS DASHBOARD] [CANCEL]

1

2

3

4

SAVE

SELECT OR COLLECT

EDIT

APPLY & REVIEW

SUMMARY

Open Office Private Office Summary

New Space Name: OpenOff1 [Create New Space] [Save] [Duplicate] [Delete] [Reset] [Apply]

Project: []

General

Schedule

Lighting

Economics

Controls 1

Controls 2

Space Floor Area

6000 ft2

Number of Workstations

70

Typical Workstation Area

86 ft2

Location: State

PA

Average Commercial Electricity Billing Rate

\$ 0.0991 /kWh

Electricity Demand Cost

\$ 12 kWh/month

Baseline Lighting Type

T12 Fluorescent

Upgrade Lighting Type

LED

Upgrade Control Strategies

☒ Tuning ☒ Occupancy ☒ Daylight Dimming ☒ Personal Controls

Profile

Energy

Cost

Lighting Power Density Profile Curve

Savings Based On Controls
(Click to hide)

62.3%

Energy Savings

51.3%

Peak Demand Savings

24.8 Years

Simple Payback Period

ULI Greenprint

5

Greenprint Performance Report™ VOLUME 5, 2013

ULI Greenprint Center
for Building Performance

Greenprint Members

AETOS CAPITAL
REAL ESTATE

Equity Office

LASALLE
INVESTMENT MANAGEMENT
Real estate expertise. Investment expertise.

AvalonBay
COMMUNITIES, INC.

FIRST WASHINGTON
REALTY, INC.

MILLER CAPITAL ADVISORS, INC.

BEACON CAPITAL
PARTNERS

GID

PARAMOUNT
GROUP, INC.

Bentall
Kennedy

GI PARTNERS

PARKWAY

Berkshire
COMMUNITIES

GLL
REAL ESTATE TRUST

PROLOGIS

BLACKROCK®

Granite

Prudential

The Blackstone Group

GROSVENOR

Rudin Management Company, Inc.

CalPERS

Hines

SHAW SIERRA

CommonWealth
partners

Invesco

starwood
Hotels and
Resorts

Chubb Asset
& Wealth Management

JAMESTOWN

TIAA
CREF
Financial Services

DOWNTOWNDC

JONES LANG
LASALLE

TISHMAN SPEYER

ULI Greenprint



ULI Greenprint Center
for Building Performance

Enter property name... **FIND**

[Account](#) | [FAQ](#) | [Contact Us](#) | [Logout](#)

PROPERTIES

USER ROLES

PERFORMANCE

GREENPRINT

DASHBOARD

PORTFOLIO SUMMARY

BENCHMARKING

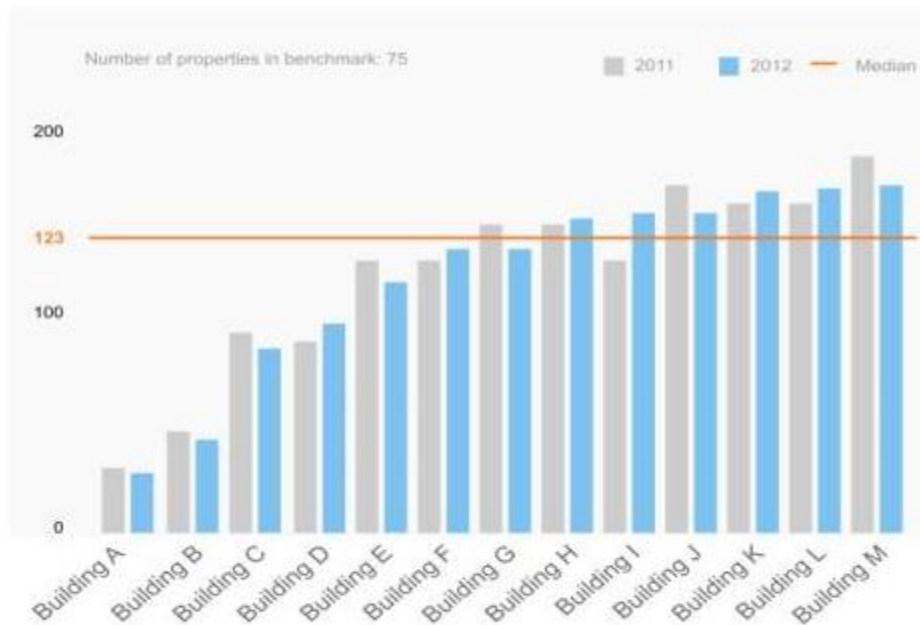
Benchmarking

Metric: Electricity

Normalize by % Occupancy

☒ 2011

☒ 2012



Show data

Export to Excel

Property type

Office

Subtype

Geography

Japan

State

Tokyo

Portfolio

Fund

Property manager

Property characteristics

Floor area

900,000 - 2,000,000 sqft

Year

1980 to 2000

Building rating

Building cert

2030 Districts Network Marketplace



HVAC CONTROLS



ADVANCED METERING



LED LIGHTING



HIGH PERFORMANCE WINDOWS



ELECTRIC VEHICLE CHARGERS

INFO FOR TECHNOLOGY COMPANIES

The list of technologies and manufacturers is updated periodically. To have your technology considered for inclusion in the 2030 Districts Marketplace, please email RA@2030districts.org and you will be added to the Distribution List.

Network Affiliations

- ⊙ Architecture 2030
- ⊙ The USDOE Better Buildings Challenge
- ⊙ EcoDistricts
- ⊙ Urban Land Institute Greenprint Center for Building Performance
- ⊙ Institute for Real Estate Management (IREM)
- ⊙ International Facilities Manager Association (IFMA)
- ⊙ American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE)
- ⊙ American Institute of Architects (AIA)
- ⊙ ICLEI - Local Governments for Sustainability
- ⊙ South Central Partnership for Energy Efficiency as a Resource (SPEER)
- ⊙ Northwest Energy Efficiency Alliance (NEEA)
- ⊙ Midwest Energy Efficiency Alliance (MEEA)

2030 Districts Network

- ⦿ District Formations Toolkit
- ⦿ Member Resources Toolkit
- ⦿ Small Commercial Toolkit
- ⦿ Outreach and Communications Toolkit
- ⦿ District Funding Toolkit
- ⦿ Project Financing Toolkit
- ⦿ Performance Metrics Toolkit

<http://www.2030districts.org/toolkits>

PORTLAND
2030
DISTRICT®

Official Members



Beyond Words™

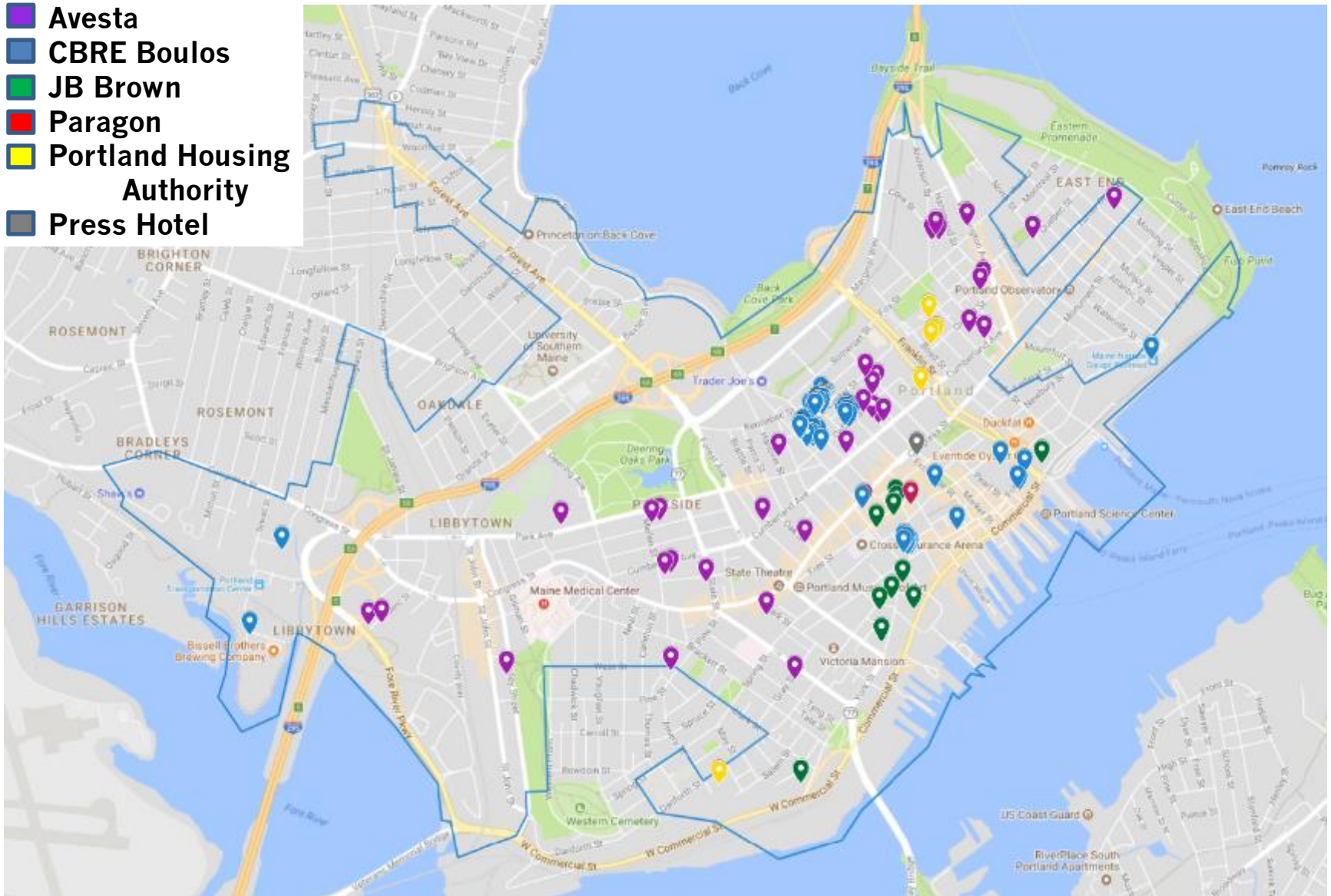
eco-story

J. B. BROWN & SONS

CBRE | The Boulos Company

Part of the CBRE affiliate network

- Avesta
- CBRE Boulos
- JB Brown
- Paragon
- Portland Housing Authority
- Press Hotel



Portland 2030 District Accomplishments

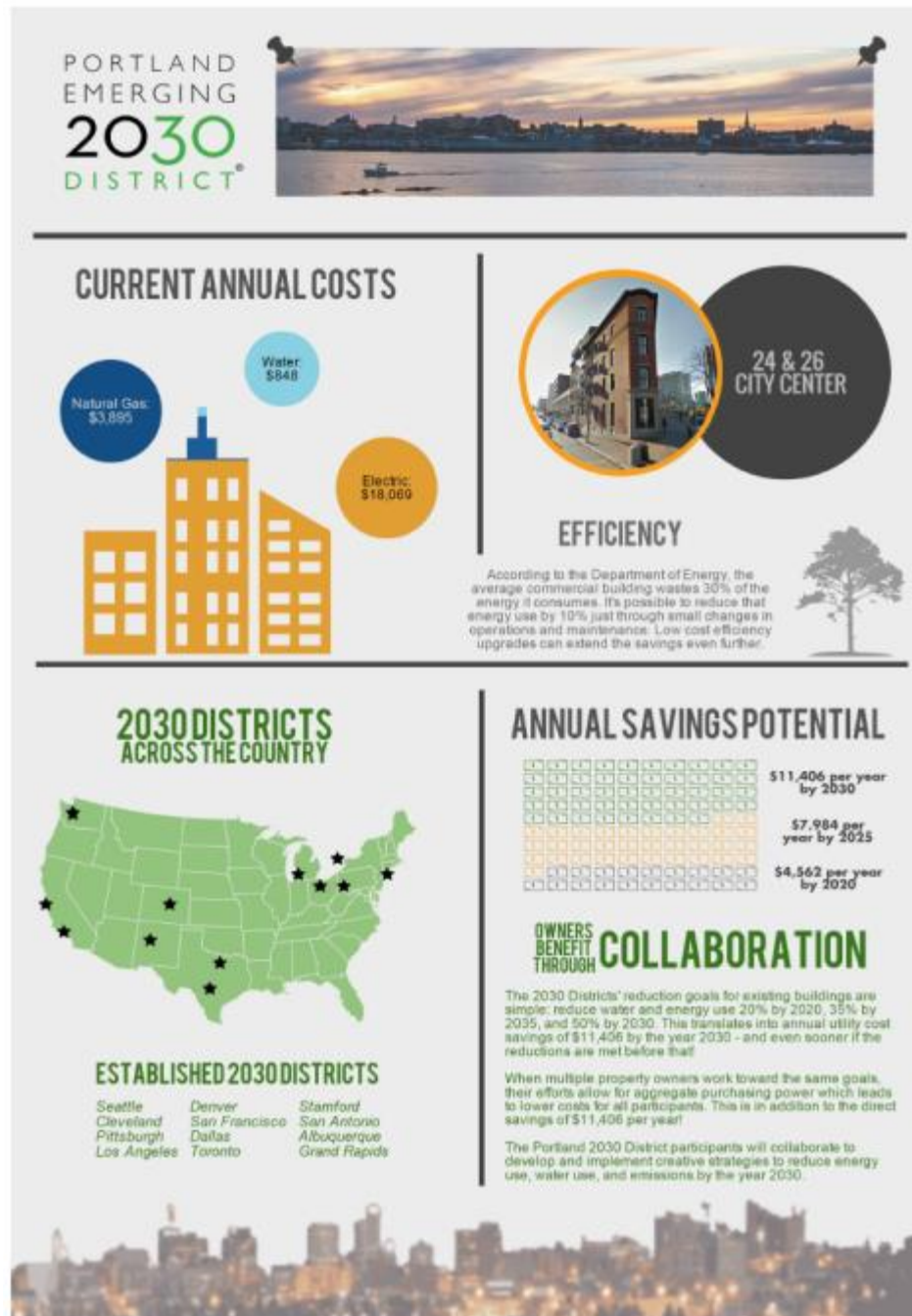
- Formed Board of Directors – Drew Swenson, Paragon, President
- Accepted as an official 2030 District 10/16
- Held several educational forums for property owners, managers and developers
 - Kick-off Luncheon at the Press Hotel
 - Financing Forum
 - Decision Making Forum
 - MEREDA Breakfast Forum Nov. 7th

Portland 2030 District Accomplishments

- Transportation Baseline
- Energy Baseline
- Quarterly Email Updates
- Offering members free energy efficiency evaluations
- Working on expanding GPCOG cooperative purchasing to include 2030 District members
- Obtaining benchmarking data for 2030 District members for use in Portfolio Manager/Greenprint

Member
benchmarking:

Working with
Efficiency
Maine and CMP
to obtain
energy usage
data



What do we need from you?

- ⊙ Join as a Property Owner
 - ⊙ Benchmark Buildings
 - ⊙ Share building energy use, water use, and transportation data (confidentially*)
 - ⊙ Support other owners
 - ⊙ Help communicate importance of automatic data downloads from utilities

What do we need from you?

- ① Join as a Community Stakeholder
 - ① Support owners in their efforts to increase efficiency
 - ① Help communicate importance of these efforts to your constituents

What do we need from you?

- ⊙ Join as a Professional Stakeholder
 - ⊙ Support owners in their efforts to increase efficiency
 - ⊙ Offer your services to District members
 - ⊙ Develop relationships with committed companies who see the importance of the mission
 - ⊙ Help communicate importance of these efforts to your constituents