Green
Building
Alliance
Overview
Every building and every community is sustainable so every person can thrive.
GBA advances innovation in the built environment by empowering people to create environmentally, economically, & socially vibrant places.
Pittsburgh 2030 District
The 2030 Challenge

**EXISTING BUILDINGS**

- Baseline: 100
- 2020: 80
- 2025: 35
- 2030: 50

**NEW BUILDINGS & RENOVATIONS**

- Baseline: 100
- 2020: 50
- 2025: 50
- 2030: 50

**CO2 FROM TRANSPORTATION**

- Baseline: 100
- 2020: 80
- 2025: 90
- 2030: Carbon Neutral
2030 District Network

- **ESTABLISHED DISTRICTS**
  Albuquerque, Ann Arbor, Austin, Burlington, Cincinnati, Cleveland, Dallas, Denver, Detroit, Grand Rapids, Ithaca, Los Angeles, Philadelphia, Pittsburgh, Portland (ME), San Antonio, San Diego, San Francisco, Seattle, Stamford, Toronto, and Tuscon

- **EMERGING DISTRICTS**
  Erie and New York City
2030 District Network

PITTSBURGH HAS THE LARGEST 2030 DISTRICT IN THE WORLD
81 BUILDINGS COMMITTED

27.8M COMMITTED SQ FT
25% DISTRICT COMMITTED

COMMITTED
COMMITTED UNBUILT

2012
540 BUILDINGS COMMITTED

84.8M COMMITTED SQ FT
75.8% DISTRICT COMMITTED

2019
106 Property Partners

- 808 Penn Lofts
- ALCO Parking
- Allegheny Center Alliance Church
- Allegheny County
- Allegheny Health Network
- ALSAB
- Ansaldo STS
- Arconic
- Avenu
- Bellefield Presbyterian Church
- Benedum Trees
- Blind & Vision Rehabilitation Services
- BNY Mellon
- Boy Scouts of America
- Braskem America
- Burns Scalo Real Estate
- Carlow University
- Carlyle Condominium
- Carnegie Library of Pittsburgh
- Carnegie Mellon University
- Carnegie Museums
- Catholic Diocese of Pittsburgh
- Central Catholic High School
- Children's Museum of Pittsburgh
- City of Pittsburgh
- Clearway Energy
- Community College of Allegheny County
- Dollar Bank
- Drs. Werrin & Gruendel PC
- Duquesne University
- Elmhurst Group
- Fairmont Pittsburgh
- Faros Properties
- First Presbyterian Church
- Fort Pitt Block House Society
- Forwood Group
106 Property Partners

Gateway Towers Condominium
General Nutrition Centers
General Services Administration
Giant Eagle
Gidas Flowers
Healthcare Trust of America
Heinz History Center
Henderson Brothers
Hertz Investment Group
Highmark
Highwoods Properties
Iron City Ventures

JDM Properties + Glenmore Ave. Associates
JLL
Kossman Development
Life'sWork of Western PA
M&J Wilkow
McKnight Property Management
Meyer’s Management
Mike Wu
Millcraft
Murland Associates
National Aviary
NDC Asset Management

Neighborhood Legal Services
Newmark Knight Frank
Nine on Nine
Oakland Planning and Development Corporation
Oakland Real Estate
O'Loughlin Company
Osterling Business Partners
Oxford Development
Penn Ave Renaissance
Pennsylvania Department of Conservation and Natural Resources
106 Property Partners

Peoples Gas
Peter’s Pub
Phipps Conservatory and Botanical Gardens
Pittsburgh Allegheny County Thermal
Pittsburgh Cultural Trust
Pittsburgh Gateways
Pittsburgh Parking Authority
Pittsburgh Parks Conservancy
Pittsburgh Penguins
Pittsburgh Pirates
Pittsburgh Real Estate Team
Planned Parenthood
PNC Financial Services Group
Point Park University
PSSI/Pittsburgh Steelers
Residences at Wood Street
Rodef Shalom Congregation
Rugby Realty
Shorenstein
Soldiers & Sailors Memorial Hall & Museum Trust
Specialty Luggage
Sports & Exhibition Authority of Pittsburgh and Allegheny County
St. Nicholas Greek Orthodox Cathedral
The Davis Companies
The Ferchill Group
Trek Development Group
University of Pittsburgh
UPMC
Urban Redevelopment Authority of Pittsburgh
Western Pennsylvania School for Blind Children
Westin Hotel
Winghart’s Whiskey & Burger Bar
Winthrop Management
WQED Multimedia
Wyndham Pittsburgh University Center
YWCA Greater Pittsburgh

106 Property Partners
2018-2019 New Property Partners

Avenu
Blind & Vision Rehabilitation Services
CCAC
Giant Eagle

JLL
Life’sWork of Western PA
National Aviary
NDC Asset Management
The Davis Companies
32 Community Partners

AIA Pittsburgh
Allegheny Conference on Community Development
Allegheny County Health Department
Allegheny County, County Executive, Rich Fitzgerald
ASHRAE - Pittsburgh
Bike Pittsburgh

Building Owners & Managers Association of Pittsburgh
Citizens for Pennsylvania’s Future
City of Pittsburgh, Office of the Mayor, William Peduto
Conservation Consultants, Inc.
Group Against Smog and Pollution
32 Community Partners

Healthy Ride
International Facility Management Association, Pittsburgh Chapter
International Living Future Institute
International Union of Operating Engineers, Local 95
Master Builders' Association of Western Pennsylvania

NAIOP Pittsburgh
Northside/Northshore Chamber of Commerce
Oakland Business Improvement District
Oakland Planning and Development Corporation
Oakland Task Force
32 Community Partners

Oakland Transportation Management Association
Pennsylvania Environmental Council
Pittsburgh Downtown CDC
Pittsburgh Downtown Partnership
Pittsburgh Parks Conservancy
Riverlife
Student Conservation Association
Sustainable Pittsburgh
ULI Pittsburgh
Uptown Partners of Pittsburgh
VisitPittsburgh
12 Resource Partners

- Architecture 2030
- Bridgeway Capital
- Clearway Energy
- Direct Energy Business
- Duquesne Light
- Keystone Energy Efficiency Alliance
- Peoples Gas
- Pittsburgh Allegheny County Thermal
- Pittsburgh Water and Sewer Authority
- Port Authority of Allegheny County
- Southwestern Pennsylvania Commission
- Urban Redevelopment Authority of Pittsburgh
A Network of Influence

35+ SECTORS ALIGNED

166 DISTRICT PARTNERS

62 TECHNICAL CONSULTATIONS

1,178 EVENT PARTICIPANTS
What is Energy Use Intensity?

\[
\frac{\text{Total Annual Energy Use (kBtu)}}{\text{Building Area (square feet)}} = \text{EUI (kBtu/sqft per year)}
\]
2018 Energy Baseline

- 2025 Goal: 75 EUI
- 2030 Goal: 120 EUI
- 2018 Baseline: 137.6 EUI
2018 Energy Reduction

23.5% REDUCTION

105.2 EUI
2018 Energy Sources

- 45.2% Electric
- 30.2% District Steam
- 18.9% Natural Gas
- 5.4% District Chilled Water
- 0.3% District Hot Water
2018 ENERGY SOURCES

10% Renewable Energy
$115 MILLION DOLLARS SAVED
PITTSBURGH OFFICE BUILDINGS

ABOVE 150,000 SQ FT

PERCENT REDUCTION

+1%–9%

1%–9%

10%–19%

20%–29%

30%–39%

40%–49%

2030 GOAL >50%

BASELINE
## National Office Comparison

<table>
<thead>
<tr>
<th>Location</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASHINGTON, DC⁺</td>
<td>70.4</td>
</tr>
<tr>
<td>PHILADELPHIA</td>
<td>80.8</td>
</tr>
<tr>
<td>CHICAGO⁺</td>
<td>80.9</td>
</tr>
<tr>
<td>PITTSBURGH 2030 DISTRICT⁺</td>
<td>80.9</td>
</tr>
<tr>
<td>BOSTON</td>
<td>82.1</td>
</tr>
<tr>
<td>NEW YORK⁺</td>
<td>85.8</td>
</tr>
</tbody>
</table>

+weather normalized
What is Water Use Intensity?

\[
\frac{\text{Total Annual Water Use}}{\text{Building Area (Square Feet)}} = \text{WUI (gallons/sqft per year)}
\]
2018 Water Baseline

Baseline

2025 Goal

2030 Goal

23.9

WUI
2018 Water Reduction

18.6% Reduction

2025 Goal

2030 Goal

19.5 WUI
Water Avoided by Year

- 2014: 56,440 million gallons (10%)
- 2015: 92,139 million gallons (10.3%)
- 2016: 57,379 million gallons (7.4%)
- 2017: 200,605 million gallons (14.5%)
- 2018: 266,658 million gallons (18.6%)
Water Use vs. Cooling Degree Days

<table>
<thead>
<tr>
<th>Year</th>
<th>WUI (GALLONS/SQ FT/ YEAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>745</td>
</tr>
<tr>
<td>2015</td>
<td>860</td>
</tr>
<tr>
<td>2016</td>
<td>1081</td>
</tr>
<tr>
<td>2017</td>
<td>763</td>
</tr>
<tr>
<td>2018</td>
<td>1131</td>
</tr>
</tbody>
</table>
Since 2012

$20 Million Dollars Saved
TRANSPORTATION PERFORMANCE
2018 Transportation Baseline

KILLOGRAMS CO₂

1,874 CO₂ PER PERSON

2025 GOAL

2030 GOAL
Transportation Partners
146,240,400 total miles traveled

Make my trip count

Age breakdown:
- <24: 20,310 respondents
- 25-34: 20,310 respondents
- 35-44: 20,310 respondents
- 45-54: 20,310 respondents
- 55-64: 20,310 respondents
- >65: 20,310 respondents

Gender:
- 48% Female
- 51% Male

10% total commuters
2018 Transportation Baseline

Kilograms CO₂

2,000

1,500

1,000

500

0

2025 Goal

2030 Goal

1,874 CO₂ per person
2018 Transportation Reduction

26% REDUCTION

1,386 CO₂ PER PERSON

Kilos of CO₂
Average Annual Emissions per Person (by Zip Code)

CO₂ Emissions

- Green: 450–750 kg
- Light Green: 751–1,050 kg
- Gray: 1,051–1,250 kg
- Dark Blue: 1,251–1,350 kg
- Black: 1,351–1,550 kg
**Baseline Mode Split**

- **21.1%** Carpool
- **31.1%** Public Transit
- **42.2%** Drive Alone
- **5.6%** Active

**2018 District Mode Split**

- **42.2%** Drive Alone
- **4.8%** Work from Home
- **1.5%** Other
- **6.4%** Active
- **6.7%** Carpool
- **38.5%** Public Transit
Commuter Choices

- **Bus**: Nearly all trips
- **Drive Alone**: More than half
- **Light Rail**: Less than half
- **Bike**: Less than a quarter
- **Walk**: Few trips
- **Work From Home**: Few trips
- **Uber/Lyft/Taxi**: Few trips
Single Occupancy Vehicle Use

To Downtown

To Oakland

SOV Trips
- Less than 50%
- 50%–75%
- More than 75%
EMPLOYERS SPEND 92% OF THEIR ANNUAL OPERATING COSTS ON PEOPLE
Air Quality Interventions
Air Quality Interventions

- Walk-off mats
- Green cleaning program
- Standalone air filters
- Window opening restrictions
- No idling zones
- Smoking ban at air intakes and entrances
2018 PERFORMANCE

- 23.5% Energy Reduction
- 18.6% Water Reduction
- 26% CO₂ Reduction
DISTRICT AFFILIATES

219 BUILDINGS COMMITTED

7M COMMITTED SQ FT

20 AFFILIATE PARTNERS
Pittsburgh 2030 District Affiliates

Allegheny County
A.W. Beattie Career Center
ASCEND Pittsburgh
Butler Area School District
CCAC
Chatham University
City of Pittsburgh
DMI International
Environmental Charter School
Forest Hills Borough
Hazelwood Green
Hill House Association
Huth Technologies
Oxford Development
Pittsburgh Parking Authority
Protohaven
Resurrection Church
Shady Side Academy
Waldorf School of Pittsburgh
Walnut Capital
YWCA
ERIE 2030 DISTRICT

51 BUILDINGS COMMITTED

2.4M SQ FT

10 PROPERTY PARTNERS
Erie Property Partners

Benedictine Sisters of Erie
City of Erie
Emmaus Ministries
Erie Art Museum
Erie City Mission
Erie County

First Presbyterian Church of the Covenant
Mercyhurst University
Sisters of St. Joseph of Northwestern Pennsylvania
UPMC Hamot
Read more in the report