

### PITTSBURGH **2030** DISTRICT ANNUAL PROGRESS REPORT



Statement of land acknowledgement

We recognize that the City of Pittsburgh and many of the 2030 District properties occupy the historic land of the Osage and Shawnee peoples.<sup>1</sup> While we cannot change the past, we can move forward with purpose, and work toward a vision that respects all people and provides places where all can thrive.

### THE SHIFTING GLOBAL CONVERSATION

#### May 2022

At the 26th Intergovernmental Panel on Climate Change in Glasgow (COP26), Architecture 2030 warned "If the world is to meet the 1.5°C carbon budget set in the 2015 Paris Agreement, we must provide the necessary leadership to **reduce CO<sub>2</sub> emissions in the entire built environment to zero**."<sup>2</sup>

This warning moves the conversation from focusing on energy reduction to carbon reduction goals. To meet this urgent challenge, the Pittsburgh 2030 District is re-aligning its goals to match current climate science and is adapting its tools to help partners meet the change. Annual performance reports to 2030 District partners will feature assessments of their building's carbon emissions intensity and progress as well as energy-use and water-use intensity. Future Pittsburgh 2030 District partner meetings will include educational sessions on topics related to carbon emissions and the built environment. These will include guidance to reduce carbon emissions such as deep carbon retrofits, beneficial building electrification, thermal energy storage, demand response and grid optimization, gridinteractive efficiency, on-site renewable energy, and grid decarbonization. They will also introduce the concept of embodied carbon and whole-building life-cycle assessments, which account for the emissions generated during the construction or renovation of a building.

This report marks ten years since the launch of the Pittsburgh 2030 District. In 2012, Pittsburgh joined Cleveland and Seattle in forming communities of high-performing buildings to catalyze transformation in the built environment and the role it plays in mitigating climate change. Since then, this network has grown to include 2030 Districts in over 20 cities



across North America, driving down energy use, water use, transportation emissions, and the carbon they produce. Pittsburgh is the largest 2030 District in North America and has made a tremendous impact throughout western Pennsylvania. Our timeline of progress is on pages 5–6, and we continue to grow.

The District acknowledges that climate change is a common concern of humankind, and we have the power to change its trajectory. Aligning with international leaders in Glasgow, the District will "respect, promote and consider its obligations on human rights, the right to health, the rights of Indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity."<sup>3</sup>

To that end, the Pittsburgh 2030 District invites everyone to identify leaders to commit community anchors, such as schools, housing, and worship facilities within their neighborhoods. There is an immense opportunity for District partners to promote the value of occupant health and well-being and to empower citizens to claim that value for themselves. Committing community anchors to the Pittsburgh 2030 District promotes economic growth and is an investment in the health and vibrancy of our region.

Chris Cieslak, PE, LEED AP, GPRO Vice President, Program Strategy & Impact 2030 District Senior Director

2021 DATA 560 **BUILDINGS COMMITTED** 

**86.6M SQUARE FEET COMMITTED** 

38.3% **CARBON REDUCTION** (INCLUDING RECs)

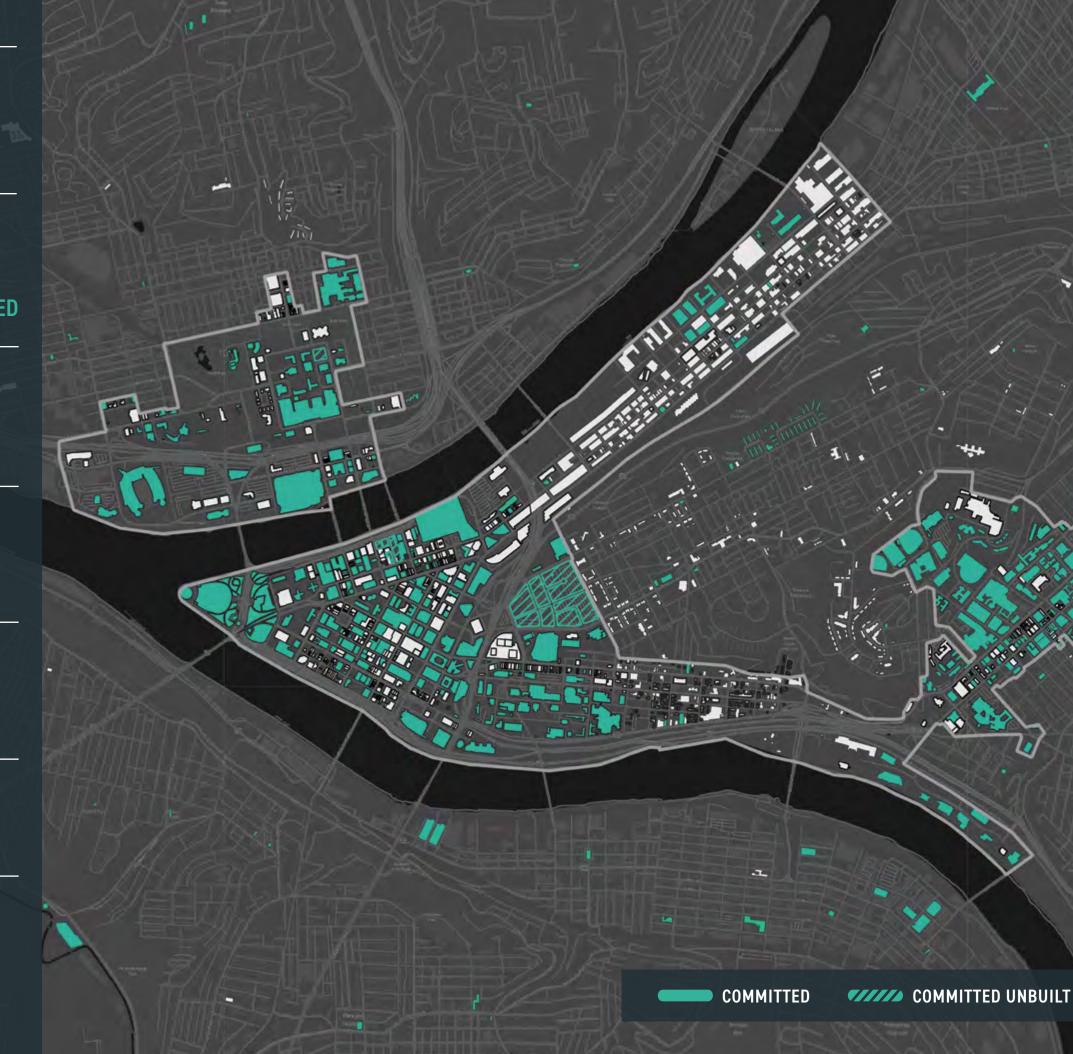
34.9% **ENERGY REDUCTION** (INCLUDING RECs)

30M SQUARE FEET EVALUATED FOR IAQ

37.1% WATER REDUCTION

382,000

METRIC TONS OF CO<sub>2</sub>e EMISSIONS AVOIDED



2

### **NOT YET COMMITTED**

### Defining Standards for High–Performance Building

For the past ten years, the Pittsburgh 2030 District has set the standard for high-performance building. The District is a community of more than 130 organizations across a variety of sectors, including business, technology, government, healthcare, hospitality, and education. Expanding GBA's influence throughout Western Pennsylvania, the Erie 2030 District adds another 17 organizations, building a broad coalition for change. Pittsburgh and Erie belong to a network of more than 20 Established Districts around the world with more than 520 million square feet and 1,200 member organizations committed to the 2030 Challenge. Over the past ten years, the commitment of our Property Partners to the goals and to one another has been an integral part of the Pittsburgh 2030 District's progress.

### 2030 Districts: A Performance–Based Model

According to the United Nations, building construction and operations accounted for 38% of energy-related carbon emissions.<sup>4</sup> The 2030 District Challenge sets specific targets for buildings' carbon emissions, energy use, and water use reduction that aligns with the timeline created by the United Nations 2030 Agenda for Sustainable Development. Property Partners join community organizations, utilities, designers, technology firms, and government officials to explore, test, and share a wide variety of approaches to reducing energyrelated carbon emissions throughout the region.

The Pittsburgh 2030 District was the first district to incorporate indoor air quality as a performance metric.

### **Inspiring Leadership**

As a founding member of the 2030 Districts Network and the largest District to date, Pittsburgh demonstrates leadership and inspiration in sustainable building. The Pittsburgh 2030 District was the first district to incorporate indoor air quality as a performance metric. This led to the Cincinnati 2030 District creating the first metric on overall occupant health.

### **Baseline & Performance Metrics**

Determining a building's reduction in energy and water use requires an initial point of comparison, known as a baseline. Using the best available data, each building is assigned an initial baseline value, which considers various features depending on the metric. Unique use types, such as public event facilities, have custom baselines referencing their historic performance.

	CARBON EMISSIONS	ENERGY	WATER	INDOOR AIR QUALITY
BASELINE TYPE	National Baseline	National Baseline	Local Baseline	Recommended Best Practices
BASELINE SOURCE	2003 Commercial Building Energy Consumption Survey (CBECS)	2003 Commercial Building Energy Consumption Survey (CBECS)	2009-2012 Pittsburgh Water & Sewer Authority water usage	University of Pittsburgh pilot study; best practices from building rating systems, including BREEAM, LEED, WELL, FitWell, RESET, Living Building Challenge, and Core
BASELINE CONSIDERATIONS	<ul> <li>Climate zone</li> <li>Building use type(s)</li> <li>Occupancy</li> <li>Weather</li> </ul>	<ul> <li>Climate zone</li> <li>Building use type(s)</li> <li>Occupancy</li> <li>Weather</li> </ul>	<ul> <li>Building use type(s)</li> <li>Building size</li> </ul>	• Building use type • Building size
IMPACT METRIC	Emissions Intensity (El)	Annual Energy Use Intensity (EUI)	Annual Water Use Intensity (WUI)	N/A
MEASUREMENT UNITS	kg CO2e/square foot/ year	kBtu/square foot/ year	Gallons/square foot/year	Points-based system
TRACKING METHOD	ENERGY STAR Portfolio Manager	ENERGY STAR Portfolio Manager	ENERGY STAR Portfolio Manager	GBA Indoor Air Quality Survey
REPORTING 2021 PERFORMANCE	346 buildings, 56.9 million square feet, 66% of total committed square feet	403 buildings, 70.5 million square feet, 81% of total com- mitted square feet	299 Buildings, 56.2 million square feet, 65% of total com- mitted square feet	141 buildings, 30.2 million square feet, 35% of total committed square feet

table 1

### **10 YEARS OF IMPACT**

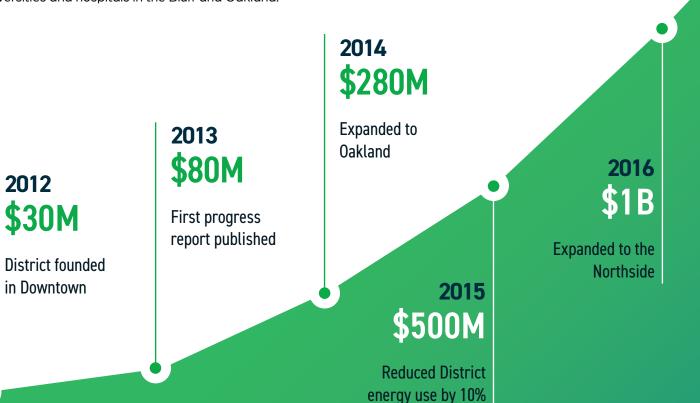
### **Eliminating Barriers**, **Increasing Access**

2012

Founded in 1993, Green Building Alliance has had a long history of inspiring a movement towards the creation of healthy, high-performing buildings. Originally, this was done by promoting green building certifications, but by 2012, GBA recognized that the complexity of certification programs could inhibit an honest assessment of existing building performance. GBA launched the Pittsburgh 2030 District initiative to provide a simple, free, and effective program for building owners to assess and measurably improve their buildings. In the first year, GBA enlisted the leadership of almost 40 organizations representing over 100 landmark properties to implement performance improvements, emissionsreduction strategies, evaluate progress, and share results. Momentum for the District accelerated upon the publication of the inaugural progress report in 2013, prompting the first boundary expansion to encompass universities and hospitals in the Bluff and Oakland.

### Measuring Results, **Demonstrating Impact**

The 2030 District program succeeds, in part, because it uses data to demonstrate impact. Property Partners provide data to set performance targets and report annual energy and water use to assess progress. Pittsburgh 2030 District staff prepare individual and district-wide progress reports to show measurable outcomes. The annual reports illustrate the collective impact of participants' efforts, setting the stage for renewed enthusiasm for and investment in the creation of healthy, high-performing buildings. From the start of the District in 2012, Property Partners have collectively invested at least \$2.3B<sup>5</sup> in building renovations and new construction.



### 2017 \$1.4B

**Reduced District** energy use by 20% Indoor air quality performance metric added

### 2018 \$1.9B

Expanded to Uptown; Launched District Affiliate program Hazelwood Green development project pledged

## \$2.1B

**Greater Pittsburgh** recognized as International Center of Excellence on **High Performance** Building by United Nations

**CUMULATIVE DOLLARS INVESTED** 



### 2020 **\$2.2B**

**COVID-19** Pandemic starts, offices close **Airport Terminal Modernization Project pledged** 

### 2021 \$2.3B

**COP26** Glasgow **Climate Conference** Carbon performance metric added

### **Igniting a Movement**

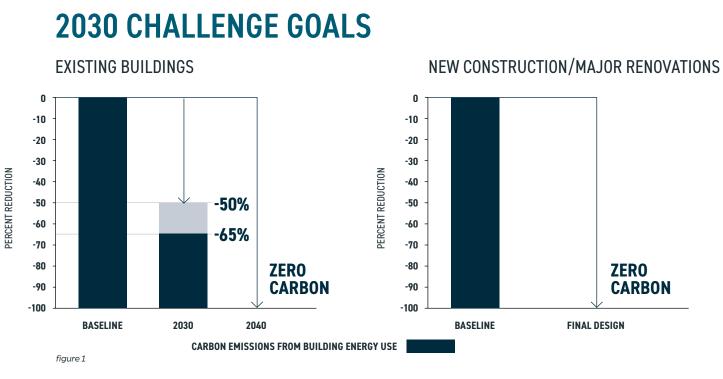
The 2030 District encourages participants to envision the impact of collective action. Its network of Property Partners cultivates collaboration across numerous sectors, including community organizations, utilities, designers, technology providers, and government officials. Because of the program's demonstrated success, the Pittsburgh 2030 District has expanded to include influential community anchors such as school districts, developers, and landlords of multifamily buildings to further inspire a movement towards healthy, high-performing communities.

# **BEYOND 2030:** ACCELERATING TO ZERO

The 2030 Challenge originally set incremental reduction targets for both new and existing buildings. District Partners have historically committed to 50% reductions in energy, water, and transportation related emissions for existing buildings, while new construction and major renovation projects committed to carbon neutrality by 2030, but the conversation has shifted.

At the 26th Intergovernmental Panel on Climate Change in Glasgow (COP26), Architecture 2030 warned "If the world is to meet the 1.5°C carbon budget set in the 2015 Paris Agreement [figure 2], we must reduce  $CO_2$  emissions in the entire [existing] built environment by 50-65% by 2030 and reach zero carbon by 2040."<sup>2</sup> New buildings and major renovations must be designed for zero carbon immediately.

Accelerating to zero carbon calls for building electrification, increasing renewable energy, reducing embodied carbon, and advocating for more stringent building codes and energy related policy and incentives. by 2030 and reach zero carbon by 2040.



### THE GLOBAL CARBON BUDGET

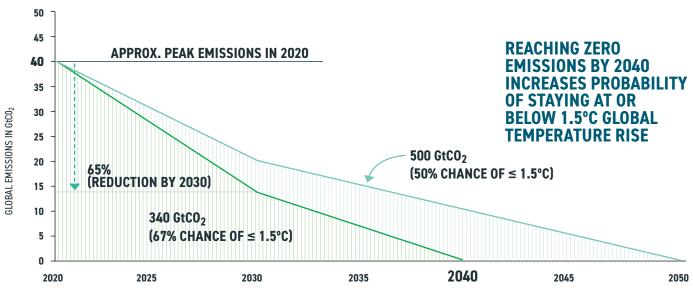


figure 2

### To meet the 1.5°C carbon budget set in the 2015 Paris Agreement, we must reduce CO<sub>2</sub> emissions in the entire [existing] built environment by 50-65%

### AN IN-DEPTH LOOK AT 411 SEVENTH AVENUE

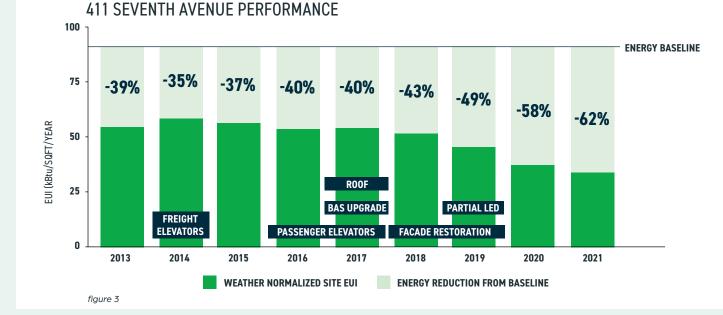
411 Seventh Ave. Oxford Development
Year Built: 1916
Gross Floor Area: 333,339 ft<sup>2</sup>
Notable Tenants: Duquesne Light, Commonwealth of Pa.

Transitioning to an all-electric building in 1993, 411 Seventh Avenue has made many changes over its lifespan to become one of the best performing buildings in the Pittsburgh 2030 District. Jeff Bodnar, Assistant Vice President of Property Management at Oxford Development Company, gave insight on the building's progress during its 10 years in the 2030 District and its systematic improvements.

Overall, the driving forces behind the retrofits at 411 Seventh Avenue fell into the following categories: Oxford's sustainability goals and objectives, participation in the 2030 District, the owner's vision for the building, and the impending end of life of mechanical systems. The owner's focus on improving the property was instrumental to its performance, freeing up capital and allowing Jeff and his team to make improvements. Under his management, improvement plans were created in 5-year increments and retrofits were implemented based on the life of existing mechanical systems. Notable improvements to the property included elevator modernization, roof replacement with increased insulation, ongoing lighting and occupancy sensor upgrades and the upgrade of the building automation system. Trane's Tracer Summit BAS was installed in 1994 and was among the first of its kind in Pittsburgh. In 2017, the building upgraded to Trane ES BAS allowing the building management team to access and address building performance at all hours of the day. Tracer ES provides real-time information and critical alerts allowing building engineers to make timely adjustments.

"The operations staff at 411 Seventh Avenue have been instrumental to its performance. We have a great team here that is highly invested in the building."

**Jeff Bodnar**, Assistant Vice President, Oxford Development



Partnership and coalition building are key to creating a clean energy future for all, and the 2030 District has been instrumental in advancing that effort. Celebrating the tenth anniversary of the district allows us to reflect on the deep and impressive progress the partners have accomplished, and further position our region for decarbonization, increased facility performance, and improved public health.

**Kevin Walker** President and CEO Duquesne Light Company

### **CARBON EMISSIONS**

### From Energy to Carbon: **Tracking Progress**

Except for renewable energy, producing and using energy creates carbon emissions, and different types of energy have different emissions factors. Depending on the amount of each fuel a building uses, the amount of emissions produced will differ. ENERGY STAR Portfolio Manager tracks emissions by determining the amount of each fuel type used and multiplying the amount of fuel used by an emissions factor.<sup>6</sup>

### **Transitioning to a Cleaner Grid**

While carbon emissions from fossil fuels are constant, emissions from electricity generation vary by geographic region and time of day. The EPA's Emissions & Generation Resource Integrated Database (eGRID) assesses the sources of electric power systems in specific geographic regions and tracks changes to those sources over time. The emissions factors for southwestern Pennsylvania's specific EPA eGRID subregion, RFCW, are shown in figure 5. The graph shows that emissions factors have decreased over time as more carbon-free electricity is produced.

### **Renewable Energy in the District**

Partners continue to increase amount invested in renewable energy. The University of Pittsburgh completed its carbon action plan in 2022, highlighting a planned 20 MW solar power facility and an 8.4 MW hydropower facility.<sup>7</sup> Carnegie Mellon University purchased over 125 million kWh of renewable energy in 2021, enough to cover over 110% of their annual electricity usage.8 In 2022, the Community College of Allegheny County (CCAC) officially transitioned to solar power, installing a new 543 KW solar array which will produce enough electricity to power 30-40% of CCAC North Campus's electricity needs.9

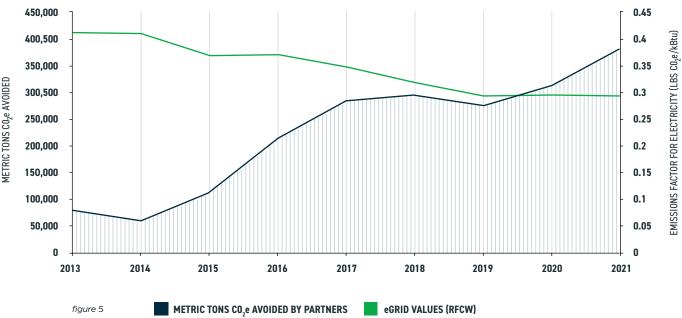
### The Social Cost of Carbon Emissions

Carbon emissions include air pollutants that cause increased rates of asthma, respiratory illnesses, and heart disease. These toxins have direct costs for families, businesses, and governments. The 'social cost of carbon' is a measurement that accounts for these economic impacts by assigning a dollar value to each ton of carbon emitted.<sup>10</sup>

### **District Performance**

It is imperative to reduce carbon emissions by 50-65% for existing buildings by 2030. 2021 marks the first year in which the Pittsburgh 2030 District has evaluated carbon emissions reductions against a baseline, achieving an impressive 38.3% reduction. As renewable energy commitments, energy efficiency, and the amount of renewable energy feeding the grid increase, we expect progress to continue in the coming years.

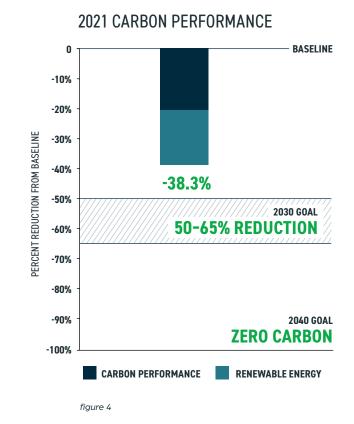
### YEARLY CARBON EMISSIONS AVOIDED VS ELECTRICITY CARBON EMISSIONS FACTORS



2021 SOCIAL COST **OF CARBON SAVED:** \$19.5M

### **CUMULATIVE SOCIAL COSTS OF CARBON SAVED:**

\$102.7M



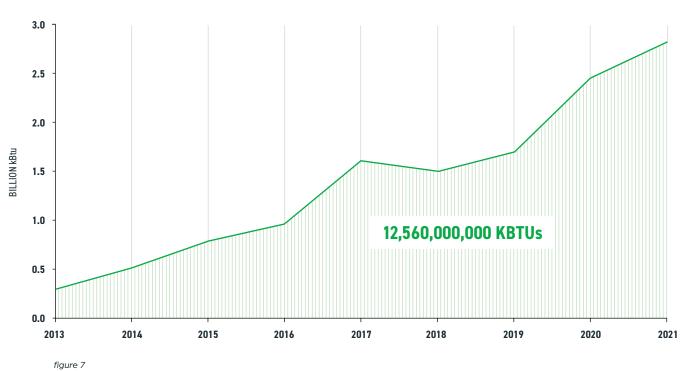
### **ENERGY**

#### **Accelerating Progress**

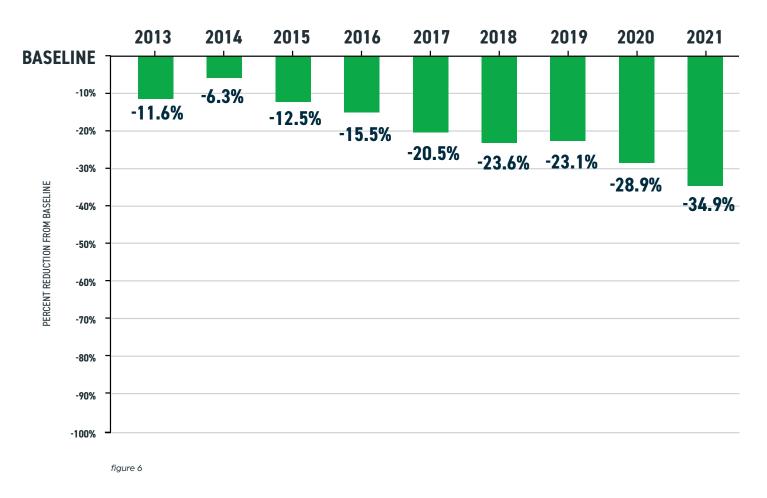
In 2021, the Pittsburgh 2030 District reduced energy use to 34.9% below the baseline, compared to 28.9% in 2020. Without renewable energy credits (RECs) factored in, the District's performance improved 5% from 22.2% in 2020 to 27.2% in 2021, highlighting energy performance improvements across the District. 2021's energy savings equate to the annual energy use of over 30,000 households. Before analyzing the data, GBA expected 2021 energy use to increase between 2019 and 2020 levels as lockdowns from the pandemic eased. The additional 5% decrease in energy use from 2020's performance came as a surprise, though it is explained by two key factors: low occupancy rates which continued through 2021, and substantial building performance improvement projects that were completed in 2020 and 2021. Throughout 2021, many buildings had not yet returned to full capacity since the original pandemic shutdown in March 2020. For the 2020 data year, there were almost three months of full occupancy energy use reflected, whereas 2021 experienced twelve months of limited occupancy. This greatly impacted overall energy use. Offices, for example, performed at 37.3% below the baseline in 2020 and 44% below the baseline in 2021 likely due to this factor.

In addition, many Partners' energy conservation projects came to fruition in 2021. Partners replaced chillers and cooling towers with more efficient equipment. They added variable frequency drives to adjust motor speed of fans and introduced variable air volume systems to optimize the amount and temperature of distributed air. Several Partners added or upgraded building automation systems to better control the operation of the mechanical and lighting systems. These measures all positively impacted energy performance.

### TOTAL ENERGY USE AVOIDED (WITHOUT RECS)



### DISTRICT ENERGY PERFORMANCE AGAINST BASELINE OVER TIME



# CUMULATIVE ENERGY COST SAVINGS:

### 2021 ENERGY COST SAVINGS: \$61.9M

### **INDOOR AIR QUALITY**

### **Measuring Indoor Air Quality**

While average levels of air pollution in Pittsburgh have decreased since 2000, the region still ranks 9th in the nation for high levels of annual particle pollution.<sup>11</sup> Because outdoor air quality directly affects indoor air quality (IAQ)<sup>12</sup> and combined with the fact that Americans on average spend 90% of their time indoors,<sup>13</sup> IAQ was chosen as the Pittsburgh 2030 District's fourth performance metric.

In 2019, the Pittsburgh 2030 District created a survey to capture partners' actions that affect IAQ. Questions were based on best practices from multiple building rating systems as well as a pilot study done with the University of Pittsburgh. Over 120 buildings' unique practices were captured. With the second iteration of the survey capturing 2021 data, this dataset highlights how IAQ practices have been affected by COVID-19.

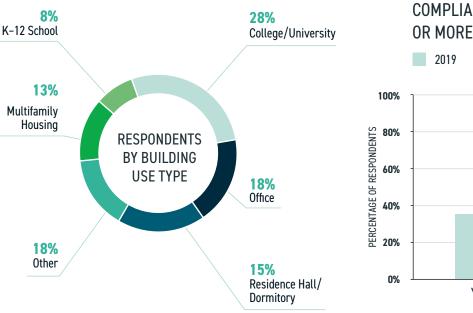
### **Baselines and Scorecards**

The Pittsburgh 2030 District created "scorecards" or baselines for individual buildings as well as for use types in order to measure their performance. Questions were divided into five categories: testing + monitoring, building policy + occupant behavior, building characteristics + ventilation systems, operations + maintenance, and materials policy. Respondents earned points for each question based on their answer. Points earned for individual questions were totaled by category to provide partners with a diagnostic to highlight areas in which they are performing well and those that have room for improvement.

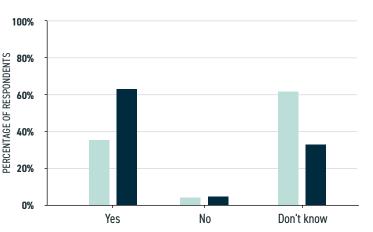
### IAQ Changes: A Response to COVID-19

The pandemic prompted a recognition of the importance of air filtration, ventilation, and cleaning protocols. 2030 District Partners implemented numerous measures to protect occupant health, including increasing ventilation rates, improving filtration, and sanitizing indoor air.<sup>14</sup> Comparing 2019 and 2021 IAQ datasets, the most dramatic change related to the ASHRAE compliance standards which govern ventilation system design and acceptable indoor air quality. In 2019, 61% of respondents did not know if their buildings complied with ASHRAE 62.1–2010 or a more current version of the standard. This uncertainty dropped dramatically in 2021, with 66% now responding that they met or exceeded the 2010 standard. It is highly likely that COVID was the prompting factor for Partners to assess filtration in their buildings.

Answers regarding cleaning improved dramatically. 84% of Partners reported that they were in compliance with major green cleaning standards in comparison with 62% in the 2019 dataset, and 80% stated they deeply clean their carpets at least one time per year, a 31% increase from 2019.

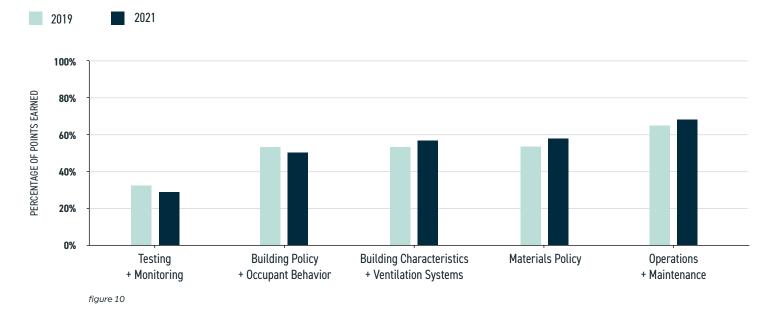






fiaure 9

### IAQ CATEGORY COMPARISON: 2019 TO 2021



#### Areas for Improvement

Similarly to 2019, the 2021 dataset highlighted that envelope commissioning and monitoring indoor air quality continue to be areas for improvement, with fewer than 20% of respondents confirming their building envelope had been commissioned or resealed. Commissioning and tightening the building envelope has several benefits: it increases occupant comfort and energy efficiency, reduces ambient noise, and improves indoor air quality.<sup>15</sup> A tight envelope with proper ventilation and filtration prevents outdoor particles from entering the building.

Regarding IAQ monitoring, fewer than 16% of respondents noted they have functional  $CO_2$  monitors in high occupancy areas. Monitoring IAQ data can help determine if a space is adequately ventilated. A common datapoint to track is the concentration of  $CO_2$  in a space, which directly affects occupant health.  $CO_2$  levels greater than 1000 parts per million can result in headaches, fatigue, and trouble concentrating. Combining IAQ monitoring with demand-controlled ventilation helps ensure better indoor air quality for occupants.

### TWO PPG PLACE: ALL-ELECTRIC AND ALL-IN FOR SUSTAINABILITY

#### **Two PPG Place, Highwoods Properties** Year Built: 1984 Gross Floor Area: 179,000 ft<sup>2</sup>

Two PPG Place, one of Highwoods Properties' most energy efficient buildings, has earned ENERGY STAR certification every year since its acquisition in 2011 and is LEED Silver certified. As part of the Pittsburgh 2030 District, this all-electric building has reduced its energy usage from 7% below baseline in 2012 to 48% in 2021. The success of Two PPG Place is due to the following characteristics: a dedicated sustainability team and asset management department and meticulous energy saving plans that were developed when the building was first purchased.

Terry Kennedy, Senior Director of Asset Management, and his team identified key retrofits based on cost savings and projected life span of mechanical equipment. Major building projects included a roof replacement, rolling upgrades to LED lighting and controls, elevator modernization, new chillers, a heat recovery wheel, and upgrades to direct digital controls (DDC).

An important factor in Highwood Properties' success is its financial structure as a REIT, a real estate investment trust. REITs specifically buy and develop properties as part of an investment portfolio, increasing the focus on and capital for improvements.

"The individual building performance reports we get from the 2030 District have been a great benefit to us. They clearly show the progress we've made towards energy and carbon reduction goals."

Terry Kennedy, Senior Director of Asset Management, Highwoods Properties

### WATER

### **Occupancy Drives Water Use**

In 2021, the Pittsburgh 2030 District reduced water consumption by 37.1%, a slight decrease from the 2020 reduction of 42.1%, but still far greater than the 2019 reduction of 19.8%. Partners saved 479 million gallons of water in 2021, the equivalent annual water use of over 3,700 single family homes.

As COVID restrictions eased, buildings and businesses reopened, leading to a natural increase in water usage compared to pandemic shutdown levels in 2020. With the future of work trending towards a hybrid model,<sup>16</sup> many office buildings will likely not return to full capacity. As such, water use is not expected to return to pre-pandemic levels.

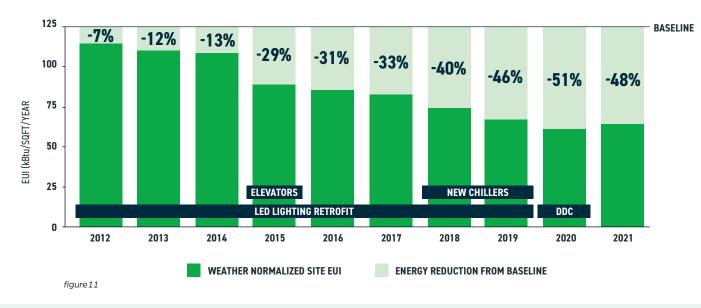
### 2021 WATER COST SAVINGS: \$22.9M

figure 13

### DISTRICT WATER PERFORMANCE AGAINST BASELINE OVER TIME



TWO PPG PLACE PERFORMANCE





TOTAL WATER USE AVOIDED

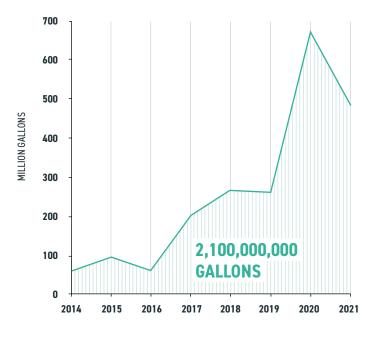


figure 12

### JOIN THE PITTSBURGH **2030 DISTRICT**

### The Value of Community

The Pittsburgh 2030 District's success stems from its extensive community of partners and sponsors. Our network of Property Partners spans multiple sectors of Pittsburgh, welcoming all to explore facets of building efficiency and possibilities for future progress in their buildings. Partners are invited to monthly meetings that feature presentations from technical experts, service providers, and building owners that showcase successful projects. These sessions are framed through a regional lens in which partners share best practices and challenges with a diverse group of public and private organizations. In over ten meetings throughout the year, partners gain direct access to policymakers, regional thought leaders, university researchers, and financial organizations. Pittsburgh 2030 District Partners form a community of educated, purposeful leaders that have the knowledge to positively impact building development and operations throughout the region.

### Individual Building **Performance Evaluations**

GBA consults with Property Partners one-on-one to identify critical investments toward achieving individual reduction targets. Partners receive a confidential annual performance report that analyzes their progress toward the 2030 Challenge goals. These reports highlight Partners' current and former performance, while GBA staff provide context and ideas for specific building upgrades. Where possible, reports also compare a building's performance to similar, anonymous local buildings.

### **Become a Property Partner**

Distinguish your organization or school district by joining western Pennsylvania's most influential network of building owners and developers. Upon commitment to the 2030 Challenge goals, Property Partners gain access to a community of technical experts, service providers, and fellow building management professionals as well as individualized property benchmarking and evaluation. Any new or existing developments in western Pennsylvania are welcome to join.

#### **Property Partners:**

A.W. Beattie Career Center	Collaborative Real Estate	
ALCO Parking	Community College of	
Allegheny Center Alliance Church	Allegheny County (CCAC)	
Allegheny County Airport Authority	DMI Companies	
Allegheny County	Dollar Bank	
Allegheny Health Network	Duquesne University	
ASCEND Pittsburgh	Elmhurst Group	
Avenu/Innovate PGH	Environmental Charter School	
Bellefield Presbyterian Church	Faros Properties	
Benedum Trees	First Presbyterian Church	
Blind & Vision Rehabilitation	Forest Hills Borough	
Services	Gateway Towers Condominium	
BNY Mellon	General Nutrition Centers	
BPG 360	General Services Administration	
Braskem America	Giant Eagle	
Bridgeway Capital	Hazelwood Green	
Burns Scalo Real Estate	Heinz History Center	
Butler Area School District	Hertz Investment Group	
Carlow University	Highmark	
Carnegie Library of Pittsburgh	Highwoods Properties	
Carnegie Mellon University	Housing Authority of Pittsburgh	
Carnegie Museums	Howmet Aerospace	
CBRE	JLL	
Central Catholic High School	Kossman Development	
Chatham University	M&J Wilkow	
Children's Museum	McAllister Equities	
City of Pittsburgh	McKnight Property Management	



Green Building Alliance (GBA) positively transforms the Green world through the built environment for a sustainable, Building Alliance healthy, and just future for everyone. As Greater Pittsburgh's authority on sustainable design, GBA drives the market for healthy communities while equipping designers, manufacturers, developers, and policymakers to catalyze systemic change. GBA manages the largest 2030 District in North America, and in 2019, established Pittsburgh as the 2nd International Center of Excellence on High Performance Building in the world. GBA partners across Western Pennsylvania, with strategic alliances including the 2030 District Network, Architecture 2030, the United Nations, and International Living Future Institute.

Millcraft	Rodef Shalom Congregation	
Murland Associates	Rugby Realty/Draxxhall Management	
National Aviary		
NDC Asset Management	Shadyside Academy	
Neighborhood Legal Services	Shorenstein	
Newmark Grubb Knight Frank	Soldiers & Sailors Memorial Hall & Museum Trust	
Oakland Planning and Development Corporation	Spectrum Charter School	
Oxford Development	Sports & Exhibition Authority of Pittsburgh and Allegheny County	
Pennsylvania Department of Conservation and Natural	St. Paul's Catholic Church	
Resources (DCNR)	The Davis Companies	
Phipps Conservatory and	The Ferchill Group	
Botanical Gardens	Tree Pittsburgh	
Pittsburgh Cultural Trust	Trek Development Group	
Pittsburgh Gateways	University of Pittsburgh	
Pittsburgh Parking Authority	UPMC	
Pittsburgh Parks Conservancy	Urban Redevelopment Authority	
Pittsburgh Penguins	Waldorf	
Pittsburgh Pirates	Walnut Capital	
Pittsburgh Steelers	Western Pennsylvania	
Planned Parenthood	School for Blind Children	
of Western PA	Westin Hotel	
PNC Financial Services Group	Wexford SciTech	
Point Park University	Winthrop Management	
Protohaven	Woodland Hills School District	
Residences at Wood Street	WQED Multimedia	
RIDC/Mill 19	YWCA Greater Pittsburgh	

#### **Community Partners:** Resource Partners:

AIA Pittsburgh

Allegheny Conference on

Community Development Allegheny County Health

Department

Allegheny County

ASHRAE - Pittsburgh

**Bike Pittsburgh** 

**Building Owners & Managers** Association of Pittsburgh (BOMA)

Carnegie Museum of Natural History & BirdSafe Pittsburgh

City of Pittsburgh

Group Against Smog and Pollution (GASP)

Healthy Ride

International Living Future Institute

International Union of Operating Engineers, Local 95

Master Builders' Association of Western Pennsylvania

NAIOP Pittsburgh

New Sun Rising

Northside/Northshore Chamber of Commerce

Oakland Business Improvement District (OBID)

Oakland Planning and Development Corp. (OPDC)

Oakland Task Force

**Oakland Transportation** Management Association (OTMA)

PennFuture

Pennsylvania

**Environmental Council** 

Pennsylvania Resources Council

Pittsburgh Downtown CDC

Pittsburgh Downtown Partnership

Pittsburgh Parks Conservancy

Port Authority of Allegheny County

Riverlife

Student Conservation Association

Sustainable Pittsburgh

ULI Pittsburgh

Uptown Partners of Pittsburgh

VisitPittsburgh

•	Resource Partiers.
	Architecture 2030
	Bridgeway Capital
	Clearway Energy
	Duquesne Light
	Keystone Energy Efficiency Alliance (KEEA)
	Peoples Gas (Essential Utilities)
	Pittsburgh Allegheny County Thermal
	Pittsburgh Water and Sewer Authority
	Southwestern Pennsylvania Commission
	Urban Redevelopment Authority of Pittsburgh
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