A LETTER FROM OUR EXECUTIVE DIRECTOR

The Cleveland 2030 District is at the forefront of the City's efforts to create a more sustainable and resilient community, and we are proud to share our progress with you. With the dedication of our members and partners, we have made significant progress in reducing the effects of the built environment on the natural environment. Our efforts not only result in cost savings and operational efficiency for our participating buildings, but in a healthier environment for all Clevelanders.

As you read through this report, you'll see that our participating buildings have reduced energy consumption on average by 24%, reduced water use by 21% and transportation emissions have gone down by 25%. This is truly a remarkable accomplishment. These buildings have reached our 2020 milestone targets and are well on the way to achieving our goal of a 50% reduction in these three categories by the year 2030.

I believe our success is due, in part, to the collaborative model of 2030 Districts. We connect property owners and managers with professional partners who can help them reach their efficiency goals and the goals of the District. We also collaborate with a number of local organizations to provide educational sessions and other networking opportunities that are open to the public. We engage our participating properties, community partners and professional partners to share best practices and discuss new technology to improve our building stock. You'll see in this report that our model is working.

Thanks to all those who make our incredible progress possible. Our participating properties are working hard every day to reduce consumption and improve operational efficiency. Our community partners stand by our side and professional partners offer discounted and free services to help members achieve their goals. We are very grateful for the support of our funders and sponsors. None of this would be possible without their generosity. A huge thanks goes to our many volunteers and Board of Directors who share their time and talent to advance the mission of the District.

Cynthia Cicigoi

Executive Director
OVERVIEW

We are pleased to report the progress the Cleveland 2030 District has made to date. We measure our success against the 2030 Challenge for Planning goals, which call for a 50% reduction in energy use, water consumption and transportation emissions by the year 2030 for existing commercial buildings. The goal for new construction is to be carbon neutral by 2030.

The reasons for engaging the commercial building sector and focusing on energy, water and transportation emissions are clear. Consider these statistics:

- According to the U.S. Energy Information Administration (EIA), commercial buildings use almost 50% of the energy consumed in the United States, and it is estimated that 30% is wasted.
- The EIA cites that large commercial buildings (over 200,000 SF) in their 2012 survey used 359 billion gallons of water. In a city with a combined sewer system and on the shores of a Great Lake it is critical to manage water.
- The National Resource Defense Council reports in 2013, commuter transportation accounted for 20% of all greenhouse gas emissions in the U.S.

The 2030 District model is simple and effective. We engage property owners and managers to commit to the goal of a 50% reduction from baseline in energy and water use as well as CO2 emissions from commuter transportation. We connect them to Professional Partners who have committed support by offering discounted or free services to help our members reach those goals. We provide educational sessions and networking opportunities to share best practices and learn about the newest technologies available to promote operational efficiency.
Cleveland’s Office of Sustainability holds an annual summit hosting 500–600 stakeholders from all walks of life to advance the City’s sustainability goals and implement the City’s Climate Action Plan. Cleveland 2030 District started as a working group of that summit in September of 2010. In May of 2012, City Council passed a resolution calling for the City to become the first member of the District. Cleveland was the second city to establish a 2030 District and is now the second largest, measured by square footage of participating property. The Districts grew exponentially for the first few years and by the end of 2018 there were 22 Districts across North America.

2030 Districts use the 2003 Commercial Building Energy Consumption Survey as the baseline for energy use. Since water consumption and transportation emissions vary so drastically in different areas of the country, and with an absence of national data, each District creates their own water and transportation baselines.

Participating properties confidentially share their utility data with us, and in return we provide robust building performance reports. This allows us to not only measure a specific building’s progress, but we measure on a District-wide scale as well. The capacity to measure progress sets 2030 Districts apart from environmental advocacy groups. We can measure the impact our efforts are having on the community and the environment.

The 2030 Network
PARTICIPATION

In 2018 we added approximately one million square feet of participating properties. Here is the breakdown at year-end:

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Buildings</th>
<th>Participating Square Footage</th>
<th>Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown</td>
<td>175</td>
<td>37,533,193</td>
<td>45.24%</td>
</tr>
<tr>
<td>University Circle</td>
<td>106</td>
<td>20,835,279</td>
<td>73.88%</td>
</tr>
<tr>
<td>Combined Total</td>
<td>281</td>
<td>58,368,472</td>
<td>52.51%</td>
</tr>
</tbody>
</table>

We track downtown and University Circle participation separately for the purposes of reporting but the Cleveland District is inclusive of both areas.

Participating properties share their utility data with us through the use of Energy Star Portfolio Manager. We keep data confidential. Twice annually, we present a compelling building performance report that provides a multitude of information including their progress toward the 2030 goals. For property owners with multiple buildings or a campus, we provide individual building data as well as data on a portfolio-wide level.
The following is a list of Property Adopters as of December 31, 2018, in the order that they joined the District. You can also find an up to date list of participating properties on the Partners page of our website.

65% of participating properties are government, nonprofit organizations, educational institutions and health care facilities. It is particularly important for these sectors to be operationally efficient and cost effective. The dollars saved through reducing energy and water consumption can be redirected to support their missions of serving the community.

**Current Downtown Property Adopters:**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Adopter Name</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Cleveland</td>
<td>James Breen Real Estate</td>
<td>Hertz Investment Group</td>
</tr>
<tr>
<td>Cleveland Public Library</td>
<td>North Coast Commercial</td>
<td>Sikora Law and Lazorpoint</td>
</tr>
<tr>
<td>St. Vincent Charity Medical Center</td>
<td>Great Lakes Science Center</td>
<td>Flats East Bank (Ernst &amp; Young Tower)</td>
</tr>
<tr>
<td>Cuyahoga Community College</td>
<td>AM Higley</td>
<td>Care Alliance</td>
</tr>
<tr>
<td>Geis Properties</td>
<td>Robert Madison Architects</td>
<td>Trinity Cathedral and Commons</td>
</tr>
<tr>
<td>GL Housing Group</td>
<td>Rock and Roll Hall of Fame</td>
<td>Greater Cleveland Regional Transit Authority</td>
</tr>
<tr>
<td>Landmark RE Management</td>
<td>MRN Ltd Downtown</td>
<td>GPD Group</td>
</tr>
<tr>
<td>The PNC Financial Services Group</td>
<td>Old Stone Church</td>
<td>Bedrock</td>
</tr>
<tr>
<td>American Landmark Properties</td>
<td>Cleveland Browns Stadium</td>
<td>Huntington Convention Center and Global Center for Health Innovation</td>
</tr>
<tr>
<td>The 820 Company</td>
<td>Playhouse Square</td>
<td>Hanna Real Estate</td>
</tr>
<tr>
<td>Caflee Halter &amp; Griswold</td>
<td>Cleveland Cavaliers Arena</td>
<td>The Millennia Companies</td>
</tr>
<tr>
<td>United Way of Greater Cleveland</td>
<td>Medical Mutual</td>
<td>United Church of Christ</td>
</tr>
<tr>
<td>Cleveland Indians</td>
<td>Optima Management Group</td>
<td>Greater Cleveland Partnership / COSE</td>
</tr>
<tr>
<td>GSA</td>
<td>Cuyahoga County</td>
<td>J&amp;M Real Estate Advisors</td>
</tr>
<tr>
<td>Cleveland State University</td>
<td>Northeast Ohio Areawide Coordinating Agency</td>
<td>Downtown Cleveland Hilton</td>
</tr>
<tr>
<td>Becky’s Bar and Grill</td>
<td>RESTORE Cold Pressed</td>
<td></td>
</tr>
</tbody>
</table>

**Current University Circle Property Adopters:**

<table>
<thead>
<tr>
<th>Property Name</th>
<th>Adopter Name</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Circle, Inc.</td>
<td>University Hospitals</td>
<td>Ronald McDonald House</td>
</tr>
<tr>
<td>Church of the Covenant</td>
<td>Cuyahoga County</td>
<td>Cleveland Hearing &amp; Speech Center</td>
</tr>
<tr>
<td>Magnolia Clubhouse</td>
<td>American Cancer Society Hope Lodge</td>
<td>Cleveland Museum of Contemporary Art</td>
</tr>
<tr>
<td>Cleveland Museum of Art</td>
<td>Cleveland Institute of Music</td>
<td>Center for Arts Inspired Learning</td>
</tr>
<tr>
<td>MRN Ltd University Circle</td>
<td>Cleveland Museum of Natural History</td>
<td>Cleveland Clinic</td>
</tr>
<tr>
<td>Cleveland Botanical Garden</td>
<td>City of Cleveland</td>
<td></td>
</tr>
</tbody>
</table>
GREEN BUILDING CHALLENGE

Each year, Cleveland 2030 District holds a friendly Green Building Challenge. Member properties opt in to participate. We recognize the 1st, 2nd and 3rd place winners in four categories at our annual meeting held in the first quarter of the following year. Here are the 2018 winners:

**Reduction in Water Use Intensity 2018**
- 1st place winner: Cleveland State University, Julka Hall
- 2nd place winner: Calfee Building
- 3rd place winner: Carl B. Stokes Courthouse

**Reduction in Energy Use Intensity 2018**
- 1st place winner: K2M Designs
- 2nd place winner: Cleveland State University, Julka Hall
- 3rd place winner: Cuyahoga Community College, District Office

**Reduction in Water Use Intensity from baseline year-end 2018**
- 1st place winner: Carl B. Stokes Courthouse
- 2nd place winner: PNC
- 3rd place winner: Anthony J. Celebrezze Federal Building

**Reduction in Energy Use Intensity from baseline year-end 2018**
- 1st place winner: City of Cleveland, City Hall
- 2nd place winner: PNC
- 3rd place winner: 1111 Superior
As of December 2018, we had 44 Professional Partners. We added six new partners in 2018. A matrix of partners and what they provide is maintained and distributed to Property Adopters periodically. You can also see a full list of our Professional Partners on our website Partners page. We appreciate the support and discounted services these organizations have committed to give Cleveland 2030 District properties. They are instrumental in assisting our member properties in obtaining the 2030 efficiency goals.

Our partners also share their expertise by presenting at our Building Education Series events. This allows them to share the latest updates in energy and water efficiency as well as alternative transportation options. They are recognized as industry experts and expand their brand awareness by participating in our education sessions.

We held three networking events in 2018 for our partners, property owners and managers. These events are perfect opportunities for these groups to connect and develop relationships, and a good opportunity for us to thank them for their support and participation in the Cleveland 2030 District.

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We have a strong relationship with 12 Community Partners. These organizations have signed a formal pledge to support the 2030 District. We collaborate with several of them to organize and present our education sessions and tours that are open to the public. This cross collaboration strengthens each of our organizations, extends our reach and demonstrates to the community a united effort to mitigate the effects of climate change. A list of Community Partners can be found on the Partners page of our website.
ENERGY UPDATE

We use data from ENERGY STAR® Portfolio Manager to calculate our progress. Portfolio Manager recently updated their baseline from the 2003 Commercial Building Energy Consumption Survey (CBECS) data to a 2012 version. We are able to recreate the 2003 baseline to keep consistency in year over year data reporting. For the purposes of this report, we reviewed participating buildings that had accurate, up to date Portfolio Manager accounts as of November 2018. That accounted for 108 of our member properties. We eliminated unique space types such as hospitals, museums, stadiums and ballparks. We find that the Portfolio Manager baseline for these types of properties is not representative due to small sample sizes in the 2003 CBECS. Therefore, this progress report includes data from 81 buildings of the following space types:

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Property Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Education</td>
<td>Laboratory</td>
</tr>
<tr>
<td>Non-Refrigerated Warehouse</td>
<td>Residence Hall</td>
</tr>
<tr>
<td>College/University</td>
<td>Library</td>
</tr>
<tr>
<td>Office</td>
<td>Retail Store</td>
</tr>
<tr>
<td>Courthouse</td>
<td>Medical Center</td>
</tr>
<tr>
<td>Other</td>
<td>Self-storage</td>
</tr>
<tr>
<td>Hotel</td>
<td>Medical Office</td>
</tr>
<tr>
<td>Parking</td>
<td>Worship Facility</td>
</tr>
</tbody>
</table>

It is critical for the commercial building sector to reduce their energy consumption to mitigate the effects of climate change. Our participating building owners and managers have shown exceptional environmental leadership in what they have accomplished. Consider these statistics:

- Space types listed above are showing an average reduction of 24.27% from baseline energy use
- Office buildings are showing an average reduction of 31.85% from baseline energy use
We calculate energy consumption as weather-normalized site Energy Use Intensity (EUI), measured in kBtu per square foot per year. Here is how our properties are performing:

- Space types listed above have an average EUI of 83.9
- Office buildings have an average EUI of 72.8
- Our buildings saved 455 million kBtus from baseline
- The equivalent of taking 3700 Midwest single family homes off the grid

The graphs above correlate fuel mix with utility cost on a District-wide scale. As part of our building performance reports, we present these graphs for each individual building, portfolio and campus. Providing this correlation gives building owners an additional perspective to determine what efficiency projects will provide the greatest return on investment.
WATER UPDATE

Commercial buildings use a great deal of water and it is obvious that attention to this sector’s consumption is critical.

- The University of Michigan’s Center for Sustainable Systems estimates that in 2005, the commercial building sector used 10.2 billion gallons of water per day. This is an increase of 23% from 1990 levels.
- The Energy Information Administration estimates that, in their 2012 survey, just the 46,000 large commercial buildings alone (over 200,000 square feet) used 359 billion gallons of water that year. This is the equivalent of 980 million gallons per day.

The Great Lakes are the largest group of freshwater lakes on the planet and account for 21% of the world’s fresh water (Library of Water). As a city on the shores of Lake Erie, we hold a special responsibility to protect the lake. Cleveland’s combined sewer system can threaten the health of the lake. During strong rain events, the system can be overwhelmed, allowing raw sewage to overflow into the lake. According to the Northeast Ohio Regional Sewer District (NEORSD), in the 1970s, 9 billion gallons of combined sewage reached Lake Erie every year in overflow events. That was cut in half by 2000. In 2010 NEORSD launched Project Clean Lake, a 25-year project to dramatically reduce the overflow from 4.5 billion gallons to 494 million gallons annually. As part of our commitment to manage water responsibly, Cleveland 2030 District works with NEORSD to promote green infrastructure projects to mitigate overflow events. It is also important to conserve water for a number of reasons, including reducing the amount of water discharged from commercial buildings that will need to be treated and returned to the lake.

With the help of Cleveland Water, we set our water baseline using each building’s own 2010 usage level. Since we are comparing buildings against their own usage, we include all building types in this analysis. We calculated the results from 92 buildings with accurate and complete Portfolio Manager data through November 2018. Our buildings have made significant progress:

- Reduced water consumption by 21.02% from baseline
- Saved 129.5 million gallons or 196 Olympic-sized swimming pools of water from baseline
**TRANSPORTATION UPDATE**

The Cleveland 2030 District transportation baseline was set using the 2001 National Household Travel Survey. With assistance from our Community Partners, Northeast Ohio Areawide Coordinating Agency (NOACA) and the Greater Cleveland Regional Transit Authority (GCRTA), we determined using this national data set was a reasonable reflection of average Midwest commuting patterns.

We distribute a survey to all participating buildings every other year to measure progress toward our goal of a 50% reduction in emissions by 2030. Our milestone goal for 2020 is a 20% reduction and a 35% reduction by 2025. We are pleased to report that our 2018 transportation survey shows significant progress. The data reflects a slight decrease in drive alone commuters, an increase in public transit riders and an increase in more fuel efficient and electric vehicles. This year, more commuters also lived closer to work, thereby reducing their emissions.

The result speaks for itself:
- A decrease in commuter emissions by 25% from baseline
- Saved 3.8 million kg CO2 emissions from baseline
- The equivalent of taking 807 cars off the road

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"We are proud that the Cleveland 2030 District began as a Sustainable Cleveland working group, emerging out of our 2010 Annual Summit. They’ve been making steady progress ever since in supporting a built environment that’s healthier and more sustainable, especially in terms of energy efficiency.”

**Matthew Gray**
Chief of Sustainability, City of Cleveland
CLEVELAND 2030 DISTRICT
BOARD OF DIRECTORS

The Cleveland 2030 District Board of Directors guides the organization to accomplish its goals keeping in mind the day-to-day challenges of building owners and managers. By achieving our goals, Cleveland 2030 District is creating a healthier and more resilient environment for Cleveland. Thank you to our Directors for donating their time and talent to support the work of the District.

Executive Committee (photographed in order, left to right):

Jill Ziegler, Chair, Brookfield Properties
Nicole Stika, Vice Chair, Greater Cleveland Partnership / COSE
Mark Stockman, Secretary, Frantz Ward
Janet Mann, Treasurer, FirstMetrix Corporation

Directors (photographed in order, left to right):

Marc Divis, Akron Energy Systems
Stephanie Drenten Ferro, Heapy
Susann Geithner, Emerald Built Environments
Darrell Fields, Forbes, Fields and Associates
Matthew Gray, City of Cleveland
Matthew Heisey, Vocon
Garry Jennings, Eaton
Matthew Joseph, Brewer-Garrett
Brandon Kline, Geis Properties
David November, Cuyahoga Community College
Don Rerko, Makovich & Pusti Architects, Inc.
Eric Small, Public Finance and Energy Advisors
Ron Stupka, Calfee, Halter and Griswold
Christopher Toddy, Christopher @ Architects
Jenita McGowan Warner, Eaton
Jason Wood, City of Cleveland
The Network is a truly collaborative organization. Governance shifted from Architecture 2030 (founding “parent organization”) to the 2030 Districts Network (a self-governing structure) in 2017. Clevelanders hold four seats on the Network Board of Governors. Our Executive Director is chairperson of the District Advisory Council (DAC), which is comprised of Executive Directors from each established District. She is one of three from this Council, voted by the Council, to hold a seat on the Network Board of Governors and also participates on the Network Executive Committee as a DAC representative, again voted by the DAC to hold this seat.

The District Advisory Council holds monthly meetings to keep abreast of activity in each District, share information and celebrate successes. The three representatives from this Council who sit on the Board of Governors are the link that keeps the Board apprised of the progress and needs of the Districts.

In addition to the monthly DAC meeting, the Network holds an annual summit to enable Districts to share best practices, network and collaborate to advance the mission of the Network. The Stamford 2030 District hosted this year’s event. Cleveland’s Executive Director and Program Manager attended and presented in several summit sessions. Since we are one of the oldest Districts, we have experience that we are happy to share with emerging and newly established Districts.

2030 Districts Network Board of Governors: (Cleveland representatives in bold)

Executive Committee:
- Brett Phillips, Chair, Unico Properties
- Jiri Skopek, Vice Chair, JLL
- Anna Siefken, Secretary, Carnegie Mellon University
- Tim Thiel, Treasurer, Covestro, LLC
- Cynthia Cicigoi, Executive Committee at Large Cleveland 2030 District
- Vincent Martinez, Executive Committee at Large Architecture 2030

Governors:
- Emily Gordon, Stamford 2030 District
- Tyler Harris, General Services Administration
- Jason Kobeda, Major League Baseball
- Stan Lew, San Francisco 2030 District
- Jenita McGowan Warner, Eaton
- Catherine Olteanu, 2030 Districts Network
- Andrea Pinabell, Southface
- Jon Utech, Cleveland Clinic
- Jill Ziegler, Brookfield Properties

“It is said that knowledge is power. Becoming a Cleveland 2030 Property Adopter has provided me with information on my property that has helped us perform better, more efficiently, and to reduce cost. I encourage everyone within the Cleveland 2030 District to join and continue the region’s efforts at world class performance.”

Ron Stupka, Director of Office Services
Calfee, Halter & Griswold, LLP

Established 2030 District  Emerging 2030 District
THANKS TO OUR FUNDERS

Cleveland Foundation

THE KRESGE FOUNDATION

THANKS TO OUR SPONSORS

PLATINUM SPONSOR

EATON

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