# THE OFFICIAL NEWSLETTER OF A<sup>2</sup>ZERO AND THE ANN ARBOR OFFICE OF SUSTAINABILITY AND INNOVATIONS



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### **ABOUT THE EDITOR**



Sydney Deal (she/her) is an OSI fellow supporting energy efficiency and metrics reporting programs. She is one of the founding contributors to the A<sup>2</sup>ZERO Dashboard and is excited to continue supporting dashboard updates as OSI's sustainability work grows!

#### OSI Performance Metrics Dashboard

Intro Greenhouse Gas Emissions Community Engagement 1 Renewable Energy 2 Electrifying Vehicles and Appliances 3 Energy Efficiency 4 Trans

#### A<sup>2</sup>ZERO Dashboard

#### Office of Sustainability and Innovations | City of Ann Arbor

A<sup>2</sup>ZERO is the City of Ann Arbor's plan for achieving a just transition to community-wide carbon neutrality by 2030. This dashboard shares data on the progress of actions included in the A<sup>2</sup>ZERO Plan. This is a living dashboard, and will be regularly updated with new information and initiatives as the City continues advancing the A<sup>2</sup>ZERO goals and as data becomes available.

Learn more about A<sup>2</sup>ZERO: Read Ann Arbor's A<sup>2</sup>ZERO Carbon Neutrality Plan and Annual Reports.

#### How to use this dashboard

This dashboard is best viewed on a desktop or laptop computer. Click on tabs to explore data of Ann Arbor's greenhouse gas emissions and A<sup>2</sup>ZERO's strategies to reduce those emissions.

NOTE: When switching tabs, you may need to scroll back to the top of the webpage. The charts on this dashboard are interactive. Hover your mouse over a chart to view numerical data. Click on categories in the legend to add or remove them from the chart. Click All to select all categories, and my to invert your current selection. It can be helpful to view categories individually, or certain groups of categories together. Charts will scale

*The homepage of the* A<sup>2</sup>*ZERO Dashboard.* 

## WELCOME

Welcome from the City of Ann Arbor's Office of Sustainability and Innovations (OSI). In this issue of the Charging Station, OSI is delighted to share details about the  $A^2ZERO$  Dashboard, a metrics dashboard that shares data on progress towards the City's carbon neutrality plan,  $A^2ZERO$ . Thank you for your interest in sustainability in Ann Arbor!

## LAND ACKNOWLEDGEMENT

Equity and justice are at the center of A<sup>2</sup>ZERO and staff in OSI are continuing to ground our work in these critical principles. In that light, we'd like to take a moment to honor the geographic and historic space we share. We acknowledge that the land the City of Ann Arbor occupies is the ancestral, traditional, and contemporary lands of the Anishinaabe and Wyandot peoples. We further acknowledge that our city stands, like almost all property in the United States, on lands obtained, generally in unconscionable ways, from indigenous peoples. The taking of this land was formalized by the Treaty of Detroit in 1807. Knowing where we live, work, study, and recreate does not change the past, but a thorough understanding of the ongoing consequences of this past can empower us in our work to create a future that supports human flourishing and justice for all individuals.

### THE A<sup>2</sup>ZERO PERFORMANCE METRICS DASHBOARD GET TO KNOW THIS COOL TOOL

First published in January 2024, the A<sup>2</sup>ZERO Dashboard is a way to track the progress that has been made on A<sup>2</sup>ZERO, the City of Ann Arbor's carbon neutrality plan. It offers visual snapshots of data from all 7 strategies of the A<sup>2</sup>ZERO plan and a comprehensive breakdown of Ann Arbor's total greenhouse gas emissions.

Whether you're just getting started and want to know a little bit of everything that the Office of Sustainability and Innovations is working on or want to learn the exact number of solar panels installed through Solarize, the A<sup>2</sup>ZERO Dashboard showcases all of this and more – all located on one easy-to-navigate public website.

#### **NAVIGATING THE SEVEN STRATEGIES OF A<sup>2</sup>ZERO**

For ease of access, the A<sup>2</sup>ZERO Dashboard is divided into eight different tabs. Each different tab shows a specific topic or strategy relating to A<sup>2</sup>ZERO.

#### **GREENHOUSE GAS INVENTORY TAB**

The greenhouse gas inventory is a measurement of Ann Arbor's total annual greenhouse gas emissions, broken out into sectors and sources.



#### Snapshot of Ann Arbor's Greenhouse Gas Inventory

Following this annual measurement can provide a general idea of progress towards  $A^2$ ZERO. However, while many of  $A^2$ ZERO's strategies are focused on reducing this total, it is not our only metric for success. The next few dashboard tabs take a deeper dive into  $A^2$ ZERO's strategies and goals.

#### **COMMUNITY ENGAGEMENT TAB**

Though community engagement is listed under strategy 7 in the A<sup>2</sup>ZERO plan, this action is involved in every strategy that OSI employs. Currently, this section of the dashboard showcases the number of engagement events held by OSI. This tab can also be a tool to find upcoming events at OSI.

#### **RENEWABLE ENERGY TAB**

In 2020, Ann Arbor used approximately 1.21 million MWh of electricity. For reference, just one MWh can produce enough energy to toast 89,000 slices of bread. 1.21 million MWh is a significant amount of power! Where this power comes from has a significant impact on our GHG emissions.

As such, this section of the A<sup>2</sup>ZERO Dashboard tracks the City of Ann Arbor's transition to a clean, renewable energy grid by 2030. It showcases metrics from community and municipal installed solar.

#### **ELECTRIFYING VEHICLES AND APPLIANCES TAB**

A significant portion of Ann Arbor's carbon emissions come from vehicles and buildings that use fossil fuels instead of electricity. Transitioning vehicles and buildings to electric-based alternatives will allow them to be powered by renewable energy sources, reducing overall carbon emissions.

This section of the A<sup>2</sup>ZERO Dashboard tracks the progress of vehicle and building electrification in Ann Arbor, as well as highlighting the locations of current electric vehicle chargers.

## THE A<sup>2</sup>ZERO PERFORMANCE METRICS DASHBOARD

GET TO KNOW THIS COOL TOOL

#### **NAVIGATING THE SEVEN STRATEGIES OF A<sup>2</sup>ZERO CONTINUED**

#### **ENERGY EFFICIENCY TAB**

To achieve carbon neutrality, it is important to switch from non-renewable energy to renewable energy sources that don't emit carbon. However, making sure that energy sources are being used efficiently is equally important.

This section tracks overall energy consumption in Ann Arbor buildings, conversion rates of streetlights into more energy efficient alternatives, and other assorted OSI programming around energy efficiency.

#### **TRANSPORTATION TAB**

In addition to electrifying vehicles, A<sup>2</sup>ZERO encourages diversification of the ways that Ann Arbor residents move from place to place. This includes creating safe and accessible ways for people to walk, bike, and bus around town. Allowing alternate modes of transportation reduces traffic on the road, leading to increased safety outcomes and reduced carbon emissions.

This section includes metrics on miles traveled in different modes of transportation: walking, biking, busing, and driving. It also separates automobile trips by type, showing how many vehicle miles were traveled due to trips within Ann Arbor and trips entering or leaving the city.



Solar installation at Huron Hills Golf Course, Spring 2024.



Community tree planting in Bryant Neighborhood, Fall 2023.

#### **CIRCULAR ECONOMY TAB**

An important part of reducing emissions is changing how materials are used and disposed of. In a linear economy-the style of economy that is prevalent today—many everyday materials are thrown away after use. Think of single use plastics, old clothes, or spoiled food: once these items are used and/or deemed unsuitable, they go to a landfill, polluting surrounding areas. Often, degradation of these materials causes carbon emissions. compounding emissions associated with constantly remaking disposable materials. A circular economy, on the other hand, takes items that are able to be reused, repaired, repurposed and gives them a new home. This section of the dashboard tracks metrics on Ann Arbor's circular economy — specifically, the percentage of waste that is composted, recycled, and thrown in the trash.

#### **COMMUNITY RESILIENCE TAB**

Community building, environmental resilience through nature, and emergency preparedness and monitoring are all aspects of Community Resilience (strategy 6 of A<sup>2</sup>ZERO). This section of the dashboard tracks metrics on Resilience Hubs, the 10,000 trees initiative, the Neighborhood Ambassadors program, emergency preparedness initiatives, and air and water quality.

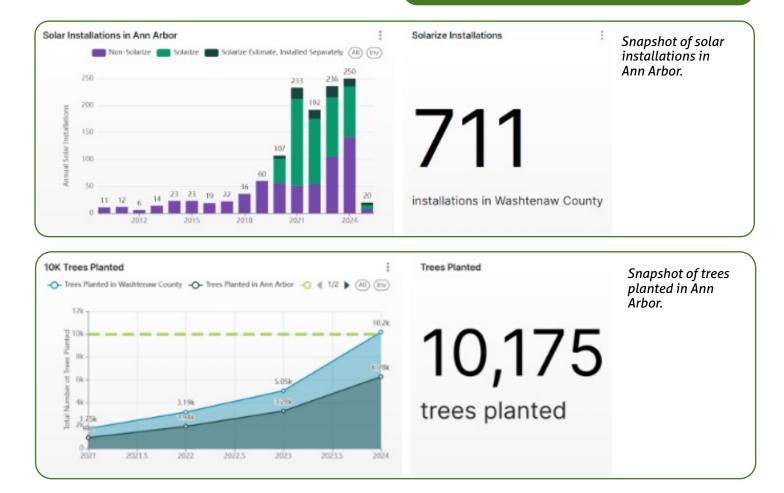
### **DASHBOARD HIGHLIGHTS** TWO PROGRAMS DEMONSTRATIVELY IMPROVING OUR METRICS

**SOLARIZE** | Ann Arbor Solarize is a community bulk-buy solar program. The City of Ann Arbor helps residents gather neighbors and friends together, along with participating solar installers, to learn about residential solar, answer questions, and provide the option to come together to bulk purchase solar allowing for significant savings. As part of A<sup>2</sup>ZERO, OSI works with local and regional solar installers - as well as Michigan Saves, a non-profit green bank that facilitates low-interest financing for green upgrades such as solar installations - to offer this exciting program.

The popularity of this program can easily be seen in the A<sup>2</sup>ZERO Dashboard. Since its inception in 2020, rates of solar adoption have grown significantly. To learn more or to sign-up for a Solarize event, contact Connor Dailey, Ann Arbor Solarize program coordinator, at cdailey@a2gov.org.

**10,000 TREES |** Through the 10,000 Trees Initiative's FreeTree program, residents can receive free seedlings to plant on private property. All seedlings distributed through this program are donated to or purchased by the City of Ann Arbor and are provided to residents at no cost. To participate, register for a nearby FreeTree event, request some trees, show up at the distribution site on the day of the event, pick up the seedlings at a distribution and take them home to plant! Delivery options are also available for those with mobility or accessibility challenges. Tree care and planting information is provided with every tree.

As of 2024, the 10,000 trees initiative has passed its original goal of 10,000 trees planted by 2030. These trees will help build out Ann Arbor's urban tree canopy—a robust step towards resilience in Ann Arbor. For more information on this program, or to sign up to be alerted for the next giveaway, visit www.a2gov.org/10ktrees.



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### COMMUNITY SPOTLIGHT: AIR QUALITY MONITORING A<sup>2</sup>ZERO AMBASSADOR MALAVIKA RAMKUMAR



A small, portable air quality monitor attached to a bike seat.

#### WHAT IS AN A<sup>2</sup>ZERO AMBASSADOR & HOW CAN I BECOME ONE?

The A<sup>2</sup>ZERO Ambassador Program is a 12-session training program that hosts community members to explore pathways for advancing local sustainability initiatives, resilience, and carbon neutrality in Ann Arbor. Ambassadors have the option to assist with a sustainability-related project supported by the Office of Sustainability and Innovations or a community partner. Malavika Ramkumar (she/her) is a member of the 5th cohort of A<sup>2</sup>ZERO Ambassadors. She's a current chemistry PhD candidate at the University of Michigan, researching the environmental dispersion of microplastics in agricultural regions. She was born in the Greater Boston Area but grew up in several different places in the US and India.

Malavika has a broad range of interests in environmental science, public health, and policy. She was drawn to the A<sup>2</sup>ZERO Ambassador program because she felt like it was a good way to understand how science, technology, and policy meet all while making Ann Arbor become a more sustainable city! Her PhD advisor, Professor Anne McNeil, was also an A<sup>2</sup>ZERO Ambassador, and recommended that she look into the opportunity.

Malavika had no prior experience in studying atmospheric pollutants or conducting air quality monitoring projects, but she was very interested in understanding the health implications of pollutants in our air. Her ambassador project gave her the opportunity to expand upon this interest and collaborate with City of Ann Arbor staff in making a more robust air monitoring program. She, along with others collaborating on the project, used portable monitors to track the air quality of areas all around Ann Arbor.

One thing that surprised Malavika was just how easy it was to collect the data. The monitor that she used was small enough that she could clip it on her backpack and go about her day normally. It can easily be turned on and off, so the person collecting the data can have autonomy over when they want the air quality monitor active. For those who don't want to carry around a monitor, there are more stationary options that can be put in homes or gardens. These options are relatively budget friendly and can be purchased at select major stores and retailers. Some monitors are also available from the Ann Arbor District Library in collaboration with A<sup>2</sup>ZERO.

In the future, Malavika and the rest of the air quality monitoring team want to create a public GIS map showing collected air quality data. This map would



include which parts of the city have the highest amount of particulate matter (PM) and at what times of day this PM would peak. This tool would help community members in Ann Arbor become more aware of how their own lives are impacted by air pollution, as well as hopefully spark more interest in reducing air pollution and its negative health impacts.

Malavika highly encourages people of all ages to try out air quality monitoring! She believes that having your own monitor is a great way to improve air quality awareness and is a great at-home science experiment for kids.

## **ANNOUNCEMENTS**

### A<sup>2</sup>ZERO WEEK RETURNS FOR 2025: JUNE 1 - 7

In June 2020, the City's plan to achieve a just transition to community-wide carbon neutrality, known as A<sup>2</sup>ZERO, was unanimously adopted by City Council. Each year, the Office of Sustainability and Innovations organizes A<sup>2</sup>ZERO Week to commemorate the passing of the plan and to celebrate the work done by the City and our many collaborators in the sustainability space. Join us for a week-long celebration of climate action and community with family-friendly events, prizes, resources, food, & more!

Highlights include:

- Week-long activities: Passport to Fun
- June 1: Dexter Ann Arbor Run, Taste of Ann Arbor, Cargo Bike Rally with Human Electric Hybrids, All-Electric Home Tour, AFC Ann Arbor Home Game, Organic Indigo Vat Dye Class with the Michigan Dyer, Hydro/ Aquaponics Demonstration
- June 2: Energy Savings Now, Climate Cafe
- June 3: Ward 2 Party, Love a Park Day, Green Business Challenge Launch Event, Sustainable House of Worship Tour, Climate Trivia with Terry
- June 4: Farmer's Market, SCRAP Creative Reuse Mending Workshop, Climate Board Game Night, Big George's Rooftop Party, Ward 5 Party, 50 States of Sustainability Film Screening, Tiny Tails Toddler Time, SPARK Sustainability and Innovations Coffee Meet-Up
- June 5: Ward 4 party, Liberated Land Use
- June 6: Ward 1 Party
- June 7: Community Clean Up, Electronics Takeback, Community Swap, Ward 3 Party, Community Swap

...and more!

Learn more and see the full schedule with event details at <u>osi.a2gov.org/a2zeroweek</u>. **CITY OFFICIALS BREAK GROUND ON FIRE STATION NO. 4:** This new facility will be the first carbon-neutral city building and the first net-zero fire station in Michigan, featuring geothermal heating and cooling, solar panels and other energy-efficiency measures. The current fire station on the site is nearly 60 years old and, in addition to being energy inefficient, lacks adequate areas for contemporary firefighting equipment and for personnel, including gender-appropriate facilities.

**NEW: THE A<sup>2</sup>ZERO HEAT PUMP CONCIERGE PLATFORM:** OSI is delighted to announce our new A<sup>2</sup>ZERO Heat Pump Concierge, where users can input home information to generate initial heat pump system design options in a process that takes approximately five minutes. Together, this information aims to empower residents to choose the heat pump that's right for them, including any and all necessary improvements that might be needed as part of transitioning from fossil gas heat to heat pumps. The entire process is free for Ann Arbor residents. Learn more at <u>osi.a2gov.org/HeatPumpConcierge</u>!

ANN ARBOR, DTE SIGN COUNTRY'S FIRST HEATING FRANCHISE TO INCLUDE CLIMATE GOALS - Officials from the City of Ann Arbor & DTE joined on Earth Day to sign a new heating franchise, the first in the country to include a climate agreement with associated activities that will demonstrably improve health, safety, and forward progress toward addressing the climate crisis. Learn more at the Sustainable Heating Franchise webpage.

JOIN THE SEU WAITLIST: The city is currently registering interest in the Ann Arbor Sustainable Energy Utility. If you are interested in enrolling or getting more information as it becomes available, please fill out this form to join the waitlist.

**HOME ENERGY SCORE LOCATOR:** <u>This online map</u> will make it easier for buyers to locate Home Energy Scores for homes for sale in Ann Arbor.

THE CITY OF ANN ARBOR NAMED TO THE 2024 CDP A LIST, the top status available from the largest global independent environmental disclosure system, recognizing global leadership in environmental transparency, climate action, and resilience planning. Ann Arbor is only one of 29 US cities to receive an A!

A<sup>2</sup>ZERO PARTNERS WITH AFC ANN ARBOR TO PROMOTE SUSTAINABILITY AND YOUTH ACCESS TO SPORTS: This year, OSI and AFC have teamed up to ensure all the team's jerseys and clothing merchandise are made from sustainable, eco-friendly materials! Learn more at <u>afcannarbor.com</u>.

### **ANNOUNCEMENTS**

ANN ARBOR ONE OF TWO CITIES TO RECEIVE PLATINUM STATUS FROM THE MICHIGAN GREEN COMMUNITIES CHALLENGE: The Challenge is an annual program that serves as a guide to help communities measure their progress towards sustainability. This is the first year the Platinum certification has been offered, and recognizes only two cities, demonstrating their unique commitment and dedication to creating a sustainable community.

**ELECTRIC LEAF-BLOWER COMPLIANCE:** The use of gaspowered leaf blowers will be prohibited within Ann Arbor city limits June 1 – September 30, 2025. The purpose of this ordinance is to protect the health and welfare of Ann Arbor residents as well as to promote the City's sustainability goals by reducing noise, air pollution, greenhouse gas emissions, and other negative effects of gas leaf blowers. If you are interested in learning more about the ordinance, alternatives to gas leaf blowers, or sustainable lawn care, visit the gas leaf blower phase-out website at <u>osi.a2gov.org/leafblowers</u>.

**NEW EPISODES OF GREEN LIGHT:** Learn more about the history of Earth Day in Ann Arbor and Home Energy Rebates and Home Energy Advisor programs at <u>osi.a2gov.org/GreenLight</u>.

**POLLINATOR AWARE YARD CARE:** As you start to use your green thumb this year, we encourage you to consider using pollinator-aware yard care practices. Learn more about how you can get involved and find resources to guide you in your pollinator-aware journey at <u>osi.a2gov.org/pollinators</u>.

**THE A<sup>2</sup>ZERO HEAT PUMP CONCIERGE PLATFORM**: Users can input home information to generate initial heat pump system design options in a process that takes approximately five minutes. Together, this information aims to empower residents to choose the heat pump that's right for them, including any and all necessary improvements that might be needed as part of transitioning from fossil gas heat to heat pumps. The entire process is free for Ann Arbor residents. Learn more at osi. a2gov.org/ HeatPumpConcierge!

**SOLARIZE ANN ARBOR:** Have you considered solar and/or battery storage to reduce your emissions, reduce your energy bills, move toward energy independence, or to power your new e-bike or electric vehicle? Solarize Ann Arbor has groups running now! Join your fellow Ann Arbor area residents to learn about solar and for the bulk-buy savings opportunity. Email Connor Dailey (<u>cdailey@a2gov.org</u>) if you are interested in joining or hosting a group, or if you have any questions!

#### WHAT IS GREEN RENTAL HOUSING?

Office of Sustainability and Innovations staff have been working for four years with community stakeholders to craft a new Green Rental Housing Ordinance. Slated to be presented to City Council in June, the Ordinance will help protect the health, safety, and well being of renters across the city. Learn the facts about the Ordinance at <u>the Green</u> <u>Rental Housing Ordinance webpage</u>.

#### HOW DOES GREEN RENTAL HOUSING HELP?

- Improved Health: Efficient units have less exposure to indoor and outdoor contaminants, improving occupant health and safety.
- Increased Comfort: Units that are more energy efficient maintain more consistent and comfortable temperatures year-round. More efficient homes can also contribute to better physical and mental health due to less exposure to harmful pollutants and less financial stress due to lower energy bills.
- Lower Utility Bills: Units that are efficient use less energy, saving on utility bills. Effectively keeping out the extreme heat and cold and having more efficient appliances reduces how much energy is needed to maintain a comfortable temperature and power appliances.
- Decreased Emissions: Using less energy reduces the amount of greenhouse gas emissions generated by our buildings. Lowering emissions from rental units helps us work together as a community to reduce our greenhouse gas emissions.



City officials break ground at Michigan's first net-zero fire station.

## **UPCOMING EVENTS**

A<sup>2</sup>ZERO WEEK IS COMING JUNE 1 - 7! Join the Office of Sustainability and Innovations and the broader Ann Arbor community for a week-long celebration of climate action and community with family-friendly events, prizes, resources, food, and more! Check out the highlights on page 7 and the full schedule at osi.a2gov.org/a2zeroweek.

ANN ARBOR SUMMER FEST June 14, 5-9PM | Ingalls Mall Join the Ann Arbor Office of Sustainability and Innovations Team at the Annex and Kid's Zone to immerse yourself in many ways to increase personal, household, and community resilience. From household emergency planning to hosting neighborhood block parties, creating nature-based landscapes, repairing and repurposing materials, and investing in resilient energy systems, this interactive series of activities will inspire and delight family friends engagements and activities for humans of all ages. Learn, engage, have fun, and be inspired! **GEOTHERMAL OPEN-HOUSE**, June 18, 4–5:30PM, Mitchell Elementary

Join AAPS, the City of Ann Arbor Office of Sustainability and Innovations, and Midwest Geothermal to get to know more about what geothermal is and how it works! Members of the public are invited to see what AAPS and the City are doing to advance sustainable heating and cooling solutions at schools and in the community.

**PARK ADOPTION WORKDAY** June 27, 3-5 PM | Baxter Park Join the City of Ann Arbor's Office of Sustainability and Innovations in adopting Ann Arbor's parks! Come prepared to get dirty and make a difference! Close-toed shoes, long pants, and a refillable water bottle are recommended. <u>RSVP</u> <u>online at Ann Arbor's Volunteer Hub.</u>

**21-DAY FAST TRACK TO REDUCING FOOD WASTE, JUNE 8 - 29:** Learn to build a simple routine that will help you make the most of your food. With daily tips and a friendly competition for prizes to encourage you along the way, you'll be on the Fast Track to making a real impact for the planet and your wallet! Sign up at <u>zerowaste.org/fasttrack</u>.

For more information on our upcoming events, please visit <u>www.a2gov.org/sustainability/events</u>.

CONNECT WITH THE OFFICE OF SUSTAINABILITY AND INNOVATIONS sustainability@a2gov.org | FB: A2Zero | IG: @a2zero2030 JOIN OUR MAILING LIST | YOUTUBE | a2zero.org

### **BENCHMARKING & DISCLOSURE ORDINANCE NOTICE**

Properties covered by Ann Arbor's Energy and Water Benchmarking Ordinance are required to submit 2024 calendar year energy and water usage by June 1, 2025. Enforcement of the ordinance begins after June 1, 2025. If you have any questions or need assistance, contact the city's Benchmarking Team at <u>benchmarking@a2gov.org</u>, 734.794.6000 x 43743. As a reminder, the Ann Arbor/Washtenaw 2030 District offers free benchmarking services. To start working with the District, join <u>using the short form on their website</u>.

Multiple properties covered by the Benchmarking Ordinance have informed the City they have received notifications from a private company offering benchmarking services for a fee. **This is a solicitation from a private company to offer their services, not an official notification from the City.** While the City contracts with the Ann Arbor/ Washtenaw 2030 District to offer benchmarking services, and DTE requires properties to work with the District to access DTE's data automation program, the District's services and DTE's data automation tool are completely free. You may choose to pay a third-party benchmarking service provider to assist you, but you are not required to pay any entity to become compliant with the ordinance. **Official City notices will have the City seal present**. If you have any questions about the validity or content of any notice you receive, email the City's Benchmarking Team at benchmarking@a2gov.org.