

# Sustainable Kent News

The latest on Kent’s Sustainability work



Sustainability Commission

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In our last edition of Sustainable Kent News, we noted that the City collaborated with Keramida, Inc. to produce a BASIC level greenhouse gas (GHG) inventory update using data for the calendar year 2022. The update confirms that commercial, institutional, and residential energy use continue to be our largest areas of emissions with a combined Stationary Energy total of 54.92%, and transportation coming in right behind at 44.32% of our total 441,521 metric tonnes of CO2 equivalent emitted within the City boundaries.

Knowing that the Stationary Energy and Transportation sectors house our greatest areas of emissions, we have prioritized work in these areas of the Climate Action Plan (CAP) for 2024. As such, we are focused on developing our Municipal Energy Management Plan (p.11 of the CAP), Expanding Solar Energy (p.15 of the CAP), and developing our Electric Vehicle Infrastructure (p. 18-19 of CAP) and Bike and Walk Infrastructure (p.20 of CAP) to address the respective sector emissions.

This initiative work must be supported by ongoing funding and planning and is complimented by providing necessary education and outreach work with the community as well. Read on to find out the latest about what we’re doing to move this work forward!

Should you ever have questions, comments, and/or suggestions related to the CAP work or other sustainability related items in Kent, please feel free to contact the City’s Sustainability Coordinator, Julie Morris, at: [julie.morris@kentohio.gov](mailto:julie.morris@kentohio.gov).

## CHRONICLING THE IMPLEMENTATION OF THE CLIMATE ACTION PLAN

Assess. Advise. Achieve.

# City of Kent Decarbonization Planning Carbon Footprint Inventory May 2024



### WORLD KINECT' S DECARBONIZATION GLIDEPATH FOR THE CITY OF KENT

Back in November of 2023, NOPEC alerted Kent City Council that the City of Kent was selected as one of only 5 NOPEC communities to receive an additional resource in the realm of decarbonization and sustainability planning as part of their new Resiliency and Sustainability Support program. In their letter to Council, they advised Kent was selected because of “its commitment to decarbonization progress and embrace of sustainable development”. They advised this resource, valued at over \$40k, is the provision of a consulting and research team from the global comprehensive energy solutions company, World Kinect, to help respond to the stated needs of Kent’s Climate Action work in the following ways:

- “**Prioritization:** Assist with prioritization for ongoing activities and review of mitigation strategies related to municipal buildings;
- Solar on City Buildings:** Identify, assess, and recommend which city-owned buildings would be good candidates for solar development, and conduct a detailed analysis to determine overall viability and budgetary impact of installing on-site solar for up to two of the most feasible municipal facilities;
- Carbon Audit for City Buildings:** Conduct a carbon footprint inventory, base case condition, and glidepath development for municipally owned buildings, including a review, validation, and update of previously performed carbon footprint inventory;
- Contextualize Climate Action Plan:** Contribute data and findings...for further contextualization and utilization of the recently approved Climate Action Plan; and
- Cohort Meetings:** Invitation to attend four quarterly meetings the other 4 communities to discuss best practices and share Sustainability Market Intelligence from the perspective of World Kinect.”

Fast-forward to today, and we've been making solid progress on these stated goals.

First steps involved providing World Kinect with a wide variety of data related to our city properties and associated energy use, including access to our City's most recent Green House Gas Inventory Update.

## Executive Summary

- City of Kent is committed to taking action to reduce organizational carbon emissions
- The scope of the analysis encompasses 16 Facilities, multiple freestanding electric accounts and diesel and gasoline purchases
  - 57 electric accounts primarily street and traffic lights
  - Diesel and gasoline use across fleet and misc. small engine uses
- The objective of the decarbonization strategy is to develop a meaningful, actionable plan based on a comprehensive energy and carbon analysis.
- Total Carbon Footprint for 2022 is 5,266 Mt CO<sub>2</sub>e
  - Scope 1 emissions accounts for 1,527 Mt (Diesel and gasoline are 53% of Scope 1 emissions)
  - Scope 2 emissions accounts for 3,739 Mt (using market-based factors)
- Based on the portfolio analysis and option evaluation, the primary levers available to City of Kent are focused on sourcing strategies:
  - 2,558 Mt CO<sub>2</sub>e of carbon reduction is needed to achieve a 50% reduction from the 2022 baseline, representing 71% of City of Kent's total Scope 2 emissions
- To reach Net Zero for 2022 through purchase of Renewable Energy Certificates (RECs) and carbon offsets would cost approximately \$27,175/annually (\$4/MWh RECs and \$8/Mt offsets)

### Summary and Recommendations

#### Key Strategic Considerations

- The new City hall is not included in these calculations as it was still under construction
- Total electricity use for the City is over 7,865 MWh in 2022
- Based on utility bills provided, we estimate that total electricity spend was ~\$617,000 in 2022
- Liquid fuels (diesel and gasoline) were 53% of scope 1 emissions

#### Recommendations

- Consider on site solar at two locations
  - New safety building (rooftop)
  - Water treatment facility (ground mount)
- Additional renewable energy procurement may be necessary due to limited size of production available
- Electrification of the fleet vehicles as available will make a significant impact on the total scope 1 emissions and can be mitigated through scope 2 options
- Energy efficiency audits and projects will reduce scope 1 and 2 emissions and utility costs

Utilizing same, the team at World Kinect was able to provide an initial glidepath report, providing a portfolio of City building energy and carbon emission analysis, and some initial recommendations for efficiency and decarbonization measures for consideration.

As a result of this initial analysis work, the World Kinect Team connected the City to a program with Greater Cleveland Partnership (GCP) that paid for ASHRAE Level II energy audits for four of our City buildings identified in the glidepath as being significant energy users: Kent's Police Department, Fire Station No.1 (downtown), the Service Administration Complex at Overholt, and the City's Vehicle Maintenance Facility.

These facility audits were conducted on June 11<sup>th</sup> and we are pending receipt of their final reports. Once all four have been received, we'll be scheduling a meeting with GCP to review their findings and suggestions. It should be noted that ASHRAE Level II energy audit assessments are generally required for almost all grants involved in funding energy efficiency initiatives, so these reports will help us be ready to pursue such funding as we move forward.

The initial glidepath analysis also identified four City properties as potentially feasible for onsite solar

## Solar Assessment

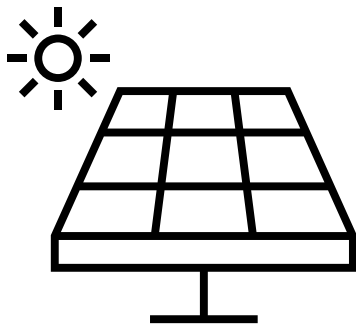
### City of Kent

	New Safety Facility	Fire Station #1	Water Reclamation Plant	Water Treatment Plant
System Size	49.0kW	75.5 kW	102.4 kW	802.6 kW
Solar Production	57,543 kWh	91,816 kWh	129,051 kWh	1,043,525 kWh
Current Electricity Use	482,539 kWh	321,004 kWh	1,722,908 kWh	1,399,440 kWh
% of Total Electricity	11.9%	28.6%	7.5%	74.6%
Carbon Reduction	27 Mt CO <sub>2</sub>	44 Mt CO <sub>2</sub>	61 Mt CO <sub>2</sub>	496 Mt CO <sub>2</sub>
REC Cost Avoidance	\$82	\$131	\$184	\$1,488

development: Kent’s Police Department, Fire Station No.1, Kent’s Water Treatment Plant and the Water Reclamation Facility.

Andrew Smyser, Sustainability Consultant from World Kinect, presented these 4 properties to Council on July 10<sup>th</sup> to aid in their decision to select 2 out of these to receive the full, solar-siting assessments. After hearing the presentation, Council selected the Fire Station and Water Treatment Plant to receive same. As the next step, City staff will be meeting with World Kinect’s solar team to discuss what these in-depth site assessments will entail and what will be needed to move forward.

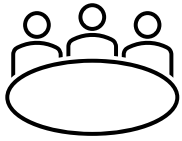
Stay tuned as we’ll be providing more information via our newsletters, website, and via other outlets as the various reports and analysis related to this work become finalized and available.



**VISIT OUR RECENTLY UPDATED SUSTAINABILITY OVERVIEW WEBPAGE!**

The City has a new webpage to feature our Sustainability work and keep you posted about our related CAP implementation progress, programs, news, events, and more!

Visit: [www.kentohio.gov/business-building-development/sustainability-overview/](http://www.kentohio.gov/business-building-development/sustainability-overview/)



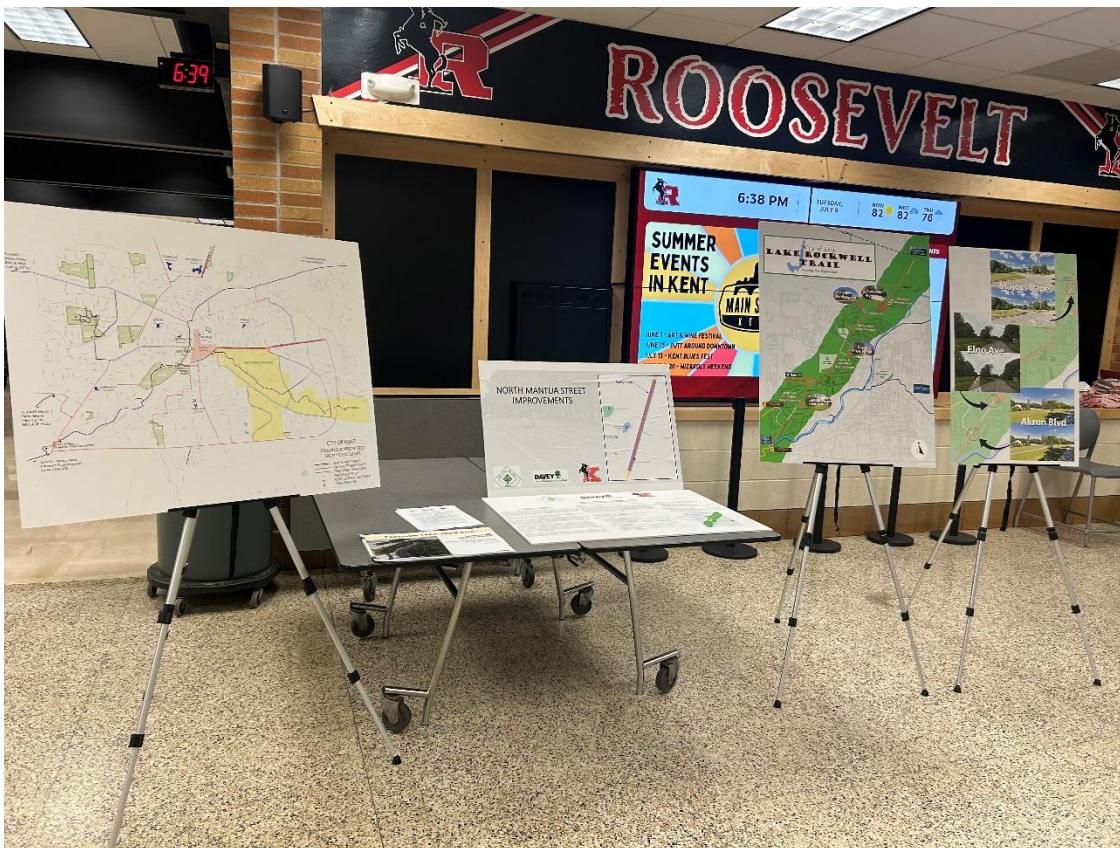
## AROUND THE CITY: Sustainable Transportation Open House Recap

In order to help address Transportation sector carbon emissions, the City’s Climate Action Plan features a section detailing Bike and Walk Infrastructure goals (p.20 of the CAP). It advises that “walking and cycling are the cleanest ways to get around a city, and both can have enormous benefits for health, greenhouse gas emission reduction, air quality, road safety, and equity.” The specific goals noted in this section of the CAP all have current momentum, and are in alignment with the long-standing, community-driven goal of improving pedestrian orientation as outlined in the City’s 2004 Bicentennial Plan.

The City of Kent is working to connect neighborhoods to destinations in our region with additional choices for how people can get from their homes to where they’d like to go, including the option of not using a car. On July 9<sup>th</sup>, the City, in partnership with PARTA and AMATS, hosted an open house event focused on sustainable and active transportation to not only help further this goal of connection, but also provide education on how to use existing walk, bike and public transit infrastructure, and showcase planned additions and improvements to active transportation routes in our area.

Resource tables and representatives from the City of Kent’s Sustainability Commission, Engineering Department,

Parks and Recreation Department, as well as from PARTA and AMATS were present to answer questions and provide information about different segments of our bike and walk infrastructure and trails, our public transit system, as well as highlight aspects of the various City and organization plans that support these goals.



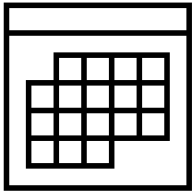
After visiting each station to view maps of planned area trails and route improvements, attendees were able to sit down at tables featuring large, paper maps of the City. Folks then worked to identify and mark areas on those maps where there are obstacles or a lack of connection from existing neighborhoods to an existing route, and/or where they felt a new route may be needed.

Feedback from those who attended was positive and over 60 comments were received identifying areas for improvement across the entire City. Many comments focused on slowing traffic and improving crossings, especially around Holden Elementary and Kent Roosevelt High Schools, and areas along State Routes 43 and 59.

## Sustainable Kent News

Safer crossings and better pedestrian access to destinations like Plum Creek Park and Mad Cap Brewery around Cherry St. and Mogadore Rd. were also repeatedly identified as needed. All comments received will be considered and reviewed for fit with various applicable infrastructure and climate action planning decisions moving forward.

Many thanks to Kent City Schools for providing use of Kent Roosevelt's cafeteria to host the event, and to PARTA, AMATS, and all attendees for your partnership in making Kent a more active transportation friendly community!



## CALENDAR & ITEMS OF INTEREST

**Supporting our local businesses and organizations is a key component of Sustainability! Check out the City's Culture & Community section of the website ( [www.kentohio.gov/culture-community/](http://www.kentohio.gov/culture-community/) ) for more details about the following:**

- **Haymaker Farmers' Market**
  - Open year-round, every Saturday morning in Kent: Held outdoors in downtown Kent on Franklin Ave. from April through October, 9am to 1pm, and indoors at the Unitarian Universalist Church of Kent – Hobbs Hall from November to March, 10am to 1pm. Visit [www.haymakermarket.com](http://www.haymakermarket.com) for full details.
  
- **Main Street Kent**
  - A non-profit organization that focuses on the promotion, beautification, and revitalization of downtown Kent. The City of Kent, Kent State University, local businesses, and community members support Main Street Kent. Check out their full calendar of events here: [www.mainstreetkent.org/events/full-calendar/](http://www.mainstreetkent.org/events/full-calendar/).
  
- **The Kent Area Chamber of Commerce**
  - Visit [www.kentbiz.com/events/eventcalendar](http://www.kentbiz.com/events/eventcalendar) for a full listing of Chamber and Community events.
  
- **Kent Historical Society & Museum**
  - Learn more about our community at Kent's primary history resource and reference center! Visit [www.kentohiohistory.org](http://www.kentohiohistory.org) for organization details and events.
  
- **Kent Parks and Recreation**
  - Offers a variety of locations, programs, and events for individuals and families to enjoy. They provide quality recreation and entertainment for the community through parks, sports, fitness, education and cultural arts. Visit their full program and event offerings at: [www.kentohio.gov/culture-community/kent-parks-and-recreation/](http://www.kentohio.gov/culture-community/kent-parks-and-recreation/)

- **Grill For Good – 8/10/2024**
  - Head downtown to Kent’s Hometown Bank Plaza for the Grill for Good event on Saturday, August 10<sup>th</sup> from 12pm to 6pm to support Coleman Professional Services, Family & Community Services, and the Kent Jaycees. Visit [2024 Grill For Good | Facebook](#) for full details.
- **Dog Days of Summer – 8/17/2024**
  - Head downtown to Kent’s Hometown Bank Plaza to enjoy the Madonio Animal Trust Annual Dog Days of Summer event on Saturday, August 17<sup>th</sup> from 11am to 4pm. Full details available at: [Dog Days of Summer Festival \(madonio-animal-trust.org\)](#)
- **Dan Smith Community Park Concert Series – Swizzle Stick Band 8/24/2024**
  - Head to the Dan Smith Community Park on E. Erie Street in downtown Kent Saturday, August 24<sup>th</sup> from 6-8pm to enjoy free, live music by the Swizzle Stick Band. Go to [Events | United States | College Town Kent](#) for full details.
- **Kent Parks & Recreation’s Art in the Park – 9/7/24 & 9/8/24**
  - Be sure to visit this free, family friendly experience that attracts residents from all over Northeast Ohio. Art in the Park will be held in Fred Fuller Park the weekend after Labor Day with hours as follows: Saturday, September 7<sup>th</sup> from 10am to 6pm and Saturday, September 8<sup>th</sup> from 11am to 5pm. For full details, visit [Art in the Park | City of Kent \(kentohio.gov\)](#) .

**CITY OF KENT SUSTAINABILITY  
COMMISSION**

Meetings are held on the first Monday of every month at the Service Administration Complex (930 Overholt Road, Kent, OH 44240) from 5:30pm – 7pm and are open to the public.

Visit us on the web: [www.kentohio.gov/our-government/boards-and-commissions/sustainability-commission/](http://www.kentohio.gov/our-government/boards-and-commissions/sustainability-commission/)