

**MILWAUKEE COUNTY  
INTER-OFFICE COMMUNICATION**

Date: August 16, 2024

To: Marcelia Nicholson, Chairwoman, Milwaukee County Board of Supervisors

From: Grant Helle, Interim Sustainability Director, Department of Administrative Services, Facilities Management Division

Subject: WY062502 Climate Action 2050 Plan Update

File Type: Informational Report

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This informational report provides updates regarding Milwaukee County's strategic plan to achieve carbon neutrality in county facilities and operations by 2050 – hereafter referred to as the 'Climate Action 2050 Plan', or 'CA50 Plan.'

**POLICY**

File No. 21-389 commits Milwaukee County to become carbon neutral by 2050 and requests the Sustainability Director to develop and administer a strategic plan to achieve carbon neutrality in Milwaukee County facilities and operations by 2050.

File No. 23-485 requests that the Office of Sustainability, Department of Administrative Services develop criteria to evaluate the contribution of capital projects to Milwaukee County's carbon neutrality policy and strategic plan.

File No. 24-652 requests that the Department of Administrative Services – Office of Sustainability and Office of Strategy, Budget and Performance – Project Management Office to collaborate with the City of Milwaukee and other applicable entities to apply for, and accept if awarded, grants to help effectuate climate action goals.

**REPORT**

This informational report contains the following sections:

1. Background
2. Climate Action Planning Updates and Timetable
3. Collaborative Efforts
4. Funding Opportunities
5. Other Climate Action Activities
6. Challenges to Implementation
7. Next Steps

## **BACKGROUND**

Climate action planning for Milwaukee County is being guided by Milwaukee County's Sustainability Task Force (STF) and coordinated by the Office of Sustainability. Formed in 2021 by the Office of the County Executive, the STF is co-chaired by the Interim Sustainability Director and Director DAS-FMD and consists of staff and administrators representing 10 county departments. More information about the task force, including its membership and public meetings, is available through the County Legislative Information Center<sup>1</sup>.

In August 2021, the STF published “**Climate Action 2050 – Achieving Net Zero Carbon Emissions While Advancing Equity, Justice, & Community Resilience**” (*CA50 Framework*<sup>2</sup>). This report is the framework for developing and administering a strategic carbon neutrality plan for Milwaukee County. As recommended by the STF in the CA50 Framework, the plan will be developed using a racial equity lens to identify strategies that will help the county mitigate and adapt to the impacts of climate change while improving community health and equity. In this framework, the STF established our **Guiding Principles for the Climate Action 2050 Plan** – (see *Figure 1*), which align CA50 planning to the county's vision and strategic focus areas. The CA50 Framework also studied and provided lessons learned from other local governments. Per the framework, the plan will serve as a roadmap for Milwaukee County to:

1. Achieve 'carbon neutrality', or zero net carbon emissions, in county operations no later than 2050;
2. Improve the resiliency of county operations and the community to climate change; and,
3. Align Milwaukee County's climate initiatives with its Vision to become the healthiest county in Wisconsin by achieving racial equity.

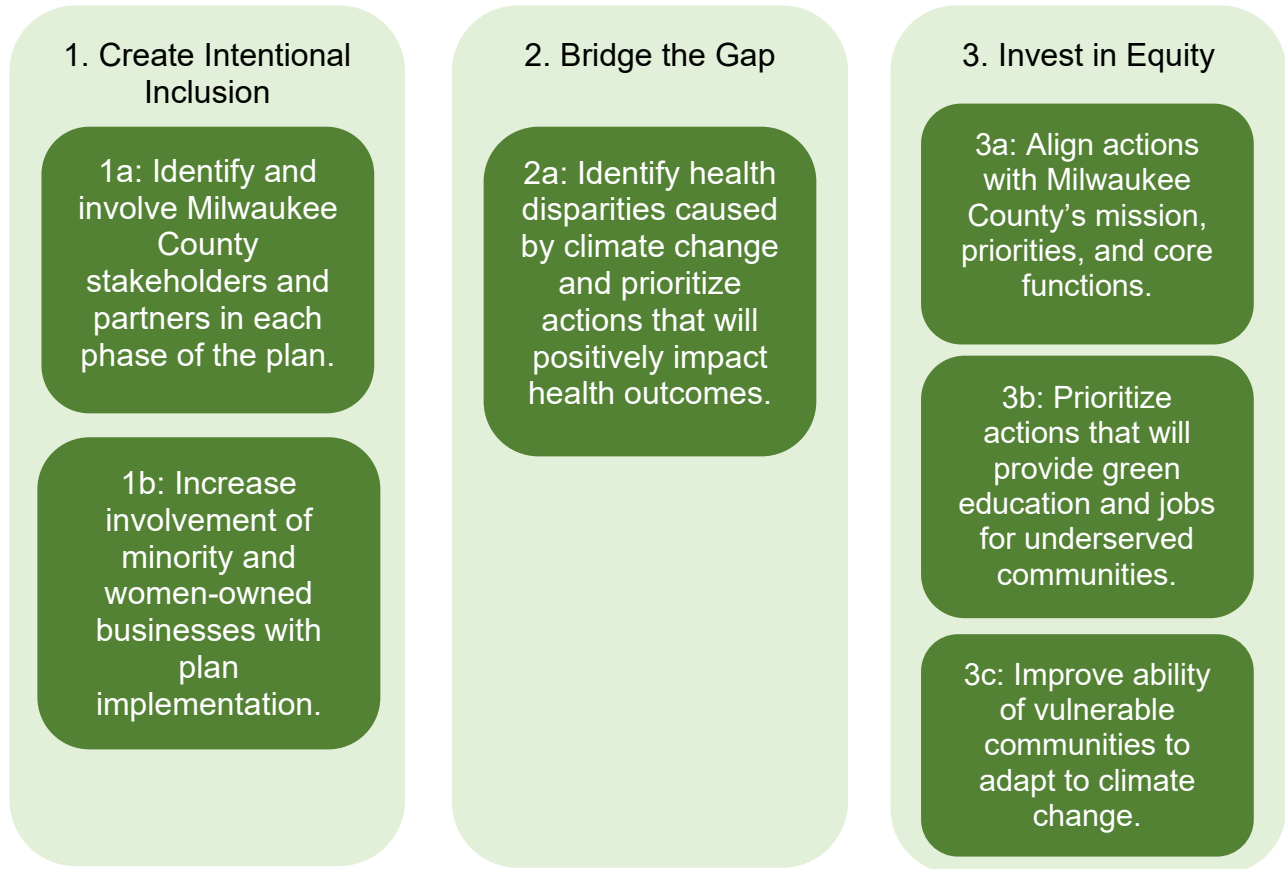
In September 2022, the Office of Sustainability (OS) kicked off development of the Climate Action 2050 Plan with the STF. Activities since then, progress and proposed next steps are detailed below.

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<sup>1</sup> <https://milwaukeecounty.legistar.com/DepartmentDetail.aspx?ID=45502&GUID=27A7D063-47A7-4DF4-B9ED-6ECD2241041E>.

<sup>2</sup> <https://milwaukeecounty.legistar.com/LegislationDetail.aspx?ID=5127520&GUID=A81EF9E0-BA24-49C5-925F-4572D7BC2019>

**Figure 1. Guiding Principles for the Climate Action 2050 Plan**



## **CLIMATE ACTION PLANNING UPDATES**

### **2022 Emissions Inventory**

Following the LGO Protocol, OS recently completed an inventory of Scope 1-2 carbon emissions from 2022 Milwaukee County government operations<sup>3</sup>. Consistent with past inventories, the 2022 inventory accounts for emissions from sources for which the county has full operational authority or has the ability introduce and implement operating policies. Thus, the inventory includes emissions from Milwaukee County Transit System (MCTS) operations but excludes emissions from aviation travel, or from county-owned, leased facilities (e.g., Milwaukee Public Museum, Milwaukee County Historical Society, Marcus Center for Performing Arts).

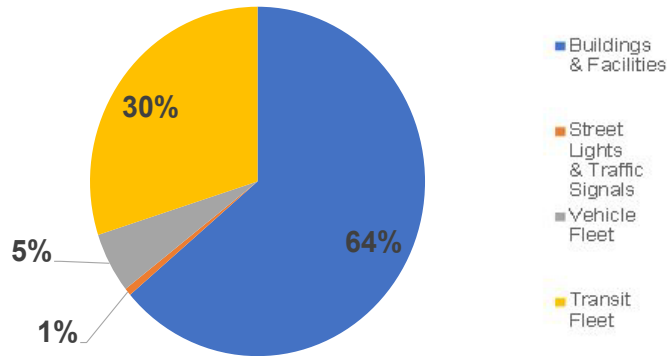
During 2022, Milwaukee County government operations generated approximately 116,373 metric tons of carbon dioxide equivalent (MTCDE) – a three percent reduction

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<sup>3</sup> Scope 1 emissions result from Milwaukee County's use of fossil fuels to operate and maintain County-owned facilities, vehicles, and other equipment. Scope 2 emissions result from the County's use of purchased or acquired electricity, steam, heating, and cooling.

since 2021. The County’s total emissions is roughly equivalent to those generated by 25,897 passenger vehicles driven for one year<sup>4</sup>. Consistent with past inventories, Buildings & Facilities represents the largest sector of the County’s operational emissions (64 percent of total emissions in 2022), followed by Transit Fleet (30 percent), and Vehicle Fleet (5 percent). (See *Figure 2.*)

**Figure 2. 2022 Milwaukee County Operational Emissions**



As part of CA50 Plan development, the Office of Sustainability engaged third-party consultants to complete an assessment of Milwaukee County’s emissions inventory methodology<sup>5</sup>.

Reviewers determined that Milwaukee County’s inventories generally follow the Local Government Operations Protocol (LGO Protocol)<sup>6</sup>. The consultants suggested improvements in the county’s data sources that result in minor changes (not material) to emissions estimates. OS has retroactively applied these changes to the county’s past inventories, and the corrected sources/estimates will be used in all future emissions assessments.

### Engagement Strategy

In order to develop climate action strategies and plan, we have taken a two-pronged approach to engagement that includes both internal and external stakeholders. Internal stakeholders include county leadership and all county operating departments, external stakeholders include various commissions and the community at-large.

In December 2022, the planning team launched an online survey to gauge how climate change is impacting Milwaukee County residents. The online survey garnered 755 responses, which were summarized as part of the *Vulnerability Assessment Report*<sup>7</sup>.

<sup>4</sup> U.S. Environmental Protection Agency (2023). [Greenhouse Gas Equivalencies Calculator](#).

<sup>5</sup> The Office of Sustainability prepared and [shared](#) the inventory of 2019-2021 Milwaukee County operational emissions with the Sustainability Task Force in July 2023. In 2020, the Office presented an inventory of 2016-2018 operational emissions to the County Board – see [File No. 20-318](#).

<sup>6</sup> The [LGO Protocol](#) is the rulebook for accounting for carbon emissions associated with local government operated buildings, vehicles, and other operations.

<sup>7</sup> In April 2024, the Office of Sustainability shared the Vulnerability Assessment Survey Results with the County Board – see [File No. 23-529](#).

To engage underrepresented communities, the planning team held two in-person workshops in the northwest and south sides of Milwaukee during May 2023<sup>8</sup>. More than 37 external groups have been engaged with CA50 planning to-date<sup>9</sup>.

In September 2023, the CA50 planning team hosted webinars for county employees and community members to help shape the Climate Action 2050 Plan. During the webinars, team members provided an overview of the CA50 goals and planning process, and highlighted findings from the Vulnerability Assessment Report (see below description). The team also led a discussion with attendees and answered their questions about the CA50 Plan.

In 2023 – 2024, the planning team has engaged county departments in a series of meetings to align climate action strategies and department strategic priorities. See below section on department strategy alignment for details.

We have found these engagements to be extremely valuable in the development of the county climate action strategic plan. In the next phase of the project developing strategies into detailed plans, OS and the STF will again intentionally engage all of our internal and external stakeholders.

### **Vulnerability Assessment**

In June 2023, CA50 Plan consultants prepared the *Vulnerability Assessment Report*<sup>10</sup> for Milwaukee County. Using outputs from four downscaled global climate models, the consultants identified three primary climate hazards in Milwaukee County: heat waves, flooding, and poor air quality. Under a global high-emissions scenario, Energetics found that average temperatures in the County could match those of St. Louis, Missouri by the year 2100, with wetter winters and drier summers.

As described in the assessment report, climate change will have direct impacts on Milwaukee County residents and businesses. The *Vulnerability Assessment Report* helps to bridge Milwaukee County's carbon neutrality policy with its vision to achieve racial equity. Even under a low-emissions scenario, climate change will significantly impact the local quality of life – especially for vulnerable communities. The CA50 planning team will use the report findings to develop strategies and policies to mitigate these impacts and enhance community resilience.

### **Department Strategy Alignment**

OS and the STF have continued to make progress on the CA50 Plan. The focus has been to meet with representatives from all Milwaukee County departments in February

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<sup>8</sup> In December 2023, the Office of Sustainability shared the May 2023 Community Workshop Notes with the County Board – see [File No. 23-986](#).

<sup>9</sup> In April 2024, the Office of Sustainability shared a Community Engagement To Date Tracker with the County Board – see [File No. 23-529](#).

<sup>10</sup> In December 2023, the Office of Sustainability shared the final Milwaukee County Vulnerability Assessment (corrected) with the County Board – see [File No. 23-986](#).

through August of 2024. The goal of these meetings has been to gather an understanding of every department's strategic priorities, hear from them on climate action considerations, and develop climate action strategies that align with department's strategic priorities, as well as CA50 guiding principles.

(Figure 3) represents the template used by OS to develop proposed climate action strategies. To ensure alignment, strategies are built off 1.) a specified department strategic priority, and 2.) a CA50 Guiding Principle. Proposed strategies have been reviewed with department leadership. The development process is ongoing and will lead directly into specific action plans.

**Figure 3. Department Strategic Alignment Template**

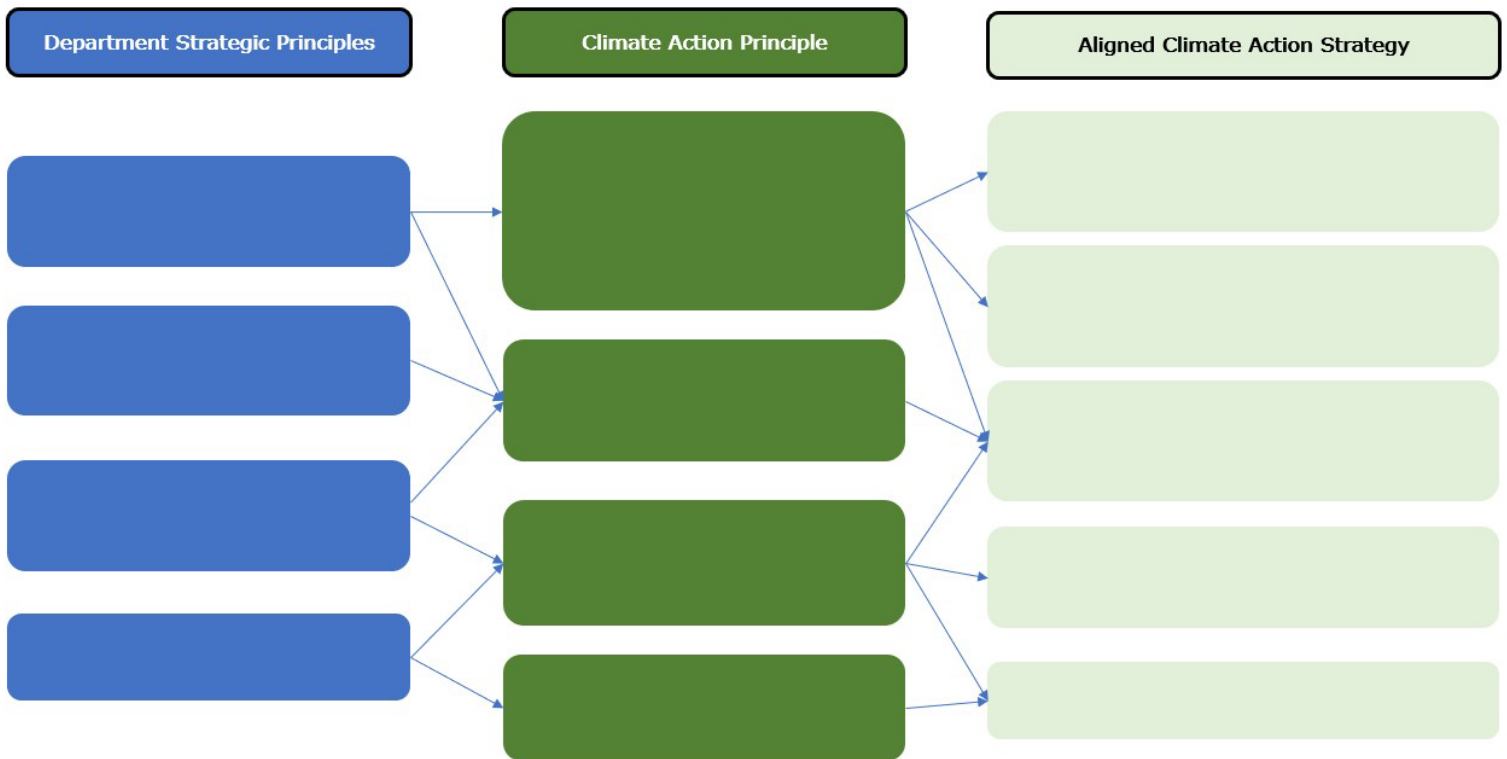


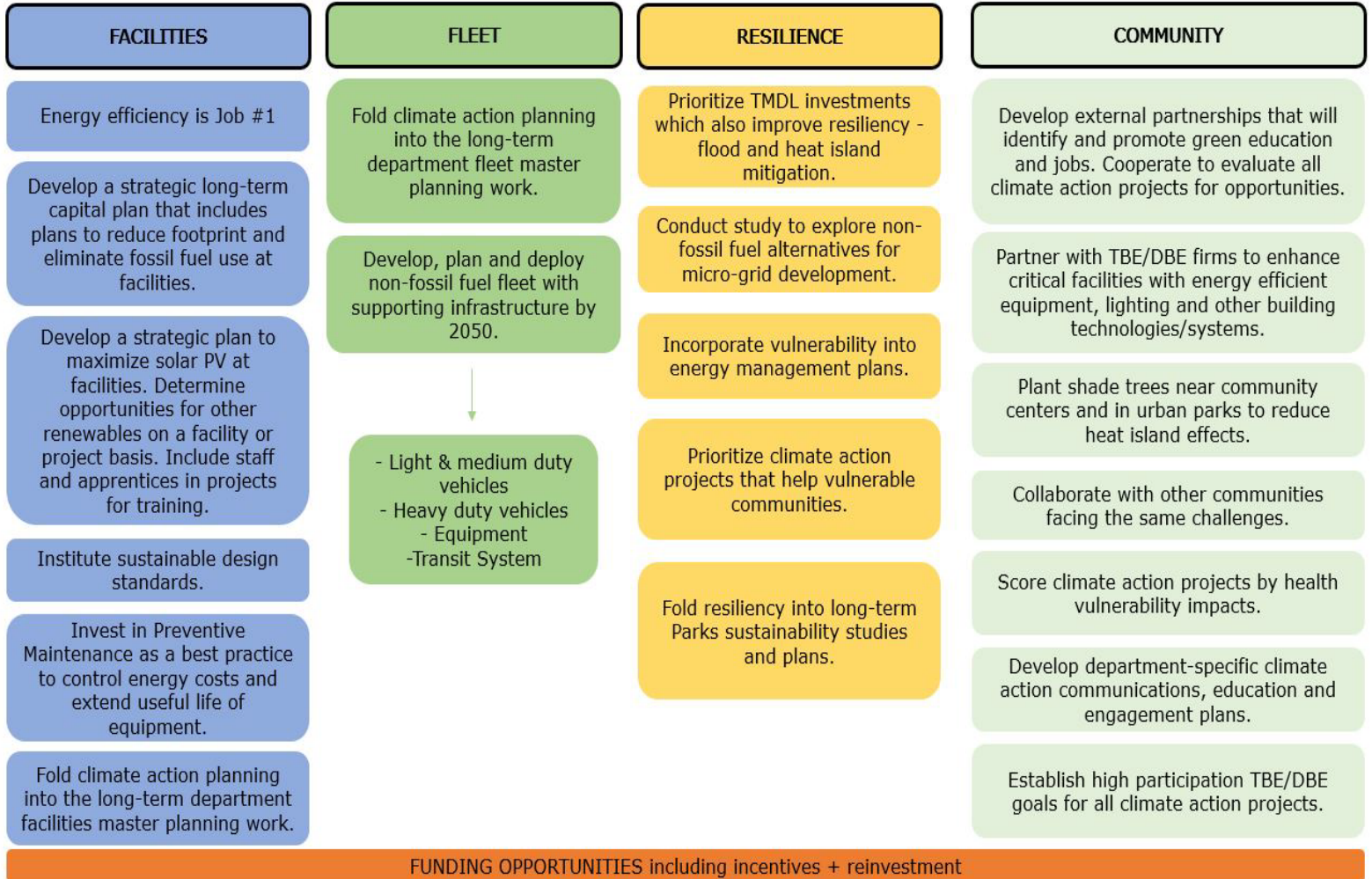
Figure 4 provides an overview of strategies which are a summation of individual department strategies. Efforts to-date have identified four impact categories which include: Facilities, Fleet, Resilience and Community. The themes that have emerged from this development include:

1. Address emissions reduction with simultaneous community economic impact.
2. Facilities emissions reductions must start with energy efficiency.
3. Moving fleets away from fossil fuels will require a long-term view.
4. Resiliency must be incorporated into Parks, Airport and County environmental compliance long-term strategic plans.



5. Methods to prioritize climate action projects that address vulnerabilities and health impacts need to be developed.
6. Partnerships and collaborations will be key to successful implementation.
7. Funding opportunities have to be addressed for all of the impact categories.

**Figure 4. Climate Action Strategic Plan**



**PLAN COMPLETION**

The Climate Action 2050 Plan is on track to deliver a draft plan for Milwaukee County stakeholders' feedback in January 2025. The final Climate Action 2050 Plan will be presented for the review and approval of the County Board during April 2025.

### **Table 1. Proposed Timeline to Completion**

September 2024:	CA50 Plan Updates – <i>Informational Report</i>
January 2025:	Draft CA50 Plan – <i>Informational Report</i>
April 2025:	Presentation of Final CA50 Plan – <i>Action Report</i>
April 22, 2025:	Proposed Board Adoption Date of CA50 Plan (EARTH DAY)

### **COLLABORATIVE EFFORTS**

In addition to collaborating with all county departments in the development of the Climate Action Plan, the Office of Sustainability is also engaging external partners who are facing similar challenges.

#### **Municipal Partnerships**

The Milwaukee County Office of Sustainability is a founding member and active participant with the [Wisconsin Local Government Climate Coalition](#) (WLGCC). The WLGCC’s mission is to provide a platform for members to collaborate on overcoming barriers to decarbonization, accelerating local climate change solutions, and ensuring the benefits of the clean energy economy are distributed to everyone throughout the state. WLGCC staff regularly monitor, report on, and coordinate informational sessions regarding climate funding opportunities that are available for Wisconsin local governments. OS recognizes the valuable collaborative opportunities that are made possible by this coalition and remain committed to participating.

OS’ Energy Program Manager participated in workshops in January and February 2024 that resulted in the development of the [City of Milwaukee’s Efficient Building Benchmarking Ordinance](#). The ordinance was passed by Common Council in July, 2024 and will require Milwaukee County to benchmark annual energy use for all buildings 10,000 square feet and larger by June 30, 2025. OS is supportive of this important program and is pleased to have had the opportunity to offer valuable input towards its development. Milwaukee County looks forward to complying with this ordinance and continuing collaboration with the City of Milwaukee through this program and others to come.

#### **Climate Pollution Reduction Grant**

In fall 2023, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) received a \$1 million planning grant from the [U.S. Environmental Protection Agency’s Climate Pollution Reduction Grant \(CPRG\) program](#). This grant allowed SEWRPC to develop a Priority Pollution Reduction Action Plan for the Milwaukee Metropolitan Statistical Area (MSA). The Action Plan included a greenhouse gas emissions inventory, priority pollution reduction measures, low-income and disadvantaged communities benefits analysis, and a review of authority to implement. The plan also proposed six priority greenhouse gas reduction strategies which were based on the [City of Milwaukee’s Climate and Equity Plan](#). Priority strategies were developed by



workgroups, of which Milwaukee County OS staff participated. As well, OS staff provided input to SEWRPC's priority strategy survey in 2023.

In mid-July 2024, Milwaukee County begun working towards signing onto a Memorandum of Agreement (MOA) between the City of Milwaukee, Waukesha, Wauwatosa, and various other communities, including Cities of West Allis, Shorewood and Ozaukee County – collectively “collaborating communities” to receive a prospective \$10M CPRG grant. However, before finalizing Milwaukee County’s sign-on of the MOA, SEWRPC was notified that they were not selected to receive CPRG. At this time, no additional action is being taken on CPRG; however, Milwaukee County will continue to look for future opportunities for collaboration with local governments.

## **FUNDING OPPORTUNITIES**

As part of our effort to pursue additional funding opportunities, OS is working with the Office of Strategy, Budget & Performance’s Project Management Office (SBP-PMO) to implement the following strategies:

### **Strategy 1: Continuous Grant Searching**

The Office of Sustainability has supplied SBP-PMO with key words related to climate action to conduct grant searches. SBP-PMO conducts daily and weekly grant searches and has developed a system of identifying forecasted grant opportunities. Additionally, when specific climate action projects are identified, OS will work with SBP-PMO and county departments to identify potential grant opportunities to pursue. All departments also have access to individualized reports listing historical grants that they have been sent and/or pursued in the past, such as the Energy Innovation Grant Program (EIGP) and Daybreak Fund pertaining to OS.

### **Strategy 2: Elective Pay Tax Credit Incentives under Inflation Reduction Act (IRA)**

Elective Pay (also called “direct pay”) allows applicable entities, including tax-exempt and governmental entities, that do not owe Federal income taxes to, for the first time, receive a payment equal to the full value of tax credits for building qualifying clean energy projects or making qualifying investments. These energy projects can include solar, wind, geothermal, battery storage and electric vehicle projects. At this time the incentives for these projects in the IRA will be in place through 2032.

OS and SBP-PMO are working to leverage these tax credit incentives for current and future projects within Milwaukee County. SBP-PMO has developed an internal process for supporting departments in identifying eligible projects and will work with OS and potential pilot divisions to apply for this tax credit incentive.

### **Strategy 3: Collaborating with City of Milwaukee and community-based organizations to pursue funding opportunities**

One of our climate action strategies is to collaborate with other communities facing similar challenges. In alignment with the first two strategies, Milwaukee County will work with both the City of Milwaukee and community-based organizations to collaborate on identifying/pursuing both grant funding opportunities and Elective Pay-eligible projects. OS will continue participation with WLGCC and keep open lines of communication with the City of Milwaukee's Environmental Collaboration Office (ECO) and SEWRPC. As well, external partnership opportunities may be identified through community engagement activities and events, and by connections between OS and other county departments with established external organizations.

### **OTHER RELATED ACTIVITIES**

In addition to climate action planning, collaboration and funding actions, OS has been leading or participating in a number of climate action projects of note:

#### **Lighting Jobs Program – an ARPA-funded climate action pilot project**

The objective of the Lighting Jobs Program is to create career pathways for local youth while improving the energy efficiency of Milwaukee County buildings. The project scope includes:

1. 1-for-1 Interior lighting replacements to LED.
2. Hire 4 high school youth apprentices for a minimum of 450 hours each.

As of July 2024, the project has completed upgrades at four (4) facilities, resulting in energy savings of roughly 318,000 kWh per year. As well, two (2) youth apprentices have completed over 800 hours of work. This project has a \$2,151,566 budget and will run through 2025 and impact up to eight (8) facilities.

#### **Solar Feasibility Assessments**

With ARPA funds, OS has worked with MCDOT-Fleet to conduct an assessment of rooftop solar photovoltaic systems at the Fleet main garage, and MCDOT has currently requested funds to build this project in the 2025 capital budget.

OS is also working with DAS-FMD and DHHS in the design and costing of both rooftop and parking lot canopy solar PV at the new Marcia P. Coggs DHHS facility.

Finally, OS is currently leading a project that has engaged a consultant to perform analyses of solar PV capabilities at thirty-eight (38) County facilities representing six (6) County Departments. This solar assessment will:

1. Identify and narrow down the County's potential solar site candidates.
2. Develop and Report Recommendations on Prioritized Investments.

Additional information on the assessment can be found in our September board report responding to resolution No. [24-566](#).

*E-SWAT Team – an operations-funded climate action energy efficiency program*

OS has partnered with FMD Operations & Maintenance and the Central Business Office to evaluate the Courthouse Complex steam and electric usage and cost. The goal of this team is to develop actionable strategies that can lead to a \$500,000 cost savings in the first year. Current and planned activities include:

1. Inventory and replacement of steam traps.
2. Analysis of utility demand charges and actionable plan to minimize associated costs.
3. Influence of capital project requests to benefit increased energy efficiency at the complex.
4. Analysis of proposed utility rate increases and associated cost impacts.
5. Conduct an ASHRAE Level-1 energy audit to include a detailed site walkthrough and investigation to identify and verify existing energy performance, conditions, and issues with CHC energy systems.
6. Develop an air system Test-and-Balance (TAB) plan.
7. Evaluate chilled water and air handling systems operations.

*New Criminal Courthouse Planning and Design*

The Office of Sustainability is participating in the planning and design of this project, currently focused on the following:

1. Development of an Energy System Plan for optimization of energy systems in the existing Courthouse Complex facilities, as well as the new Milwaukee County Justice Center which will replace the Public Safety Building.
2. Development of Sustainable Design Guidelines for Milwaukee County, incorporating sustainable energy systems into the project based on strategies developed by the Energy Systems Consultant.

Our goal is to assure that this major county initiative aligns with, supports, and fully demonstrates the principles of CA50.

*Others*

In addition to OS efforts, other county departments are also implementing energy conservation measures (ECMs) such as efficient equipment replacement, lighting retrofits, sustainable new design, electric vehicle pilot testing, resiliency studies, green infrastructure, reforestation and others. County departments are not only aware but already taking action to reduce emissions and combat climate change impacts. Ongoing countywide effort will be needed to achieve emissions reduction goals.

## **RISKS TO CA50 PLANNING AND IMPLEMENTATION**

It's important to note that in the development of the county CA50 Plan we have assumed and will rely on the promise of WE Energies to 'green the grid' by 2050. WEC Energy Group, parent company of WE Energies, has committed to exit from its use of coal by 2035 and to achieve net-zero carbon emissions from power generation by 2050<sup>11</sup>. Since Milwaukee County will continue to consume electricity from WE Energies in future years, emissions attributable to that energy production will therefore be attributable to Milwaukee County. Although the county cannot influence the progress of WE Energies emissions reductions, we depend on the follow through of their commitment as a partnership to achieve our own emissions reduction goals.

## **CHALLENGES TO CA50 PLANNING AND IMPLEMENTATION**

With the adoption of the county net zero policy, the county is now engaged in an effort to transition our energy-using systems and reduce our emissions - and to do so in just a few decades. That is a big ask. In the digital age, we have become accustomed to lightning-fast transformations. But an energy system is a physical entity, and this energy transition will take decades of dedicated effort.

We have measured the challenge, and real progress has been made, but the transition remains in its very early stages. Deploying low-emissions technologies well and progressing the transition further requires understanding the physical realities of the energy transition - the "hard stuff." Recognizing that the energy transition is first and foremost a physical transformation is a truth that can get lost in the abstraction of net-zero scenarios. But it is vital if the new county energy system is to retain, or even improve on, the performance of the current one and secure an affordable, reliable, competitive path to net zero.

To be successful, CA50 planning and implementation will require on-going collaborative efforts and funding. As noted in the Climate Action Framework report, every organization tackling climate change has a unique set of stakeholders, resources, and processes to consider. In Milwaukee County, key factors that will drive the Climate Action 2050 planning process will necessarily include leadership from the County Executive and County Board, the desire to align Climate Action with health and racial equity outcomes, a consistent and long-term source of funding for initiatives, support from all County departments, and engagement of all stakeholders.

Critical first steps have been taken:

- Establishing and maintaining a Sustainability Task Force.
- Development of the Guiding Principles and framework for planning.
- Engagement of community and county department and leadership stakeholders.

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<sup>11</sup> WEC Energy Group emissions reduction plans can be found [HERE](#).

- Collaboration with coalitions.
- Early implementation of pilot projects.

Continued strategic engagement to ensure stakeholders are effectively included up front in decision making will be critical.

## **NEXT STEPS**

As stated above, the goal is to present to the Board an actionable climate action plan by April of next year. To get there the Office of Sustainability, in collaboration with county departments, will further develop and implement the internal and external communications and engagement plan, to involve all stakeholders in the details of climate action planning. This planning effort will take the climate action strategies to the next level of detail, providing a multi-year implementation plan with projected costs, benefits, and outcomes.

## **ALIGNMENT TO STRATEGIC PLAN**

The Climate Action 2050 Plan will support Milwaukee County's strategic plan by creating intentional inclusion and investing in equity. The planning team will develop the plan with intentional inclusion of diverse stakeholders, both internal and external to the county administration. In addition, as described in the CA50 Framework<sup>1</sup>, the plan will emphasize strategies and actions that provide racial and health equity co-benefits – not just environmental protection or cost savings. Finally, the Climate Action plan can support the county's fiscal sustainability, as smart energy system investments can reduce operating costs.

## **FISCAL EFFECT**

The report is informational only and there is no fiscal impact.

## **VIRTUAL MEETING INVITES**

Stuart Carron, Director of Facilities Management – Department of Administrative Services – Facilities Management Division  
Grant Helle, Interim Director, Office of Sustainability – Department of Administrative Services – Facilities Management Division  
Rachael Schaser, Grant & Project Analyst, Office of Strategy, Budget & Performance – Project Management Office

**PREPARED BY**

Grant Helle, Interim Sustainability Director, Facilities Management Division, Department of Administrative Services

**APPROVED BY**

*Stuart Carron*

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Stuart Carron, Director, Department of Administrative Services, Facilities Management Division

**ATTACHMENTS**

cc: Kelly Bablitch, Chief of Staff, Milwaukee County Board of Supervisors  
Janelle M. Jensen, Legislative Services Division Manager, Office of the County Clerk  
Aaron Hertzberg, Director, Department of Administrative Services