



CITY-COUNTY TASK FORCE ON CLIMATE AND ECONOMIC EQUITY

Preliminary Report

March 2020

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**CITY-COUNTY TASK FORCE ON CLIMATE AND ECONOMIC EQUITY
PRELIMINARY REPORT**

City of Milwaukee, Wisconsin
March 2020

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I. EXECUTIVE SUMMARY

Year after year and study after study have shown a clear scientific consensus: the global climate is changing, with human activity as the primary contributor. In the last 5 years alone, reports from the United Nations Intergovernmental Panel on Climate Change (IPCC), the United States Global Change Research Program, the United Nations Framework Convention on Climate Change, the Milwaukee Metropolitan Sewerage District (MMSD) and countless other reputable entities have all contributed key findings that the planet's climate is drastically changing, primarily due to human activity. The effects of climate change are wide-ranging and will have disastrous consequences unless significant structural changes are implemented to reduce greenhouse gas (GHG) emissions. In light of this comprehensive research, the United States signed the Paris Agreement (Paris Climate Accord), a global plan to counteract climate change and prevent the average global temperature from increasing by 2 degrees Celsius. At the local level, in 2017 the City and County of Milwaukee declared their intent to adhere to the Paris Agreement.

Simultaneously, Milwaukee's socioeconomic inequity has risen to extremes, both before and since the 2008 Great Recession. De-industrialization, outsourcing, hyper-segregation, inequitable recruitment and hiring practices, and numerous other effects of structural racism have resulted in economic conditions similar to those seen during the Great Depression for minorities and disadvantaged communities in Milwaukee.¹ As recently as 2019, University of Wisconsin – Milwaukee researchers found that in the 53206 ZIP code, only approximately 50% of working-age adults were employed, more than one-fifth of employed residents had incomes below the federal poverty level, and the area had an overall poverty level of 42%, which is 6 times the poverty rate in Milwaukee.²

¹ Levine, Marc. "Race and Male Employment in the Wake of the Great Recession", January, 2012.

² Levine, Marc. "Milwaukee 53206: The Anatomy of Concentrated Disadvantage In an Inner City Neighborhood, 2000-2017". March, 2019.

Confronted with the climate emergency and persistent economic disparities, the City and County of Milwaukee recognized an opportunity to simultaneously address both of these pressing issues. In 2019, resolutions from the City of Milwaukee Common Council and County Board of Supervisors created the City-County Task Force on Climate and Economic Equity. This Task Force was charged with “making recommendations on how to address the ongoing climate crisis, ensure Milwaukee meets the obligations set by scientists for necessary greenhouse gas reduction, and mitigate racial and economic inequity through ‘green’ jobs.”

A comprehensive climate action plan is a time-intensive endeavor; generally taking one to 2 years to complete and numerous years to implement.³ This preliminary report takes stock of the work already being done in this area around Milwaukee, charts a path to achieve ambitious medium- and long-term climate and equity goals, and provides recommendations for short-term solutions that may make an immediate impact. The Task Force created 4 work groups to investigate and make recommendations on the following issues:

1. Greenhouse Gas Emissions Assessment and Reduction Strategies
2. Jobs and Equity
3. Finance and Funding
4. Education and Community Outreach

These 4 focus areas were specifically chosen for the ways in which they frame any climate action moving forward. The emissions inventory and assessment work group provides a foundation, showing where Milwaukee is and where it needs to go. The jobs and equity work group identifies the need for big structural changes to bend the curve towards greater inclusion and proposes a baseline measurement and clear metrics for progress in this area. The finance and funding work group identifies sources and mechanisms for accomplishing the goals set forth in this report. The education and

³ Reopelle, Keith. “The Dane County Climate Action Plan”. January, 2020

community outreach work group provides a plan to expand the number of stakeholders and residents involved in the process of addressing the climate crisis and ensure public accountability.

II. INTRODUCTION

The City-County Task Force on Climate and Economic Equity was created in November of 2019 for the purpose of making recommendations on how to address the ongoing climate crisis, ensure Milwaukee meets its obligations to reduce greenhouse gas emissions as much as is determined necessary by scientists, and mitigate racial and economic inequity through “green” jobs. The Task Force is comprised of appointees from the City of Milwaukee Common Council, the Milwaukee County Board of Supervisors, Citizen Action of Wisconsin, the Wisconsin Climate Table, the Sierra Club, the Community Advocates Public Policy Institute, the NAACP, the Milwaukee Area Labor Council, Clean Wisconsin, the City of Milwaukee Youth Council, the City of Milwaukee Environmental Collaboration Office, Alliance for Climate Education, and Cream City Conservation.

The City-County Task Force on Climate and Economic Equity met frequently to identify the priority areas in this document. The need to address the climate crisis offers a unique opportunity to reshape the local economy and address the inequities that have plagued Milwaukee’s metro area for generations. As the planet continues to warm, Milwaukeeans will encounter increases in rainfall in overall quantity and frequency, a decrease in agricultural productivity, the degeneration of biodiversity and forestry, and poor air quality brought on by dangerous heat and extended pollen seasons. Beyond changes in the weather, there will be countless social impacts spanning from job market volatility, at-risk infrastructure, and redirected migration patterns.

The effects of climate change will touch every sector of public life, and will not affect residents equally. Milwaukee has pronounced racial disparities that will be exacerbated by the climate crisis. Low-income communities face environmental hazards at a higher rate, and are prone to more toxic jobs, schools and homes. Climate change will continue to heighten these disparities unless intentionally addressed.

Numerous programs and projects are currently underway to address both the climate crisis and Milwaukee's disparities; however, these efforts are underfunded, understaffed and in need of a collectively agreed-upon baseline and benchmarks to coordinate ongoing efforts effectively. In addition to the newly proposed programs and projects laid out in this document, existing programs should be expanded.

These reasons are why the 4 focus areas were chosen: an *emissions assessment* to fully grasp where Milwaukee is and where it needs to go, *jobs and equity* to incorporate marginalized populations into the new green economy, identifying *finances and funding* sources to ensure that solutions can realistically be accomplished, and *education and community outreach* to broaden the stakeholders and participants in City and County efforts to combat climate change.

What follows is both an inventory of the current state of affairs, as well as guiding recommendations as the region enters the new "green" economy. As a preliminary report, this document should not be viewed as the conclusive guidelines for addressing climate change and economic equity in the region, but rather a crucial step in the planning process.

III. GREENHOUSE GAS (GHG) EMISSIONS ASSESSMENT AND REDUCTION STRATEGIES

Work Group members: Erick Shambarger, Pamela Ritger, Barbara Richards, Gordie Bennett, Linda Frank, Ted Kraig, Bruce Wiggins

A. Findings

On December 17, 2013, the City of Milwaukee adopted the [ReFresh Milwaukee Sustainability Plan](#). Subsequently, the City developed and implemented significant programs to increase the adoption of energy-efficiency measures and renewable energy. ReFresh Milwaukee was intended to cover a wide range of environmental sustainability topics, and was not specifically focused on climate action. Since the adoption of ReFresh Milwaukee, 150 municipalities across the nation, including Milwaukee, have adopted the goal of achieving 100% clean renewable energy or carbon neutrality by at least 2050, and many have developed comprehensive climate action plans to achieve these goals. The following is a summary of sustainability actions previously adopted in Milwaukee that are relevant to climate action:

The City of Milwaukee has a range of energy-efficiency and solar programs, including the [Me2 residential energy-efficiency program](#), the [Better Buildings Challenge](#) program for commercial and municipal buildings, and the [Milwaukee Shines](#) solar program that provides policy support, loans, and other tools to support renewable energy. The City implemented Wisconsin's first [Property Assessed Clean Energy \(PACE\)](#) financing program for commercial buildings, which has financed \$25.3 million in energy efficiency projects since 2013. Mayor Barrett has also joined the Climate Mayors and Global Covenant of Mayors for Climate and Energy. Furthermore, the City has a [Climate Action website](#), and the Environmental Collaboration Office provides education on climate change impacts and City programs to address them. To date, the City has focused resources on the management of these programs and on reporting related to the ReFresh Milwaukee Sustainability Plan. However, resources for outreach have been

limited.

The Environmental Collaboration Office (“ECO”) has also effectively collaborated with the Milwaukee Metropolitan Sewerage District, Department of Public Works, Department of City Development, Milwaukee Public Library, and Milwaukee Public Schools to develop the City of Milwaukee’s comprehensive [Green Infrastructure Plan](#), which relates to climate change adaptation. ECO has also worked with neighborhoods, particularly Lindsay Heights in the 53206 ZIP code, to add pocket parks through the [HOME GR/OWN](#) program, and has designated Lindsay Heights as the first [eco-neighborhood](#) for the installation of green infrastructure and solar energy projects.

The [ReFresh Milwaukee 2018 Progress Report](#) is the most recent comprehensive reporting for the City’s sustainability plan. This report provides an overview of the metrics, progress and challenges associated with a wide range of environmental sustainability issues in Milwaukee, including issues that pertain to climate change. Both the City of Milwaukee and Milwaukee County also track their respective buildings’ energy use, as well as municipal fleet fuel and transit fuel use.

Since 2007, Milwaukee County government has launched a number of initiatives to address climate change, including:

- Creating an environmental and conservation “Green Print” initiative for County government operations ([File No. 07-111](#)).
- Converting the County’s fleet of transit buses to ultra-low sulfur diesel fuel, increasing fuel economy and reducing GHG emissions.
- Adopting a goal to reduce energy use in County government buildings 20% versus 2014.
- Participating in the City of Milwaukee’s [Better Building Challenge](#) program (two County government buildings enrolled, representing over 400,000 square feet).
- Establishing a [Property Assessed Clean Energy](#) (PACE) program that enables commercial property owners in Milwaukee County to obtain affordable, long-term

loans for energy efficiency, renewable energy and water conservation improvements – at no cost to taxpayers.

- Establishing that County government will support the principles and GHG emissions reduction targets of the Paris Climate Agreement ([File No. 17-506](#)) to keep global temperature increases below 2°C (3.8°F).
- Co-creating the Milwaukee City-County Joint Task Force on Climate and Economic Equity to develop a roadmap of governmental actions to accomplish community greenhouse gas reduction goals ([File No. 19-582](#)).

Despite the reporting and tracking efforts underway at the City and County, neither the City nor County currently has a full inventory of community greenhouse gas (GHG) emissions. The City has been hampered in its ability to pursue the creation of an emissions inventory because We Energies has not provided community-level energy data, commercial businesses do not centrally report waste and recycling data, and there is a lack of readily accessible data in other important categories that need to be assessed. A GHG emissions inventory for the entire County community involves the further challenge that it would require the voluntary participation of all municipalities within the County.

The operations of We Energies have a significant climate impact for Milwaukee, as We Energies is a regulated monopoly, providing all energy for electricity, as well as the heating and cooling of buildings, in the entire City and County. The utility has assisted the City in making progress on its sustainability initiatives in a number of areas. For example, the utility has:

- Converted the Valley Power Plant from coal to natural gas, thereby cutting carbon dioxide emissions from that power plant in half.
- Responded to the City’s request for new renewable energy options [Solar Now and Dedicated Renewable Energy Resource (DRER) pilot programs].
- Closed the coal-fired Pleasant Prairie Power Plant in Kenosha County.
- Continued to participate in the Focus on Energy program to help fund energy

efficiency and renewable energy investments for residents, businesses and institutions statewide, as required by law.

- Been a major financial contributor to the Milwaukee Estuary Area of Concern clean-up and the Harbor District Brownfield clean-up efforts.
- Sponsored expanded Milwaukee Streetcar services during the 2020 Democratic National Convention with a \$100,000 contribution.
- Proposed measures to assist electric vehicle owners with the cost of installing charging infrastructure for home vehicle charging, as well as to offer a reduced rate for nighttime vehicle charging [though those measures were not approved by the Wisconsin Public Service Commission (PSC)].

Despite these well-intentioned efforts, a significantly greater level of collaboration and environmental stewardship will be required of the utility for Milwaukee's climate action goals to be met. Climate mitigation efforts have been hampered in the past by the actions of the utility, including:

- To date, not providing community greenhouse gas (GHG) data similar to what Xcel Energy provides to cities¹,
- Its construction of the Elm Road coal plant in Oak Creek that could be emitting GHG gasses for decades to come (despite significant opposition from environmental and local community organizations),
- Its proposal of a tax on homeowners with rooftop solar (although it was ultimately dropped in the face of community opposition),
- Its obstruction of the City's plans to install co-owned rooftop solar facilities through a third-party vendor, their low net-metering rates which make it difficult for rooftop solar owners to obtain a return on their investment, and their successful advocacy for a State law that shifted the \$10 million utility relocation cost associated with the new Milwaukee streetcar system (The Hop) from the utility to the City.

Accordingly, Task Force recommendations must address strategies for bringing climate

impact to the forefront with respect to the future operational decisions of We Energies.

B. Recommendations for Plan and Planning Process

The City must obtain a community greenhouse gas (GHG) inventory that will serve as a baseline against which to measure progress towards the City’s adopted GHG reduction goals. In early 2020, in the course of the initial work of the Task Force, the Environmental Collaboration Office (ECO) hired the International Council for

Scope	Definition
Scope 1	GHG emissions from sources located within the city boundary
Scope 2	GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the city boundary
Scope 3	All other GHG emissions that occur outside the city boundary as a result of activities taking places within the city boundary

¹: Source: GHGProtocol.org

Local Environmental Initiatives (ICLEI) Local Governments for Sustainability to prepare the baseline GHG inventory using its Clear Path U.S. Protocol for Emissions, which can be adapted to comply with the Global Protocol. The baseline year will be the most recent year of available data, most likely 2018. This inventory will look at emissions from within the geographic boundaries of the City of Milwaukee, including County of Milwaukee government operations that occur within those boundaries. This includes Scope 1 and 2 emissions, plus Scope 3 emissions associated with solid waste only (see table above right).

The Greenhouse Gas Emissions Assessment and Reductions Strategies Work Group determined that obtaining emissions data from every municipality in Milwaukee County would make completion of a county-wide GHG inventory challenging at this time. However, efforts should be made to encourage other Milwaukee communities to report their emissions data using the ICLEI framework, to perhaps create a Milwaukee County community-wide GHG emissions inventory in the future. While the GHG inventory is being created, ECO is making further data requests from We Energies and other

agencies associated with major emissions categories.

Following the creation of the GHG inventory, either a firm should be hired, or City and County sustainability staff should be expanded, to create a narrative format of the GHG Inventory that is clear and understandable to the general public, using the City of Chicago GHG Inventory Report as an exampleⁱⁱ. Among other things, the narrative report should analyze the data by discussing the relative GHG impacts of various sectors, such as those sectors listed in Table 1, below. The narrative report should also use the baseline data to develop “Business as Usual” GHG forecasts to 2030 with graphs, infographics and high-level numeric reductions needed to achieve the 2030 GHG reduction goal.

The greenhouse gas emissions inventory should be updated at least once every 5 years and interim metrics should be developed to measure progress towards climate action plan goals more often. At least annually, progress and strategies should be reviewed utilizing greenhouse gas emission inventory updates and interim metrics.

In addition to completing the GHG Inventory, there should be continued efforts toward the development of a Milwaukee Climate and Equity Action Plan. These efforts include hiring a sustainability consulting firm (such as AECOM, which has a current Master Services Contract for Environmental Consulting with the City of Milwaukee). The consulting firm would be hired to support and facilitate strategy development for emissions reductions that may include various scenarios. Strategies adopted should balance GHG reduction potential, up-front and ongoing costs, impact on economic equity, and social and political feasibility. Strategies of potential focus are included in Table 1. The strategies used should reflect familiarity with the particular circumstances and existing programs in Milwaukee, as well as a focus on high-impact practices identified elsewhere (e.g. climate action plans from other municipalities, *Drawdown book (by Paul Hawken)*, *Urban Sustainability Directors Network high impact practices; Climate Action Planning; NAACP Our Communities our Power; Legal Pathways to Deep*

Decarbonization in the United States; and MMSD Resilience Plan).

Other recommendations in the area of GHG emissions assessment and reduction strategies include:

- Extend the timeframe for work of the City-County Task Force on Climate and Economic Equity for additional planning, and add academic, business, community and utility members.
- Comply with reporting requirements of the Compact of Mayors and Global Covenant of Mayors.
- Identify methods of creating a “decision forcing capacity” (i.e. policy triggers and process, if emission and economic targets are not met).
- Add additional climate action items in Milwaukee’s Legislative package to advocate to the state legislature and other relevant agencies on matters such as more energy efficient building codes, utility regulation and transportation funding.
- Systematically reach out to all other Milwaukee County municipalities to encourage them to engage in climate action planning, and to coordinate planning and implementation with the City and each other.
- Strategically assemble Climate Action Teams at the City and County levels consisting of appropriate representatives from City and County departments to assist with staff education, data collection, operational documentation, long-term plan implementation and monitoring, and other critical functions. For example, while the City already has an “Energy Reduction Team” to support energy efficiency projects in municipal buildings, another climate action team could focus on collaboration between the Department of Public Works, Department of City Development, and ECO on matter relating to urban design. The Climate Action Teams should identify climate strategies that also increase workforce development opportunities that address Milwaukee’s equity challenges.

Table 1 – Sector Specific Strategies

Sectors	Strategies	Notes
Electricity	<u>Energy Demand Side</u>	
https://www.wicleanenergytoolkit.com/?emci=9859ac7d-6e62-ea11-a94c-00155d03b5dd&emdi=798db7be-dd62-ea11-a94c-00155d03b5dd&ceid=889818	Efficiency	conserve electricity, heat, air conditioning, hot water; carpool;
	Alternatives	eliminate kiln processing for cement
	<u>Energy Supply Side</u>	
	Decarbonization	(replace coal, natural gas for electricity; eliminate petroleum burning) Circularity: http://e-lib.iclei.org/publications/Turku-report-web.pdf
	Wind Turbines	
	Solar energy	
	<u>Electrification</u>	(switch motor vehicles, HVAC, etc. to electric)
Land Use (Trees, agriculture, water. Sequestration, etc.)		https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/Urban-Forest-Systems-GSI-FS-1146.pdf
	Urban planning	
	Natural Landscapes	(forests, prairies, native plants for carbon sequestration, plant & wildlife habitat, water resource management)
Commercial/Industrial Buildings		

Residential Buildings		
Industrial Operations	<i>Refrigerants</i>	
	<i>Eliminate release of potent HFCs</i>	
	<i>Safe disposal of refrigerants</i>	
Water Infrastructure		
Food Systems		
	<i>Reduce food waste, increase food composting</i>	
	<i>Support urban and local sustainable agriculture</i>	
	<i>promote plant-based, lower carbon diet</i>	
Solid Waste	<i>Landfills</i> <i>Circularity</i>	http://e-lib.iclei.org/publications/Turku-report-web.pdf

C. Short-Term Projects/Programs

The following activities could be accelerated in the next one to 2 years:

Utility-Scale Solar

The City recently approved participation in a new large-scale We Energies solar program (Solar Now) at the College Avenue former landfill near the airport. It should continue to move forward with the program and look into We Energies' other utility solar program, DRER. Also, the City should explore approaches to expanding the College Avenue solar project to fill the entire site.

Dialogue with We Energies on Shared Climate Goals

Since We Energies has often worked against the City's sustainability goals, the City should identify and evaluate strategies to partner with and, if necessary, compel the utility to: a) change the fuel sources for electricity production to renewable, zero-emission sources as quickly as possible; b) assist with making electricity the end-use energy for transportation and space heating; c) prioritize locally-produced energy in its energy production; d) provide a Community Solar option; e) share emissions data. The City should develop a memorandum of understanding (MOU) with We Energies on shared climate goals.

Maintain and expand ECO programs

Consistent funding should be provided for existing ECO programs, including Me2, Better Buildings Challenge, Milwaukee Shines, and HOME GR/OWN. ECO should also obtain funding for staff dedicated to planning, marketing, promotion and public education with respect to sustainability programs in order to achieve widespread participation in these programs, especially for Me2, the Better Buildings Challenge, the ECO Toolkit and Milwaukee Shines.

Add Climate Action and Equity as goals across government agencies

The City should implement a “Climate Action Team” that includes the Department of Public Works, Department of City Development, Environmental Collaboration Office, and other agencies to coordinate transportation and urban planning around new, lower-carbon models.

Increase Efficiency of City Vehicle Fleet

The City should replace retired City vehicles with low-carbon vehicles, prioritizing all-electric vehicles, plug-in hybrids, and fuel-efficient vehicles, in that order, while also considering cost and feasibility, based on the forthcoming ECO Energy Efficiency Report on Buildings and Fleet.

Expand Electric Vehicle Infrastructure and Resources

The City should work with the State of Wisconsin and organizations like Wisconsin Clean Cities to develop a plan to utilize Volkswagen settlement funds to expand public electric-vehicle charging infrastructure and the electric fleet in Milwaukee. The City should then include information like the Evolution (<https://evolution.es.anl.gov/>) Tool to help consumers educate themselves about the benefits and comparative savings of electric vehicles.

Increase Ridership on County Transit Buses

1. Install Wi-Fi on buses, as a strategy to increase ridership.
2. Address funding gaps within the Milwaukee County Transit System (MCTS).
3. Support expanded bus rapid transit lines and Milwaukee Streetcar service.
4. Evaluate MCTS in terms of Operational Efficiency and Access Equity, using a tool such as this: [A Comprehensive Tool for Transit Performance Evaluation: Operational Efficiency and Access Equity](#)

Explore Creation of Ongoing University Student Projects

The Task Force should Identify City or County projects that could be undertaken by

university students engaged in a relevant course of study and explore collaboration with one or more local universities on an ongoing basis. This approach could be an option for implementing and marketing the ECO Toolkit, for example.

Reduce Food Waste

The Task Force should develop strategies to reduce food waste, feed hungry Milwaukee residents, increase composting, and develop markets for compost. Also, the Task Force should look to the City of Nashville's successful Food Waste Initiative as a model: <https://www.nrdc.org/resources/tackling-food-waste-nashvillian-style>.

Implement Commercial Recycling Inspections and Improved Residential Recycling

The City should implement proactive enforcement of recycling laws among Milwaukee's businesses, particularly fast-food restaurants. The City should also expand recycling education for Milwaukee residents and ensure all households are provided with recycling bins.

Encourage Energy Efficiency Among Low-Income Households

The City and County should work to combat energy poverty by strengthening existing programs to promote and fund energy-efficiency and renewable energy for LMI (low to moderate income) residents in Milwaukee and Milwaukee County. The City and County should also explore new program options such as Cincinnati's [Warm Up Cincy](#) program as a possible model. Weatherization outreach programs should focus in census tracts where households experience the highest energy burdens (See attached energy burden map). Additionally, there should be efforts to assist local weatherization programs with outreach to all landlords and tenants currently receiving or eligible for energy assistance, connect property management companies and neighborhood associations with weatherization organizations to help residents apply for energy assistance and weatherization, and include information about available weatherization and energy-efficiency programs in required programs for City of Milwaukee landlords.

Strengthen Green Building Standards on City-Financed Projects

1. PACE-financed projects
2. City-subsidized projects
3. New municipal buildings

IV. JOBS AND EQUITY

Work Group members: Rafael Smith, August M. Ball, Larry Hoffman, Supreme Moore Omokunde, Julie Kerksick, Ted Wilinski, Felice Green, Bruce Wiggins, Jeff Spence, Ariana Hones, Robert Kraig, Nadia Vogt, Lisa Sasso, Pam Fendt, and George Martin.

A. Findings

Finding 1: There is a deep and persistent economic equity crisis in the Milwaukee Metro Area.

Economic disparities in the Milwaukee economy are massive, have not improved over 4 decades, and fall along racial lines. During the Great Recession, people of color were harmed by far the most, and have benefited the least from one of the longest economic expansions in U.S. history.

While the United States has the most acute economic inequality among advanced industrial economies, ranking 40 out of 40, there is overwhelming research documenting over the past 3 decades that Milwaukee's County's race-based economic inequality is among the worst in the U.S.:

- A shocking 79% of African American households in Milwaukee County have incomes beneath the minimum family survival budget.⁴
- The African American poverty rate is 300% higher, and the Latino poverty rate is 85% higher, than the white poverty rate, even after social safety net programs are accounted for.⁵

⁴ UW-Madison Institute for Research on Poverty, September 2018

- African American men in Milwaukee have among the lowest levels of employment of any major city in the country. The employment rate for working-age African American males in Milwaukee in 1970 was 73%. In 2010, the employment rate had plummeted to 45%, and had only recovered to a 54% employment rate as of 2018. According to Marc Levine of the UW-Milwaukee Center on Economic Development: “No metro area has witnessed a more precipitous erosion in the labor market for black males over the past 40 years than has Milwaukee,” and “in no other large metro area is the contemporary black male employment crisis more acute than in Milwaukee.”⁶
- In its 2020 update of its Vision 2050 plan, the Southeastern Wisconsin Regional Planning Commission concludes: Racial disparities in the Milwaukee metro area “are long-standing, and are more pronounced than in almost all other metro areas.”⁷
- Inequality is being driven not only by an absence of job opportunities for people locked out of private employment, but also by the plummeting quality of the jobs that are available.
- Racial disparities in home ownership, one of the major drivers of intergenerational wealth accumulation for American families, has been identified as one of the major legacies of 20th century racist housing policies and government mandated segregation.⁸ As bad as these disparities already were, they have actually grown dramatically worse in Milwaukee since the Great Recession. According to a recent analysis from the Marquette University Law School: “Homeownership fell by an average of 5.5% in mostly white census tracts but declined by 10.3% in mostly Latino census tracts, and 16.6% in majority-black census tracts. The change in ownership of residential properties in

⁵ Id.

⁶ UWM Center for Economic Development, January 2012

⁷ SEWRPC February, 2020, Appendix D Preliminary Draft.

⁸ Richard Rothstein, *The Color of Law*, 2017.

Milwaukee has resulted in an enormous transfer of family housing wealth to out-of-state individuals and businesses.”⁹

- Closely intertwined with economic inequality is environmental racism: the disproportionate location of environmental hazards in or near economically-disadvantaged communities, including more toxic jobs, schools, and homes. This environmental and health inequality falls along racial lines due to housing and school segregation and economic inequity. Nationally, over 71% of Blacks and 50% of Latinos reside in areas with the most polluted air, while only 34% of whites do.¹⁰

Finding 2: Milwaukee’s Economic Inequality is Structural in Nature, and Constitutes Structural Racism

Structural Racism in the United States can be defined as “the normalization and legitimization of an array of dynamics – historical, cultural, institutional and interpersonal – that routinely advantage whites while producing cumulative and chronic adverse outcomes for people of color.”¹¹ The equity crisis in Milwaukee has its origins in centuries of discrimination and in deliberate government policies such as systematic race-based housing discrimination during the post-World War II economic boom when the great American middle class was built.

Milwaukee’s vibrant manufacturing sector and the Great Migration combined to temporarily create the most prosperous African American middle class in the U.S. Just as African Americans were beginning to reap the rewards of the region’s robust manufacturing economy, and Latinos began to come here in large numbers in search of good jobs, a new national and international economic order that reached critical mass in the late 1970s and 1980s stripped Milwaukee of its plentiful supply of good jobs that were broadly available. Decades of deindustrialization, outsourcing to the suburbs and overseas, hyper-segregation, a global economic race to the bottom, and other

⁹ *Milwaukee Journal Sentinel*, 1/31/20.

¹⁰ Environmental Health Perspectives Supplements, Volume 110, Issues 1-3

¹¹ Lawrence & Keleher, 2004.

dimensions of structural racism, stole fleeting prosperity away from people-of-color communities in Milwaukee.

The persistence of sky-high levels of inequality through all economic cycles shows that the problem is systemic in nature, and can only be addressed through structural interventions up to the scale of the problem. In Milwaukee, large-scale race-based economic inequality is not only impervious to the business cycle; it is getting worse during periods of prosperity. Even as employment has increased during the longest economic expansion in American history over the last decade, poverty is on the rise because the economic benefits are skewed to the top of income earners, while low wage service sector jobs have not even kept up with the cost of living.¹²

Finding 3: Current efforts to address economic inequality and racial disparities in Milwaukee are not to scale, are not comprehensive and integrated, and are not directed to achieving community-wide outcome goals.

There is an absence of community-wide and broadly-accepted equity outcome goals that are agreed to by area decision makers or understood by the general public. Equity initiatives are often episodic in nature, and are not connected to long-term outcome goals. Where these equity initiatives exist, they are small-scale and not remotely scaled to the magnitude of the equity crisis in Milwaukee.

Current programs and initiatives to improve economic equity are radically siloed from each other, so that major governmental decision makers do not have a clear picture of what is being done comprehensively and whether efforts are aligned and complementary. Equity outcome goals, if they exist, are not evaluated based on established community-wide benchmarks for success. As a result decision makers and the public at large lack clear and actionable information on whether the programs together are improving equity, making it worse, or having little impact.

As a result of the siloed and short-term nature of such initiatives, no one in Milwaukee knows whether the collective efforts of local government and private partners have

¹² UW-Madison Institute for Research on Poverty. September, 2019.

improved overall economic equity or reduced racial disparities, and by how much. Even if Milwaukee local governments established clear and broad-based equity goals, and reshaped the existing set of economic and community development initiatives to make them more comprehensive, integrated, and accountable to established equity goals, there is a real question as to whether current policy tools are at a combined scale sufficient to make any measurable impact on economic inequality.

Below is a list of specific City and County equity programs and initiatives:

- ME2 Community Workforce Agreement.
- HOME GR/OWN and Walnut Way collaboration with national grants.
- HACM and Choice Neighborhoods.
- Promise Zones.
- City efforts on Healthy Food Access.
- City efforts to green Milwaukee Public Schools' playgrounds and schoolyards.
- New County Office of African American Affairs.
- County and City have declared racism a public health crisis.
- 'One County' vision seeks to make Milwaukee County the healthiest in Wisconsin by addressing racial equity.
- Proposed ordinance commits County government to advancing racial equity and eliminating health disparities.
- City Disparity Study.
- Mayor Barrett's 10,000 Affordable Homes Initiative.
- MMSD job training programs and local hiring initiatives.
- City of Milwaukee Residents Preference Program.
- Massive investments by the City and MMSD in 30th Street Industrial Corridor to reduce flood risk and install green infrastructure.
- MMSD funded outreach efforts to boost climate resilience through green infrastructure installations in the neighborhoods surrounding the 30th Street Industrial Corridor, including the Century City Triangle, Garden Homes, Sherman

Park, and Lincoln Creek Neighborhoods, among many others.

Finding 4: A large scale climate transition offers a great opportunity to intervene into the economic structures that cause and reinforce racial disparities. However such a transition will not naturally do so, and could also reproduce current patterns of massive inequality.

Milwaukee City and County governments have officially committed to meeting the UN climate targets, which include cutting community-wide greenhouse emissions by 45% by 2030 and achieving net-zero emissions by 2050, which the IPCC suggests is necessary to avoid the worst potential climate impacts globally on humans and the environment¹³. The level of economic intervention necessary to achieve this creates a once-in-a-lifetime opportunity to dramatically improve economic equity. Intensive research conducted by economist Robert Pollin for the Obama Administration found that a climate transition could create a major increase in employment. Extrapolating these numbers to the Milwaukee economy, the climate transition could increase employment by 3% by 2050, which would amount to 8,000 new jobs.¹⁴

Economic research shows that the jobs that could be created by a climate transition are promising avenues for improving job quality and economic equity. Green jobs are higher paying than comparable occupations, have lower barriers to entry than other similar professions, and are more accessible to people without high educational attainment.¹⁵ Many analysts believe that because of the growing severity of the climate crisis, there will eventually be [massive federal and state investments](#). Communities with developed plans where equity goals are fully integrated will be better positioned to maximize the economic and social benefits of these future investments.

A green transition will not inevitably improve economic equity unless the government intervenes to make it a major priority. Likewise, green economy jobs alone will not solve

¹³ United Nations Framework Convention on Climate Change Secretariat (UN Climate Change). *USA First Nationally Determined Contributions (NDCs)*.

¹⁴ *American Prospect*, December 2019.

¹⁵ Brookings Institution, 2019.

employment inequity, and other economic sectors must address their hiring practices as well. Milwaukee government and business leaders have put a major emphasis over the last decade on promoting the water sector. But research by the UWM Center on Economic Development commissioned by the Water Commons found that employment in this sector is highly unequal and not representative of the diversity of the Milwaukee region.¹⁶

Preliminary assessment of what could be done based on examples from other counties/municipalities and other empirical evidence

Finding 1: Although some local and state-level climate transition plans include economic equity provisions, none that the Task Force reviewed include the level of structural interventions necessary to break down barriers to employment and dramatically improve community-wide equity

There is a great deal of variance among different state and local climate transition plans in their treatment of economic equity. While some plans only hope resulting jobs will be available to the whole community, others do include significant equity provisions.

While the climate plans which are intentional about economic equity offer many interesting directions for incremental improvement, none that Task Force members have reviewed offer the scale of a fully integrated approach with structural interventions necessary to remove the barriers to employment which produce large scale economic inequality.

Finding 2: To dramatically improve economic equity in Milwaukee, the equity impacts of each policy decision must be built into every policy choice as fundamentally as greenhouse gas emissions reductions.

The model of building an accountability plan to meet a 10-year climate emissions target community-wide creates an unprecedented opening in the local economy at the level

¹⁶ UWM Center on Economic Development, 2020.

necessary to meaningfully address the chronic economic equity crisis in Milwaukee. The Task Force recommends that equity goals and tracking should be as specific and accountable as the climate goals. On the climate side of the planning, a baseline must be established (community-wide greenhouse emissions), specific annual goals established, and progress rigorously tracked on a regular basis until the UN climate targets are met in 2030. Applying the same model in an integrated way to economic equity would mean that all policy choices would be double-sided, with policies chosen and measurable that advance the climate targets (lower community greenhouse emissions) and fully aligned equity targets and benchmarks (as measured by relative rates of poverty, employment, living wage jobs, etc.)

To do this, Milwaukee local units of government will need to set global economic equity goals with a baseline and capacity tracking across all initiatives. This means considering 2 dimensions for each major policy choice in the climate transition plan. Policies that would reduce emissions and create the best opportunity for improving economic equity would be chosen over policies that were only successful on one dimension.

Finding 3: The most promising empirically-successful model for dramatically improving economic equity is in the field of child poverty.

From 1997 to 2008 Great Britain followed a similar model, adopting a goal of ending child poverty by 2020, implementing a series of evidenced-based policies up to the scale of the problem, and a rigorous tracking system to measure success and provide policymakers the information they needed to make policy adjustments based on results. The result was a dramatic two-thirds reduction in child poverty over a decade. The British child poverty model also included parallel local planning processes where cities such as Liverpool adopted their own community-wide goals, and rigorously tracked progress. California is currently considering whether to adopt a similar child poverty reduction model.

Challenges to overcome in order to meet the work group's goals

There are a number of challenges to meet these goals, including:

- Limited local government resources given the severe revenue constraints imposed by the state government.
- Limited governing authority given the limited home rule powers of municipal and county governments, and the amount of local authority the state has preempted over the last decade.
- Substantial research, including a 2020 report by the UW-Milwaukee Center for Economic Development commissioned by the Water Commons, documenting persistent barriers to entering and advancing in water occupations which produce chronic racial disparities in employment in these fields.
- The Milwaukee region lacks agreed-upon goals for improving economic equity, as well as metrics for measuring progress towards an inclusive economy.

B. Recommendations for Plan and Planning Process

Fund a planning process: It is the Task Force's preliminary assessment that Milwaukee cannot develop an effective economic equity plan without paying for additional expert capacity. These consultants, hired from as diverse a pool as possible, will need to have expertise in the different areas of creating a comprehensive equity plan, and the ability to participate in community engagement and collaboration with local officials. They also will need the capacity to collaborate with experts in the field of climate mitigation so that equity initiatives are fully integrated into all climate transition programs.

Aggregate basic economic data on the emerging green economy in Milwaukee, and project the growth of emerging sectors not yet substantially present in the local economy. Elements should include:

- Identifying entry-level skill and credential requirements, as well as starting wages

and potential for growth.

- Assessing current employment rates by race and geography.
- Identifying what has worked and not worked in current efforts to recruit, train, and employ workers of color.
- Assessing current hiring, development and retention practices with an equity lens.
- Developing mechanisms for measuring progress over time, and reporting these outcomes at regular intervals to Milwaukee City and County officials, and the public.

Strategize for improving equity in the current Milwaukee employment market and with current policy approaches. The goal would be to maximize the equity outcomes that are possible within current public systems and market relationships, and to evaluate what magnitude of equity outcomes is achievable absent more fundamental structural reforms. Considerations in developing such a plan include:

- Proposing specific goals for recruiting, training, hiring and retaining under-represented groups in current and future green jobs.
- How to induce employers to institute multi-pronged approaches (since the problem is multifaceted) to develop diverse candidate pools while simultaneously building up racial literacy within their workforce to ensure shared language and practice regarding the attraction, selection, development and retention of historically excluded identities.

Evaluate the potential of larger-scale structural interventions to leverage a climate transition to dramatically improve regional economic equity. This would include examining the value of market interventions, such as large-scale transitional jobs programs, for breaking down barriers to employment and creating a pipeline of green economy workers from Milwaukee's most disadvantaged communities.

Examine the jobs and equity potential of sectors the economic equity work group has tentatively identified as major drivers of a climate transition, and any others that experts

can derive from research by other cities and states. Also assess whether and how under-represented groups are getting training, hiring and advancement opportunities in these sectors. These sectors tentatively include:

- Energy Conservation/Efficiency and Retrofitting (including remediation of lead paint and dust).
- Renewable Energy (e.g. solar, wind).
- Water Conservation and Clean Water (including remediation of lead pipes that leach into water supply).
- Transportation (the need for increased and dedicated funding for public transit, which mitigates air pollution from cars, creates good jobs, and gets people to work).
- Food Waste/Waste and Recycling.
- Combining decarceration efforts with employment pathways in green energy, reforestation, green infrastructure and conservation efforts.
- Include Career Pathways in the Green Economy as an officially (State) registered apprenticeship program.

C. Short Term Projects/Programs

As planning goes forward for the overall Climate Change and Economic Equity report, there are some existing efforts that could be supported now. The Task Force recommends increasing investment in the following areas and reducing barriers to programs that create paid hands-on training and employment opportunities:

- Tree-planting projects (Ex. Branch Out Program, Ash Tree Replacement, City of Milwaukee Urban Forestry program, Decarceration and Reforestation program)
- Food programs, including addressing food waste (a climate change problem) and food insecurity (a jobs and equity problem).
- Greening efforts of Milwaukee Public Schools and playgrounds (MMSD).
- The Milwaukee Water Commons recommendations related to water quality and diversifying the workforce in water-related jobs.

- Programs that train people for existing jobs that address energy efficiency, and address barriers for attracting and retaining a diverse workforce. For example, MATC, in support of an industry effort to build a workforce for building maintenance, has worked with the industry to establish an apprenticeship program. The program is called Facility Maintenance Technician (FMT). This program started this spring and may be effective in dealing with an industry-wide shortage of maintenance workers. Studies have shown that properly maintaining facilities has a direct impact on energy use. Companies participating in the FMT program customize the course selection to their needs. Automated Building Systems (ABS) is a 2-semester program training for entry-level positions as building control technicians, a position in demand locally. Power Engineering trains people for operating boiler systems. It trains for the boiler operating license (several classes, one semester) as required by many operations, including MPS, and also has a one-year diploma.
- Passive housing models such as the New Jersey Passive House organization, where they are building energy-efficient and carbon-free homes in a similar climate to Milwaukee.

There are also possible projects that could begin or be supported in the near term that will likely fit into a comprehensive plan and would significantly increase diversity of workforce in skilled trades needed for environmentally sustainable jobs. This can be done by:

- Energy conservation retrofitting programs that employ local residents. Based on existing research, this activity has tremendous greenhouse gas reduction and employment impacts, if brought to scale.
- Identify ways to immediately increase residential recycling levels, which has a major positive greenhouse gas emissions impact. King County has identified direct climate reduction impacts of increasing recycling, lowering food waste, and reducing the use of single-use containers and bottles <https://kingcounty.gov/depts/dnrp/solid-waste/programs/climate/climate-change-recycling.aspx>

- Enabling electrification, a key component of a green transition, by increasing the number of public EV charging stations and working to incentivize large scale apartment and condo buildings to develop EV charging capacity for their residents.
- Combining decarceration efforts with reforestation and conservation efforts along the lines of Civil Conservation Corps models: With the impending extinction of key canopy species such as ash trees and following multiple years of divestment in natural areas, it is proposed that paid, hands-on training efforts intentionally include soon-to-be returning citizens in green-infrastructure installation and maintenance, engage under and unemployed community members in water treatment career pathways (MMSD, Walnut Way, Groundwork MKE, Cream City Conservation Corps, DNR, County Parks, WI Fast Forward, City of Milwaukee Forestry, MATC), and re-evaluate paperwork requirements by federal and local entities for subsidized employment.
- Urban agriculture such as the program at Vincent High School, including Vincent's salad sales entrepreneurial programs at the Brewers stadium.
- Commercial driver's license and drivers license reinstatement and obtainment.

V. FINANCE AND FUNDING OPPORTUNITIES

Work group members: Janet Meissner Pritchard, Pamela Ritger, Erick Shambarger, Ted Kraig and George Martin

A. Findings

According to Robert Pollin, professor of economics at the University of Massachusetts, the aggressive goals called for by the IPCC to avoid a climate catastrophe could be met with annual investments equal to only about 2% of the U.S. gross domestic product, and the investments would pay for themselves in the long term. Yet, for cities and counties governed by debt limits and other constraints, identifying the money up front to pay for such investments is a challenge. The City and County have already utilized a variety of

funding sources and finance mechanisms for sustainability investments; there is a long list of additional mechanisms currently being used in other municipalities around the nation.

The City of Milwaukee has deployed a variety of financing mechanisms to conduct climate action work, particularly in energy efficiency and renewable energy. The City's Environmental Collaboration Office has been a leader in the State on deploying innovative financing solutions for climate action. These include:

1. *Federal Grants*- Particularly from the American Recovery and Reinvestment Act ([ARRA](#)) from 2010-2014. These federal funds were deployed locally to:
 1. Launch the Me2 energy efficiency program, which supported over 1,300 home energy-efficiency projects and 130 energy-efficiency projects in commercial buildings.
 2. Launch the Me3 sustainable manufacturing initiative.
 3. Build the wind turbine at the Port of Milwaukee.
 4. Fund the ReFresh Milwaukee Sustainability Plan.
 5. Purchase hybrid and electric vehicles.
 6. Perform energy-efficiency audits and projects in municipal buildings.
 7. Fund the first Bublr Bike Share station.
 8. Install 4 public electric vehicle charging stations.
 9. Upgrade streetlights to LED lighting.
2. *Energy-Saving Performance Contracts*: The City has deployed energy saving performance contracts at the Safety Academy in 2010 and Central Library in 2019. The 2019 [energy saving performance contract](#) supported over \$2m in energy efficiency improvements.
3. *The Me2 and Milwaukee Shines*: These programs provide residential loans for energy efficiency and renewable energy, respectively. Both utilize a "Loan Loss Reserve" to leverage private capital for loans, through a partnership with Summit Credit Union. Milwaukee.gov/ME2
4. *PACE Financing*: The City of Milwaukee established Wisconsin's first

Commercial [PACE financing](#) program which has financed over \$14m in commercial energy-efficiency projects. Milwaukee County (communities outside of the City of Milwaukee) can participate in the [PACE Wisconsin](#) program. The City briefly had a residential PACE program, but suspended it after the [Federal Housing Administration threatened communities](#) that implemented residential PACE.

5. *General Obligation Borrowing:* The City of Milwaukee invests about \$100,000 annually in energy-efficiency improvements in municipal buildings through General Obligation Borrowing. The City has overall limits on the amount of General Obligation Borrowing, which is used for a wide variety of city infrastructure projects including roads, bridges, etc.
6. *Rebate Programs:* Wisconsin's Focus on Energy program uses utility surcharges paid by electricity ratepayers to incentivize consumer and business investments by providing rebates for qualified energy efficiency and renewable energy projects. The City of Milwaukee actively uses the Focus on Energy program, and has established an account so that rebates received from this program can be directly reinvested in new energy-efficiency and renewable-energy projects.
7. *Solar Now:* In January 2020, ECO proposed utilizing the Solar Now program to construct a 2,250-kW solar field over approximately 8 acres of a retired City-owned landfill. The now-approved project will be built and maintained by We Energies, provide a new annual revenue to the City of Milwaukee of \$96,000+ that is intended for further climate action work, and can provide back-up power to the Air National Guard's 128th Air Refueling Wing.
8. *Group Purchasing (cross-sector partnerships).* The City of Milwaukee's [Milwaukee Shines Group Buy](#) program works with the Midwest Renewable Energy Association to offer bulk pricing for solar projects.
9. *State Grants:* The State of Wisconsin's Department of Administration provides community funding for [low-income energy assistance and weatherization services](#).
10. *We Energies Renewable Energy Programs:* In 2018, The City of Milwaukee,

Milwaukee County, MATC, and MMSD worked with the regional electric utility, We Energies, to create new renewable energy programs for large institutional customers. [These new programs were approved by the Wisconsin Public Service Commission in December 2018](#) and include the *Solar Now pilot program* and the *Dedicated Renewable Energy Resource (DRER) program*. These 2 programs provide the City with a realistic pathway to source 25% of the electric power needs for municipal operations by the year 2025.

The following are additional funding sources and financing options used in other municipalities that might support continuation and expansion of programs referenced above or additional programs and projects. A comprehensive survey of financing options used to support climate action called *Financing Sustainable Cities Scan and Toolkit* was developed in 2016 by the Urban Sustainability Directors Network with input from the City of Milwaukee. Careful consideration of these options is important because some of them could be regressive and work against the Task Force's goal of greater economic equity if they are not structured and implemented properly.

1. **On-Bill Financing** (Investor Financing): Overlaps with various sources of finance. Depends on utility limits. There are two kinds: loans for which individuals are liable and tariffs which stay with the property. *Technically feasible*. On-bill financing provides an affordable, accessible option for making energy efficiency upgrades, so that home or building owners can pay for improvements to their properties through subsequent regular payments on their energy bills, without the need to pay a large upfront cost. In addition, some utilities in the U.S. are also providing the opportunity for customers to pay for the installation of solar energy systems on their homes and buildings using on-bill financing, making that solar energy much more affordable and feasible for a larger sector of the population. Please follow this link: <https://www.seia.org/sites/default/files/2019-12/SEIA%20Solar%20On%20Bill%20Financing%20Webinar%20December%202019.pdf> for a recent presentation from the Solar Energy Industries Association (SEIA) highlighting (1) Where utilities across the U.S. are providing on-bill financing to

customers, and (2) Examples of utilities that offer on-bill financing both for energy efficiency upgrades and solar energy systems, resulting in excellent results both for customers and utilities. In 2008, the City of Milwaukee pursued on-bill financing with We Energies, but could ultimately not come to agreement on a program. On-bill financing allows customers to get loans for energy efficiency projects and repay a loan on the customer's utility bill. This allows utilities to provide energy efficiency services in a similar manner as they provide direct energy

2. **Third-party Financing of Rooftop Solar Projects:** Other states explicitly allow solar companies to lease rooftops to finance and install solar, which allows government entities to monetize federal tax credits for solar. A map of states that explicitly allow third-party solar can be found [here](#). This is a gray area in Wisconsin law, with utilities taking the position that solar companies providing this service are "acting as public utilities." The City of Milwaukee has argued that solar companies acting in this fashion, especially when the system is co-owned, do not meet the definition of a public utility. The issue is currently being [reviewed](#) by the State Courts and the Wisconsin Public Service Commission.
3. **Dedicated Fees** (City Funding): Fees for things like paying online, facility use, etc. Example, \$5 surcharge on parking tickets to pay for EV infrastructure. *Technically feasible.*
4. **Dedicated Taxes** (City Funding): Could include tourism taxes, "sin" taxes and other taxes that are dedicated to climate related investments. *Technically feasible.*
5. **Developer Impact Fees** (City Funding): Commonly used to offset anticipated public costs of a development. Example, fees on market rate housing units to incentivize more affordable units or pay for subsidizing affordable units elsewhere. *Technically feasible but depends on a strong real estate market.*
6. **Feebates and Density Bonuses** (City Funding): Charge a fee that is then rebated to pay for energy efficiency or renewable energy investments in a development. For example, allow more floors to a building if it meets climate

impact criteria. *Technically feasible.*

7. **Fines, Penalties and Violation Funds** (City Funding): Money from penalties like pollution-limit violations. *Unknown feasibility. May be limits in state statute.*
8. **Local Carbon Tax** (City Funding): Done in some cities to fund climate mitigation efforts, either on direct emitters or electricity, or large emitters. *Technically feasible.* Municipal-level carbon taxes exist in various cities in Colorado, California and Massachusetts. As noted in the Carbon Pricing section below, carbon taxes are more effectively administered at the state or federal level. Below are examples of how these are administered in other cities:

1. **BOULDER, COLORADO** The Climate Action Plan (CAP) tax was the first voter-approved climate mitigation tax passed in the U.S. in 2006. Under this program, the city's only electric utility, Xcel Energy, charges residents and businesses a fee via their monthly utility bills. The CAP tax is not a traditional carbon tax because it is imposed based on electric usage (in kWh), not carbon content. But because there is only one electric provider, and because CAP exempts renewable energy consumers, it has the same effect of a carbon tax. It effectively imposes a \$8.62 per carbon ton fee for residents and a \$1.52 per ton fee for businesses. Tax revenue is used to fund weatherization efforts, sustainability projects, and solar rebates. The program was renewed in 2012.¹⁷
2. **BAY AREA, CALIFORNIA** In 2008, the Bay Area Air Quality Management District, which spans 9 counties, passed a 4.4 cent per carbon ton fee that applies to 500 businesses. This established a much lower price on carbon pollution than is needed to truly incentivize a transition to clean energy, but was nevertheless an example of a locale in the US with approved carbon pricing. The tax

¹⁷ [1] <https://climate-xchange.org/wp-content/uploads/2018/08/Implementing-a-Carbon-Price-at-the-Municipal-Level-Climate-XChange-compressed.pdf>

was approved by air pollution regulators 15-1. It generates \$1.1 million per year in revenue.¹⁸

3. **ASPEN AND PIKE COUNTY, COLORADO** The Renewable Energy Mitigation Program (REMP) requires new homes to meet a strict energy budget or pay additional fees. Homeowners who go over their established budget, and consume extra energy, must either install a renewable energy system or pay an emissions tax. Revenue from this tax, established in 2000, is subsequently invested in energy efficiency measures. While this is not a straight carbon tax, it effectively incentivizes renewable energy usage. The REMF model has been applied to a number of other locales in Colorado, including Snowmass Village, Carbondale, and Eagle County. It has also been implemented in Martha's Vineyard, Massachusetts.¹⁹ This financing structure has primarily been used in very wealthy communities. As such, it is not recommended for use only in the City of Milwaukee, though it could be considered on a county-wide basis.
4. **Carbon pricing**, either a carbon tax or a cap-and-trade program, is considered to be essential to any effective climate policy.²⁰ Of the two options, a carbon tax is generally easier to administer than a cap-and-trade program.²¹ For at least 2 reasons, it makes more sense for such a carbon tax to be imposed at the federal or state level versus the municipal level. The first reason is the point of taxation, or where the tax is assessed. Imposing the tax further

¹⁸ <https://climate-xchange.org/wp-content/uploads/2018/08/Implementing-a-Carbon-Price-at-the-Municipal-Level-Climate-XChange-compressed.pdf>

¹⁹ <https://climate-xchange.org/wp-content/uploads/2018/08/Implementing-a-Carbon-Price-at-the-Municipal-Level-Climate-XChange-compressed.pdf>

²⁰ Gerrard, Michael B. and Dernbach, John C., *Legal Pathways to Deep Decarbonization in the United States*, p. 70.

²¹ *Id.* p. 80.

upstream, such as at the point of fuel extraction, processing or import, minimizes the number of taxed parties, thereby minimizing leakage and maximizing revenues. Moreover, from a political standpoint, an upstream tax is less visible than a downstream tax.²² As the State of Wisconsin does not extract or process fossil fuels, such an upstream tax could be imposed at the point of import. The second reason a state-level carbon tax is preferable is because a carbon tax will be regressive, and hurt poorer households, without some form of revenue recycling, such as income tax relief for those households in lower income tax brackets.²³ Such income tax relief could be provided through the state, but not through the city or county.

10. **Microgrid Enhanced with Parking and EV Charging Fees** (City Funding): Pay for electric vehicle infrastructure, energy efficiency and renewable energy with parking and charging fees. *Technically feasible.*
11. **Public Benefit Funds** (City Funding): Small surcharge on energy bills to pay for renewable energy and energy efficiency. *Feasible.* What Focus on Energy already does.
12. **Renewable Energy Credits (RECs)** (City Funding): Require utilities to buy RECs at a certain price from behind-the-meter producers of certain size. *Technically feasible but governed by State law.* Depends on PSC approval.
13. **Tax Increment Financing (TIFs)** (City Funding): Anticipated increased property tax revenues from investments provided up front and paid off by actual increased tax collections that occur. *Technically feasible.* Commonly used for many developments. State law allows for a one-year extension of TIFs to pay for programs to make housing more affordable and can be used for efficiency upgrades.

²² *Id.* p. 82

²³ *Id.* p. 84

14. **Value Capture Tools** (City Funding): Special assessments to properties that will increase in value due to public investments like transit improvements. *Technically feasible.*
15. **Performance Contracts** (Cross Sector Partnerships): Pay for Performance, Pay for Success. Contractor makes upgrades and is paid for outcomes like energy savings. Small up-front cost. Can be used to subsidize and consolidate many small loans. Utilized for recent improvements at the Milwaukee Public Library. *Technically feasible.*
16. **Power Purchase Agreements** (Cross Sector Partnerships): Detailed agreements between energy producers and purchasers including finance. Developer gets low financing cost. These can be done at utility scale, but there are substantial regulatory hurdles in Wisconsin.
17. **Public Private Partnerships** (Cross Sector Partnerships): Generally involve agreements with larger employers. Example electric vehicle shuttle partnership with Google. *Technically feasible.*
18. **Corporate Foundation Clean Energy Innovation Grants** (Donor Grants): Direct grants. Fund San Francisco microgrids and New York Retrofit Accelerator. *Technically feasible.*
19. **Department of Energy Grants** (Donor Grants): Direct grants like SunShot Program and conservation block grants. *Technically feasible and already used by City.*
20. **State Grants** (Donor Grants): Wisconsin Office of Energy Innovation has competitive grants. *Technically feasible and already used by City.*
21. **Board of Commissioners of Public Lands** (Investor Financing): Managed by State Treasurer. Fast, no fee, fixed rate loans from 2 to 20 years, 4% to 4.5%. Up to \$400 million available. These loans are limited by state mandated debt limits.
22. **Capital Leases** (Investor Financing): Common with performance contracts. Lessee takes on much risk and gets tax advantages of depreciation and the like. Often bargain purchase option at end. *Technically feasible and already used by City.*

23. **Certificates of Participation** (Investor Financing): Multiple parties funding securities. Unlike bonds not considered debt. *Technically feasible.*
24. **Energy Efficiency Loans** (Investor Financing): Money available from State and Federal governments. Backs loans are low cost. Example is Milwaukee Loan Loss Reserve Program. *Technically feasible and already used by City.*
25. **Energy Efficiency Mortgages Investor Financing:** Cost of energy efficiency and renewable energy improvements wrapped into full original or refinance mortgage. For example, [Citizen Action of Wisconsin's Green Homes, Good Jobs program](#). *Technically feasible.* Sometimes subsidized by state or local government. Need to generate demand for loan money that is already available.
26. **General Municipal Bonds (munis)** (Investor Financing): Utilize general bonding. Attractive because no Federal or State taxes on earnings. *Technically feasible.* Debt limit is a barrier. Milwaukee could increase the proportion of its general obligation borrowing for sustainability efforts.
27. **Green Bonds** (Investor Financing): Same as muni bonds but for dedicated green purpose. Very popular investment vehicle now. *Technically feasible.*
28. **Industrial Development Bonds (IDBs)** (Investor Financing): Bonds to fund private investments. Limited to \$10 million. Can fund manufacturing facilities. *Technically feasible.*
29. **Lease Purchase Agreements** (Investor Financing): Lease-to-own agreements to capture tax credits and get low rates. Get asset at end of leasing for low cost. *Technically feasible.*
30. **Loan Loss Reserve Funds, Debt Service Reserves, Loan Guarantees** (Investor Financing): Different kinds of funds to guarantee repayment. Reduces risk and makes loans affordable. Me2 program gets 20:1 leverage. *Technically feasible.* Problem is generating demand for the loans.
31. **Municipal Industrial Revenue Bonds (IRB)** (Investor Financing): Bonds to fund private investments. Municipality holds collateral. Tax free. No property taxes until paid off. *Technically feasible.*
32. **Operating Leases** (Investor Financing): Full ownership by entity providing

equipment means no debt to user. IRS rules govern what qualifies. *Technically feasible*. Electric utilities may oppose using this tool for renewable energy projects.

33. **Pool Bond Financing** (Investor Financing): Municipalities pool for loans. Low cost. Structured based on each municipality's bond rating. *Technically feasible*.
34. **Qualified Energy Conservation Bonds (QECCB)** (Investor Financing): Taxable bonds that better for non-profit investors. Can be used for efficiency upgrades of renewable generation. Higher interest rates but subsidized by Fed government. *Technically feasible*. May no longer be available.
35. **Qualified School Construction Bonds (QSCB)** (Investor Financing): Interest free, tax credit bonds that can be issued by state and local governments. Energy savings pays off bonds. *Technically feasible*. May no longer be available.
36. **Qualified Zone Academy Bonds (QZAB)** (Investor Financing): For schools in high poverty or enterprise zone areas. Same structure as QECCB. Only for efficiency upgrades. Department of Energy regulates and subsidizes. Can do 0% if private match. *Technically feasible*. May no longer be available.
37. **Residential Energy Efficiency Financing** (Investor Financing): Combines loans, incentives from state and federal governments and utilities. *Technically feasible*.
39. **Revenue Bonds** (Investor Financing): Bonds repaid by revenue generated by investment. Tax-free like municipal bonds. Higher interest. Example parking structure paid off by parking fees. *Technically feasible there is a revenue stream to repay the bonds*.
40. **Revolving Loan Funds** (Investor Financing): Funds new investments on returns from prior loans. Often used for small businesses. Below market rates because of low risk. *Technically feasible but takes years to build up significant capital*.
41. **Social Impact Bonds** (Investor Financing): Like Pay for Success and Pay for Performance Bonds. Relatively new. Agreed on valued outcome and pay off after it's achieved. *Technically feasible*.
42. **Solar Leasing** (Investor Financing): Property owner rents the equipment and

covers the cost with reduced energy costs. *Technically feasible and exists in many states, but opposed for solar by We Energies; currently being reviewed by Wisconsin courts.*

43. **Tax Exempt Lease Purchase Agreements** (municipal leases): Investor Financing. Government owns equipment at end of lease. Lower cost because no taxes on interest paid. *Technically feasible.*
44. **Carbon Offset Funds** (donor grants): Municipalities can effectively crowd fund carbon offset donations for energy efficiency and renewable energy investments. This gives community members an opportunity to support climate action locally. An example of this is the Finger Lakes Climate Fund website (<http://www.fingerlakesclimatefund.org/pages/about-us>).
45. **Securitization of Stranded Fossil Fuel Assets** (Investor Finance): Large fossil fuel burning plants like We Energies' Oak Creek plants can be refinanced at lower interest rates in order to cost effectively retire them before the end of their planned operating life. Securitization not only reduces the cost of early retirement, but can generate funds that can be used to pay for renewable energy investments and economic relief for workers and communities potentially harmed by plant closures. .

The following are additional funding sources and financing options used in other municipalities that the Task Force believes are less likely to be feasible for the City of Milwaukee and Milwaukee County. Some of these options are not particularly suited to Milwaukee, while others may conflict with existing state policies and therefore would require advocacy at the state level to remove these barriers. For example, [Community Choice Aggregation \(CCA\)](#) is a policy available in states with deregulated energy markets that allows municipalities to aggregate community energy load to directly source renewable power with distribution infrastructure provided by the incumbent utility. Wisconsin's regulations for energy production and distribution currently do not allow for individual or community choice in selecting energy sources. Other options with limited to no feasibility include:

1. **Parcel Tax** (City Funding). Uniform tax on parcels to pay for sustainability investments. Not related to property value. *Most likely not feasible.*
2. **Traffic Congestion Fee** (City Funding). Charge a toll to come and go to downtown or other high traffic areas with higher rates at high traffic times. *Technically feasible, but unlikely in Milwaukee due to a relatively low level of traffic and parking congestion in comparison with other cities.*
3. **Infrastructure and Economic Development Banks** (Investor Financing). Issue taxable and non-taxable bonds. Funds infrastructure. Can do credit enhancements. Can leverage state and Federal funds. *Unknown feasibility.* Can't do in all states.
4. **Lease Revenue Bonds** (Investor Financing). Low cost financing. Used by community colleges in California. *Unknown feasibility.*

Given the fiscal challenges facing local governments in Wisconsin, it is difficult for municipalities and counties to directly fund additional efforts to mitigate climate change and adapt to its impacts. However, local governments may be in a position to play a role in encouraging and organizing financing in partnership with other public and private organizations.

Local governments have strict limits on their ability to increase current revenues and create new revenues due to levy limits and other restrictions imposed by the State Legislature. Existing revenues, such as service fees and the property tax levy, are fully committed to existing services. In addition to providing core services such as police, fire, garbage collection, and road construction, the City and County of Milwaukee already commit some resources to environmental and equity issues. Given the condition of aging infrastructure, many local and county governments also need to fund replacement and improvement of infrastructure — these costs will be exacerbated by the impacts of climate change.

B. Recommendations for the Plan and Planning Process

The City's Budget and Management Division and/or hired consultants should explore expanding the financing options mentioned under Findings, such as additional use of Energy Saving Performance Contracts.

The City-County long-term plan to address climate change and economic equity ('Climate and Equity Action Plan') needs to include an analysis of finance options to address climate change, including those referenced above. The analysis of finance options should:

- Take into consideration the challenges described under the Findings section and how they can be addressed.
- Include thoughtful analysis of the equity implications and opportunities for different types of finance.
- Include short-, medium-, long-term projections of the funding needed to implement the actions and measures recommended in the Climate & Equity Plan as well as a projection of how the recommended finance options will result in a funding growth curve that aligns with the funding required to fully implement the Plan.
- Include an assessment of expected financial savings that could be achieved through the adoption of the recommended Climate and Equity Action Plan -- on the part of local government, other public entities, businesses, and households.
- Consider how, in relation to opportunities to fund efforts in vulnerable neighborhoods with low property values, the planning process can overcome the 'vicious circle' of constraints in which conventional investment streams for community and economic development are constrained by requirements that peg investment opportunities to the existing property values in a neighborhood.

C. Short Term Projects/Programs

The following is a list of short-term projects/programs that can be accomplished within the next year:

1. The City should explore use of the DRER program, including to further expand

the solar field at the landfill at 1600 E College Ave., to achieve 25% renewable energy by 2025 for municipal operations. The City may consider approaching the PSC for revisions to the program to reduce financial risk from the program.

2. The City should continue the Me2, PACE financing, and Milwaukee Shines loan programs. [on-going]
3. The City and County should inquire with the Wisconsin Department of Administration, Division of Energy, Housing and Community Resources regarding whether all eligible Wisconsin Weatherization Assistance Program funding for Milwaukee County is being fully utilized each year. This would help determine whether more resources are needed to support outreach and marketing of the program, or whether additional funding is needed due to high demand for weatherization services in Milwaukee. [within 3 months]
4. The City and County should intervene at the Wisconsin Public Service Commission (PSC) in the next Quadrennial Planning process for the Focus on Energy program and advocate for an increase in Focus on Energy funding. The next Quadrennial Planning process will likely occur in 2021. [within one year]
5. The City and County should work with other aligned Wisconsin municipalities to advocate for a State decision to supplement Focus on Energy funding with a charge pegged to energy usage above a “basic allowance” determined for each class of customers, similar to the Boulder, Colorado case study referenced under the Findings section.
6. In the context of a “Shared Climate Goals” conversation, the City should re-open the discussion initiated with We Energies in 2008 regarding offering on-bill financing to facilitate customers’ ability to invest in energy efficiency improvements for their homes and buildings. [re-open discussion within 6 months]
7. If that discussion is not successful, the City and County should ask the Wisconsin Office of Clean Energy and Sustainability to conduct an assessment, or ask the Public Service Commission (PSC) to initiate a generic investigation to explore on-bill financing in terms of likely benefits to ratepayers such as cost savings

from energy efficiency upgrades, as well as benefits to utilities, such as a reduction in peak load demand and permanent shift in system peak due to more distributed generation resources being present on the grid.

8. The City and County should investigate any and all available grants through the State of Wisconsin Department of Administration Volkswagen Mitigation Program to potentially help fund EV charging infrastructure and transit.
9. The City and County should ask the PSC, Wisconsin Department of Transportation and Wisconsin Department of Administration to assess the benefits of EV infrastructure and determine if there are situations where utility investments in that infrastructure would be in the interest of the public good. [within 6 months]
10. The Environmental Collaboration Office should generate a report indicating how it would use an additional \$1 million, if it had such funds in its budget, specifying how additional expenditures up to this amount would be prioritized. [within 3 months]
11. The City should prepare a set of proposals for “shovel ready projects” that could take advantage of a large infusion of federal funds that might be anticipated from the adoption of a Green New Deal agenda at the federal level at some point within the next 2-4 years. These proposals should include a process for vetting the proposed projects in a manner consistent with the Outreach and Education recommendations of the Task Force. [within one year]

VI. EDUCATION AND COMMUNITY OUTREACH

Work Group Members: Supreme Moore Omokunde, Rafael Smith, Barbara Richards, Ariana Hones, Larry Hoffman, Ted Wilinski, Linda Frank and George Martin

The plans, goals and projects in this section were determined prior to the outbreak of COVID-19, and as such many of the outreach plans in the short-term may be altered to

be in line with public health recommendations.

A. Findings

The book *Climate Action Planning*, by Michael Boswell, Adrienne Greve, and Tammy Seale includes a survey of the perception of climate change in America with the following information:

The Alarmed (21%) are fully convinced of the reality and seriousness of climate change and are already taking individual, consumer, and political action to address it.

The Concerned (30%) - the largest of the six Americas - are also convinced that global warming is happening and a serious problem but have not yet engaged the issue personally.

Three other Americas - the Cautious (21%), the Disengaged (7%) and the Doubtful (12%) - represent different stages of understanding and acceptance of the problem, and none are actively involved.

The final America - the Dismissive (9%) - are very sure it is not happening and are actively involved as opponents of a national effort to reduce greenhouse gas emissions. (Maibach et.all)²⁴

In an article in Milwaukee's Neighborhood News Service, Jabril Faraj wrote the following regarding Milwaukee's economic inequity:

Milwaukee's employment rate for black males is under 50 percent. The city's poverty rate of 29 percent is almost double the national average of 14.8 percent, a number that makes the city the fifth poorest large metro area in the country. The poverty rate among African-Americans is even higher at almost 40 percent. Among children 18 and under, a segment that makes up about 27 percent of Milwaukee's population, more than 42 percent live in poverty.

²⁴ *Public Awareness: Range of Views from Climate Action Planning by Boswell, Greve, and Seale (p.75):*

A 2012 report by the Social Development Commission (SDC) analyzed 18 neighborhoods identified by the City of Milwaukee Community Block Grants Administration as the city's most impoverished areas. That analysis showed that while poverty rates were above 60 percent for those with a high school diploma or less, individuals in those areas who have had some college (53 percent) or have gone through an apprentice program (44 percent) also experience high rates of poverty.

In Milwaukee County, 42 percent of all working age, single individuals who filed tax returns had incomes below the poverty line. The SDC report also points out that those who are not in the labor force are even more likely to live in poverty.²⁵

Please refer to the following report from SEWRPC regarding environmental justice and equity information:

<https://www.sewrpc.org/SEWRPCFiles/EnvironmentalJustice/Files/PresentationRegionalEquityPlanning.pdf>

According to the Asthma and Allergy Foundation of America, Milwaukee ranks 10th on its list of *Most Challenging Places to Live with Asthma*. (source: <https://www.aafa.org/asthma-capitals/>)

The organization Bread for the World has also listed Wisconsin as the 46th Hungriest State:

One in 11 households struggles to put food on the table.

- *937,629 people live in counties with poverty rates of 20 percent or more.*
- *13,158 veterans live below the poverty line.*

An individual must earn \$16.04 per hour in Wisconsin to provide for a family, yet, the state minimum wage is \$7.25²⁶

²⁵ *NNS October 14, 2015 by Jabril Faraj*

²⁶ *Bread for the World Fact Sheet 2020*

As a model for the Outreach going forward we present this model: based on NAACP Our Community Our Power A Testimonial: “I know that I am not alone in wanting to present the other side of lives not bombarded with daily fears and horrors that overrun mass media telecasts. Despite what communities like my own often convey, there are many of us who sidestep gang violence, assaults, robberies and the like. Not because we turn a deaf ear or are unaware. Primarily because I think we maintain a sense of kinship and integrity that is based on mutual respect, hope and a belief in the higher power that sustains each of us.

There is a long history of misconceptions that plague communities of color, driven by people who perceive that a small percentage dictates the entire populace. Many stereotypes are unfairly placed on our cultures because those who have no interactions tend to go by what they read and hear, refusing to see for themselves what is true and what is false. Sadly it appears that the inclination is to keep the mass hysteria and mistrust in the headlines and bury solutions on the back page.”²⁷

B. Recommendations for the Plan and Planning Process

Below are a number of goals that should be front and center when thinking of community education and outreach as the City and County move forward:

- To provide accessible information about the Climate and Equity Action Planning process -- a resident of Milwaukee County without any prior knowledge of local climate action should be able to do a Google search and find information on the CAP process.
- To secure funding for an outreach position, which can be a separate position or part of an existing position’s responsibilities.
- To engage a critical mass of participants at each key decision making point during the CAP process.

²⁷ May 30, 2016 by Denise Wooten, NNS

- To identify key community organizations/nonprofits to partner with on information sharing and recruitment of participants (for roundtables, listening sessions, educational events, etc).
- To create a “Climate Message” for the City and County of Milwaukee that allows the city to form an identity as a “climate champion” and which residents can get excited about.
- Develop a strategic media campaign for the Climate Action Plan. Residents of Milwaukee should know 1. The urgency of the climate crisis 2. The leadership that Milwaukee is taking 3. Their individual and collective ability to be involved in the change making process.

Below are additional strategies for identifying stakeholders, messaging, and recommendations tailored to specific groups.

Target Audience List and Identify Stakeholders

- Assembling a critical mass is key to creating an effective target audience list (for convening meetings and messaging).
- Host a listening session series (in different locations around the city) with partner organizations to hear about the ideas and concerns of that particular neighborhood/community. This:
 - Builds relationships with community partners
 - Creates an open line of communication between the task force (City/County) and residents.
 - Creates an accessible space to share (we go to the community, not the other way around).
 - Creates more public trust and buy in.
- Identify a few organizations to work with long-term (ie. UW-Milwaukee, Metcalfe Park, United Community Center, Social Development Commission). These long-term partnerships could be convening locations for educational sessions, decision making, etc.

Create a Key Message and an “Identity”/Publicize the Climate Action Planning Process

- A message that unifies and challenges the community to be involved. This message recognizes the challenges and opportunity to “re-imagine” our community. It is also a message that is locally rooted.
- Use a social media/digital strategist to create a unifying “climate message” that is general enough for the greater Milwaukee area, but also specific enough that it grounds the CAP process locally and with Milwaukee’s unique struggles and talents.
- A campaign that shows what the local government is doing (and how to be involved) as well as “asks” of the community (how each resident needs to be part of this process for it to be effective).
- Need a brand such as “A.R.E. MKE”- *Action for Resilience and Equity* - Hire a marketing firm
 - Two sides of the same coin Climate and Equity

Therefore, the work group recommends hiring a marketing firm to collaborate and create a community wide climate action campaign and message.

Recommendations for NonProfits/Community Organizations

- A number of non-profits and community organizations should be identified to potentially partner with.
- Criteria for partnership could be based on 1. Location (where is the organization located?) 2. Membership (who uses this institution?) 3. Issue area (what are they talking about?) 4. Capacity to partner for educational and outreach events.

Recommendations for 4 year Colleges/Universities

- Educational events at the university or college hosted by the Task Force.
- Service learning opportunities with certain professors/disciplines in order to engage students more deeply in Task Force work.
- Hosting a Task Force meeting at a college or university

Develop a target audience list and identify stakeholders

- City of Milwaukee ECO Office: See ECO website for programs that do outreach:
<https://city.milwaukee.gov/EnergyEngagement#.XIAXtmhKjIV>
<https://city.milwaukee.gov/Climate-Action.htm#.XIAVkGhKjIU>
- Milwaukee Public Schools /Greater Milwaukee Area Schools /Trade Schools/2 year Colleges:
 - Educational institutions that could and should be involved with the promotion and development of climate-relevant careers for Milwaukee-area residents include the Milwaukee Public Schools (MPS), districts surrounding MPS, and local institutions of higher learning, particularly Milwaukee Area Technical College (MATC).
 - At MATC, a solar installation program was discontinued because it was ahead of its time. An apprenticeship program for solar power currently under consideration would likely include training for related viable careers such as wind installation, solar and wind management, and systems engineering. Rather than train “one-off” jobs, MATC believes training should be comprehensive for an industry, so people can be skilled and comfortable in multiple types of work. Although electricians might not see solar projects as a frequent part of their mix, solar would be a valuable additional skill set. Solar inverters are handled by electricians, not solar installers. MATC could train in repair and maintenance of solar and wind equipment, for family-sustaining jobs that will last. One such field is “environmental service technician.”
 - Because experts in certain trades and climate-related careers are very well paid, it can be difficult to obtain such experts for teaching. Qualified instructors may be difficult to come by.
 - MATC has recently met with a large group of MPS middle and high school students to introduce them to the trades and a route to the trades through the technical college. MATC has also met with administrators from other Milwaukee area school districts to discuss preparation for the trades.
 - Among MPS and other Milwaukee-area districts, there appears to be no

concerted effort at the present time to pursue schooling or training in the trades or careers related to climate change. However, at MPS, Board members, faculty, administrators, and climate activist groups have passed a resolution on climate justice. It calls for an assessment by administration of the status quo and for: (a) development of curriculum and instruction in climate science and climate justice to prepare youth for leadership; (b) career preparation in green technologies, construction trades, sustainable agriculture, environmental science and restoration; (c) climate-sensitive improvement in physical plant, land use, choice of materials for purchase and disposal of waste products; and (d) collaboration with environmental preservation efforts by government and nonprofits.

PROCESS/AIMS

The Task Force recommends using the process of outreach in the “NAACP Our Community Our Power”²⁸ The modules below come directly from the NAACP:

Module 1: A Community Coming Together

In this module we outline the steps groups can take to establish an Environmental and Climate Justice (ECJ) Committee or community workgroup, develop partnerships with other stakeholders, and build a vision for your community’s future.

Module 2: Building Social Cohesion

This module is dedicated to cultivating social cohesion. We discuss what social cohesion means and how to strengthen social cohesion as a community. This includes discussions regarding healing justice, sanctuary, and cultural preservation.

Module 3: Developing a Community Climate Adaptation Plan

This module is all about advancing equity in climate adaptation planning. We discuss how to locate state and local plans, how to evaluate existing plans with a lens for equity

²⁸ <https://live-naacp-site.pantheonsite.io/wp-content/uploads/2019/04/Our-Communities-Our-Power-TOOLKIT-FINAL.pdf>

in resilience building, and how to organize your own plan. We also provide examples of what equitable, resilient climate adaptation plans might look like.

Module 4: Passing Policy for Climate Resilience

This module is all about how to pass policies and enact legislation. We break down the legislative process and explain how ECJ Committees can write and pass state and local policy for climate resilience.

Below is a list of challenges that community outreach and education efforts will have to overcome:

- Misconceptions and misinformation about climate change, time constraints, and the question of whose responsibility it is to make changes to our current systems and lifestyles.
- Willingness to prioritize spending money for climate adaptation/mitigation on the part of community stakeholders, government, private businesses and organizations, Individuals, etc.
- Changing financial accountability to manufacturing rather than the consumer. Increasing the circular economy.
- Changing from consumer culture to a producer culture (food from our yards and Community Supported Agriculture (CSA), not from the can) and creating financial ability to make climate friendly choices.
- White fragility
- Recognition of community voices, especially from frontline communities and those that will be most impacted by climate change, such as people from communities of color, Indigenous people; people with medical conditions; those who are housing insecure and those living in poverty.
- Lack of funding overall.

Overall, the Task Force finds the MMSD 2019 Resilience Plan a good foundation upon which to base its work. The Task Force also recommends the NAACP [Our Community:](#)

Our Power action toolkit to be used as a modeling guide for community education and outreach.

The Task Force recommends using MMSD Resilience Plan Vision 1 (Actions 1,2,3 and 7) to “make the Milwaukee region a better place to live by improving the public’s participation in decision making and their environment” as this corresponds to the NAACP Our Community, Our Power process.

C. Short Term Projects/Programs

- Create a website to be the information and outreach hub for the Task Force.
- Plan a kickoff event.
- Communicate with the community.
- Hold workshops/ meetings, including focus groups.
- Monitor Common Council and County Board of Supervisors meetings/developers at licensing committee hearings.

VII. Monitoring and Accountability

Each of the work groups developed plans to ensure accountability when carrying out the plans set forth in this report. The monitoring plans involve the creation of a committee charged with oversight and frequent public meetings, as well as other best-practices to ensure transparency.

Supervisory Committee/Board

Each of the Task Force’s work groups recommended either the creation of a new oversight committee or charging the Task Force itself with the oversight of the goals. If a new oversight committee is formed, it should be composed of business, nonprofit, community, academic, local government and other organized groups. Furthermore,

each recommendation should link to the relevant City or County department/division, and there should be monthly or bi-monthly public sessions where City and County staff report on their achievements and challenges in meeting specific goals from the recommendations.

Additionally, a third party (not necessarily part of local government) should conduct a survey and data research on a bi-annual basis to measure progress made in employment goals, both new jobs and jobs held by individuals who have been under-represented in the workforce. Data should include information on the wages and benefits, and whether they are ongoing or temporary positions.

Community Events/Presentations

The general public should be updated on the progress of goals and metrics frequently, through events such as implementation activities, celebrations, and meetings. To effectively do so, the following modules from the NAACP should be used:

Module 2: Building Social Cohesion: This module is dedicating to cultivating social cohesion. We discuss what social cohesion means and how to strengthen social cohesion as a community. This includes discussions regarding healing justice, sanctuary, and cultural preservation. NAACP pp. 59-76

Module 5: Communicating For Impact: In this module we explain how to utilize and develop a story-based strategy to change narratives in climate change adaptation. We also outline various communications strategies ECJ Committees can use to advance these narratives. NAACP pp. 170-198+

Module 6: Educating and Organizing for Climate Resilience: In order to change the way the world thinks about climate adaptation and resilience, we must develop education and awareness campaigns that convey our systems-change approach to climate resilience. In this module, we outline some of the platforms that Environmental and Climate Justice Committees can use to engage the community in

creative and innovative ways. NAACP pp. 199-212

Module 7: Democracy and Governance: An important part of building community resilience is reforming our systems of governance to reflect a vision of deep democracy that is truly by the people and for the people. In this module, we discuss the concept of “deep democracy” and the important role that it plays in effective, community-driven climate resilience planning. We also introduce several strategies ECJ Committees can incorporate into adaptation plans to improve democratic governance. NAACP pp. 214-223

Module 12: Gender and LGBTQ Responsive Climate Resilience: This module provides strategies on how to protect and empower marginalized gender and identities during weather disasters and other climate-related events. We explain some of the ways that women and those in the LGBTQ community experience the impacts of climate change differently and how climate adaptation planning can be more responsive to gender. NAACP pp. 331-345

Other Transparency Processes

1. Utilize renewable energy certificates/credits to properly account for the City's renewable energy investments.
2. Add greenhouse gas emissions inventory and reduction strategies to City and County websites.
3. Update inventory and review strategies in 2025 and 2030. The greenhouse gas emissions inventory should be updated at least once every 5 years and interim metrics should be developed to measure progress towards climate action plan goals more often. At least annually, progress and strategies should be reviewed utilizing greenhouse gas emission inventory updates and interim metrics.

VIII. Conclusion

This report brings forth the need to evaluate, mitigate and adapt to ecosystem changes

brought about by a changing climate and to address long standing racial and economic disparities. The impending environmental impacts to all of Milwaukee's systems will be considerable if the community continues to depend on current practices that rely on external resources rather than local solutions. We can develop local employment if we build for a new local economy. We can create a resilient Milwaukee based on reimagined economic and social structures. The current system's lack of capacity to meet these twin challenges (climate and equity) requires leadership for a secure and just Milwaukee by 2050.

Therefore, this Task Force requests the community, from utilities to CEOs to NGOs; to City and County and State-wide elected officials; to neighborhood associations, BIDs to NIDs; to churches, small businesses, schools at all levels; to you and your neighbors; a commitment to meet and listen to one another's ideas with open minds and hearts. What does a Milwaukee look like that is just and resilient? This is a community call to action for climate and economic equity.

The Task Force wants to inform and listen to as many Milwaukeeans as possible. You can reference the work of the Task Force in the attachments to Common Council File Number 191039. The Task Force plans to reach out to the public, and asks that readers of this document reach out to it, as well. You are asked to join the conversation for a community-wide response to the twin challenges of climate and equity. The Task Force will also proceed with short-term strategies as it is able. Then, together with the community, the Task Force will publish a plan after a one to 2-year engagement of community representatives and experts from all the above groups to dig deeper into the path to the future. Answer the Call for Action!

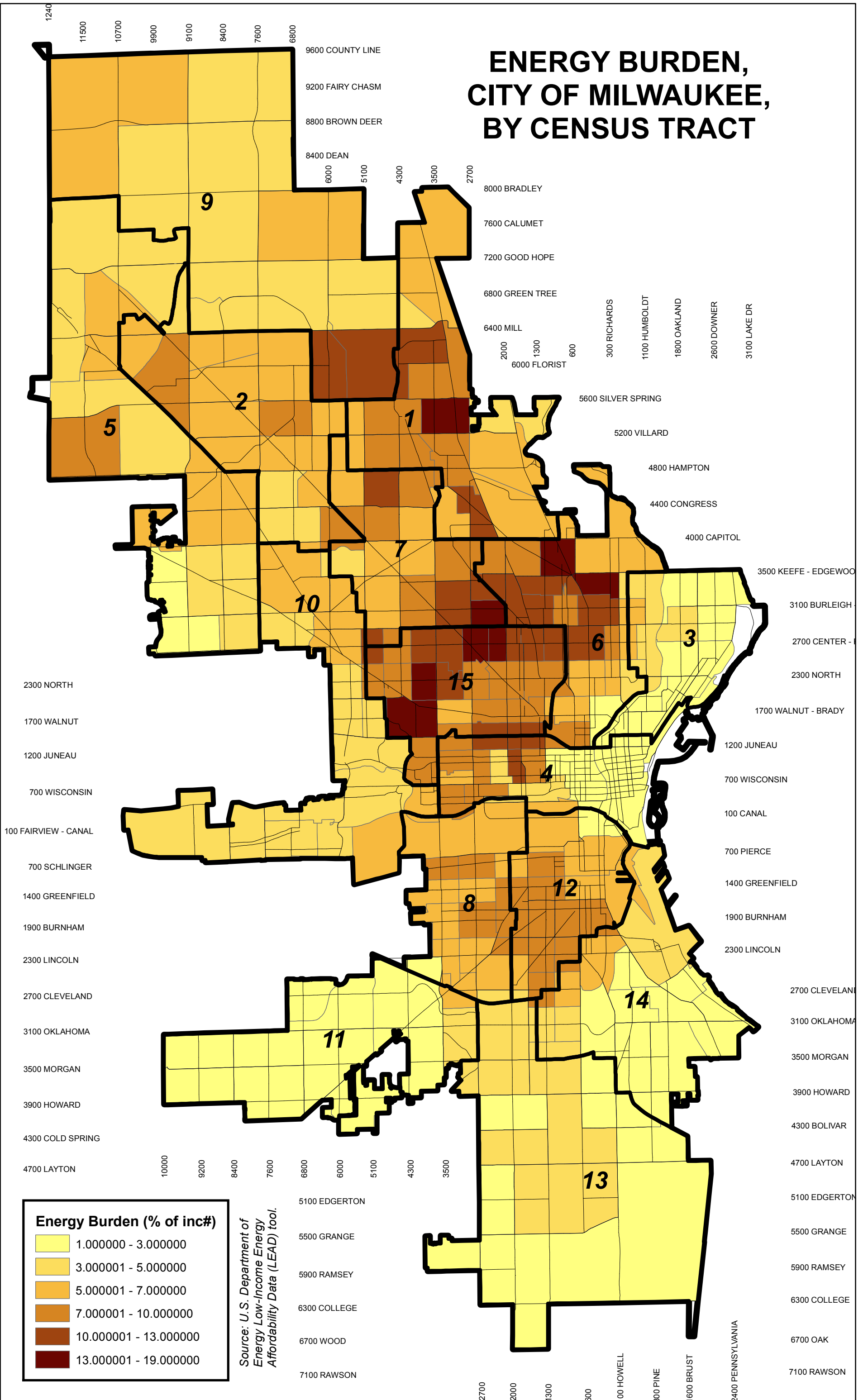
APPENDICES

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ENERGY BURDEN, CITY OF MILWAUKEE, BY CENSUS TRACT



Many chemical compounds found in the Earth's atmosphere act as and are referred to as "greenhouse gases" that allow sunlight to enter the atmosphere and prevent infrared radiation from escaping back to space.² This affects global climate and temperatures. GHG emissions occur from natural processes (biogenic and physical) and also from human activities and sources (anthropogenic) such as the burning of fossil fuels. A scientific consensus has emerged that increasing concentrations of GHG emissions in the Earth's atmosphere results in increased average global temperatures. This, in turn, leads to changes in the Earth's climate that are detrimental to our economies and environment. Therefore, it is important to measure and decrease anthropogenic GHG emissions. GHG inventories shall address the six internationally recognized greenhouse gases which directly impact the climate:

- Carbon dioxide (CO₂);
- Methane (CH₄);
- Nitrous oxide (N₂O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF₆).

Local governments estimate and report on community GHG fluxes using a tool known as a GHG inventory. A GHG inventory estimates the quantity of GHG emissions and removals associated with community sources and activities taking place during a chosen analysis year. By conducting additional inventories and presenting data over time, local governments can use community GHG inventory reports to provide information on trends in GHG emissions associated with a given community. Local governments may choose to develop a community GHG inventory report for a number of reasons, including to:

- inform climate action planning
- demonstrate accountability and leadership
- track GHG emissions performance over time
- motivate community action
- recognize GHG emissions performance relative to similar communities
- enable aggregation of GHG emissions data across regions, and
- demonstrate compliance with regulations, voluntary agreements, and market standards (where applicable).

Community GHG inventory reports typically focus on selected GHG emissions occurring within the jurisdictional boundary of the community (e.g., emissions from combustion of natural gas in furnaces throughout the community), as well as certain trans-boundary emission sources associated with community activities (e.g., emissions from electricity generation at a power plant located outside the community associated with electricity use occurring in the community). GHG removals may also occur, particularly in the land sector.

In-boundary GHG Emissions Sources	Activities Resulting in GHG Emissions
Any physical process inside the jurisdictional boundary that releases GHG emissions into the atmosphere (e.g., combustion of gasoline in transportation; combustion of natural gas in electricity generation; methane emissions from a landfill) or removes GHGs from the atmosphere (e.g., protecting and managing forests; planting or maintaining trees).	The use of energy, materials, and/or services by members of the community that result in the creation of GHG emissions either directly (e.g., use of household furnaces and vehicles with internal combustion engines) or indirectly (e.g., use of electricity created through combustion of fossil fuels at a power plant, consumption of goods and services whose production, transport and/or disposal resulted in GHG emissions).

In-boundary GHG Emissions Sources	Activities Resulting in GHG Emissions
Built Environment	
Use of fuel in residential and commercial stationary combustion equipment (e.g., boilers and furnaces)	Use of fuel in residential and commercial stationary combustion equipment (e.g., boilers and furnaces)
Industrial stationary combustion sources	
Power generating facilities	Use of electricity by the community ⁱ
District heating or cooling facilities	Use of district heating or cooling by the community
Industrial processes	
Refrigerant leakage	
Transportation and Other Mobile Sources ^{ii, iii, iv, v}	
On-road passenger vehicles operating within the community boundary	On-road passenger vehicle travel associated with community land uses
On-road freight and service vehicles operating within the community boundary	On-road freight and service vehicle travel associated with community land uses
On-road transit vehicles operating within the community boundary	
Transit rail vehicles operating within the community boundary	Use of transit rail travel by the community
Inter-city passenger rail vehicles operating within the community boundary	
Freight rail vehicles operating within the community boundary	
Marine vessels operating within the community boundary	Use of ferries by the community
Off-road surface vehicles and other mobile equipment operating within the community boundary	
	Use of air travel by the community
Solid Waste	
Operation of solid waste disposal facilities	Generation and disposal of solid waste by the community
Wastewater and Water	
Operation of water delivery facilities	Use of energy associated with use of potable water
	Use of energy associated with generation of wastewater
Process emissions from operation of wastewater treatment facilities	Process emissions associated with generation of wastewater

Operation of septic systems	Use of septic systems by the community
Agricultural Livestock	
Domesticated animal production	
Manure decomposition and treatment	
Forest and Lands	
Forest Lands within boundary	Direct or indirect changes to forest carbon stocks outside the community boundary, due to activities within the community boundary. Including forest protection and land use change
Trees outside forests, such as parks, street trees, and urban canopy	
Upstream Impacts of Community-Wide Activities (Optional)	
	Upstream impacts of fuels used in stationary applications by the community
	Upstream and transmission and distribution (T&D) impacts of purchased electricity used by the community ^{vi}
	Upstream impacts of fuels used for transportation in trips associated with the community
	Upstream impacts of fuels used by water and wastewater facilities for water used and wastewater generated within the community boundary
	Upstream impacts of select materials (concrete, food, paper, carpets, etc.) used by the whole community. Note: Additional community-wide flows of goods & services will create significant double counting issues.
<p>i Emissions associated with the use of purchased electricity should include delineation of electricity used in stationary applications vs. transportation vehicles to the extent possible.</p> <p>ii Community refers to residents, businesses, industries, and government co-located within a defined jurisdiction. Across each mode, travel by members of the community often involves crossing the community boundary with a portion of travel occurring outside the community. Quantifying emissions associated with the use of travel by the community generally involves estimating emissions associated with the entire length of in-boundary and trans-boundary trips, and allocating a portion of those emissions to the community for which emissions are being reported. See Chapter 3 for further detail.</p> <p>iii Vessels operating within the community boundary include docked or idling vessels.</p> <p>iv Emissions associated with use of travel by the community include energy used while vehicles are docked or charging.</p> <p>v Some communities with transportation hubs or ports may be interested in tracking emissions associated with fuel loaded into aviation, marine, or rail vessels departing from those hubs or ports. These vessels often transport people and goods associated larger geographic regions, and often most of the fuel loaded into them is combusted outside the community boundary. These emissions are not included in Table 2 for these reasons, but local governments may choose to report on them in addition to the GHG sources and activities listed in Table 2.</p> <p>vi Upstream impacts of the use of purchased electricity can include consideration of associated transmission and distribution losses.</p>	