



Advancing Climate Communication in Mid-America

The Mid-America Regional Council (MARC) is the council of governments and the federally designated metropolitan planning organization (MPO) for the Kansas City region. MARC has leveraged local partnerships and conducted meaningful engagement to achieve support for greenhouse gas (GHG) reduction projects and activities over the past 20 years. MARC's close collaboration with local agencies and climate action group helped drive the development of the GHG analysis for the metropolitan transportation planning process, the region's Climate Action Plan, and shovel-ready project list for federal grants to support GHG emissions reduction.

Getting Started with GHG Emissions Considerations

MARC first introduced GHG emissions considerations in its 2040 Metropolitan Transportation Plan, *Transportation Outlook 2040*. This plan included a policy goal to reduce the use of fossil fuels in transportation through expanded transit, complete streets development, and transportation demand management. MARC member agencies, Kansas City, MO, and Johnson County, KS, had developed GHG inventories in 2006 and 2007. In 2015, MARC completed its first GHG inventory, which included emissions from three sectors: stationary energy, transportation, and waste. Transportation emissions were estimated in the MARC regional transportation model and included passenger vehicles, freight trucks, and public transit. This 2015 baseline was used to inform future plans.

Metropolitan Transportation Plan and Climate Action Plan Development

In 2019, MARC, along with over 130 local and state elected leaders, community leaders and stakeholders, formed Climate Action KC, a nonprofit organization with a mission to advance local and regional strategies to address climate change. In 2020, MARC and Climate Action KC led the development of a Regional Climate Action Plan targeting net-zero GHG emissions by 2050. The Regional Climate Action Plan includes a framework for local agencies to implement coordinated strategies to reduce GHG emissions voluntarily. This plan was developed around the same time as MARC's 2050 metropolitan transportation plan, *Connected KC 2050*, which aligned climate-related goals and strategies of both plans. Both the Regional Climate Action Plan and *Connected KC 2050* include the following climate-related goals:

1. Reduce vehicle miles traveled (VMT) per capita.
2. Shift the regional fleet to low- and no-emission vehicles.
3. Shift trips to affordable, equitable, and safe mobility options.
4. Improve the transportation system so it is resilient to the shocks and stresses of climate change.

Highlights

- Strong partnerships with local organizations to advance climate change focused strategies
- Tailored outreach to diverse stakeholder groups
- Use of scenario planning to inform project prioritization

Context

MARC is the metropolitan planning organization (MPO) for the Kansas City region. The region sits in two states (Kansas and Missouri), and includes nine counties, 119 cities, and over 2.1 million people. It spans approximately 4,400 square miles. The Kansas City metropolitan area includes Kansas City, a mid-sized urban city, and rural areas, which comprise around 43% of the land.



Performance Measures and Project Selection for the Metropolitan Transportation Plan

In addition to the federally required performance measures, MARC adopted regional performance measures as part of its metropolitan planning process. These performance measures, intended to track progress towards the plan's goals, included: VMT per capita, on-time transit performance, the percentage of trips by alternative modes, electric vehicle (EV) registrations, and EV charging stations by type.

Connected KC 2050 used a 200-point project prioritization scoring system to select projects for the plan's financially constrained list. Projects receive up to ten points for GHG emission or carbon-based fuel reduction (based on the applicant's "satisfactory explanation provided"). In addition to this explicit GHG prioritization criteria, projects that increase nonmotorized travel and transit (which typically reduce GHG emissions) were also awarded points.

Scenario Planning

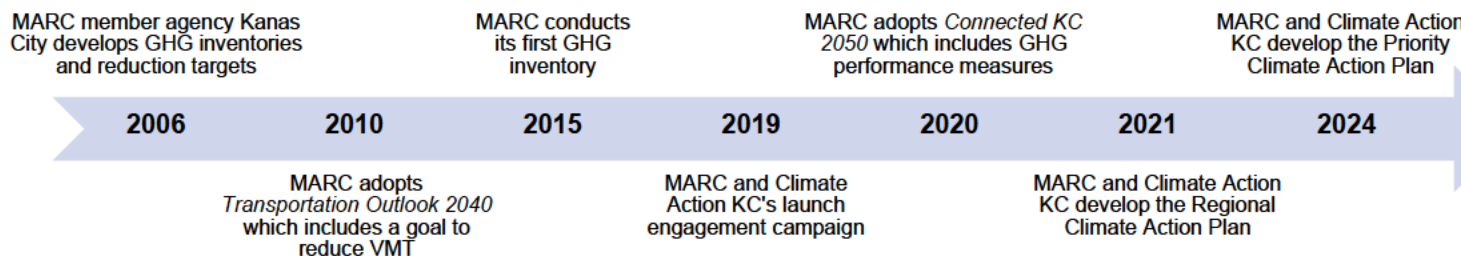
As part of the development of *Connected KC 2050*, MARC conducted a scenario analysis exercise to review impacts on VMT, vehicle hours traveled (VHT), transit ridership, and automobile trips across two land use scenarios (trend growth and focused/compact growth) and four transportation network scenarios:

1. No further investment
2. Implementation only of the current transportation improvement program
3. Implementation of the current transportation improvement program and the transit and mobility plan
4. Implementation of the full long-range transportation plan

This analysis showed that the highest reduction of GHG emissions can be attributed to a focused/compact growth scenario; however, even with the implementation of all strategies in the metropolitan transportation plan, the region would not meet the regional GHG reduction target of net-zero by 2050. Further GHG reduction could be reached through additional strategies, such as significant fleet electrification, pricing strategies, and transit improvements. MARC used in-house land use forecasting tools, travel demand model, and the U.S. Environmental Protection Agency (EPA) Motor Vehicle Emission Simulator (MOVES) model to quantify impacts from the scenarios. This analysis was helpful in making the case for advancing strategies to reduce GHG emissions.

Priority Climate Action Plan

Connected KC 2050 and the Regional Climate Action Plan paved the way for the development of MARC and Climate Action KC's 2024 Priority Climate Action Plan, required to apply for funding through the EPA's Climate Pollution Reduction Grants program. The Priority Climate Action Plan describes short-term strategies to reduce GHG emissions, derived from the Regional Climate Action Plan, along with additional partner and stakeholder engagement and an analysis of low-income disadvantaged communities' intersection with proposed strategies. Following the plan's adoption, MARC called for projects, asking local agencies to use the strategies in the Priority Action Plan for guidance on submissions. The agency plans to start a rolling acceptance of submissions for project applications to establish a backlog of eligible projects for funding.



Timeline of MARC's incorporation of GHG emissions into the planning process

Engagement and Partnerships

MARC's incorporation of GHG emissions considerations into its planning process was made possible by support from member agencies with strong climate change initiatives, meaningful stakeholder engagement, and targeted conversations with internal committees and boards.

In 2019, MARC and Climate Action KC launched a large-scale engagement campaign for the Regional Climate Action Plan. This engagement was tailored to specific audiences, described below, with distinct approaches to spreading awareness, receiving input, and securing support.

- **General public:** Education on GHG impacts, co-benefits of GHG emission reduction strategies, including public health and transportation choices. Solicitation of community priorities and preferences among strategies.
- **Enthusiastic community members:** Provision of tools to equip community members who actively wanted to help and participate in this planning process. MARC provided engagement avenues for people in this group, navigating them towards ambassador-like roles where they would help expand MARC's other outreach efforts.
- **Rural communities:** Listening to community members' diverse needs and priorities and building relationships with community leaders. MARC held informal meetings with rural communities to understand priorities, share co-benefits of GHG reduction strategies for rural areas, and learn about the initiatives they were already implementing at the local level.
- **Decision-makers and elected officials:** Support for local elected officials with local climate action strategies and solicitation of support for the Regional Climate Action Plan. Facilitation of discussions with decision-makers, including MARC committees to describe how MARC and member agencies would use the Climate Action Plan's flexible framework in support of regional and local priorities.
- **Youth.** Establishment of a youth committee, comprised of high school students from across the region, to share concerns and priorities among young people in the Kansas City region.

MARC used various communication vehicles for engagement, including workshops (both in-person and virtual), presentations, interactive mapping, educational video series, and established committees.

Next Steps

In *Connected KC 2050*, MARC highlights next steps in future transportation planning work:

- Further develop zero-emission mobility concepts in vulnerable communities.
- Develop a more advanced, activity-based travel model which can support GHG planning by producing model outputs related to bicycle and pedestrian activity and household level greenhouse gas emissions.

MARC is also considering launching a new programming committee to combine project evaluation and prioritization for the Congestion Mitigation & Air Quality Improvement (CMAQ) Program and the Carbon Reduction Program, as they would use similar criteria.



In 2020, MARC and Climate Action KC hosted a video series, "Climate Conversations," where subject matter experts and community leaders discussed their climate action priorities. Source: Connected KC 2050.

MARC benefitted from pioneering work from its member agencies. Kansas City and Johnson County began incorporating GHG emissions considerations into their planning process in 2006 and 2007, respectively. In 2006, the mayor of Kansas City signed an ordinance that launched a regional Climate Protection Planning Process, with goals such as reducing GHG emissions for city operations and decreasing the city's carbon footprint over the following thirty years.



Key Takeaways

- Many MPOs find success in incorporating GHG emissions into planning when there is state legislation calling for it. Without such regulation, MARC leveraged local leadership organizations to work towards achieving its climate-focused missions. Specifically, their partnership with Climate Action KC and meaningful engagement with local communities and decision-makers were essential to advance GHG reduction strategies in the metropolitan transportation plan and Climate Action Plan.
- Identification of co-benefits that would help everyone in the region, regardless of their political opinions and views on climate resilience (such as less air pollution, improved physical health, and other neutral motivators) helped MARC achieve broad support for GHG emissions reduction strategies.
- Scenario planning is useful for both identifying projects and investment strategies to meet regional goals and for explaining the impacts of planning decisions to communities and decision-makers.
- Use of flexible and tailored approaches to reduce GHG emissions can help secure support from local communities.

Resources

- [Connected KC 2050](#)
- [Connected KC 2050 Modeling Scenarios](#)
- [KC Regional Climate Action Plan](#)
- [KC Priority Climate Action Plan](#)