

GENESEE FINGER LAKES REGION
**COMPREHENSIVE
CLIMATE ACTION PLAN**



2025

The Comprehensive Climate Action Plan (CCAP) for the Genesee-Finger Lakes Region charts a path toward reducing greenhouse gas (GHG) emissions while advancing a sustainable, resilient, and low-carbon future. Building on the April 2024 Priority Climate Action Plan (PCAP), the CCAP establishes sector-specific strategies that integrate mitigation and adaptation measures. These strategies not only reduce emissions but also strengthen economic vitality, community resilience, public health, and equity, creating co-benefits such as cleaner air and water, job creation, and improved livability.

Funded through the EPA's Climate Pollution Reduction Grant (CPRG) and led by the Genesee/Finger Lakes Regional Planning Council (GFLRPC), the CCAP covers nine counties, 188 municipalities, and nearly one million residents. Development was guided by advisory committees, sector-specific focus groups, and robust public engagement. Equity and inclusion were prioritized through outreach to disadvantaged communities, ensuring that climate risks, barriers, and opportunities were understood from a local perspective.

Historically, the EPA has taken seriously its responsibility to protect human health and the environment as we face increasingly more harmful impacts of climate change. The Genesee-Finger Lakes Region is experiencing increasingly severe levels of flooding, drought, extreme heat, and other climate-related hazards. With these and other climate challenges come opportunities to invest in a cleaner economy that can spur innovation and economic growth while building resilient communities.

The CCAP identifies a strategy to decrease GHG emissions in all sectors within the project area, including transportation and land use, building and infrastructure, electric power and energy, agriculture and working lands, materials management, and industry and workforce. These strategies and measures are based on the 2022 Finger Lakes Greenhouse Gas Inventory.



Key Dates

September 8, 2023

G/FLRPC received notice of award
CPRG Phase 1 planning grant

March 1, 2024

Priority Climate Action Plan (PCAP)
was submitted to the EPA

September 11, 2025

Comprehensive Climate Action
Plan (CCAP) was submitted to the
EPA

Mid 2027

Progress report due to the EPA

Vision Statement

The Finger Lakes Region will work collaboratively to leverage its unique character and assets to improve the health and well-being of the Region through climate action. This will be achieved through collaboration, education, and engagement, resulting in a vibrant, resilient, and healthy Region for current and future generations.



Planning Process

The CPRG program has three key grant deliverables. First is the Priority Climate Action Plan (PCAP), a narrative report that included a focused list of near-term, high-priority actions related to transportation, buildings, and municipal operations. The Comprehensive Climate Action Plan (CCAP) includes an updated GHG inventory, GHG reduction measures for all sectors and sources, and a benefits analysis of each of the reduction measures. The CCAP was submitted to the EPA in September 2025. The final deliverable is a status report that will provide an update on GHG reduction measure implementation, changes to the GHG inventory profile in the Region, and any relevant next steps or needs to continue implementation.

Both the PCAP and CCAP were completed under the direction of an Advisory Committee and with the support of Focus Groups. The project team at Genesee/ Finger Lakes Regional Planning Council facilitated monthly meetings with the Committee. This group consisted of members from the Regional Transit Service (RTS), Genesee Transportation Council (GTC), the Climate Solutions Accelerator of the Genesee-Finger Lakes Region (CSA), NYSERDA's Finger Lakes Regional Clean Energy Hub (AMPED), the City of Rochester, and members from each of the nine counties, representative of various county departments. The Advisory Committee assisted in refining the measures, tools, and vision of the CCAP, including setting measurable GHG emissions goals and targets and identifying and analyzing implementation measures and strategies. measures, provided feedback, and attended meetings.

Engagement

The development of the Comprehensive Climate Action Plan required broad community feedback to inform the goals and strategies for reducing regional greenhouse gas emissions. Community engagement throughout this process included Steering Committee meetings, community and municipal surveys, three rounds of meetings with eight focus groups, two public webinars, and six pop-up events. Engagement occurred in two main phases:

1. January 2025 – March 2025: Development of Draft Measures and Tools. Community Survey #1, Municipal Survey #1, and Focus Groups Round 1 helped identify preliminary concerns about climate impacts, barriers to climate action, and potential solutions to address these concerns and barriers. This initial feedback was used to develop draft measures and tools that were presented at Focus Groups Round 2.

2. April 2025 – August 2025: Refinement and Prioritization of Draft Measures and Tools. Feedback from Focus Groups Round 2 and 3 helped further refine the draft measures and tools for each sector. These refined draft measures and tools were presented during the Public Webinars and shared with the public via Community Survey #2 and at Pop-Up Events throughout the region in July and August. Community Survey #2 and Pop-Up Events also helped gain insights into the public's priorities for implementation.

Why This Plan Matters

Our region is changing



Hotter Summers



Heavier Rainfall, Flooding, and Shoreline Erosion



Agriculture and Food Systems Impacts



Increased Algal Blooms and Drinking Water Impacts

Our Region Has Strengths

What can we capitalize on



Abundant Natural Resources



Strong Agricultural Traditions



World- Class Educational Institutions



A Growing Clean Energy Sector

Actionable Steps

The CCAP outlines adaptable strategies for municipalities, industries, and individuals across seven sectors.



Built Environment



Materials Management



Transportation & Land Use



Electric Power



Agriculture & Working Lands



Industry & Workforce



Capacity Building

Impacts of Implementation

Implementing the CCAP will do more than reduce greenhouse gas emissions



Local job creation and economic development through the support of local businesses.



Improved public health/reduced health.



Improved air quality and quality of life.



Opportunities for local research and innovation related to climate mitigation.



Reduced utility and operational costs for homes, businesses, & government.



Improved risk management & resilience climate change impacts.



Diversified energy supply, providing greater resiliency & reliability.



Healthier, more comfortable homes.



Improved water quality and ecosystems.



An educated & empowered population to act at home, work, & in their community.



Opportunities for leadership and recognition.

Regional Greenhouse Gas Inventory

The greenhouse gas (GHG) profile breaks down the regional sectors that contribute directly to climate emissions. Understanding the sources of GHG emissions and establishing a baseline are critical first steps in the regional climate action process. A GHG inventory is a comprehensive analysis of emissions from various sources, including transportation, materials management, agriculture, and energy consumption across residential, commercial, and industrial sectors.

GHG inventories provide the data needed to set realistic goals and track progress toward reducing costs, energy use, and emissions. By identifying the largest sources of emissions in the region, GHG inventories enable local governments, nonprofits, businesses, community groups, and other regional partners to focus on the most important sectors.

The Genesee/Finger Lakes Regional Planning Council collaborated with the University of Buffalo’s Research Institute, the Capital District Regional Planning Commission, and Climate Action Associates to form the NYS GHG Inventory Collaborative to reevaluate and update the New York Community and Regional GHG Inventory Guidance developed in 2015. This guide is a collection of methods and data sources specific to resources provided by and readily available in New York State.

Emission Reductions



Emissions by Sector

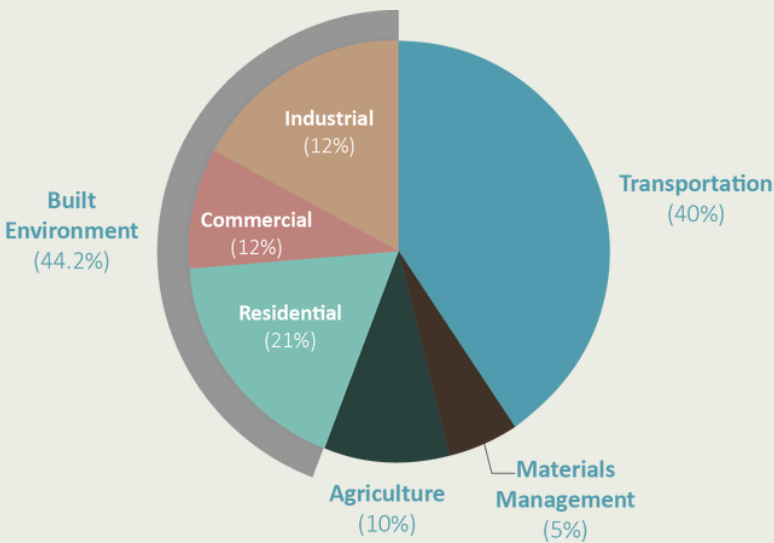
In 2010, the Genesee Finger Lakes Region emitted 16.1 million Metric Tons of Carbon Dioxide Equivalent (MTCO2e) GHG emissions. In 2022, the Region emitted 14.6 million MTCO2e. We can attest this 9.5% reduction to cleaner electricity, more efficient vehicles, electrification, a decline in fuel oil use, and an increase in renewable energy.

The largest contributors to greenhouse gas emissions in our region are the transportation and the built environment (residential, commercial, and industrial) sectors. These sectors have consistently been the primary drivers of emissions due to factors such as heavy reliance on fossil fuels for transportation and the energy consumption associated with heating, cooling, and powering buildings.

Interestingly, the two sectors that have not seen reductions are material management (waste) and agriculture. In the waste sector, while some progress has been made in terms of recycling and waste diversion, the overall impact of emissions remains largely unchanged. This may be attributed to the continued increase in the generation of waste, combined with the challenges surrounding waste treatment processes, such as landfill methane emissions and the energy-intensive nature of waste management operations.

The agriculture sector has experienced an increase in reported emissions, largely due to growth in livestock populations over the past 15 years. As the number of animals, particularly ruminants such as cattle, has risen, so too have methane emissions associated with livestock digestion and manure management.

Regional Emissions by Sector



Emissions by County

Emissions across our region tend to follow a mostly consistent pattern, largely driven by population distribution and the concentration of businesses and industries in urban centers. Counties with larger populations and denser industrial activity, such as those surrounding major cities, tend to have higher emissions due to greater transportation needs, building energy use, and industrial processes.

However, each county’s greenhouse gas inventory reveals unique characteristics and contributing factors that reflect local economies, land uses, and community priorities. Understanding these distinct profiles is essential for developing effective, place-based strategies that advance regional and statewide climate goals.

The region encompasses a rich mix of urban, suburban, and rural communities, each contributing uniquely to the region’s emissions landscape. Monroe and Ontario Counties, as the population and economic centers, account for the largest share of total emissions, driven primarily by energy use in buildings and transportation. Genesee, Livingston, and Wyoming Counties maintain strong agricultural economies, where farming is both a defining feature of the landscape and a key source of emissions, particularly from dairy and crop production. Meanwhile, Orleans, Seneca, Wayne, and Yates Counties combine agricultural productivity with growing tourism, light industry, and renewable energy development. These smaller and more rural counties contribute a modest share of regional emissions but reflect diverse local conditions, from Seneca’s wine and craft beverage industry to Yates’s lakeside agriculture and heritage communities.

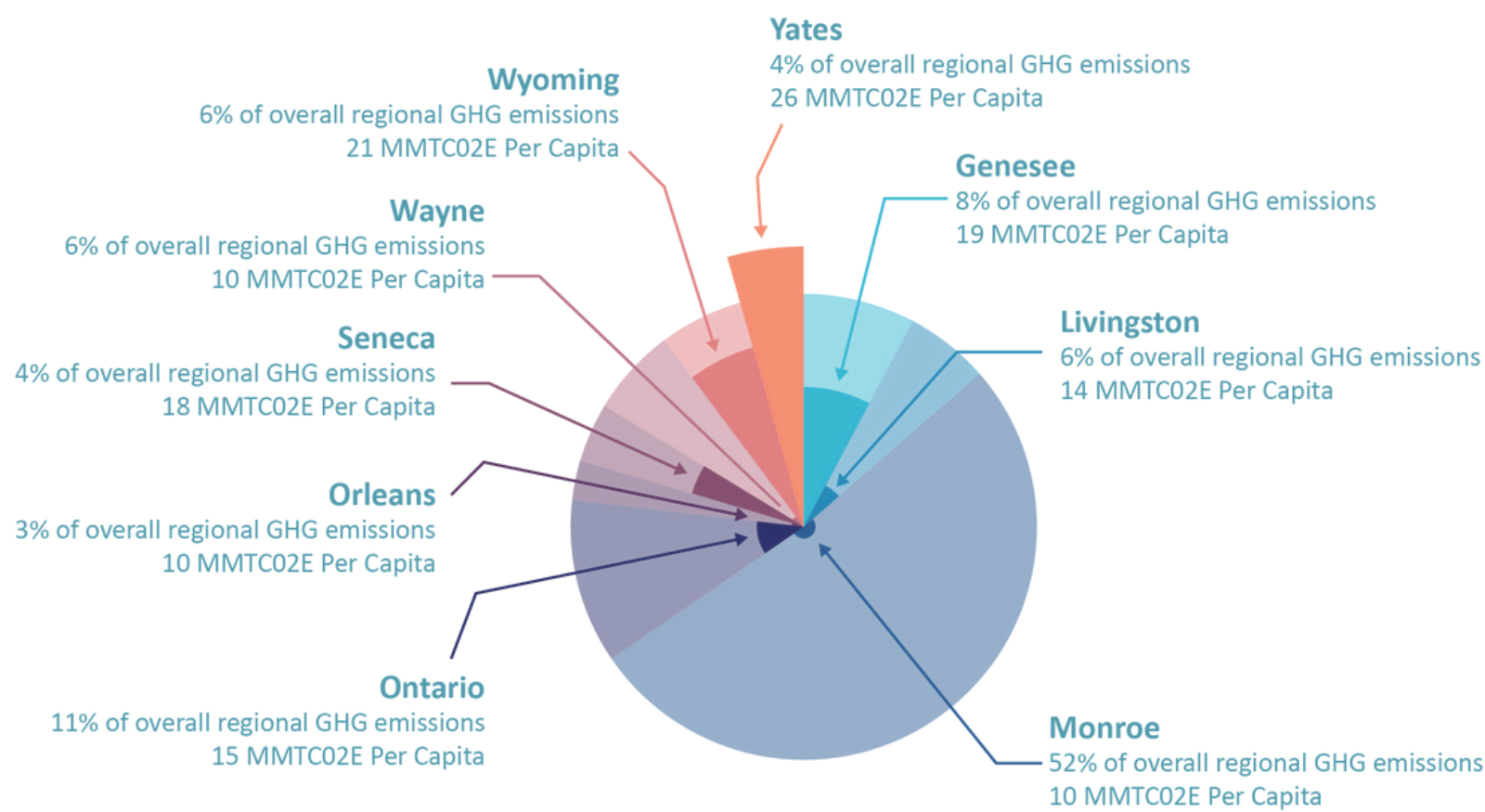
Per Capita Emissions

Per capita emissions are a way of measuring GHG emissions on a per-person basis. Instead of looking at the total emissions from each county, per capita emissions divide the total emissions by the population. Per capita emissions show the average GHG produced by each person in the County. This allows for a fairer comparison of counties of different sizes.

Generally, counties with larger populations and more densely concentrated industries, such as those located in urban areas, tend to have higher emissions, but may have a lower per capita number. This correlation is not coincidental, as transportation, energy use in buildings, and industrial processes are directly linked to population density and economic activity.

Monroe County, for instance, has the most people and the highest total emissions in the Region. However, each person in Monroe County produces fewer emissions on average than residents of smaller counties, such as Yates and Wyoming. Monroe County is home to 62% of the regional population but has the second-lowest MTCO₂e in the region, at 10 MTCO₂e per person.

Regional GHG Breakdown and Per Capita Comparison by County





Strategy

Strategies outline specific overarching goals of each individual sector



Measure

Measures explain the steps or activities needed that will directly reduce GHG emissions and support overall sector strategies.



Tool

Tools explain the steps or activities needed that will indirectly reduce GHG emissions and support overall sector strategies and measures.

GHG Reduction Strategies, Measures, & Tools

Drawing insight from existing regional, county-wide, and municipal climate action plans in the project area, GHG reduction measures outlined in NYS's Scoping Plan, Climate Smart and Clean Energy Community Programs, results of the 2022 GHG Inventory, and the lived and professional expertise from members of our CCAP Committee and sector-based focus groups, the project team established short and long-term strategies, measures, and tools to reduce GHG emissions region-wide.

Given the diverse nature of the project area, each strategy, measure, and tool outlined on the following pages may not be entirely appropriate for each municipality facing climate change. While each action is valuable to achieving regional

GHG reduction goals, not every municipality will find every strategy, measure, or tool equally applicable given the diversity of community needs, resources, and capacities. Municipal leaders, planners, local industries, partners, and even individuals can use this section as a menu of options; selecting, adapting, and sequencing actions that best fit local priorities. Over time, this framework can guide updates to plans, inform grant applications, and serve as a baseline for tracking progress, ensuring that the strategies evolve alongside changing climate conditions, technology, and policy.

Buildings

The building sector emits 6.3 MMTCO₂ e, approximately 44.2% of all regional emissions. The strategies, measures, and tools will support the reduction of GHG emissions from buildings by advancing the Decarbonization of Buildings and Infrastructure. There is one strategy, four measures, and 11 tools.



Strategy 1: Advance Decarbonization of Buildings and Infrastructure



Measure: Transition to air-source and ground-source heat pumps and heat pump water heaters in all buildings.

Measure: Reduce embodied carbon.

Measure: Increase energy efficiency in all buildings.

Measure: Adopt Zero-Emission Codes and Standards for all buildings

Transportation & Land Use

The transportation sector emits 5.8 MMTCO₂, approximately 40.6% of all GHG emissions in the project area. The strategies, measures, and tools will support the reduction of GHG emissions from transportation by increasing zero and near zero near-zero-emission passenger vehicle adoption, increasing zero and near-zero-emission bus and truck adoption, reducing single-occupancy vehicle trips and vehicle miles traveled (VMT), and supporting adaptation and resiliency in land use. There are four strategies, five measures, and 23 tools.



Strategy 1: Increase zero and near-zero emission passenger vehicle adoption



Measure: Invest in zero and near zero-emission passenger vehicles



Strategy 2: Increase zero and near-zero emission bus and truck adoption



Measure: Invest in zero and near zero emission public transit vehicles

Measure: Invest in zero and near zero emission school bus fleet

Measure: Invest in zero and near zero emission trucks



Strategy 3: Reduce single-occupancy vehicle trips and VMT



Measure: Implement strategies to reduce single-occupancy vehicle trips and VMT



Strategy 4: Support adaptation and resiliency in land use



Measure: Invest in zero and near zero emission public transit vehicles

Measure: Invest in zero and near zero emission school bus fleet

Measure: Invest in zero and near zero emission trucks

Agriculture & Working Lands

The agriculture sector emits 1.4 MMTCO₂, approximately 9.7% of all GHG emissions in the project area. The strategies, measures, and tools will support the reduction of GHG emissions from agriculture and working lands by removing carbon from the region through sustainable forestry and land use practices, and removing carbon from the region through sustainable agricultural practices. There are two strategies, five measures, and 17 tools.

	Strategy 1: Remove carbon from the region through sustainable forestry and land use practices		Strategy 2: Remove carbon from the region through sustainable agricultural practices
	Measure: Reduce carbon emissions through regional sustainable forest and land use management practices and reforestation Measure: Increase carbon storage in soils through biochar production from slashing and thinning biomass		Measure: Decrease methane emissions Measure: Decrease fertilizer and pesticide use Measure: Increase energy efficiency through sustainable agricultural practices and use clean energy

Materials Management

The materials management sector emits 0.8 MMTCO₂, approximately 5.5% of all GHG emissions in the project area. The strategies, measures, and tools will support the reduction of GHG emissions from materials management by increasing landfill diversion, sustainability managing landfills and wastewater treatment facilities, and building capacity for the region to reduce, reuse, and recycle materials. There are three strategies, two measures, and 20 tools.

	Strategy 1: Increase Landfill Diversion		Strategy3: Build capacity for the region to reduce, reuse, and recycle material
	Measure: Increase Landfill Diversion by reducing the per capita waste numbers in the Region and elongating landfill lifespans		
	Strategy 2: Sustainability Manage Landfills and Wastewater Treatment Facilities		
	Measure: Encourage landfills and wastewater treatment facilities to use the latest technology of methane capture for active and closed landfills		

Electric Power

The strategies, measures, and tools that will support the reduction of GHG emissions and transition away from fossil fuels in the electric power sector are expanding renewable energy capacity and creating regional support mechanisms to advance electric power and energy initiatives. There are two strategies, three measures, and 13 tools.

	Strategy 1: Expand Renewable Energy Capacity		Strategy2: Create regional support mechanisms to advance electric power and energy initiatives
	Measure: Increase large-scale renewable energy generation to supply clean electricity to the region, in appropriate areas Measure: Increase the adoption of small and medium-scale renewables (like rooftop and parking lot solar installations), with an emphasis on commercial land in NYS DAC communities and communities with environmental risks Measure: Support the development and construction of zero-emission nuclear power plants (including small nuclear reactors) to support a reliable and affordable electric grid		

Industry and Workforce Development

The industrial sector emits 2.4 MMTCO₂, approximately 17.1% of all GHG emissions in the project area. The strategies, measures, and tools will support the reduction of GHG emissions from the industrial sector by decarbonizing industrial processes in the Region and strengthening the green workforce. There are two strategies, one measure, and 9 tools.



Strategy 1: Decarbonize industrial processes in the Region



Measure: Decarbonize and retrofit industrial processes by adopting zero-emission technologies, improving energy efficiency, and transitioning to carbon-free and renewable energy sources



Strategy 2: Strengthen the Green Workforce

Building Regional Capacity

Building citizen and municipal capacity for climate action lays the groundwork for long-term success. While these efforts don't directly reduce greenhouse gas emissions, they empower communities and local governments to take effective, measurable action toward climate goals.



Strategy 1: Build Citizen Support for Climate Action



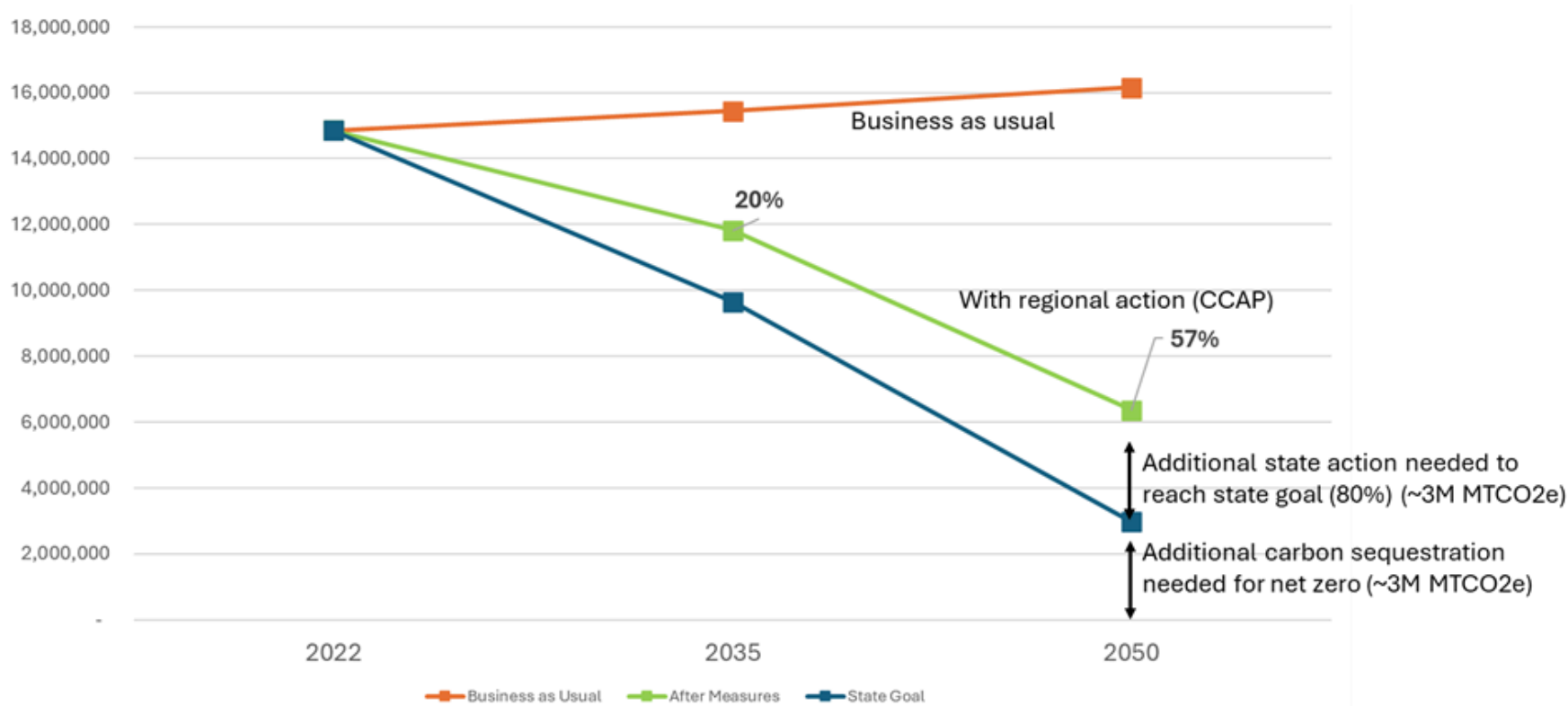
Strategy 2: Build Municipal Capacity for Climate Action

Benefits

Sector measures represent locally driven climate actions underway and planned across the Region. The CCAP estimates greenhouse gas reductions through 2035 based on realistic local trends, and outlines progress toward the Region's goal to reduce emissions 85% by 2050. These GHG benefits result directly from the strategies, measures, and tools identified throughout this plan.

Emissions Projections

The projections show that if we continue on our current path, emissions will rise slightly as the population grows (business-as-usual scenario). But if we take action now, we can cut emissions by 10% to 20% by 2035, setting the region on a path to achieve an 80% reduction by 2050.



Moving Climate Action Forward

The CCAP outlines the policies and programs needed to reduce greenhouse gas emissions across all sectors in the Genesee-Finger Lakes Region. It establishes a strong foundation for continued local and regional action. To support municipal implementation, Monitoring and reporting will be critical to measure progress, ensure accountability, and highlight benefits for Disadvantaged Communities. Key next steps include:

- Updating GHG inventories every 5–10 years (beginning in 2025).
- Using data to inform local and regional climate plans and priorities.
- Targeting actions with the greatest potential for emissions reduction.

This ongoing process provides municipalities with a scalable roadmap from identifying priorities to integrating climate goals into local plans, securing funding, and tracking progress through regular reporting.

Municipal Next Steps for Climate Action			
Step	Small Municipalities	Medium Municipalities	Large Municipalities
1. Identify Priorities	Hold a working session with municipal boards to review strategies and select 2–3 immediate priorities.	Conduct a facilitated workshop with department heads, elected officials, and community stakeholders to rank actions.	Undertake a comprehensive climate action planning session, incorporating public engagement and sector-specific input.
2. Integrate into Plans	Add selected actions into the next comprehensive plan update, annual work plan, and/or budget.	Update zoning, capital improvement plans, and transportation policies to align with selected strategies.	Integrate actions across multiple plans, such as comprehensive, hazard mitigation, transportation, and/or housing plans.
3. Seek Funding	Apply for small state or county grants	Pursue state/federal programs.	Launch multi-year funding strategies, including federal resilience grants, private partnerships, and regional collaborations.
4. Implement	Use volunteer committees or part-time staff to launch initial projects.	Assign departmental leads and set clear milestones.	Create dedicated sustainability staff positions or teams for implementation.
5. Track Progress	Use simple tracking tools such as Excel or budget tracking	Use GHG inventory updates every 3–5 years to assess progress.	Establish ongoing monitoring dashboards and public reporting platforms.



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