

*Developing Regional Solutions*



**SEMCOG**  
Southeast Michigan Council of Governments

# **Greenhouse Gas Emissions Inventory and Climate Pollution Reduction Grants**

Kelly Karll, PE

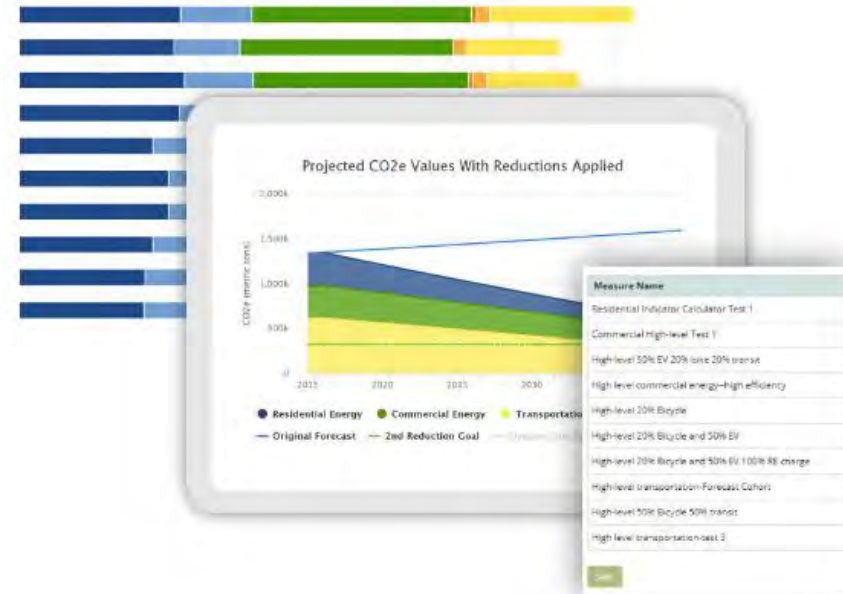
Manager, Environment and Infrastructure

# GHGI Project Goals

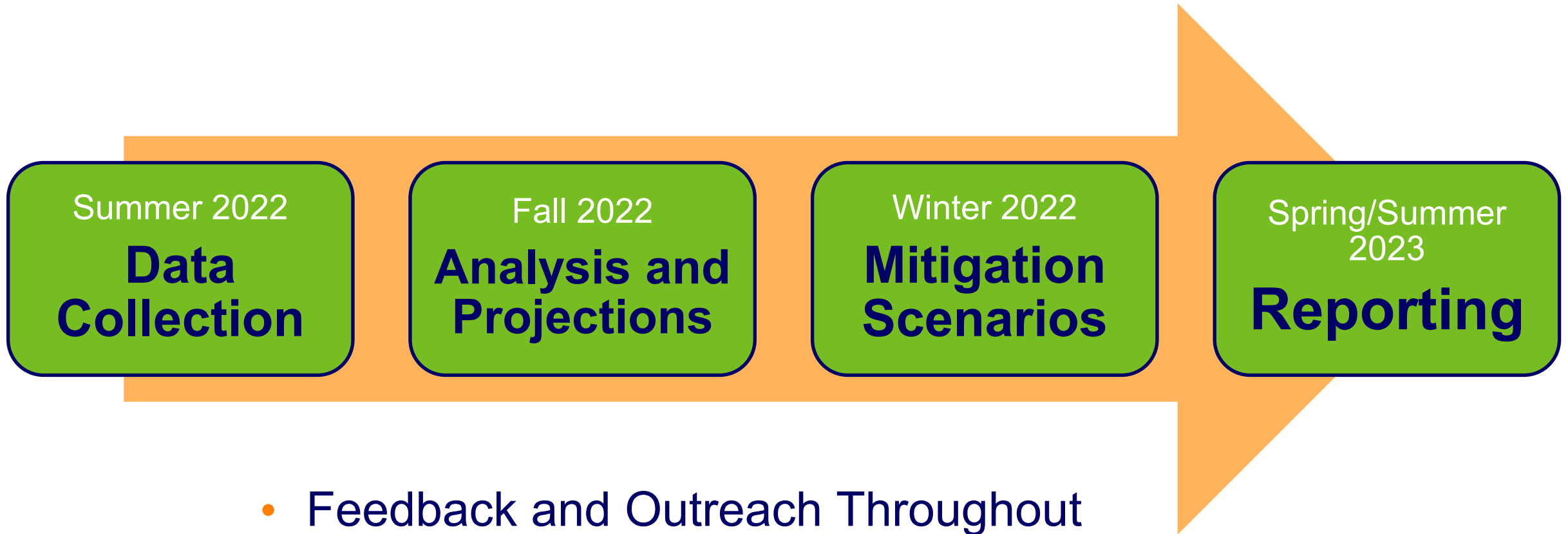
- Develop Baseline Greenhouse Gas Inventories for 7 Counties and City of Detroit
- Build SEMCOG staff capacity
- Forecast Future Scenarios
- Create Community Summaries
- Working with Public Sector Consultants and ICLEI
- Align with State and Local Planning



ClearPath  
Tool



## Next Steps



# Sectors

Stationary Energy



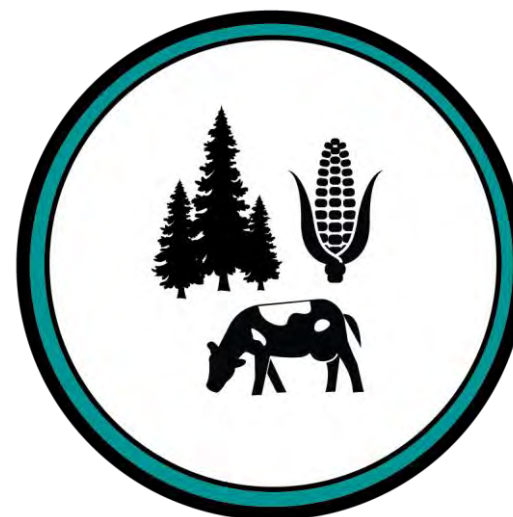
Transportation



Solid Waste  
Water Treatment



Industrial Processes

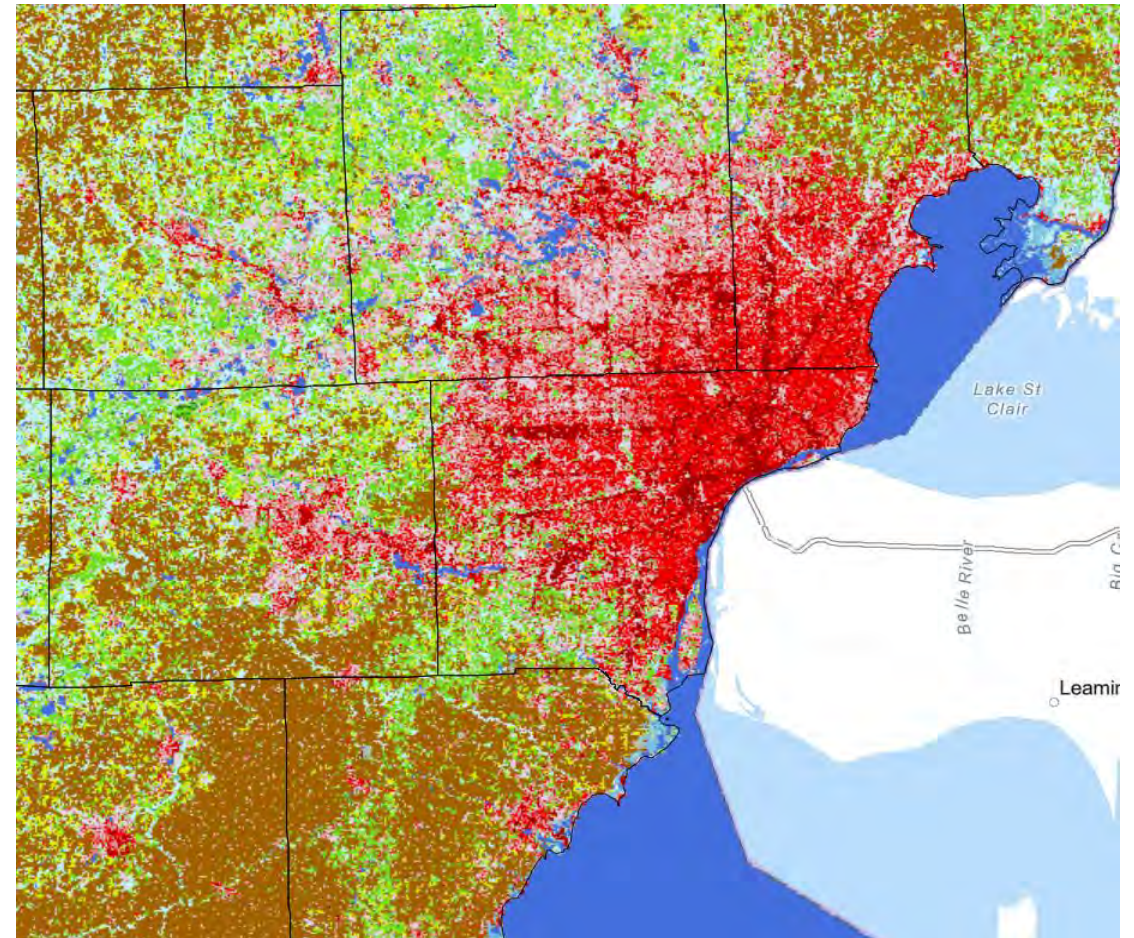


Ag, Forestry, Land Use

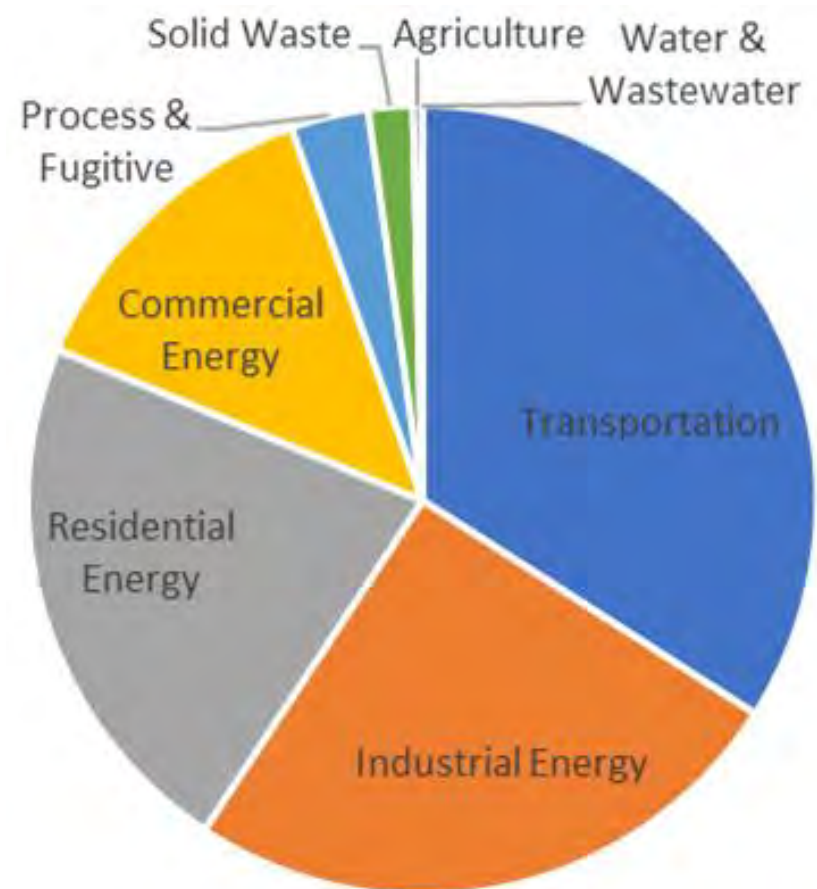


# Trees, Forest, Land Cover

- Output from ICLEI LEARN tool
- Light green is forested
- Red is settlement, brown is crops
- **1.8** million metric tons CO2 net sequestration/yr from existing forest and tree canopy

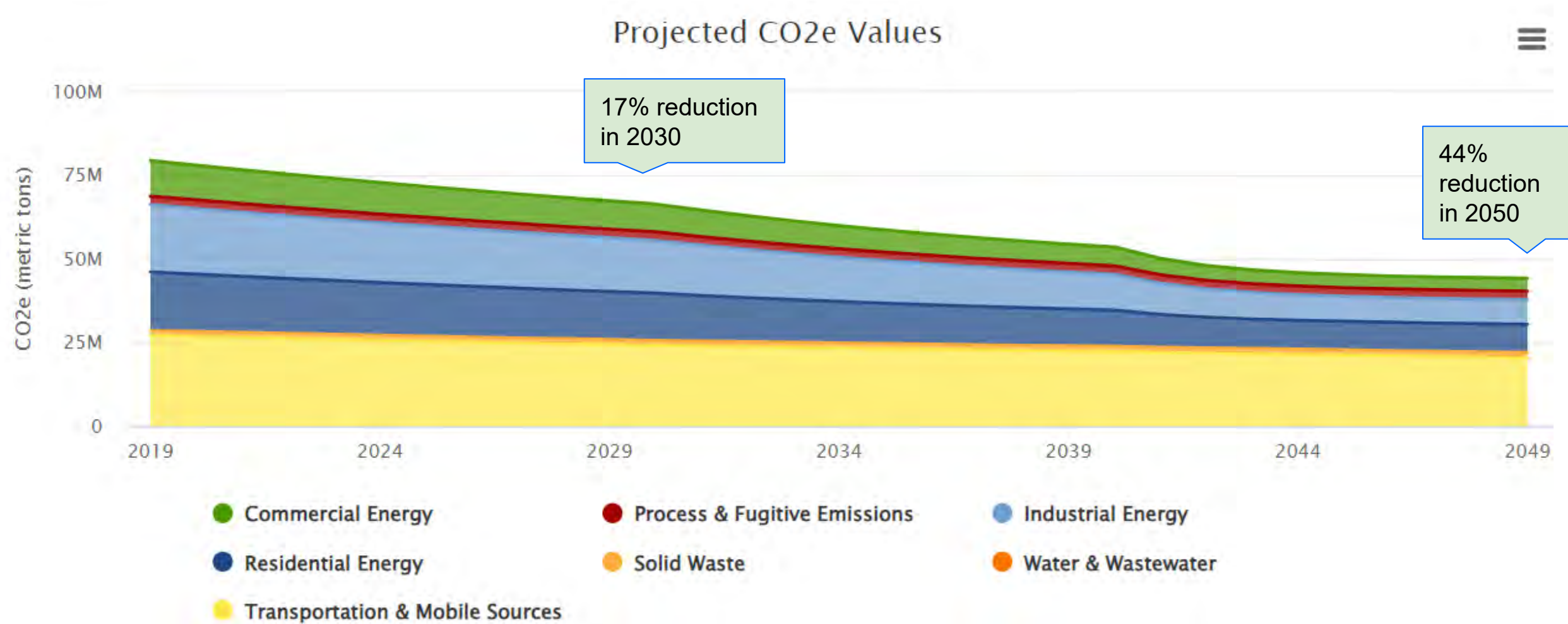


# In-Process: Inventory and Business As Usual Forecast



Sectors	Growth Indicator
Residential energy use; transportation; solid waste; water and wastewater; upstream and fugitive emissions	Population (SEMCOG 2050 forecast)
Commercial and industrial energy use	Jobs (SEMCOG 2050 forecast)
Electricity carbon intensity	DTE Emissions reduction goals
On-road transportation emissions intensity	Federal CAFE fuel economy standard*
Agriculture, forest and trees	No change

# Business as Usual (Baseline) Forecast





# Scenario Actions Summary



- Transportation
  - VMT Reduction
  - EV



- Industry
  - Cleaner electricity
  - Green steel production (electric/green hydrogen)
  - Heat pumps for low temperature process

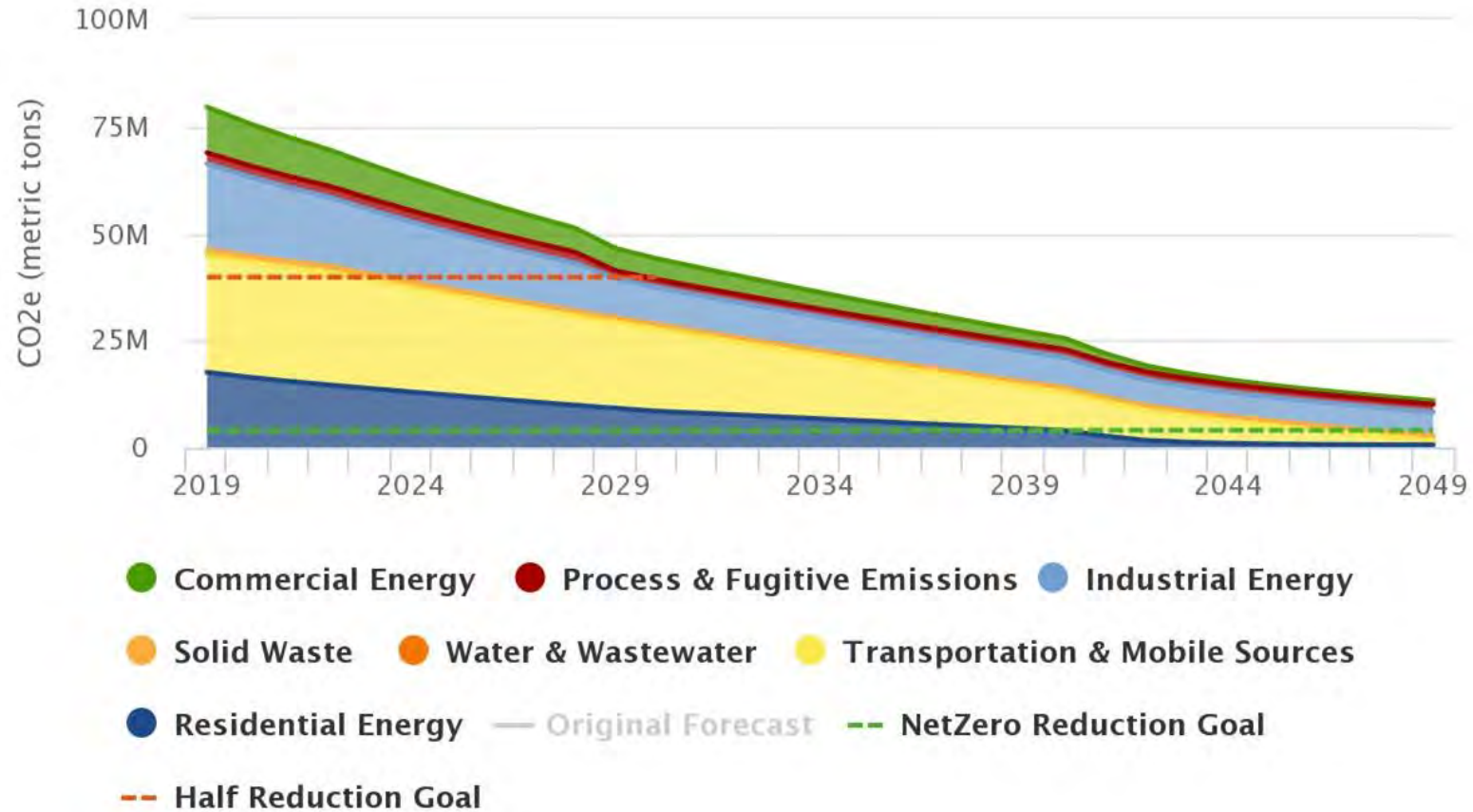


- Residential & commercial buildings
  - Cleaner electricity
  - Heat pumps



- Solid waste
  - Diversion of organic waste

# Overall Scenario



- ~45% overall reduction in 2030
- Modeled in ICLEI's Clearpath Tool



# Climate Pollution Reduction Grant (CPRG) Overview

- \$1M non-competitive funding for the region to create Climate Action Plans
- ~\$4.6B in competitive implementation funding
- SEMCOG as lead agency for region
- Priority Climate Action Plan (PCAP)
  - Due March 2024
  - Reduction Measures Identified in PCAP eligible for implementation funding
- Comprehensive Climate Action Plan (CCAP)
  - Due Summer 2025



# Goals for SE MI Healthy Climate Plan

- Transparent, easy to understand process
- Extensive outreach, engagement, and coordination across the region
- Benefits for all with emphasis on disadvantaged communities
- Reduction measures that make SE Michigan competitive for implementation funding
- Reporting and documentation that makes it easy to apply for funding





# Aligning Efforts

- Michigan Healthy Climate Plan
- Coordination with EGLE's Office of Climate and Energy and Grand Valley Metro Council (Grand Rapids region) who also received CPRGs for Climate Action Planning
- Expected Regulations (Proposed FHWA Performance Standards)
- Incentives, Grants, and Funding
- Local Climate Action and Resilience Planning

## MI HEALTHY CLIMATE PLAN

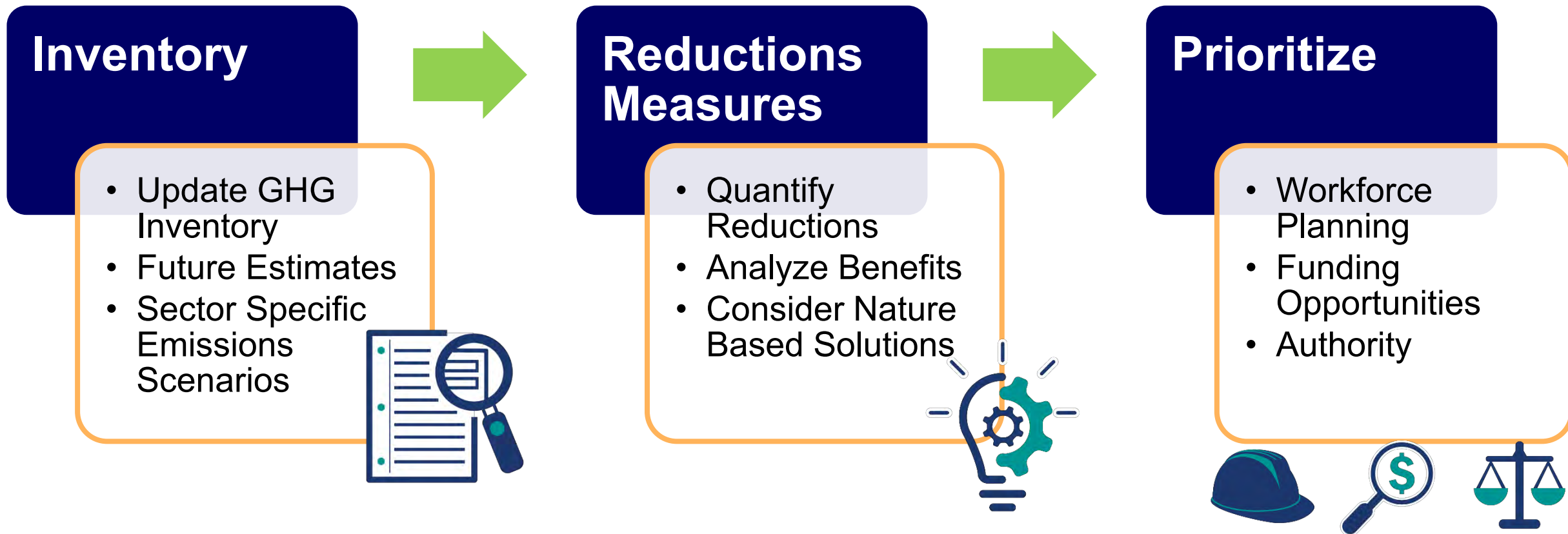


**EGLE** MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

APRIL 2022



# Priority Planning Process – Understanding Implementation Ready Projects

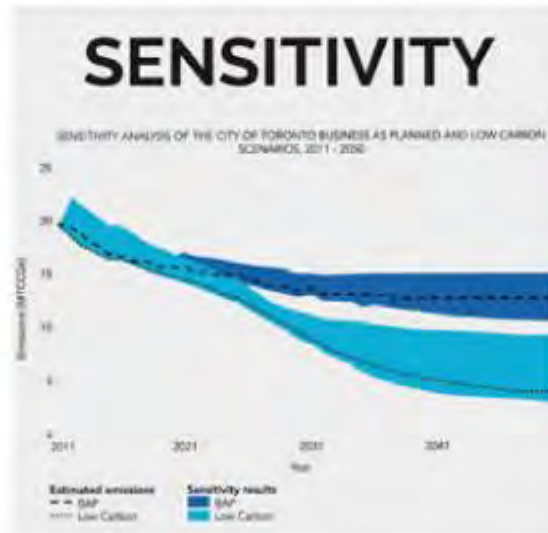
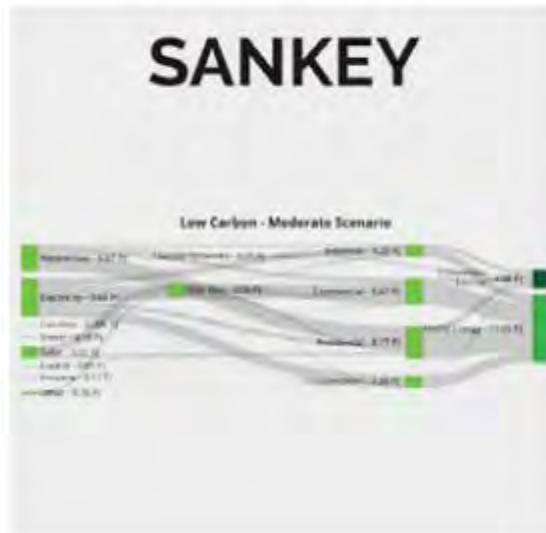
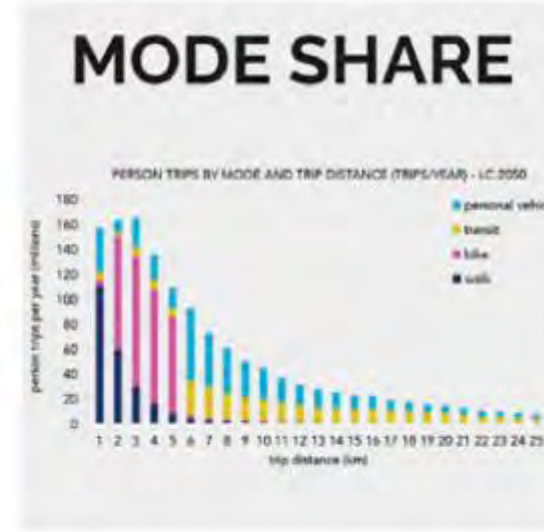
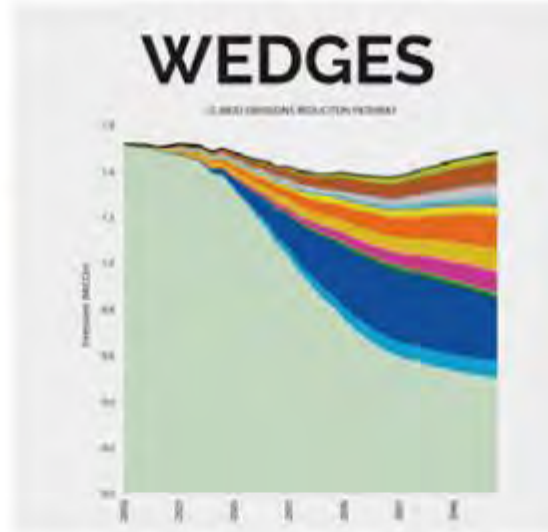


# Meaningful Engagement & Outreach

- SEMCOG Task Force with Focus Groups
  - Equity and Environmental Justice
  - Transportation – EVs and transit
  - Distributed Energy Generation and Building Retrofits
  - Solid Waste and Water Treatment
  - Industrial - Auto, manufacturing, energy
  - Nature Based Solutions
- Meetings and outreach with other regional and state partners
- Community engagement



# Consultant Support - Sustainability Solutions Group (SSG)



- Target Outreach
  - Local Governments
  - environmentally focused groups (watershed councils, land conservancies, advocacy groups)
  - community/neighborhood orgs
  - labor organizations (MAC)
  - faith-based organizations
  - Schools and universities
  - commercial and industrial associations
  - subject matter experts

# Learn More

- Sign up for updates:



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