

ENERGY ACTION PLAN (EAP) OVERVIEW

FOR

CITY OF MARTINSVILLE, VA

Joel Hicks, Ph.D. – George Mason University
Paul Bubbosh, JD—George Mason University

May 28, 2024

MOTIVATORS FOR EAP

- Reduce energy costs (electric bills and vehicle fuel)
- Improve property and community resilience (flooding, heat)
- Access federal and state funds (\$billions) to reduce energy costs and improve community resilience

ONE-YEAR COLLABORATION

George Mason University

- Paul Bubbosh, Local Climate Action Planning Initiative
- Dr. Joel Hicks, Local Climate Action Planning Initiative
- Dr. James Kinter, Virginia Climate Center
- Elliot Meyer, Institute for a Sustainable Earth
- Sophia Whitaker, Virginia Climate Center
- Michael Shank, Urban Sustainability Directors Network
- Jared Weaver, Graduate Research Assistant
- Elza Thomas, Graduate Research Assistant
- Schuyler “George” Lynch, Undergraduate Research Assistant
- Rebecca Grossi, Undergraduate Research Assistant

City of Martinsville Staff

- Keith Holland
- Kris Bridges
- Durwin Joyce

Community Task Force Volunteers

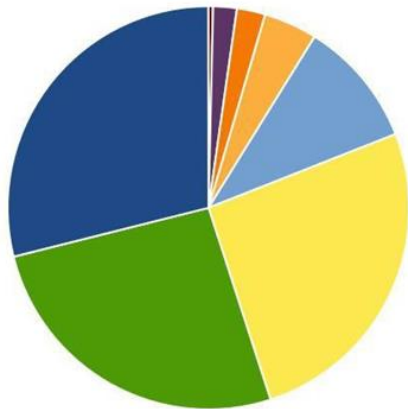
- Elizabeth Harris, Lifepoint Health
- Brenell Thomas, Martinsville-Henry County Chamber of Commerce
- DeShanta Hairston, Fayette Area Historical Society
- Brian Williams, Dan River Basin Assoc.
- Dr. Susheela Shanta, New College Inst.
- Derrick Ziglar, Jr, Ziglar Properties, LLC

KEY EVENTS

- June – December 2023
 - Worked with staff to identify and invite key community stakeholders to join task force
 - Completed City of Martinsville Community Greenhouse Gas (GHG) Inventory
- Feb 2, 9, 16, & 23 (task force meetings)
 - Informed task force members about inventory results
 - Educated task force members about strategies and actions to reduce energy costs and improve resilience
 - Facilitated discussions to achieve consensus on recommended actions
- March - April 2024
 - Worked on draft Energy Action Plan with task force members and city staff to finalize recommendations and language of Energy Action Plan
- April 12, 2024
 - Released final Energy Action Plan for Council approval

COMMUNITY GHG INVENTORY SUMMARY

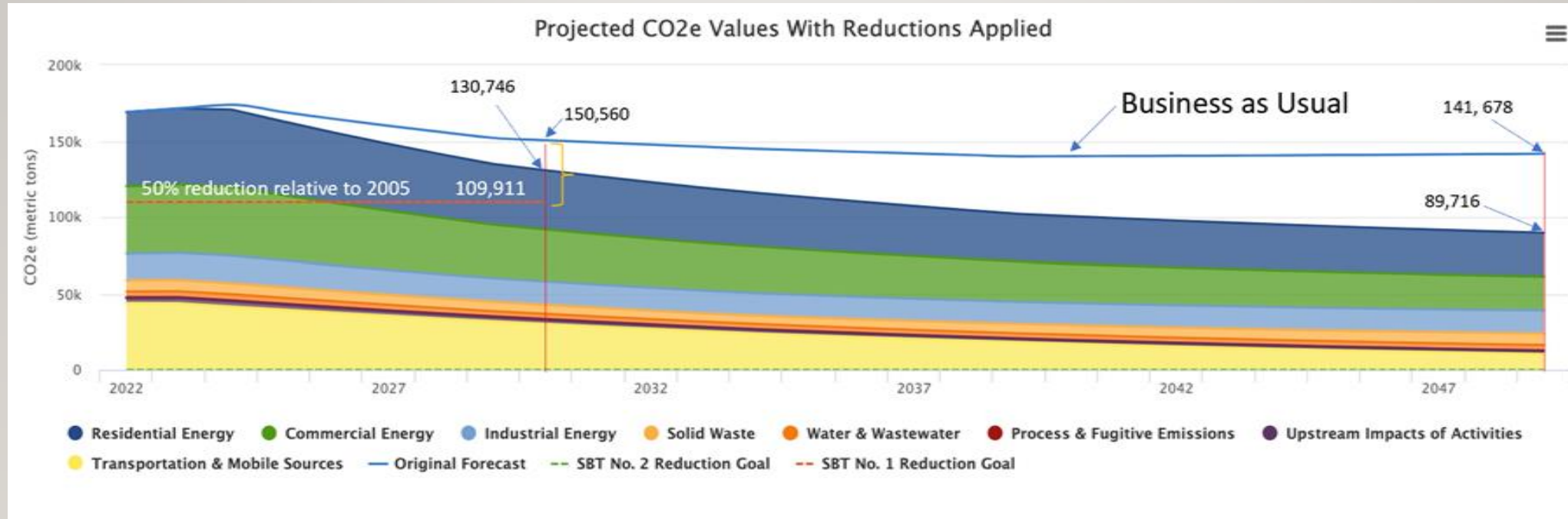
CO₂e By Category



● Process & Fugitive Emissions ● Upstream Impacts of Activities
● Water & Wastewater ● Solid Waste ● Industrial Energy
● Transportation & Mobile Sources ● Commercial Energy ● Residential Energy

- **Residential Energy - 48,857 CO₂e**
- **Commercial Energy - 44,145 CO₂e**
- **Transportation - 43,883 CO₂e**
- **Industrial Energy - 17,226 CO₂e**
- **Solid Waste – 7,257 CO₂e**
- **Water and Wastewater - 3,869 CO₂e**
- **Grid Loss - 3,244 CO₂e**
- **Fugitive Emissions – 610 CO₂e**

WHAT ARE THE PROJECTIONS (2022 – 2050)



----- 2030 target – Science-based target I (SBT I) says we need to reduce by 50% relative to 2005 levels by 2030 [In 2022, U.S. had reduced by ~15%] → so you need to reduce **35% relative to 2022**

----- 2050 target – Science-based target II (SBT II) says we need to be **carbon neutral by 2050**

CRITERIA FOR SELECTING STRATEGIES & ACTIONS

- Effectiveness (in reducing energy costs and improving resilience)
- Costs, Economic Benefits, and Savings
- Feasibility (of local government to implement action)
- Equity (sharing of burden and benefit)
- Co-Benefits (beyond energy, such as preserving rural character)
- Consistency with Comprehensive Plan

CORE SECTORS OF EAP

End-Use Sectors

- **Buildings:** (4) subsector goals + (7) actions
- **Transportation:** (4) subsector goals + (6) actions
- **Electric:** (1) subsector goal
- **Land Use:** (2) actions
- **Waste & Wastewater:** (4) actions
- **Solid Waste:** (1) subsector goal

Other Sectors

- **Partnerships:** (4) actions
- **Organizational Structure:** (2) actions

- All recommended actions include priority levels (note, not all actions have “high” priority level):
 - High
 - Medium
 - Low
- All recommended actions include timeframe for implementation:
 - Continuous
 - Short (w/i 12 months)
 - Medium (2-3 years)
 - Long (4-5 years)

NEXT STEPS

- Public Comment Period
- Council approval
- Assistance with implementation (grants, federal funds)

QUESTIONS ??