CADMUS

City of Takoma Park Sustainability and Climate Action Plan Workshop

September 17, 2019

- Overview and Meeting Objectives
- Greenhouse Gas Inventory
- Emissions Reduction Pathways
- Breakout Sessions
- Report-Out and Closing

- Overview and Meeting Objectives
- Greenhouse Gas Inventory
- Emissions Reduction Pathways
- Breakout Sessions
- Report-Out and Closing

About Cadmus

- Strategic and technical consultancy on energy, transportation, and environmental issues.
- Our current or recent local government climate action planning, resilience planning, and 100% renewable energy transition work.



Why We're Here

- Assist Takoma Park with its next stage of climate planning, placing an emphasis on social equity and resiliency
- Build upon previous work, including:
 - 2000 Local Action Plan for Climate Change
 - 2010 Task Force on Environmental Action Final Report
 - 2014 Sustainable Energy Action Plan



Project Tasks

Community Greenhouse Gas Inventory and Trends Analysis

- Update GHG Inventory
- Conduct Comparative Analysis

Climate Mitigation and Sustainability Program Planning Support

- Strategy Development
- Stakeholder Workshop
- Evaluate Priority Strategies
- Sustainability and Climate Action Plan

Adaptation and Resiliency Services

- Assess Climate Risks and Vulnerabilities
- Identify Strategies and Integrate into Climate Action Plan

Project Timeline

<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text><text><text>

Meeting Objectives

Identify key drivers and priorities for GHG emission reduction

Begin developing a collective vision of success

Inform the subsequent pathways analysis

Meeting Guidelines



Step Up, Step Back

Give everyone a chance to speak



Be Present

Step out to take email or phone calls



Be Open

Welcome new ideas and perspectives

- Overview and Meeting Objectives
- Greenhouse Gas Inventory
- Emissions Reduction Pathways
- Breakout Sessions
- Report-Out and Closing

GHG Emissions Summary

City of Takoma Park, 2017



Total Emissions (CO2e)

129,015 metric tons

Emissions Per Capita:

7.31 metric tons/person

Stationary Energy Transportation Waste Other

Total Emissions by Source Sector

City of Takoma Park, 2017



- Residential Energy
- Commerical Energy
- Water & Wastewater
- Solid Waste
- Transportation
- Fugitive Emissions

Stationary Emissions

By Building Sector



- Natural gas is a larger contributor to residential energy
- Electricity is a larger contributor to commercial energy

CADMUS

Emissions Trends

Total Emissions: 2012-2017



CADMUS

Stationary Energy

Sector Contributions



- 25% commercial emissions increase since 2012
- 11% residential emissions increase since 2012, but 5.6% decrease since 2015

Stationary Energy

Emissions Contribution by Fuel Type



• Increase in natural gas use attributed to commercial growth

- Overview and Meeting Objectives
- Greenhouse Gas Inventory
- Emissions Reduction Pathways
- Breakout Sessions
- Report-Out and Closing



- Developed a series of 14 strategies for Takoma Park
- Additive to previously employed strategies
- Coordination at both the City and regional level

Maximize Efficiency	Utilize Renewables	 Promote EmPOWER Maryland Offerings Energy Disclosure Ordinance
Electrification Initiatives	Other Demand Reductions	 Residential Energy Assessment Requirements Promote Cogeneration

Maximize Efficiency	Utilize Renewables	 Solar-Ready Construction Requirements Virtual Power Purchase Agreement (PPA) Opportunities
Electrification Initiatives	Other Demand Reductions	 Community Choice Aggregation







City vs. Regional Strategies

- Takoma Park has many avenues to make strides in emissions reduction independently
- Achieving net-zero will require larger, systemic changes especially in relation to electricity generation
- Regional strategies include:
 - Collaborative efforts with other communities
 - County or state-level efforts with local benefits

Incorporating Resiliency

- Resiliency is a measure of **climate preparedness**, or the ability of a community to adapt or change in the face of climate-related stresses
- Adaptation and resilience research indicates extreme heat, flooding, and increased storm severity as stressors
- Additional analysis will assess resiliency co-benefits of prioritized strategies







Establishing Priority Strategies

- The best actions for a community are the result of their priorities
- What does the Takoma Park community value?



- Overview and Meeting Objectives
- Greenhouse Gas Inventory
- Emissions Reduction Pathways
- Breakout Sessions
- Report-Out and Closing

Breakout Groups Agenda

Postcard from the Future (15 min)

Introduce Prioritization Criteria (5 min)

Strategy Prioritization (30 min)

CADMUS

- Overview and Meeting Objectives
- Greenhouse Gas Inventory
- Emissions Reduction Pathways
- Breakout Sessions
- Report-Out and Closing

CADMUS

