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Orchard Hills-Maplewood Homeowners Association (OHMHA) in Ann Arbor, MI

We hope you are taking good care of yourselves, your families, friends, and neighbors. The Nixon Area Alliance has put together some useful local information regarding COVID-19: <https://www.nixonarea.org/index.php/covid19/>.



A²ZERO and You

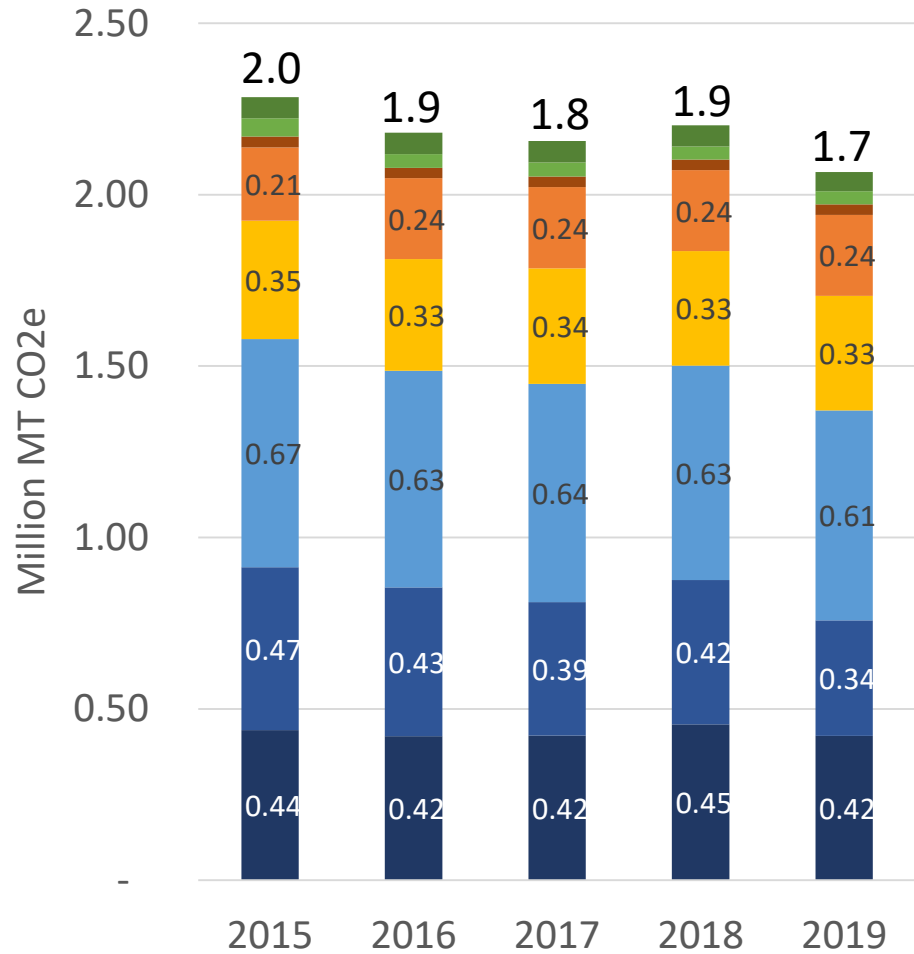
**Orchard Hills-Maplewood Homeowner's Association
September 14th, 2020**

Presentation Outline

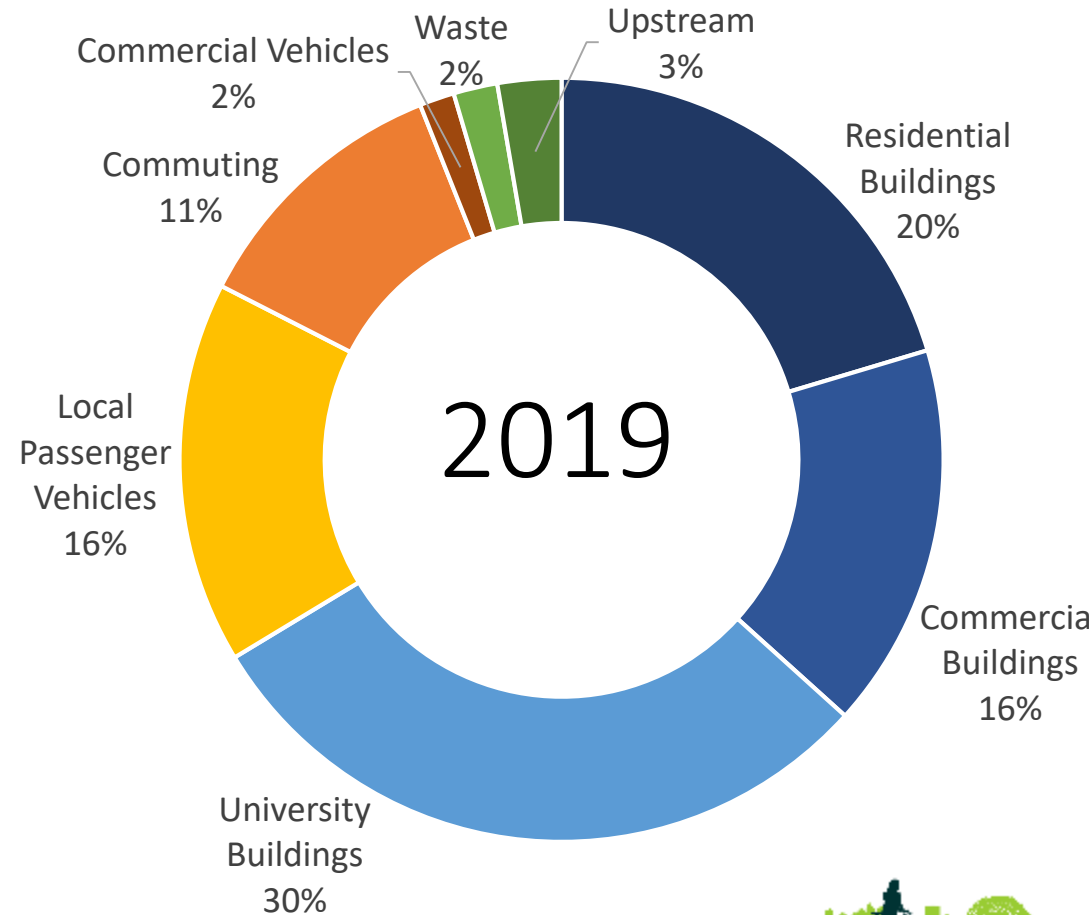
1. Introduction to A²ZERO
2. Your Priorities
3. Opportunities for Engagement
4. Next Steps and Discussion



Expanded Inventory by Sector



- Upstream
- Waste
- Commercial Vehicles
- Commuting
- Local Passenger Vehicles
- University Buildings
- Commercial Buildings
- Residential Buildings





ANN ARBOR'S
LIVING CARBON NEUTRALITY PLAN
MARCH 2020

The Plan

ACTION SUMMARY TABLE

	Total Costs	GHG Reduction	%Total emissions	\$/ton	Co-Benefits	
STRATEGY 1	Community Choice Aggregation	\$3,245,000	784,000	35.8%	\$4	Coming Soon
	Bulk Purchase of Renewables	\$605,000	85,000	3.9%	\$7	
	Community Solar Program	\$205,000	11,500	0.5%	\$18	
	Landfill Solar Project	\$80,000	23,000	1.1%	\$3.5	
STRATEGY 2	Electrification	\$7,100,000	362,200	16.5%	\$20	Coming Soon
	Electrify All Buses	\$80,575,000	13,800	0.6%	\$5,839	
	Bulk Purchase EVs	\$700,000	122,900	5.6%	\$6	
	Private EV Fleets	\$123,000	0	0.0%		
	City EV Fleet	\$4,000,000	1,100	0.1%	\$3,636	
	EV Infrastructure	\$42,000,000	0	0.0%		
STRATEGY 3	Bulk Purchase of Energy Efficiency	\$7,100,000	242,500	16.5%	\$4	Coming Soon
	Building Code Requirements	\$80,575,000	48,300	0.6%	\$40	
	LED Lighting	\$700,000	2,600	5.6%	\$1,208	
	Benchmarking	\$123,000	0	0.0%		
	Loan Loss Reserve	\$4,000,000	0	0.0%		
	Energy Concierge & Community Education	\$42,000,000	0	0.0%		
	Net Zero Energy Affordable Housing	\$800,000	400	0.0%	\$2,000	
	Green Rental Housing Program	\$530,000	0	0.0%		
	Green Business Challenge	\$700,000	0	0.0%		
	Aging in Place Efficiently	\$150,000	0	0.0%		
Weatherization Expansion	\$1,550,000	0	0.0%			
STRATEGY 4	Non-Motorized Plan	\$3,245,000	60,400	2.8%	\$40	Coming Soon
	Expand Local and Regional Transit	\$605,000	93,200	4.3%	\$70.47	
	Park and Ride	\$205,000	28,400	1.3%	\$5,986	
	Duplex/Triples/ADUs	\$80,000	2,200	0.1%	\$114	
	Mixed-Use Zoning	\$365,000	0	0.0%		
	Parking Rates	\$4,500,000	0	0.0%		
STRATEGY 5	Year Round Composting	\$26,000,000	400	0.1%	\$65,000	Coming Soon
	Expand Commercial Recycling	\$18,400,000	5,600	0.3%	\$3,286	
	Sustainable Material Use and Reuse	\$270,000	0	0.0%		
	Circular Economy	\$270,000	0	0.0%		
	Plant-Based Diets	\$208,400	0	0.0%		
Refrigerant Recycling	\$179,400	0	0.0%			
STRATEGY 6	Resilience Hubs	\$5,025,000	2,500	0.1%	\$2,010	Coming Soon
	Neighborhood and Youth Ambassadors	\$350,000	0	0.0%		
	Tree Canopy	\$1,160,000	450	0.0%	\$2,578	
	Asset Mapping	\$300,000	0	0.0%		
		\$350,000	0	0.0%		
		\$300,000	0	0.0%		
		\$200,000	0	0.1%		
STRATEGY 7	SA2T Grid Upgrade	\$1,000,000	0	0.0%		Coming Soon
	Internal Carbon Tax	\$75,000	0	0.0%		
	Offsets	\$9,440,000	298,500	13.6%	\$32	
	Total	\$1,056,403,800	2,188,950	100.0%		



A²ZERO STRATEGIES

STRATEGY 1:

Power Our Electrical Grid with 100% Renewable Energy

STRATEGY 3:

Significantly Improve the Energy Efficiency in our Homes, Businesses, Schools, Places of Worship, Recreational Sites, and Government Facilities

STRATEGY 5:

Change the Way We Use, Reuse, and Dispose of Materials

STRATEGY 2:

Switch our Appliances and Vehicles from Gasoline, Diesel, Propane, Coal, and Natural Gas to Electric

STRATEGY 4:

Reduce the Miles we Travel in our Vehicles by at least 50%

STRATEGY 6:

Enhance the Resilience of Our People and Our Place

OTHER STRATEGIES:

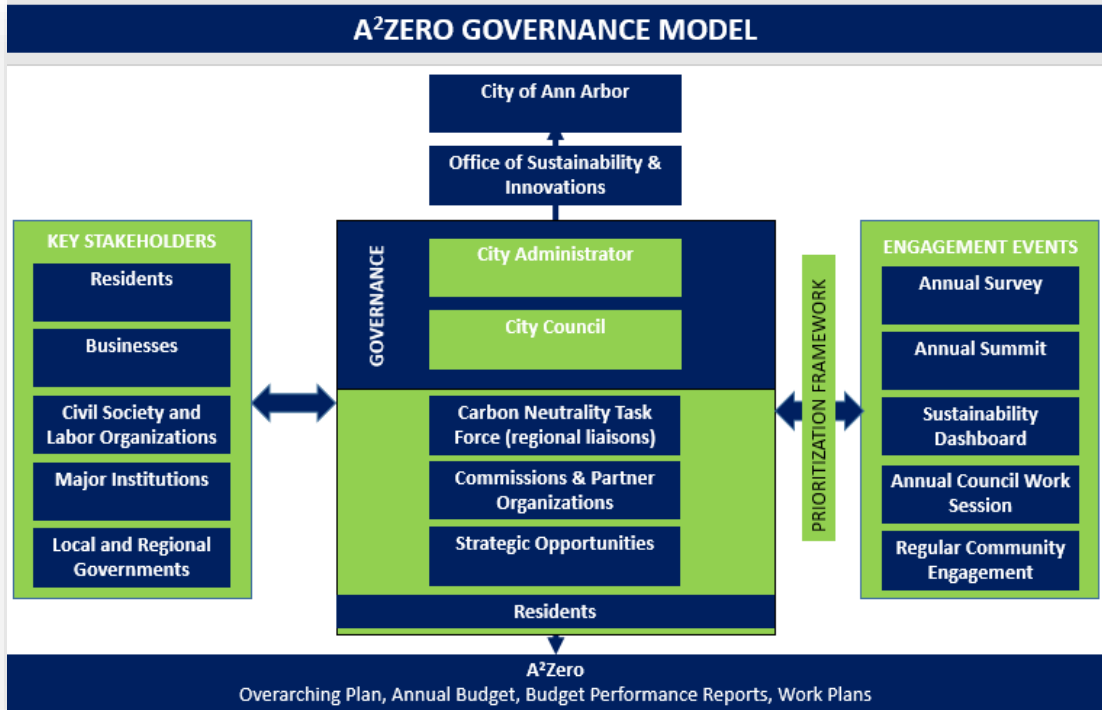
This strategy covers the remaining programs and activities that don't fit into other areas. It also includes greenhouse gas emissions offsets to close out any

THE ACTIONS

1. Community Choice Aggregation
2. On-Site Renewable Energy Generation with Battery Storage (Bulk Buys)
3. Community Solar Program
4. Landfill Solar Project
5. Home and Business Electrification Policies and Support
6. Electrify Buses
7. Support Community Electric Vehicle and Solar Bulk Buys
8. Electrify City Fleet
9. Electrify Private Fleet
10. Expansion of Electric Vehicle Charging Infrastructure
11. Support Transition to More Energy Efficient Homes and Businesses
12. Update Building Codes
13. LED Powered Streetlights and Traffic Signals
14. Energy Disclosure / Benchmarking
15. Loan Loss Reserve
16. Energy Concierge and Community Education
17. Net Zero Energy Affordable Housing
18. Green Business Challenge
19. Green Rental Housing Program
20. Aging in Place Efficiently
21. Expansion of Weatherization Program
22. Implement Non-Motorized Plan
23. Expand and Improve Local Transit
24. Expand and Improve Regional Transit
25. Increase Number of Park and Rides and Ensure Seamless Connection to Transit
26. Increase Housing Opportunity
27. Mixed-Use Neighborhoods
28. Tiered Parking Rates
29. Expansion of Composting Program
30. Expansion of Commercial Recycling
31. Require Sustainable Materials in New and Existing Developments
32. Move Toward a Circular Economy
33. Support a Plant Rich Diet
34. Enhance Refrigerant Recycling and Reuse Program
35. Invest in Resilience Hubs
36. Foster Neighborhood and Youth Ambassadors
37. Preserve & Enhance Local Tree Canopy
38. Conduct Asset and Needs Mapping of Neighborhoods
39. Assist in Assembling and Disseminating Emergency Preparedness Kits
40. Implement Sensors to Monitor Heat, Air Quality, Waterways, and Flooding
41. Equity Programs
42. Sustaining Ann Arbor Together Grant Program
43. Internal Carbon Price
44. Greenhouse Gas Emissions Offsets

SUPPORTING DOCUMENTS

A²ZERO GOVERNANCE MODEL



A²Zero Investment Plan

OVERVIEW

This document outlines an investment approach for the A²Zero Carbon Neutrality Plan. It includes an alternative framing around our community's commitment to carbon neutrality, a look at the historical impact of our community's greenhouse gas emissions, and a projected investment scenario, highlighting investments and costs specific to actions identified as falling under the responsibility of the City of Ann Arbor, and a presentation of the cost of inaction. As there is no way to know exactly what the funding landscape will look like 10 or 11 years into the future, the investment scenario should be viewed as directional and only one possible scenario of what the future may look like. Many things will inform what resources are actually available to do this work and staff will continue to aggressively pursue funding opportunities, collaborations, and innovative financing mechanisms to lower the upfront cost to the city and our residents.

FRAMING

To-date, the financial conversation around A²Zero has focused on the costs to implement the plan. While there will be costs, nearly all actions are investments. What this means is that investing in nearly all of the actions return benefits to the City, to our residents, to our businesses, or to society as a whole. As illustration, data shows that \$1 invested in energy efficiency saves between \$4 and \$5 in energy costs (DTE's figures are closer to \$5).^{1,2} Moreover, every one dollar invested in preparedness and resilience shows a return on investment of \$7 in avoided costs.³ Onsite renewable energy has a payback of 10-12 years but are warranted for 25 years meaning 13-15 years of free energy.⁵ Electric vehicle is at least 50% less than an internal combustion engine.⁵

PRIORITIZATION FRAMEWORK

GHG MITIGATION CRITERIA		Scoring
Term	The action has a high (over 5%) community greenhouse gas emissions reduction potential past 2030	6
Term	The action has a medium (between 3%-5%) community-wide greenhouse gas reduction potential past 2030	4
Term	The action has a small (between 0%-2%) community greenhouse gas reduction potential past 2030	2
Term	The action has a high (over 5%) community greenhouse gas reduction potential before the year 2030	6
Term	The action has a medium (between 3%-5%) community greenhouse gas reduction potential before 2030	4
Term	The action has a small (between 0%-2%) community greenhouse gas reduction potential before 2030	2

COST CRITERIA

		Scoring	
City Cost Effectiveness	Benefits Significantly Outweigh Costs	Long-term financial benefits greatly outweigh implementation costs	2
	Benefits Outweigh Costs	Long-term financial benefits outweigh implementation costs	1
	Benefits Match Costs	Long-term financial benefits match implementation costs OR don't know the overall cost effectiveness of the action	0
	Costs Outweigh Benefits	Implementation costs slightly outweigh the long-term financial benefits	-1
	Costs Significantly Outweigh Benefits	Implementation costs significantly outweigh the long-term financial benefits	-2
City Relative Cost (Capital)	None	The City can pursue without a major capital investment	2
	<\$5M	The City can pursue with a modest capital investment OR don't know what kind of capital investment is needed	1
	>\$5M	The City requires a major capital investment to pursue this action	0
City Relative Cost (Operation)	Decreases Costs	Action will minimize operating costs for the City (i.e., staffing, maintenance)	2
	No Impact	Action will have no impact on operating cost for the City OR don't know the relative operating costs	0
	Increases Costs	Action will not minimize and may increase operating costs (i.e., staffing, maintenance) for the City	-2
Residential and Businesses Cost Effectiveness	Benefits Outweigh Costs	Long-term financial benefits outweigh implementation costs	2
	Benefits Match Costs	Long-term financial benefits match implementation costs OR don't know the overall cost effectiveness of the action	0
	Costs Outweigh Benefits	Long-term financial benefits do not outweigh implementation costs	-2

order to create an opportunity or to reduce future costs. In much the same way, to make an investment in our community. A²Zero is a proposal to spend money on our community's greenhouse gas emissions and thereby eliminate future social costs of climate change, businesses, and the surrounding area which will more than pay back the initial investment.

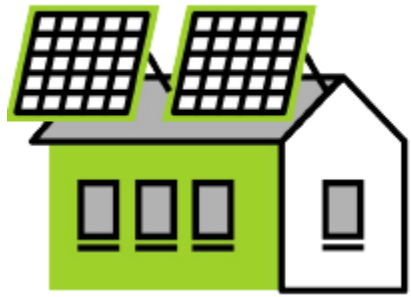
SCENARIO

Put together a projected investment scenario for A²Zero. There are many possible scenarios that could be funded so the attached document should be viewed as one possible scenario, but it should be considered directional as it is impossible to know what types of investments or public-private partnership may exist for all 7 strategies identified in the Plan over the plan were modeled using today's dollars. It is highly likely, however, that many of the costs within the plan.

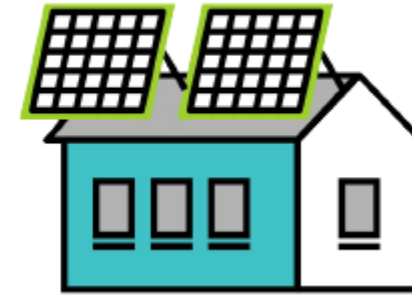




YOUR PRIORITIES



SOLARIZE ANN ARBOR



Neighborhood based bulk-buy solar opportunity

Gather friends, neighbors, colleagues, community members together to learn about solar and have the opportunity to purchase solar in bulk-buy, with discounts due to volume



HOW IT WORKS

Installers are pre-vetted by and participate with Michigan Saves green bank for low-interest financing



Offer bulk buy discounts based on numbers:

- 5% discount if 3+ new arrays
- 10% discount if 7+ new arrays
- 15% discount if 10+ new arrays

SMALLER SAMPLE INSTALLATION

A home in Burns Park equipped through
Solarize

3.84 kW, 12 panels

BEFORE discount and tax credit: ~\$14,500

AFTER discount and tax credit: ~\$8,700

Price includes design, consultation,
materials, labor, permits, and utility
paperwork

Pay-off timeframe: 9 years



Sustaining Ann Arbor Together (SA2T Grant)



- SA²T is a neighborhood grant program intended to promote and resource community-based activities in support of City's sustainability goals
- SA²T helps neighborhood groups develop, resource, and complete small-scale improvement projects in the city's rights-of-way or on publicly owned property, including Ann Arbor Public School property.
- The targeted grant amount is less than \$10,000 (excluding neighborhood contributions); however the city will accept applications for larger projects on a case-by-case basis. The total annual grant program funding is \$100,000.

Project Name	Scope	Responsible Entity	Total Cost	SA ² T Grant
New Wings for Old Bikes	Repurposing old bikes with in-need community members	Common Cycle	\$13,700	\$10,000
Building Stock Analysis	Conducting baseline energy and water assessment of all commercial buildings in 2030 District	Ann Arbor 2030 District	\$13,600	\$4,600
Capacity Building and Job Corps Training	A job corps training program for at-risk young adults	Neutral Zone	\$26,450	\$10,000
Solar Power Curriculum for K-8	Solar curriculum development for K-8 and a solar installation	Northside STEAM	\$25,352	\$10,000
A-Z Recycling Guide Becomes Zero Waste Guide	Development of a zero-waste guide and accompanying website	Recycle Ann Arbor	\$9,662	\$6,450
Natural Play Area	Installation of new, natural play area at a local elementary school	Ann Arbor Public Schools	\$175,663	\$10,000
Recuperative Care and Housing Crisis Stabilization Specialized Shelter Programs	Equipment and supplies to operate Recuperative Care programs and offer a welcoming temporary shelter that fits clients' needs.	Shelter Association of Washtenaw County	\$15,000	\$10,000



A²ZERO Ambassadors



Course Mission: Engage with, educate, and empower interested Ann Arborites on ways to enhance individual and neighborhood climate action and sustainability.



Expectation for A²ZERO Ambassadors: Learn about the various ways the City and its residents can advance sustainability and carbon neutrality and then operationalize that information to become a formal ambassador of carbon neutrality in the community.



All Ambassadors will be asked to attend an 8-week training course, support implementation of a community project that advances of that advance sustainability, and conduct at least 20 hours of additional volunteer work in support of community sustainability and carbon neutrality (i.e., speak at events, talk to neighbors and peers, host community learning sessions, lead local projects).



A²ZERO Ambassadors

Introduction to sustainability, environmental justice, and equity

Energy efficiency, energy electrification and renewable energy

Water efficiency, water quality, stormwater, and our watershed

Transportation and our choices about moving around our community

How to get to a circular economy: waste reduction, composting, recycling, sustainable purchasing, and material reuse

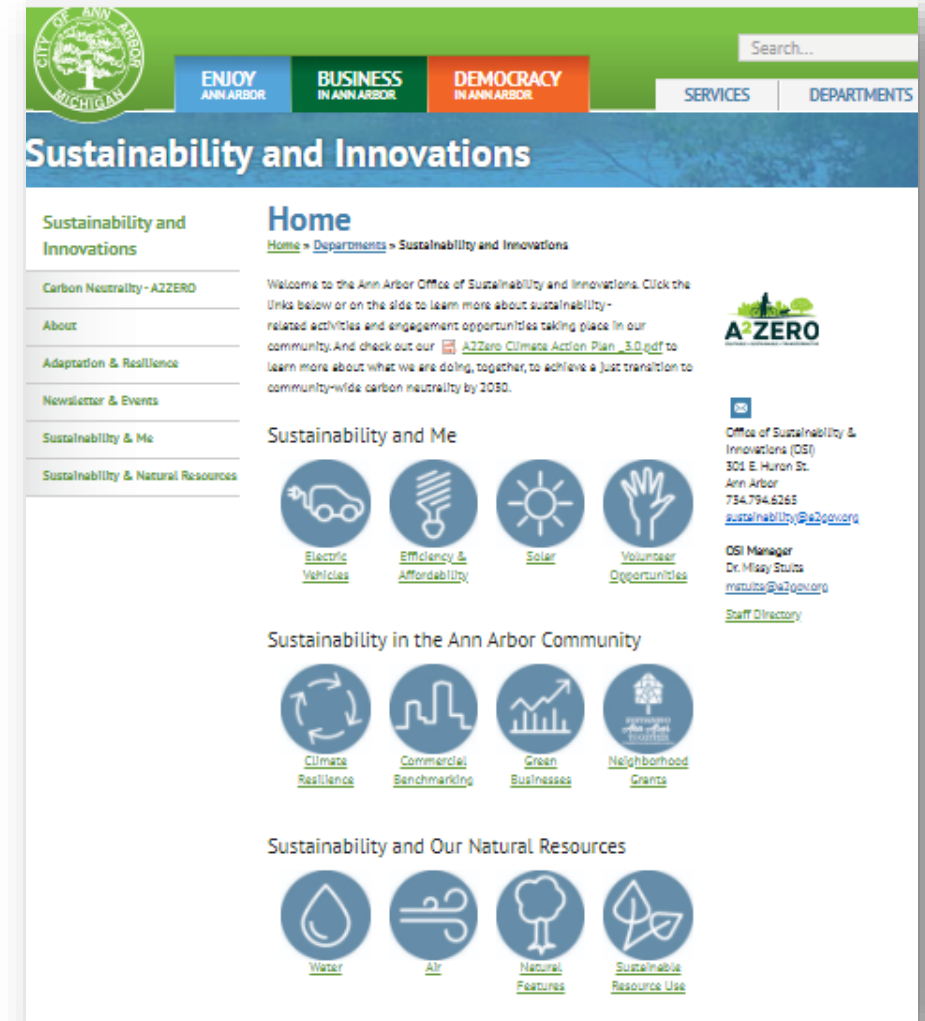
Local food: how to grow it, eat it, and find it

Personal and community resilience and emergency preparedness

Tying it all together: A²ZERO and You

OTHER WAYS TO ENGAGE

- Website redesign
- Established quarterly newsletter
- Launched YouTube Channel in partnership with CTN
- Bicycle group discount
- Community Outreach:
 - Resilience
 - Energy Kits
 - Emergency Preparedness
 - Other?



OTHER WAYS TO ENGAGE

- **A²ZERO Survey**
- **Aging in Place Efficiently**
- **Nominate folk for award/recognition**
- **Beneficial electrification and efficiency**

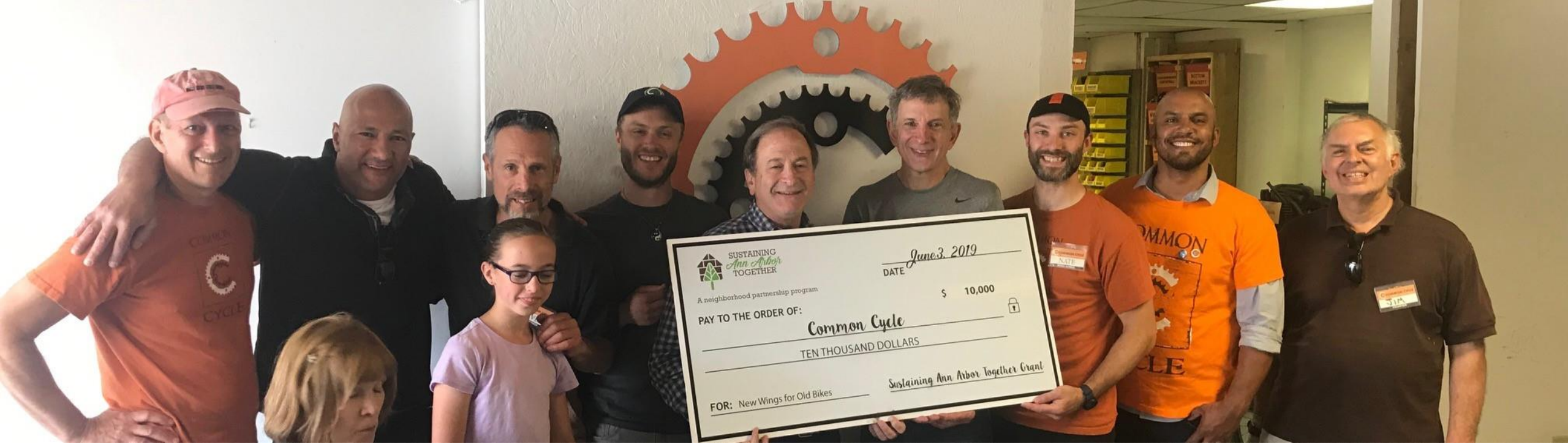


NEW 10,000 TREES INITIATIVE



**We Are Planting
10,000 Trees**

Thanks For Your Contribution



Thank You
mstults@a2gov.org