

ANN ARBOR'S  
LIVING CARBON NEUTRALITY PLAN  
MARCH 2020

### ACTION SUMMARY TABLE

	Total Costs	GHG Reduction	%Total emissions	\$/ton	Co-Benefits
<b>STRATEGY 1</b>					
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	
<b>STRATEGY 2</b>					
Electrification	\$710,000	362,200	16.2%	\$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%		
<b>STRATEGY 3</b>					
Bulk Purchase of Energy Efficiency	\$710,000	242,500	10.8%	\$ 4	Coming Soon
Building Code Requirements	\$80,575,000	48,300	0.6%	\$ 40	
LED Lighting	\$700,000	2,600	0.6%	\$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	\$80,000	400	0.0%	\$2,000	
Green Rental Housing Program	\$53,000	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%		
<b>STRATEGY 4</b>					
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%	\$14	
Mixed-Use Zoning	\$365,000	0	0.0%		
Parking Rates	\$4,500,000	0	0.0%		
<b>STRATEGY 5</b>					
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 Diet	\$208,400	0	0.0%		
Refrigerant Recycling	\$179,400	0	0.0%		
<b>STRATEGY 6</b>					
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	
Neighborhood Asset Mapping	\$300,000	0	0.0%		
Emergency Kits	\$350,000	0	0.0%		
Sensors and Data Monitoring	\$300,000	0	0.0%		
<b>STRATEGY 7</b>					
Equity Programs	\$200,000	0	0.1%		Coming Soon
SA2T Grant Program	\$1,000,000	0	0.0%		
Internal Carbon Tax	\$75,000	0	0.0%		
Offsets	\$9,440,000	298,500	13.6%	\$32	
<b>Total</b>	<b>\$1,056,403,000</b>	<b>2,108,900</b>	<b>100.0%</b>		

# A<sup>2</sup>ZERO AT TWO!



# A Quick Look Back

# Some Highlights from Year 1

- Installed 1.3MW of rooftop solar through Solarize
- Achieved SolSmart designation
- Designed and launched Aging in Place Efficiently program
- Created Ambassadors program and trained 22 individuals
- Created 10,000 Trees Initiative and planted over 1,000 trees
- Created first resilience hub at Northside Community Center
- Launched A2R3



# A Look at Progress in Year Two

# 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

# The Actions

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16. Energy Concierge and Community Education
17. Net Zero Energy Affordable Housing
18. Green Business Challenge
19. Green Rental Program
20. Aging in Place Program
21. Expansion of Home Energy Audit Program
22. Support Energy Efficiency Programs
23. Support Energy Efficiency Programs
24. Expand Transit Rides
25. Increase Transit Rides
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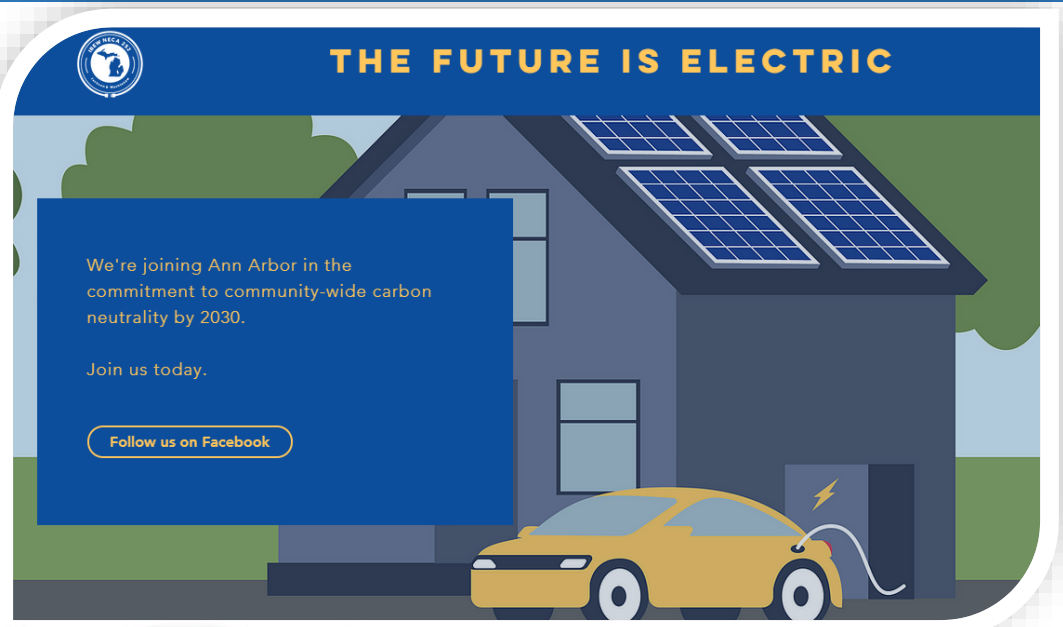
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# Strategy 1: Power Electrical Grid with 100% Renewable Energy

- Over **3MW** of solar installed through Solarize
  - Initiated commercial Solarize pilot
  - Integrated electrification & efficiency into program
  - Created replication guide with GLREA
  - Launched Ann Arbor Solar stories
- Designed over **4MW** of solar at City facilities – contracts to install moving forward
- Designed **20MW** landfill solar project (Wheeler Center Solar Park)
- Intervention and settlement in U-20713; intervention in U-20836
- Developed proposal for SEU
- Joined WRI working group for advancing renewable energy goals, including 24/7 offerings



# Strategy 2: Beneficial Electrification



- Hosted multiple resident-facing educational workshops
- Created electrification training & contractor badging program
- Join RMI cohort of cities working on electrification campaigns
- Collaborating with IBEW/NECA on a “The Future is Electric” campaign
- Developed whole-home A<sup>2</sup>ZERO Assessment – piloting in Bryant
- Drafted Green Rental Housing initiative
- Collaborating with community partners to co-design Energy Concierge
- City fleet achieved 20% electric
- First two EV refuse trucks ordered!
- Home Electrification Expo being planned
- Installed 40 dual port chargers in DDA garages and 40 DCFC chargers at City Hall
- Updated permitting system to track electrification initiatives





# Strategy 3: Improve Energy Efficiency



- Passed Benchmarking ordinance; commercial/multifamily June 1<sup>st</sup> deadline
  - Green Rental Housing and Home Energy Rating Disclosure drafted – under review
- Completed first **19** homes for Aging in Place Efficiently; waitlist full; fundraising now
- Joined White House coalition to advance energy and water performance
- Worked with AAHC to win \$2.5 million to support net zero energy affordable housing
- Applied for federal grant to support climate action in Bryant neighborhood
- Working for adoption of 2021 international model for energy efficient building code
- Assisted in design of State's first carbon neutral fire station
- Incorporated a sustainability review into the City's plan review process
- Conducted energy audits at 4 city facilities and working on decarbonization plan; integrating sustainability into CIP



# Strategy 4: Reduce VMT by 50%

- Initiated co-development of “carbon calculator” to include transportation metrics in plan review process
- Collaborating with Planning to integrate climate change into Unified Development Code
- Supported expansion of protected bike lanes
- Bicycle discount programs
- Planning Department removed requirement for parking minimums

**ANN ARBOR**  
**MOVING**  
**TOGETHER**  
**TOWARDS VISION ZERO**



# Strategy 5: Change the way we use, reuse, and dispose of materials

- Returnable container program (A<sup>2</sup>R<sup>3</sup>)
- Moved to year-round composting
- Saturday downtown commercial recycling beginning 7/1/22
- City Council resolution for sustainable food purchasing policy for all City food purchases
- Launched sustainable food working group with food systems stakeholders
- Launched Resident Race to Zero: weeklong zero waste challenge
- Launched circular economy working group – secured funding to create circular economy plan
- Joined NextCycle Intergovernmental Initiative and Public Private Partnership (I2P3)
- Began looking at tools to reduce refrigerants



# Strategy 6: Enhance Resilience



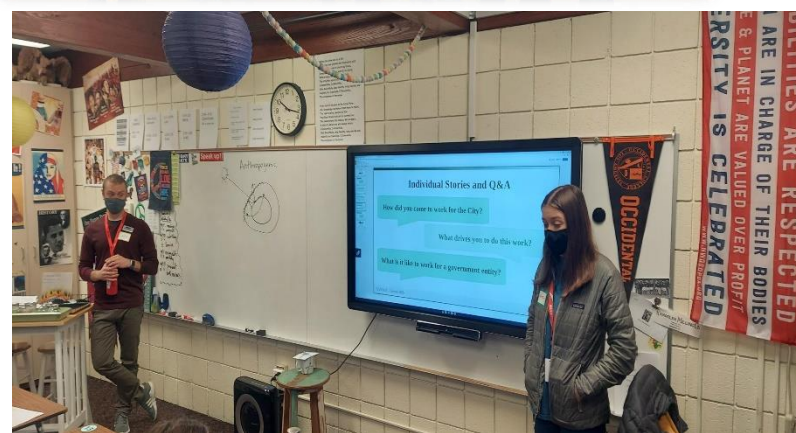
- Distributed nearly **2,500** trees through FreeTree Giveaways and Community Tree Plantings
- Undertook Master Rain Gardener training to support residents installing green infrastructure
- Installed AQ monitors at Kerrytown and Bryant, two more to be installed in year 3
- Integrating climate holistically into MHMP
- Established and staff preparedness shelter
- Funded 2<sup>nd</sup> and 3<sup>rd</sup> resilience hubs
- Initiated resilience assessment with Avalon
- Completed 2<sup>nd</sup> and 3<sup>rd</sup> cohorts of Ambassadors
- Distributed over 200 emergency preparedness kits
- Developed soil carbon calculator
- Developed tree maintenance app
- Supported No Mow May



# Strategy 7: Other



- Distributed \$100,000 in grant funding to community sustainability initiatives
- Worked with peer communities to advance national decarbonization coalition
- Anti-idling campaign with Ann Arbor Public Schools
- Created scavenger hunt to daylight sustainability
- A<sup>2</sup>ZERO Collaborators network now over 110 organizations strong
- Continued work on Bryant project: to create the first fully decarbonized neighborhood in the US
- Hosted over 100 community events, meetings, presentations, or discussions
- Continued fundraising to support work in community



# Recognitions



- Recognized by the CDP as one of 95 “A List” communities worldwide
- Recognized by Michigan Green Communities for climate leadership
- Staff Recognitions
  - Simi Barr – EV Champion (Crains)
  - Missy Stults – one of 50 “Fixers” of 2022 (GRIST)
  - Sean Reynolds – Governmental Award for Urban and Community Forestry (MI Urban and Community Forestry Council)
  - Julie Roth – George Sexton Public Servant of the Earth (Sierra Club)
  - Galen Hardy – appointee to the Board of the Great Lakes Renewable Energy Association
- Proposed SEU won project of the year from GLREA

# A Look into FY23

# Going Forward – Planned Activities

- Additional intervention, as needed, in utility cases
- Support for adoption of MI Healthy Climate Plan and aggressive codes
- Groundbreaking for landfill solar project – including community solar offering
- 4MW of solar at City facilities
- 2MW more solar through Solarize
- 100 more EV chargers – focus on multi-family installations
- Sustainable Food policy and initiatives
- Next steps around Sustainable Energy Utility
- 4<sup>th</sup> and 5<sup>th</sup> Ambassador Cohorts
- **3,000** more trees in the ground





# Going Forward – Planned Activities

- Green rental housing and home energy reporting policies introduced
- Larger application of A<sup>2</sup>ZERO Home Assessment
- Circular economy plan created
- Fundraising for equitable neighborhood efforts and aging in place efficiently
- At least two monthly community activities
- Annual A<sup>2</sup>ZERO week and biannual Green Fair
- Preparing for federal and state grant opportunities
- Funding and expansion of Aging in Place Efficiently
- vPPA contract exploration
- Prepare for potential millage





The Future Looks Bright!  
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