DRAFT A2ZERO INVESTMENT PLAN

This document outlines one possible scenario, amongst many, of potential investment amounts, sources, and funds between 2020 and 2030 in order to achieve the goals as outlined in the living A2Zero Carbon Neutrality Plan. The near years have more certainty than later years. As such, staff recommend that this document be considered a 3-year investment plan, which can provide greater direction and clarity regarding investment opportunities and needs in years 1-3 and serve as guidance for future years. This is similiar to how the City budgets. If done this way, this investment plan would be reviewed every 2-years to make refinements and provide a revised, rolling 3 year investment plan that could guide the A2Zero work.

The remainder of the A2Zero Investment Plan is organized as follows:

Column A provides the name of a given action. Underneath is an *estimate* of how much funding is already available or is likely to be available within the existing City budget. For example, this may include existing staff or some alignment with existing actions/priorities meaning that some resources are already available to support a given action.

Column B provides information on investment source. This includes operating costs, operating credits (savings accrued to the City from the given action; not to residents), any debt service payments the City may have to make (based on estimates in the "city capital row"), the net budget impact to the City, and external sources of investment, including philanthropic, grants, pro-bono assistance, public-private partnerships, etc. The values in these rows will change over time as new sources of investment become available.

Column C shows the total *estimated* cost for a given action, over the full 10-years.

Columns D - N show annual *estimates*, by investment source, for each action.

Column O identifies the party primarily responsible for implementation.

Column P provides notes about the investment estimates provided for each action.

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ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
COMMUNI	TY CHOICE AGGREGATION	\$1,645,000	\$49,000	\$49,000	\$49,000	\$49,000	\$799,000	\$300,000	\$200,000	\$150,000	\$0	\$0	\$0		
	City Operating Costs City Operating Credits / Savings		\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$50,000	\$50,000	\$50,000 - -\$81,000	-\$81,000	-\$81,000	-\$81,000		Nationally, CCA's are at cost parity if not cheaper than existing, utility energy pricing meaning that this action will most likely save our residents (and the City)
EST: \$392,000 Already in	0.17 000.10	t	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$50,000	\$50,000	(\$31,000)	(\$81,000)	(\$81,000)	(\$81,000)	Arbor	money. The "City Operating Credits / Savings" estimates only look at energy savings related to City operations. It is
City Budget	City Funding Source Other (i.e., philanthropic, state federal, pro bono, public-private partnership	, <u>.</u>	GF	GF	GF	GF	GF \$750,000	GF \$250,000	GF \$150,000	GF \$100,000	GF	GF	GF		anticipated that residents will save approximately 3-5% on their electricity costs by enrolling in a CCA.

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ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
BULK PURC	HASE OF RENEWABLES	\$605,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000		Onsite renewables have a 10-12 year
	City Operating Cost: City Operating Credit: City Debt Service	S	\$55,000	\$49,000	\$55,000	\$55,000	\$49,000	\$55,000	\$55,000	\$49,000	\$55,000	\$49,000	\$55,000	City of Ann	payback but are warranted for 25 years, meaning the community and the City will see savings in the future. Additionally, the pilot bulk buy programs are saving residents anywhere from 5%-15%
EST: 100%	Net City Impac	t	\$55,000	\$49,000	\$55,000	\$55,000	\$49,000	\$55,000	\$55,000	\$49,000	\$55,000	\$49,000	\$55,000	¢eek for	additional off the cost of solar. We
Already in	City Capita	I												community	anticipate achieving savings on City
City Budget	City Funding Source	•	MIL		properties electrical bills 12 years after the installation is complete - which is not										
	Other (i.e., philanthropic, state federal, pro bono, public-private partnership	9		\$6,000	\$0	\$0	\$6,000			\$6,000		\$6,000			calculated in this matrix.

ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
COMMUN	ITY SOLAR PROGRAM	\$205,000	\$18,636	\$18,640	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636		
F5T- 1000/	City Operating Costs City Operating Credits City Debt Service	5 2	\$18,636	\$18,640	\$8,636	\$18,636	\$8,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636		Nationally, community solar initiatives are at cost parity if not cheaper than existing, utility energy pricing. In many states, consumers make money on these
EST: 100%	Net City Impact		\$18,636	\$18,640	\$8,636	\$18,636	\$8,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	\$18,636	City of Ann Arbor	programs. Since the cost estimates for
Already in	0.17 0.15.14													Alboi	this are for City staff to help create a
City Budget	City Funding Source	:	GF		community solar program, the City will										
	Other (i.e., philanthropic, state,	,													not receive savings but our residents and
	federal, pro bono, public-private	2													businesses will.
	partnership				\$10,000		\$10,000								

ACTION	то	TAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
LANDFILL SC	DLAR PROJECT	\$80,000	\$26,500	\$27,000	\$26,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
	City Operating Costs		\$26,500	\$27,000	\$26,500										
	City Operating Credits					\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880		
EST: 100%	City Debt Service														Assumes the City pays a .2 cent
Oper. Costs	Net City Impact		\$26,500	\$27,000	\$26,500	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	\$572,880	•	premium, per kilowatt hour, for
Already in	City Capital													Arbor	electricity generated through the landfill solar site.
City Budget	City Funding Source		GF	GF	GF	GF	GF	GF	GF	GF	GF	GF	GF		Soldi Site.
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)														

ACT	TION		TOTAL 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
ELE	CTRIFICA	TION OF CITY FACILITIES	\$7,100,000 \$114,000	\$1,254,000	\$1,254,000	\$1,315,000	\$1,265,000	\$1,265,000	\$130,000	\$128,000	\$125,000	\$125,000	\$125,000		
	EST: 550,000	City Operating Costs City Operating Credits City Debt Service Net City Impact	\$114,000	\$114,000 \$33,252 \$1,215,500 \$1,362,752	\$102,000 \$66,504 \$340,000 \$508,504	\$100,000 \$133,008 \$340,000 \$573,008	\$100,000 \$199,512 \$340,000 \$639,512	\$100,000 \$266,016 \$340,000 \$706,016	\$100,000 \$332,520 \$340,000 \$772,520	\$100,000 \$332,520 \$340,000 \$772,520	\$100,000 \$332,520 \$340,000 \$772,520	\$100,000 \$332,520 \$340,000 \$772,520	\$772,520	City of Ann Arbor with	Additional operating costs are estimated for city facilities only. Note, this estimated increase in operating costs is offset in the efficiency section. Also
Alr	ready in / Budget	City Capital City Funding Source Other (I.e., philanthropic, state, federal, pro bono, public-private partnership)	All Funds	\$4,904,500 All Funds \$50,000	All Funds \$50,000	All Funds \$25,000	All Funds \$25,000	All Funds \$25,000	All Funds \$25,000	All Funds	All Funds	All Funds	All Funds	support	assumes that these projects are placed in the CIP but not funded through that mechanism. Assumes a 15 year term with 4% interest

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ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
ELECTRIFY	ALL BUSES	\$86,000,000	\$0	\$6,890,000	\$5,690,000	\$6,490,000	\$7,290,000	\$8,070,000	\$8,870,000	\$9,400,000	\$10,200,000	\$11,000,000	\$12,100,000		
	City Operating Co	sts													
	City Operating Cred	lits													
	City Debt Serv	ice					This action	intentionally or	nitted						
Not	City Capi	tal					Tills action	i intentionally of	ilittea					TheRide	Not calculated

Calculated	City Funding Source	
	Other (i.e., philanthropic, state,	
	federal, pro bono, public-private	
	partnership)	

ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
BULK PURC	City Operating Cost City Operating Credit	S	\$0	\$153,000 \$138,000	\$100,000 \$90,000	\$55,875 \$55,875		A 2018 study from the University of Michigan's Transportation Research Institute found that electric vehicles cost							
EST: \$558,750 Already in	City Debt Servic Net City Impac City Capita	t	\$0	\$138,000	\$90,000	\$55,875	\$55,875	\$55,875	\$55,875	\$55,875	\$55,875	\$55,875	\$55,875	City of Ann Arbor	less than half as much to operate as gas- powered cars. The average cost to operate an EV in the United States is \$485 per year, while the average for a
City Budget	City Funding Source Other (I.e., philanthropic, state federal, pro bono, public-privat partnership	e e		GF \$15,000	GF \$10,000	GF		gasoline-powered vehicle is \$1,117. Since these savings go to residents, they are not factored into this action.							

														Implem.	
ACTION	Т	OTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
PRIVATE EV	FLEETS	\$123,000	\$0	\$24,500	\$24,500	\$24,500	\$24,500	\$24,500	\$500	\$0	\$0	\$0	\$0		A 2010 about frame the Hair consists of
	City Operating Costs City Operating Credits			\$19,500	\$19,500	\$19,500	\$19,500	\$19,500	\$500						A 2018 study from the University of Michigan's Transportation Research Institute found that electric vehicles cost
EST: \$98,000	City Debt Service Net City Impact		\$0	\$19,500	\$19,500	\$19,500	\$19,500	\$19,500	\$500	\$0	\$0	\$0	\$0		ı.
Already in	City Capital													Arbor	operate an EV in the United States is
City Budget	City Funding Source Other (i.e., philanthropic, state, federal, pro bono, public-private			GF	GF	GF	GF	GF	GF						\$485 per year, while the average for a gasoline-powered vehicle is \$1,117. Since these savings go to residents, they are not factored into this action.
	partnership)			\$5,000	\$5,000	\$5,000	\$5,000	\$5,000							

ACTION	т	OTAL 202	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
CITY EV FLE	ET TRANSITION	\$4,000,000 \$50,00	\$660,000	\$560,000	\$465,000	\$360,000	\$355,000	\$340,000	\$320,000	\$310,000	\$295,000	\$285,000		A 2010 study from the University of
	City Operating Costs	\$50,00	\$610,000	\$510,000	\$440,000	\$360,000	\$305,000	\$315,000	\$295,000	\$310,000	\$295,000	\$285,000		A 2018 study from the University of Michigan's Transportation Research
	City Operating Credits	-\$7,50	-\$12,400	-\$24,800	-\$37,200	-\$49,600	-\$62,000	-\$74,400	-\$86,800	-\$99,200	-\$111,600	-\$124,000		Institute found that electric vehicles cost
	City Debt Service													less than half as much to operate as gas-
EST: \$1.5	Net City Impact	\$42,50	\$597,600	\$485,200	\$402,800	\$310,400	\$243,000	\$240,600	\$208,200	\$210,800	\$183,400	\$161,000		powered cars. The average cost to
Mil in City	City Capital												Arbor	operate an EV in the United States is
Budget	City Funding Source	All Funds	All Funds	All Funds	All Funds	All Funds	All Funds	All Funds	All Funds	All Funds	All Funds	All Funds		\$485 per year, while the average for a gasoline-powered vehicle is \$1,117.
	Other (i.e., philanthropic, state,													Operational savings are only calculated
	federal, pro bono, public-private													for City of Ann Arbor fleet vehicles.
	partnership)		\$50,000	\$50,000	\$25,000		\$50,000	\$25,000	\$25,000					

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ACTION		TOTAL 20	20 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
EV INFRASTI	RUCTURE	\$42,000,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000		
	City Operating Costs	\$42,000,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		
	City Operating Credits													As an alternative, we could explore
EST:	City Debt Service		\$8,497,500	\$2,520,000	\$2,520,000	\$2,520,000	\$2,520,000	\$2,520,000	\$2,520,000	\$2,520,000	\$2,520,000	\$2,520,000	City of Ann	public charging infrastructure through a
\$500,000	Net City Impact		\$0 \$8,547,500	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	\$2,570,000	Arbor and	public-private partnership which would
in City	City Capital		\$33,872,500										DDA	significantly lower the costs to the City. Assumes 20 year payback with 4%
Budget	City Funding Source		GF & DDA	GF & DDA	GF & DDA	GF & DDA	GF & DDA	GF & DDA	GF & DDA	GF & DDA	GF & DDA	GF & DDA		interest.
	Other (i.e., philanthropic, state, federal, pro bono, public-private	\$150,0	00											
	partnership)	. ,	\$250,000	\$250,000	\$200,000	\$200,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000		

					2022	2024	2027	2025	2027	2020	2020		Implem.	NOTES
ACTION		TOTAL	2020 202	1 2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
BULK PURC	HASE OF ENERGY EFFICIENCY	\$950,000	\$275,00	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000		DTE and Consumers Energy's EE
	City Operating Costs		\$250,00	\$50,000	\$50,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000		programs estimate a 5-fold return on
	City Operating Credits		-\$250,00	-\$400,000	-\$628,770	-\$628,770	-\$628,770	-\$628,770	-\$628,770	-\$628,770	-\$628,770	-\$628,770	City of Ann	
	City Debt Service												Arbor and	https://www.nrdc.org/experts/ariana-
EST:	Net City Impact		\$	-\$350,000	-\$578,770	-\$553,770	-\$553,770	-\$553,770	-\$553,770	-\$553,770	-\$553,770	-\$553,770	\$66k for	gonzalez/michigan-utilities-plan-most- energy-efficiency-ever
\$500,000	City Capital												community	chergy emelency ever
Already in City Budget	City Funding Source		GF & MIL	GF	liaison	Per studies cited by the U.S. EPA, for								
City Budget	Other (i.e., philanthropic, state, federal, pro bono, public-private												stipends	every \$1M spent on various types of EE creates between 5.7 – 11 jobs. Estimated savings are for City facilities only.
	partnership)		\$25,00	\$25,000	\$25,000									ago a.e.e.e.c., idemites omy.

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
BUILDING C	ODE REQUIREMENTS	\$1,935,000	\$49,000	\$255,000	\$255,000	\$255,000	\$206,000	\$141,000	\$141,000	\$141,000	\$141,000	\$141,000	\$210,000		
	City Operating Costs		\$49,000	\$200,000	\$245,000	\$245,000	\$206,000	\$141,000	\$141,000	\$141,000	\$141,000	\$141,000	\$210,000		
	City Operating Credits														Per studies cited by the U.S. EPA, for
EST: \$1.5	City Debt Service														every \$1M spent on various types of EE creates between 5.7 – 11 jobs. This also
MIL	Net City Impact		\$49,000	\$200,000	\$245,000	\$245,000	\$206,000	\$141,000	\$141,000	\$141,000	\$141,000	\$141,000	\$210,000	City of Ann	assumes that training and related code-
Already in	City Capital													Arbor	work is integrated into the job
City Budget	City Funding Source		GF & CON	GF & CON	GF & CON	GF & CON	GF & CON	GF & CON	GF & CON	GF & CON	GF & CON	GF & CON	GF & CON		description for building inspectors.
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private	!													
	partnership)			\$55,000	\$10,000	\$10,000									

													Implem.	
ACTION	Т	OTAL 202	20 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
LED LIGHTIN	IG	\$3,140,000 \$245,9	20 \$361,760	\$361,760	\$361,760	\$361,760	\$361,760	\$361,760	\$361,760	\$361,760	\$0	\$0		
	City Operating Costs	\$24,5	00 \$24,500	\$24,500	\$24,500	\$24,500	\$24,500	\$24,500	\$24,500	\$24,500				Assumes no funding currently exists for
EST:	City Operating Credits		-\$100,000	-\$200,000	-\$300,000	-\$400,000	-\$500,000	-\$600,000	-\$675,000	-\$735,000	-\$735,000	-\$735,000		this and that the City will take over all
Assumes	City Debt Service		\$543,425	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000		existing lights from DTE and convert

no funding	Net City Impact	\$24,500	\$467,925	-\$68,500	-\$168,500	-\$268,500	-\$368,500	-\$468,500	-\$543,500	-\$603,500	-\$628,000	-\$628,000	them to LED. LED lights will save at least
for this	City Capital		\$2,483,075										50% from existing lighting and potentially
currently	City Funding Source												more. Operational costs are also lower
exists	Otner (i.e., philanthropic, state,												but are not factored into this estimate. Assumes 15 years at 4.5%
CAISES	federal, pro bono, public-private												Assumes 15 years at 4.5%
	partnership)												
												-	

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
BENCHMAR	KING	\$2,370,000		\$408,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000		
	City Operating Costs			\$308,000	\$168,000	\$218,000	\$198,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000		
	City Operating Credits														
	City Debt Service														Benchmarking is a foundational piece of our commercial sector engagement. We
EST: \$1MIL	Net City Impact			\$308,000	\$168,000	\$218,000	\$198,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	\$218,000	City of Ann	also assume that we'll be able work with
already in	City Capital													Arbor	DTE to build an API to automatically get
City budget	City Funding Source			GF		data from participating entities.									
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)			\$100,000	\$50,000		\$20,000								

														Implem.	
ACTION	Т	OTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
LOAN LOSS	RESERVE	\$1,578,000	\$55,000	\$1,052,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$50,500		
	City Operating Costs		\$55,000	\$852,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$50,500		
	City Operating Credits														The City currently has \$400k in a loan
EST:	City Debt Service														loss reserve dedicated for PACE financing. We've contacted the U.S.
\$920,000	Net City Impact		\$55,000	\$852,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$52,500	\$50,500	City of Ann	Department of Energy (the original
already in	City Capital													Arbor	granter) about moving this to this
City budget	City Funding Source		GF	GF	GF	GF	GF	GF	GF	GF	GF	GF	GF		program. We assume these funds will be
, 3	Other (i.e., philanthropic, state,														able to be repurposed.
	federal, pro bono, public-private														
	partnership)			\$200,000											

ACTION	1	TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
ENERGY CO	NCIERGE AND COMMUNITY	\$820,000 \$7	74,545	\$74,550	\$74,545	\$74,545	\$74,545	\$74,545	\$74,545	\$74,545	\$74,545	\$74,545	\$74,545		DTE and Consumers Energy's EE programs estimate a 5-fold return on
	City Operating Costs City Operating Credits	\$7	74,545	\$69,550	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545		energy efficiency investments; see: https://www.nrdc.org/experts/ariana- gonzalez/michigan-utilities-plan-most-
EST:	City Debt Service Net City Impact	\$7	74,545	\$69,550	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	\$69,545	City of Ann Arbor	energy-efficiency-ever
\$820,000 already in	City Capital		•		. ,					. ,	. ,	. ,			Per studies cited by the U.S. EPA, for
City budget	City Funding Source Other (i.e., philanthropic, state, federal, pro bono, public-private	GF 8	& MIL GF &	& MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL		every \$1M spent on various types of EE creates between 5.7 – 11 jobs. All cost savings from thsi program are accrued by
	partnership)			\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000		residents and businesses

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ACTION	1	ΓΟΤΑL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
NET ZERO E	ENERGY AFFORDABLE HOUSING	\$800,000 \$20)0,000	\$200,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0		DTE and Consumers Energy's EE programs estimate a 5-fold return on
	City Operating Costs	\$20	00,000	\$200,000	\$100,000	\$100,000	\$100,000	\$100,000							energy efficiency investments; see:
	City Operating Credits	-\$1	.0,000	-\$20,000	-\$25,000	-\$30,000	-\$35,000	-\$40,000	-\$40,000	-\$40,000	-\$40,000	-\$40,000	-\$40,000		https://www.nrdc.org/experts/ariana-
EST:	City Debt Service														gonzalez/michigan-utilities-plan-most- energy-efficiency-ever
\$800,000	Net City Impact	\$19	00,000	\$180,000	\$75,000	\$70,000	\$65,000	\$60,000	-\$40,000	-\$40,000	-\$40,000	-\$40,000	-\$40,000	Arbor	energy-emciency-ever
already in	City Capital													7 (1 50)	Per studies cited by the U.S. EPA, for
City budget	City Funding Source	N	11L N	MIL	MIL	MIL	MIL	MIL							every \$1M spent on various types of EE
, 3	Other (i.e., philanthropic, state,														creates between 5.7 – 11 jobs.
	federal, pro bono, public-private														Operational savings for AAHC are
	partnership)														estimated.

													Implem.	
ACTION		TOTAL	2020 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
GREEN RENT	TAL HOUSING PROGRAM	\$530,000	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000	\$53,000		DTF and Canaumana Francisco
	City Operating Cost	S	\$53,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000		DTE and Consumers Energy's EE programs estimate a 5-fold return on
	City Operating Credit	s												energy efficiency investments; see:
EST:	City Debt Service	е												https://www.nrdc.org/experts/ariana-
\$530,000	Net City Impac	t	\$53,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	\$48,000	City of Ann	
already in	City Capita	l											Arbor	energy-efficiency-ever
City budget	City Funding Source		GF and CON		Per studies cited by the U.S. EPA, for									
	Other (i.e., philanthropic, state													every \$1M spent on various types of EE
	federal, pro bono, public-privat	9												creates between 5.7 – 11 jobs.3
	partnership)		\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000		11 1000.00

													Implem.	
ACTION		TOTAL	2020 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
GREEN BUS	INESS CHALLENGE	\$700,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000		DTF and Canalyses Frage /a FF
	City Operating Cost	:S	\$70,000	\$70,000	\$0	\$65,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000		DTE and Consumers Energy's EE programs estimate a 5-fold return on
	City Operating Credit	:S												energy efficiency investments; see:
EST: Not	City Debt Service	e											City of Ann	https://www.nrdc.org/experts/ariana-
currently	Net City Impac	ct	\$70,000	\$70,000	\$0	\$65,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	Arbor and	gonzalez/michigan-utilities-plan-most-
included in	City Capita	al											2030 District	energy-efficiency-ever
the budget	City Funding Source		GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL		Per studies cited by the U.S. EPA, for
	Other (i.e., philanthropic, state	2,												every \$1M spent on various types of EE
	federal, pro bono, public-private	e												creates between 5.7 – 11 jobs.3
	partnership	o)		\$75,000										creates between 3.7 – 11 Jobs.5

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
AGING IN P	LACE EFFICIENTLY	\$155,000	\$5,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		DTF and Community Francy / a FF
	City Operating Costs	S	\$5,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		DTE and Consumers Energy's EE programs estimate a 5-fold return on

ACTION	TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029		Implem. Respon.	NOTES
	federal, pro bono, public-private partnership)		\$20,000	\$20,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000		every \$1M spent on various types of EE creates between 5.7 – 11 jobs.3
budgets	City Funding Source Other (i.e., philanthropic, state,		MIL		Per studies cited by the U.S. EPA, for									
in City	City Capital												County	energy-efficiency-ever
EST: \$1 MIL	Net City Impact		\$132,500	\$132,500	\$142,500	\$142,500	\$167,500	\$142,500	\$142,500	\$142,500	\$142,500	\$142,500		gonzalez/michigan-utilities-plan-most-
	City Debt Service													https://www.nrdc.org/experts/ariana-
	City Operating Costs City Operating Credits		7132,300	7132,300	7142,300	7142,300	7107,300	7142,300	7142,300	7142,300	7142,300	7142,300		programs estimate a 5-fold return on energy efficiency investments; see:
VEATHERIZ	ATION EXPANSION \$1,550,00 City Operating Costs	J	\$132,500	\$132,500	\$132,500	\$132,500	\$167,500	\$132,500	\$132,500	\$132,500	\$132,500	\$132,500		DTE and Consumers Energy's EE
ACTION	TOTAL ATION EXPANSION \$1.550.00	2020	2021 \$152,500	2022 \$152,500	2023 \$152,500	2024 \$152,500	2025 \$177,500	2026 \$152,500	2027 \$152,500	2028 \$152,500	2029 \$152,500	2030 \$152,500	Respon.	NOTES
													Implem.	
	partnership)		\$200,000											creates between 5.7 – 11 jobs.3
	federal, pro bono, public-private													every \$1M spent on various types of El
budgets	City Funding Source Other (i.e., philanthropic, state,	MIL	MIL	MIL	MIL	MIL	MIL	MIL	MIL	MIL	MIL	MIL		Per studies cited by the U.S. EPA, for
in City	City Capital												Arbor	energy-efficiency-ever
EST: \$150,000	City Debt Service Net City Impact	\$5,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	City of Ann	https://www.nrdc.org/experts/ariana- gonzalez/michigan-utilities-plan-most-
	City Operating Credits													energy efficiency investments; see:

ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
NON-MOTO	DRIZED PLAN	\$2,400,000		\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$200,000	\$150,000	\$140,000	\$110,000		
	City Operating Costs			\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		
	City Operating Credits														
EST: Not	City Debt Service			\$400,000	\$115,000	\$115,000	\$115,000	\$115,000	\$115,000	\$115,000	\$115,000	\$115,000	\$115,000	City of Ann	Additional grant dollars may be available
included in	Net City Impact		\$0	\$450,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	Arbor and	for options of this work, especially if a
existing	City Capita			\$1,615,000										DDΛ	change in rederal leadership takes place.
City	City Funding Source			GF	GF	GF	GF	GF	GF	GF	GF	GF	GF		Assumes 15 years at 4%.
budgets	Other (i.e., philanthropic, state														
	federal, pro bono, public-private														
	partnership														

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
EXPAND LO	OCAL AND REGIONAL TRANSIT	\$656,780,000	\$0	\$3,080,000	\$3,080,000	\$100,000	\$520,000	\$600,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000		Not Calculated. Note: Using AAA's total cost per mile driven for MI drivers4 of
	City Operating Costs	5													\$0.59/mile x 388,645,000 VMT miles
	City Operating Credits	5												TheRide with	reduced in year ten and assuming the
	City Debt Service	<u>.</u>													reduction is linear, the resultant savings
Not	City Capita	l					Inte	ntionally omitted	I					•	over ten years is \$1.15B6. This does not
Estimated	City Funding Source													7 (1111 7 (1 50)	take into consideration increases expenses paid for fares but also not

additional health benefits from walking and biking, etc

ACTION		TOTAL	2020 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
PARK AND F	RIDE	\$170,000,000	\$200,000	\$300,000	\$21,500,000	\$21,500,000	\$21,500,000	\$21,000,000	\$21,000,000	\$21,000,000	\$21,000,000	\$21,000,000		
	City Operating Costs		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		
	City Operating Credits													
EST:	City Debt Service												City of Ann	Per a Council request, assumes the City
\$500,000	Net City Impact		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000			takes on 100% of the cost. This is highly
in City	City Capital												TheRide, and	unlikely.
budgets	City Funding Source		GF and DDA	GF and DDA	GF and DDA	GF and DDA	GF and DDA	GF and DDA	GF and DDA	GF and DDA	GF and DDA	GF and DDA	MDOT	
J	Other (i.e., philanthropic, state,													
	federal, pro bono, public-private													
	partnership)			\$84,750,000		\$40,000,000		\$44,750,000						

														Implem.	
ACTION	٦	TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
DUPLEX / T	RIPLEX / ADU'S	\$250,000	\$72,100	\$72,100	\$72,100	\$20,000	\$13,700	\$0	\$0	\$0	\$0	\$0	\$0		
	City Operating Costs		\$72,100	\$72,100	\$72,100	\$20,000	\$13,700								
	City Operating Credits														
EST:	City Debt Service														
\$250,000	Net City Impact		\$72,100	\$72,100	\$72,100	\$20,000	\$13,700	\$0	\$0	\$0	\$0	\$0	\$0		Assumes this is part of existing staff's
in City	City Capital													Arbor	job.
budgets	City Funding Source		GF	GF	GF	GF	GF								
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)														

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
MIXED-USE	ZONING	\$365,000		\$50,000	\$75,000	\$55,000	\$35,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		
	City Operating Cos	ts		\$50,000	\$75,000	\$35,000	\$35,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		
	City Operating Credi	ts													
EST:	City Debt Servio	e													Assumes this is part of existing staff's job
\$300,000	Net City Impa	ct	\$0	\$50,000	\$75,000	\$35,000	\$35,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		or it fits into the Master Plan initiative
in City	City Capit	al												Arbor	and is mostly covered through that work.
budgets	City Funding Source			GF											
	Other (i.e., philanthropic, state	2,													
	federal, pro bono, public-privat	e													
	partnershi _l	p)				\$20,000									

													Implem.	
ACTION	TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES

PARKING R	ATES	\$4,500,000	\$0	\$2,221,000	\$2,221,000	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250		
	City Operating Costs			\$52,500	\$52,500	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250		
	City Operating Credits														
EST:	City Debt Service														This assumes the City works with a
\$200,000	Net City Impact		\$0	\$52,500	\$52,500	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	\$7,250	•	private company to implement this
in City	City Capital														solution. An alternative is the City could
budgets	City Funding Source														fund the program itself
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)			\$2,168,500	\$2,168,500										

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
YEAR ROUN	D COMPOSTING	\$26,000,000		\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000		
	City Operating Cost	ts		\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000		
EST: \$26	City Operating Credit	ts													
MIL in City	City Debt Servic	e													
budgets	Net City Impa	ct		\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	•	, g
only if	City Capita	al												Arbor	changes as outlined in the SWRMP
SWRMP is	City Funding Source			SW											
implement	Other (i.e., philanthropic, state	2,													
ed	federal, pro bono, public-privat	e													
	partnership	o)													

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
EXPAND CO	MMERCIAL RECYCLING	\$18,400,000		\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000		
	City Operating Cost	S		\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000		
EST: \$18.5	City Operating Credit	S													
MIL in City	City Debt Service	9												City of Ann	
budgets	Net City Impac	t	\$0	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	\$1,840,000	Arbor and/or	Assumes could be paid for through
only if	City Capita	I												Contractor	changes as outlined in the SWRMP
SWRMP is	City Funding Source			SW											
implement	Other (i.e., philanthropic, state	,													
ed	federal, pro bono, public-private	9													
	partnership)													

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
SUSTAINABL	E MATERIAL USE AND REUSE	\$270,000		\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000		
	City Operating Costs	3		\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000		
	City Operating Credits	5													
EST:	City Debt Service	2												City of Ann	
\$270,000	Net City Impac	t	\$0	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	Arbor	
in City	City Capita													7 201	

budgets	City Funding Source	GF and SW									
3	Other (i.e., philanthropic, state,										
	federal, pro bono, public-private										
	partnership)										

ACTION	_	TOTAL	2020	2024	2022	2022	2024	2025	2026	2027	2020	2020	2020	Implem.	NOTES
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
CIRCULAR E	CONOMY	\$270,000	\$2	27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000		
	City Operating Costs		\$2	22,000	\$22,000	\$22,000	\$22,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000		
	City Operating Credits														
EST:	City Debt Service														
\$270,000	Net City Impact		\$0 \$2	22,000	\$22,000	\$22,000	\$22,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	City of Ann	
in City	City Capital													Arbor	
budgets	City Funding Source		GF and	ISW	GF and SW										
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)		9	\$5,000	\$5,000	\$5,000	\$5,000								

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
PLANT-RICH	DIETS	\$208,400		\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840		
	City Operating Costs	i		\$15,840	\$15,840	\$15,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840		
	City Operating Credits														
	City Debt Service														
EST: \$0 in	Net City Impact		\$0	\$15,840	\$15,840	\$15,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	\$20,840	City of Ann	
City	City Capital													Arbor	
budgets	City Funding Source			MIL & GF											
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private	!													
	partnership)			\$5,000	\$5,000	\$5,000									

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
REFRIGERAN	IT RECYCLING	\$179,400		\$10,440	\$85,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440		
	City Operating Cost	:S		\$10,440	\$35,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440		
	City Operating Credit	:S													
EST: Not	City Debt Servic	e													
included in	Net City Impac	ct	\$0	\$10,440	\$35,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	\$10,440	City of Ann	
existing	City Capita	al												Arbor	
City	City Funding Source			SW and MIL											
budgets	Other (i.e., philanthropic, state														
	federal, pro bono, public-privat	e													
	partnership	o)			\$50,000										

													Implem.	
ACTION		TOTAL 20	20 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
RESILIENCE	HUBS	\$5,025,000	\$25,000	\$25,000	\$750,000	\$100,000	\$825,000	\$225,000	\$975,000	\$300,000	\$1,500,000	\$300,000		
	City Operating Costs		\$25,000	\$25,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		
	City Operating Credits													Studies regularly show that for every \$1
EST:	City Debt Service			\$827,500	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000	\$190,000		invested in resilience, \$7 are saved. We
\$500,000	Net City Impact		\$0 \$25,000	\$852,500	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000	\$240,000		don't calculate a payback here but there
in City	City Capital			\$3,612,500									Arbor	will undoubtedly be value to the community for this action. Assumes 20
budgets	City Funding Source		GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL		years at 4%
	Other (i.e., philanthropic, state,													years at 470
	federal, pro bono, public-private													
	partnership)		\$25,000	\$25,000	\$100,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	
NEIGHBORH	IOOD AND YOUTH	¢350,000													
AMBASSAD	ORS	\$350,000		\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000		
	City Operating Costs			\$25,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000		
	City Operating Credits														
EST:	City Debt Service													City of Ann	
350,00 in	Net City Impact		\$0	\$25,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	Arbor	
City	City Capital														
budgets	City Funding Source			GF & MIL											
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)			\$10,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000		

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
TREE CANOR	PY	\$1,160,000		\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000		
	City Operating Costs			\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000		
	City Operating Credits														
	City Debt Service														We did not capture the payback to the
EST: \$1.16	Net City Impact		\$0	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000	\$116,000		City of trees but we know that trees have
MIL in City	City Capital													Arbor	ecosystem, health, and natural system
budgets	City Funding Source			STM		benefits.									
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)														

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
NEIGHBOR	HOOD ASSET MAPPING	\$300,000		\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000		
	City Operating C	osts		\$15,000	\$25,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000		
	City Operating Cre	edits													
	City Debt Ser	vice													

EST: \$0 in	Net City Impact	\$0 \$	15,000 \$25,	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	City of Ann
City	City Capital											Arbor
budgets	City Funding Source	GF & I	ИIL GF & MI	GF & MIL								
	Other (i.e., philanthropic, state,											
	federal, pro bono, public-private											
	partnership)	\$.5,000 \$5,	000								

														Implem.	
ACTION	T	OTAL 2	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
EMERGENCY	/ KITS	\$350,000	\$	35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000		
	City Operating Costs		\$	\$35,000	\$25,000	\$25,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000		
	City Operating Credits		-\$2	245,000	-\$245,000	-\$245,000	-\$245,000	-\$245,000	-\$245,000	-\$245,000	-\$245,000	-\$245,000	-\$245,000		
EST:	City Debt Service														Estimated savings from a FEMA report
\$100,000	Net City Impact		\$0 -\$2	210,000	-\$220,000	-\$220,000	-\$210,000	-\$210,000	-\$210,000	-\$210,000	-\$210,000	-\$210,000	-\$210,000		
in City	City Capital													Arbor	prevention, we save \$7 in emergency
budgets	City Funding Source		GF &	MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL	GF & MIL		management and response costs.
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)				\$10,000	\$10,000									

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
SENSORS AN	ND DATA MONITORING	\$300,000		\$101,300	\$28,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300		
	City Operating Cost	ts		\$51,300	\$28,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300	\$21,300		
	City Operating Credit	ts		-\$709,100	-\$198,100	-\$149,100	-\$149,100	-\$149,100	-\$149,100	-\$149,100	-\$149,100	-\$149,100	-\$149,100		
EST: Not	City Debt Servic	e													Estimated savings from a FEMA report
currently	Net City Impac	ct	\$0	-\$657,800	-\$169,800	-\$127,800	-\$127,800	-\$127,800	-\$127,800	-\$127,800	-\$127,800	-\$127,800	-\$127,800		showing that for every \$1 invested in
included in	City Capita	al												Arbor	prevention, we save \$7 in emergency
City budget	City Funding Sourc			GF		management and response costs.									
, ,	Other (i.e., philanthropic, state	2,													
	federal, pro bono, public-privat	e													
	partnership	o)		\$50,000											

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
EQUITY PRO	GRAMS	\$200,000		\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000		
	City Operating Cost	S		\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000		
EST:	City Operating Credit	S													
	City Debt Servic	e													
\$200,000	Net City Impac	t	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	City of Ann	
in City	City Capita	al												Arbor	
budgets	City Funding Sourc			GF & MIL											
buugets	Other (i.e., philanthropic, state	2,													
	federal, pro bono, public-privat	e													
	partnership	o)													

ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Implem. Respon.	NOTES
SA2T GRAN	「PROGRAM	\$1,000,000		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000		
	City Operating Costs	;		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000		
	City Operating Credits	•													
	City Debt Service	!													Each application is unique but to-date,
EST: \$1 MIL	Net City Operating Costs	;	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000			most awarded grants have at least a 50%
in City	City Capital													to community	match meaning we are leveraging a lot of
budgets	City Funding Source			MIL		external funding through this program.									
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)														

														Implem.	
ACTION		TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
INTERNAL C	ARBON TAX	\$75,000		\$52,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500		
	City Operating Cost	S		\$52,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500		
	City Operating Credit	s		-\$2,500	-\$52,500	-\$2,500	-\$2,500	-\$2,500	-\$2,500	-\$2,500	-\$2,500	-\$2,500	-\$2,500		
EST: \$0	City Debt Service	e													Revenue generated through this
estimated	Net City Impac	t	\$0	\$50,000	-\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		program is immediately reivested back
in City	City Capita	l												Arbor	into energy efficiency or renewable energy projects at City faciilties.
budgets	City Funding Source			GF	GF	GF	GF	GF	GF	GF	GF	GF	GF		energy projects at City facilities.
	Other (i.e., philanthropic, state	,													
	federal, pro bono, public-private	9													
	partnership)													

														Implem.	
ACTION	7	TOTAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Respon.	NOTES
OFFSETS		\$9,440,000		\$12,000	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$4,636,650	\$4,636,650		
	City Operating Costs			\$12,000	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$4,636,650	\$4,636,650		
	City Operating Credits	\$9,207,000													
EST:	City Debt Service													City of Ann	
\$233,000	Net City Impact		\$0	\$12,000	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$22,100	\$4,636,650	\$4,636,650		Estimated cost for carbon offsets
in city	City Capital													Offset	
budget	City Funding Source			GF	GF	Organization									
	Other (i.e., philanthropic, state,														
	federal, pro bono, public-private														
	partnership)														

		SUMMARY										
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
TOTAL City Operating Costs	\$7	793,281	\$8,491,870	\$7,119,461	\$6,847,486	\$6,791,186	\$6,719,486	\$6,585,486	\$6,558,986	\$6,529,986	\$11,099,036	\$11,162,036
TOTAL City Operating Credits	- \$	\$17,500	-\$1,305,748	-\$1,078,896	-\$686,682	-\$737,578	-\$788,474	-\$834,370	-\$1,002,770	-\$1,075,170	-\$1,087,570	-\$1,099,970
TOTAL City Debt Service	:	\$0	\$10,656,425	\$3,909,500	\$3,272,000	\$3,272,000	\$3,272,000	\$3,272,000	\$3,272,000	\$3,272,000	\$3,272,000	\$3,272,000
TOTAL Net City Impact	\$7	775,781	\$17,842,547	\$9,950,065	\$9,432,804	\$9,325,608	\$9,203,012	\$9,023,116	\$8,828,216	\$8,726,816	\$13,283,466	\$13,334,066

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	TOTAL City Capital	\$0	\$42,875,075	\$3,612,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL Other (i.e., philanthropic,											
	state, federal, pro bono, public-											
L	private partnership)	\$150,000	\$3,259,500	\$87,588,500	\$455,000	\$41,071,000	\$480,000	\$45,100,000	\$281,000	\$150,000	\$156,000	\$150,000

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