

Stark Area RTA Climate Action Plan

A Commitment to a Greener Tomorrow



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I. Introduction

The Stark Area Regional Transit Authority (SARTA) has compiled a Climate Action Plan to document past, current, and future initiatives to create a greener way of producing and delivering the public transportation services provided to the residents of Stark County. The purpose of this plan is to look back at what has been accomplished, evaluate those undertakings, and look to the future to determine other areas in which SARTA can operate greener vehicles and facilities.

This plan will demonstrate the change in SARTA’s fleet over the past 8-years by evaluating fuel types and fuel consumption during years 2015, 2021, and 2023. This plan evaluates the Greenhouse Gas (GHG) Emissions of the SARTA fleet through this look back where baseline data was created, and periodic comparisons can be made as updates to this plan. The plan will allow future organizational goals to be set that fall in line with current Federal goals for zero-emissions fleets. SARTA’s Climate Action Plan will also discuss facility initiatives that have been undertaken and those that are being considered in order to add to SARTA’s future environmental sustainability.

The Climate Action Plan will also be used to help SARTA evaluate current fleet consumptions of fuel and plan for future sustainable options to keep moving toward a zero-emissions fleet. This document will be a working one that continues to track past and future initiatives that SARTA enacts to achieve net-zero emissions in all aspects of the agency’s existence.



The 2024, update demonstrates areas where SARTA further upgraded the ability to use alternative fuels, expanded the alternative fuel vehicles within the fleet, constructed facilities with energy saving abilities, and planned for future expansions of energy saving and emissions reducing initiatives.

2. Agency Overview

SARTA began in 1997 as the newly funded county-wide public transit provider for Stark County based in Canton, Ohio. Through a dedicated 0.25% sales tax levy – last passed in 2016 for ten (10) years – SARTA was able to provide expanded fixed-route and demand response services to more than just the cities of



Canton and Massillon. Looking to better the public transit options for all Stark County, SARTA began providing countywide service helping people travel to and from other destinations such as Hartsville, Navarre, Alliance, Louisville, and East Canton. Seeing a need to get to further destination such as Akron and Cleveland, SARTA also provides express service to make transfers to other public

transit services. These routes help people move among four (4) counties in the region providing a reduction in single-occupancy vehicle usage as one of the first initiatives in making a more environmentally friendly transit system.

Most recently, SARTA entered a partnership with Community Action of Wayne & Medina Counties (CAW/M) establishing Wayne County Transit (WCT) where county-wide demand response service is being provided to the residents of Wayne County, Ohio. This was originally achieved through the acquisition of \$1 million in 5311 funds and has continued to be supported by the Ohio Department of Transportation (ODOT) for the last two years. SARTA also provides aid to the Carroll County Board of DD helping to provide work-based transportation for several of their clients. Moving people in the most efficient, affordable, and sustainable ways will continue to be the mission of SARTA.



According to the 2020 census, Stark County has a population of 374,853 people and covers 575.27 square miles. SARTA is funded through a local 0.25% 10-year sales tax passed in 2016 as well as state and federal grants and programs when applicable. SARTA runs on a \$15.9 million budget. With the introduction of

WCT, SARTA added second county with a population of 116,710 people and an additional 554.93 square miles in coverage further reducing the number of single-occupancy vehicles travelling on the roads in the region.

SARTA fully operates from its main facility located in Canton, Ohio with four transit centers located in Alliance, Canton, Plain Township, and Massillon. These facilities are also evaluated, along with the fleet, for how best to deliver the most environmentally friendly service possible to the residents of Stark County. Just having these facilities in place allows us to move residents about in an economical fashion where they can travel from community to community with ease.

3. Emissions Inventory

SARTA operates a fleet of 123 vehicles, as of 2023, comprised of a mixture of revenue and non-revenue vehicles. These vehicles run on a variety of fuels where low- to no-emissions has been an organizational goal since 2009 when the first electric hybrid bus arrived on-site. Along with the fleet, SARTA works to ensure its operations and administration facilities run as green as possible where initiatives have been enacted from LED lighting to geo-thermal technology.

SARTA’s fleet is one of the most recognizable in the region. Each bus has a unique livery that illustrates the commitment SARTA has put forth in ensuring service is delivered in the most environmentally friendly way possible. As of 2023, SARTA’s fleet continues to operate 58% of its vehicles as an alternative fuel of hydrogen or CNG or is a hybrid combining an alternative fuel with a fossil fuel. SARTA has managed to continually reduce their fleet that utilizes diesel. Since 2015, a total of 41 diesel vehicles have been removed from SARTA’s fleet lowering diesel consumption by an additional 93,226 gallons over the 183,385 gallons reduced between 2015 and 2021 in the original report.

Line (18)*	CNG ICE Bus	Fleet Total	Difference	Change
1	633	634	217.88	52.38%
6	1	17	-9.43	-35.46%
575	13	1,914	-2285.64	-54.43%
582	647	2,565	-2077.20	-44.75%
97175	0.000286022	0.000659131	-0.000477836	-42.03%

SARTA began running Hybrid vehicles in 2009, Compressed Natural Gas vehicles in 2012, and Hydrogen Fuel Cell technology in 2016 and now has a total of 70 alternative fuel or hybrid vehicles. During 2024, SARTA will take possession of another 30 CNG demand response vans and one additional Hydrogen Fuel Cell bus further offsetting the fossil fuel fleet.

In 2023, SARTA saw further reductions in GHG emissions and fossil fuel consumption. Since the release of the initial inventory data, SARTA saw an additional 12.08% drop in annual emissions and 20.66% per vehicle mile travelled. This brings the total reduction since 2015 up to 42.03% and 44.75%, respectively. As stated above, SARTA reduced its diesel consumption by an additional 93,226 gallons since 2021 bringing

the total reduction in diesel to 276,611 gallons since 2015. It is important to note that vehicle need has increased the use of gasoline over the last two years, however, the accumulated use of fossil fuels is down by 215,932 gallons since 2015. Due to the continued vehicles shortages, SARTA has utilized gasoline vehicles to keep its fleet in good operating condition.

In the original version of this plan, GHG emissions were calculated for years 2015 and 2021. The fuel categories operated by SARTA during those years were 1960-2006 Diesel, 2007-2018 Diesel, Gasoline, Compressed Natural Gas (CNG), and Hydrogen Fuel Cell. In 2015, SARTA operated 107 vehicles in both the revenue and non-revenue fleets. At that time, the fleet consisted of 57% strictly diesel or gasoline powered vehicles and only 43% were some sort of alternative fuel or hybrid technology. By 2021, those numbers began to flip in the other direction where the gasoline and diesel fleet stood at 43% and the alternative or hydrogen and CNG fleet was at 58%. While the 2023 data shows that SARTA's alternative fuel fleet remains at 58%, SARTA continued to add alternative fuel vehicles in this two-year period. See appendices A and B for more GHG and fleet information.

SARTA has worked to build their facilities in the most environmentally friendly ways. Their main campus located in Canton, Ohio has gone through several upgrades over the years and recently upgraded the lighting to LED. SARTA also installed LED lighting at all four transit centers too. This program was benchmarked as well by looking at electric costs in 2015 and again in 2021. This program saved SARTA \$32,819 and reduced their electric bill by 16%. Another way that SARTA remains environmentally sustainable is through its recycling efforts and monitoring paper consumption by encouraging all staff to eliminate unnecessary printing. SARTA is even exploring archiving methods to continue to move toward a paperless operation.



4. Past and Current Initiatives

SARTA's largest endeavors have come in the way of modernizing the fleet's fuel type. It is probably the easiest way an authority can accomplish climate sustainability. As discussed above, SARTA utilized electric hybrid technology starting in 2009, added Compressed Natural Gas in 2012, and finally began investing heavily in Hydrogen Fuel Cell technology in 2016.

At their main facility in Canton, Ohio, SARTA built the largest Hydrogen fueling station in the country, at the time, where buses can be fueled on-site similar to how the traditional diesel fleet is fueled at the end of the service day. This station will go through an upgrade that will increase the pressure, storage capacity, and add point of sale for public consumption in mid- to late-2024. This upgrade will make Hydrogen

available to other fleet operators in the area or those who may be passing through. SARTA's main facility is located just 1.5 miles south of the US 30/I-77 interchange.

For the launch of the Hydrogen Fuel Cell fleet, SARTA placed the largest order for fixed route buses and ordered the first fleet of hydrogen demand response vans. SARTA will continue to utilize the Hydrogen Fuel Cell technology as a way of powering their fleet. Along with the planned fueling capacity, plans for Hydrogen production at SARTA is currently being explored.

2022 would see an increase in CNG powered vehicles. This called for additional fueling capacity. To keep the fueling process running smoothly, additional compressors and dispensers were added so that SARTA staff could fuel up to four buses at a time rather than two with the original design. This helped with the addition of 19 CNG vehicles since 2015 bringing the alternative fuel fleet up to 70 total making the SARTA fleet 58% low- to no-emissions.

Starting in 2025, SARTA will begin utilizing Battery Electric buses for its Cleveland Express route that helps transport Veterans from Stark County to the VA clinic in Cleveland, Ohio. Two MCIs have been ordered to not only make the ride more comfortable for the passengers, but to also further reduce GHG emissions from SARTA vehicles. With these buses being used for service to Cleveland, Ohio, SARTA is contributing to making a more sustainable environment for not only Stark County, but the greater Cleveland area as well. Charging stations will be added to the SARTA garage to help keep these vehicles powered up for the three runs per day that occur between Canton and Cleveland.

SARTA also supports private EV users by placing EV charging stations at their transit facilities. Starting with the Belden Village Transit Center in 2020, SARTA will continue this initiative by adding EV stations at their new Massillon Transit Center and their new Administration Building. Both buildings are scheduled to open Spring, 2024.

SARTA's Belden Village Transit Center also makes use of geothermal technology for climate control purposes. SARTA's current administration building was evaluated for heating and cooling efficiency in early 2022. It was determined that the old system was out-of-date and in need of replacing. Temperatures throughout the building were uneven, the circulation was not balanced, and most of the operating mechanisms such as the rooftop unit were found to be inoperable. SARTA was able to acquire funding to do a complete replacement of this system that will wrap up in early 2024. This was done in two parts with all interior components replaced and the circulation balanced in early 2023 making the building more comfortable and efficient. In early 2024, the final component will be placed which is the main rooftop unit.

SARTA also enacts administrative initiatives as well. The administrative offices have a recycling program. Paper consumption is also monitored to discourage unnecessary printing. SARTA has also spent time exploring ways of incorporating solar power for the administrative facility and utilizing fuel cells to provide that back-up power. In 2021, SARTA wrapped up an organizational-wide LED lighting conversion project where reducing electrical consumption was the goal and it was met with success.

The new Administration Building and the Massillon Transit Center have automated lighting incorporated with it. The HVAC system at Massillon is also being designed so that it will reduce consumption during times the building is not in use. This technology will continue to be the preferred way for SARTA to operate and upgrade their facilities moving forward.

While SARTA does maintain their own environmental goals and initiatives, they also will take note of local, state, and federal initiatives as well. SARTA works closely with their MPO, the Stark County Area Transportation Study (SCATS), to ensure local initiatives can be met for GHG emission reduction. Most notably would be those laid out in this plan as well as goals from SCATS plans too. Currently SARTA puts 73 fixed-route and paratransit vehicles on the road each day transporting approximately 4100 people which helps to reduce congestion within Stark County by reducing single-occupancy vehicles on the road.

5. Emission Reduction Goals and Targets

SARTA began exploring greener service delivery options in 2009 when they introduced electric hybrid technology to the fleet. Since then, it has been a goal to continue moving SARTA in a more environmentally sustainable direction with the addition of CNG in 2012 and Hydrogen Fuel Cell in 2016. Three fueling stations were added to their main property in Canton, Ohio for not only their fleet, but for fueling other fleets that may wish to use this green technology. Other propulsion systems have been utilized as well in the non-revenue fleet such as CNG and CNG hybrids.

Along with CNG and Hydrogen station upgrades, SARTA will continue its commitment to Hydrogen Fuel Cell through its contribution to the Hydrogen Hub Alliance. This alliance will help improve Hydrogen use and production throughout the region, and specifically in Canton, by bringing on-site production to SARTA's main campus. This will strengthen industries in Northeast Ohio and the surrounding regions. It will also allow SARTA to continue to utilize Hydrogen as a fuel source. Currently, Hydrogen is trucked in and stored on-site with no ability to control how green the production and delivery system operates.

SARTA has demonstrated the steps they have taken to reduce GHG emissions since 2015. The overall annual metric tons of carbon dioxide (MTCO₂) have decreased another 12% between 2021 and 2023 in addition to the original drop of 37% between 2015 and 2021. Furthermore, MTCO₂ per vehicle mile travel dropped another 21% over the original 27%. See appendix A for more detail on SARTA's GHG Inventory. SARTA will have no problem achieving new goals further reducing emissions and increasing the fleet to nearly zero-emissions by another 25% by 2027. Below are goals SARTA has set for the fleet and facilities.

- Add another 12 Hydrogen Fuel Cell buses to the fleet by 2027*
- Continue to displace diesel Light Transit Vehicles with CNG until availability of Hydrogen Fuel Cell vans grow*
- Reduce our GHG emissions by another 37% by 2027*
- Continue future service planning with GHG reduction goals in mind*
- Continue facilities planning with zero-emissions goals in mind*
- Add solar to main property to power not only the building, but the fueling stations as well allowing for a greener way to fuel the fleet*
- Begin monitoring all energy consumption closely and creating new benchmarks by 2027*

6. Strategies and Actions

Goal #1: By 2027, reduce fleet reliance on strictly diesel and gasoline by a further 15%

Strategy	Actions	Metric to track progress	Timeframe	Responsible Office
CNG and				Development
	Develop Zero-Emissions Bus Transition Plan	Y/N plan developed	May 2022	Development
				Transportation
	Purchase of only CNG or Hydrogen fueled non-revenue vehicles	Number of vehicles purchased	2022-2025	Transportation

Goal #2: By 2030, begin producing Hydrogen on-site decreasing need for delivery of one fuel type

Strategy	Actions	Metric to track progress	Timeframe	Responsible Office
Construct an on-site hydrogen production facility	Acquire funding for hydrogen production station	Y/N funded	April 2024	Executive
	Select a design firm to develop hydrogen station	Y/N contract implemented	End 2024	Development
	Bid and Build HSR station	Y/N notice to proceed with construction	End 2024	Finance
	Expand SARTA and public use of hydrogen station	Number of vehicles fueled	August 2024	Development

Goal #3: By 2030, begin introducing other sustainable energy sources to facilities

Strategy	Actions	Metric to track progress	Timeframe	Responsible Office
All future buildings to be at or approaching carbon net-neutral	Future buildings to be built to handle solar	Y/N for builds	Ongoing	Development
	Current buildings to be evaluated for the use of solar	Y/N for current buildings	2022	Development
	Incorporate solar into build of hydrogen station	Y/N	End 2024	Development
	Monitor and evaluate current buildings for energy consumption	Cost	Ongoing	Finance
	Construction of a micro-grid for redundancy using fuel cells	Y/N	Summer 2025	Development

7. Implementation and Monitoring

SARTA has already begun investing in Hydrogen Fuel Cell technology to create a more environmentally friendly fleet. This is in addition to the long-standing use of CNG. Both on-site stations will be undergoing renovations and expansions beginning in 2022. SARTA has even helped form the Midwest Hydrogen Center of Excellence. This is a hydrogen hub alliance for those looking to utilize this clean form of fueling, raising awareness, and providing outreach. SARTA's borrow a bus program has allowed for many transits across fifty (50) cities and two (2) countries test out a public transit vehicle powered on Hydrogen Fuel Cell technology. SARTA buses continue to be borrowed and fleets across the nation have begun building their own stations and procuring Hydrogen Fuel Cell buses as a result.

The next step in SARTA's use of Hydrogen Fuel Cell technology will be to bring on-site production to SARTA. By producing the fuel on-site, SARTA will continue to reduce the amount of GHG emitted by fuel delivery vehicles delivering hydrogen and diesel. SARTA has even begun exploring streetcar service to be powered through Hydrogen Fuel Cell technology. Should on-site production be achieved, SARTA will have a second fuel source in addition to CNG provided without the use of a delivery service. The Hydrogen production would also allow SARTA to create back-up power for their facility and the surrounding community.

Hydrogen being made available through the hub in Ohio will allow other industries to take advantage of this clean fuel source. Everything from steel and glass production to Cummins entering a new era of powering vehicles can benefit through the use of Hydrogen.

The introduction of twelve large Hydrogen Fuel Cell buses to the SARTA fleet between 2016 and 2021 has enabled SARTA to greatly reduce GHG emissions. SARTA will add one more fuel cell bus to the fleet in 2024 and continue monitoring the GHG emissions on a regular interval to determine the success of this climate challenge and zero-emission program. SARTA will also be utilizing CNG to propel the demand response fleet while the Hydrogen Fuel Cell technology catches up for the smaller vehicles.

Monitoring SARTA's GHG emissions will be done through future versions of this plan and periodic updates such as this one. Just two years after the original GHG Inventory was taken for SARTA significant drops in GHG emissions continue to be seen. In the attached appendices are the charts and calculations used based on the requirements of the FTA. Other calculations have been completed that will allow a tracking of the fleet by fuel type. While the fleet has grown from 2015 to 2023, SARTA has reduced the number of gallons of diesel by increasing the use of Hydrogen and CNG.

SARTA facilities continue to be evaluated and green technologies implemented. Through the use of automated lighting, LED lighting, geothermal technology, Hydrogen, and solar power, SARTA will continue to provide a service that is environmentally conscious even beyond the fleet composition.

Appendix A: Greenhouse Gas Inventory

Below is the SARTA Greenhouse Gas Emissions Inventory for years 2015 and 2021 with calculations for the change in GHG emissions. Calculations were also done for showing the reduction in fuel consumption for the two years. The increase in gasoline can be attributed to the increase in the non-revenue fleet where gasoline is more readily available for vehicles of this size.

2015 Annual Emissions

2015	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total
CH4 Emissions (grams)	1,659	21,003	2,073	14,830,670	14,855,405
N20 Emissions (grams)	1,561	95,288	2,073	1,483	100,405
CO2 (grams)	712,790,730	3,437,257,760	42,187,900	7,220,913	4,199,457,303
2015	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total
CH4 Emissions (grams) to MTCO2e	0	0.59	0	415	416
N20 Emissions (grams) to MTCO2e	0	25.25	1	0	27
CO2 (grams) to MTCO2e	713	3,437.26	42	7	4,199
Annual MTCO2e	713	3,463.10	43	423	4,642
Annual MTCO2e per VMT	0	0.00156641	0.00067305	0.000285134	0.001136967

2021 Annual Emissions

2021	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total	Difference	Change
CH4 Emissions (grams)	11	14,260	5,630	18,354,860	18,374,762	3519356.89	23.69%
N20 Emissions (grams)	10	64,697	5,630	1,835	72,174	-28231.35	-28.12%
CO2 (grams)	5,564,450	2,272,123,190	96,896,080	9,148,459	2,383,732,179	-1815725123.74	-43.24%
2021	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total	Difference	Change
CH4 Emissions (grams) to MTCO2e	0	0.40	0	514	514	98.54	23.69%
N20 Emissions (grams) to MTCO2e	0	17.14	1	0	19	-7.48	-28.12%
CO2 (grams) to MTCO2e	6	2,272.12	97	9	2,384	-1815.73	-43.24%
Annual MTCO2e	6	2,289.67	99	524	2,917	-1724.66	-37.15%
Annual MTCO2e per VMT	0	0.001525327	0.000570582	0.000285249	0.000830809	0.00	-26.93%

Fleet Miles and Fuel Consumed											
Year	Diesel Bus MY1960-2006		Diesel Bus MY 2007-2018		Gasoline Bus		CNG Bus			Hydrogen	
	gallons	VMT	gallons	VMT	gallons	VMT	GGE	Cubic Feet	VMT	kg	VMT
2015	69,813	325,307	336,656	2,210,849	4,805	63,584	260,059	132,630	1,483,067	0	0
Year	Diesel Bus MY1960-2006		Diesel Bus MY 2007-2018		Gasoline Bus		CNG Bus			Hydrogen	
	gallons	VMT	gallons	VMT	gallons	VMT	GGE	Cubic Feet	VMT	kg	VMT
2021	545	2,164	222,539	1,501,099	11,036	172,711	329,479	168,034	1,835,486	40,761	230,261
	Diesel				Gasoline		CNG			Hydrogen	
Difference	-	-			6231	109,127	69,420	35,404	352,419	40,761	230,261
Change	-45.12%	-40.73%			129.68%	171.63%	26.69%	26.69%	23.76%	100.00%	100.00%

For the 2024 update, SARTA added the year 2023 to the inventory to benchmark the fleet's GHG emissions as well as the make up by fuel type. Below are the results of the GHG evaluation and the fuel consumption for 2021-2023.

2021 Annual Emissions

2021	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total
CH4 Emissions (grams)	11	14,260	5,630	18,354,860	18,374,762
N2O Emissions (grams)	10	64,697	5,630	1,835	72,174
CO2 (grams)	5,564,450	2,272,123,190	96,896,080	9,148,459	2,383,732,179
2021	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total
CH4 Emissions (grams) to MTCO2e	0	0.40	0	514	514
N2O Emissions (grams) to MTCO2e	0	17.14	1	0	19
CO2 (grams) to MTCO2e	6	2,272.12	97	9	2,384
Annual MTCO2e	6	2,289.67	99	524	2,917
Annual MTCO2e per VMT	0	0.001525327	0.000570582	0.000285249	0.000830809

2023 Annual Emissions

2023	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total	Difference	Change
CH4 Emissions (grams)	11	8,538	23,797	22,604,490	22,636,836	4262073.79	23.20%
N2O Emissions (grams)	10	38,734	23,797	2,260	64,802	-7371.52	10.21%
CO2 (grams)	7,463,510	1,318,386,670	574,949,520	13,013,908	1,913,813,608	469918570.59	19.71%
2023	Diesel Bus MY1960-2006	Diesel Bus MY07-18	Gasoline Bus (MY18)*	CNG ICE Bus	Fleet Total	.	Change
CH4 Emissions (grams) to MTCO2e	0	0.24	1	633	634	119.34	23.20%
N2O Emissions (grams) to MTCO2e	0	10.26	6	1	17	-1.95	10.21%
CO2 (grams) to MTCO2e	7	1,318.39	575	13	1,914	-469.92	19.71%
Annual MTCO2e	7	1,328.89	582	647	2,565	-352.53	12.08%
Annual MTCO2e per VMT	0	0.001478666	0.000797175	0.000286022	0.000659131	-0.000171677	20.66%

Fleet Miles and Fuel Consumed

Year	Diesel Bus MY1960-2006		Diesel Bus MY 2007-2018		Gasoline Bus		CNG Bus			Hydrogen	
	gallons	VMT	gallons	VMT	gallons	VMT	GGE	Cubic Feet	VMT	kg	VMT
2021	545	2,164	222,539	1,501,099	11,036	172,711	329,479	168,034	1,835,486	40,761	230,261
Year	Diesel Bus MY1960-2006		Diesel Bus MY 2007-2018		Gasoline Bus		CNG Bus			Hydrogen	
	gallons	VMT	gallons	VMT	gallons	VMT	GGE	Cubic Feet	VMT	kg	VMT
2023	731	2,071	129,127	898,709	65,484	729,980	468,692	239,033	2,260,449	62,308	338,368
	Diesel				Gasoline		CNG			Hydrogen	
Difference	-93,226	-602,483			54,448	557,269	139,213	70,999	424,963	21,547	108,107
Change	-41.79%	-40.08%			493.37%	322.66%	42.25%	42.25%	23.15%	34.58%	31.95%

Appendix B: Vehicle Inventory by Fuel Type

Below are tables illustrating the SARTA fleet by fuel type then by fuel class where the fuel types were grouped together based on expected levels of emissions.

2015-2021 Vehicle Count by Fuel Type

	<u>2015</u>	<u>% Fleet</u>	<u>2021</u>	<u>% Fleet</u>	<u>Difference</u>	<u>% Change</u>
1960-2006 Diesel	8	7.48%	1	0.88%	-7	-87.50%
2007-2018 Diesel	46	42.99%	32	28.32%	-14	-30.43%
Gasoline	7	6.54%	15	13.27%	8	114.29%
CNG	39	36.45%	48	42.48%	9	23.08%
Hydrogen	0	0.00%	12	10.62%	12	
Diesel/Electric	4	3.74%	2	1.77%	-2	-50.00%
Gasoline/CNG	3	2.80%	3	2.65%	0	0.00%
Total	107		113		6	5.61%

2015-2021 Vehicle Count by Fuel Class

	<u>2015</u>	<u>% Fleet</u>	<u>2021</u>	<u>% Fleet</u>	<u>Difference</u>	<u>% Change</u>
Fossil	61	57.01%	48	42.48%	-13	-21.31%
Alternative	39	36.45%	60	53.10%	21	53.85%
Hybrid	7	6.54%	5	4.42%	-2	-28.57%
Total	107		113			

For 2024, SARTA updated their fleet and fuel classification to show the change in fleet over the last 8 years. Below are the charts showing the breakdowns of the various fuel types utilized by SARTA.

2015-2023 Vehicle Count by Fuel Type

	<u>2015</u>	<u>% Fleet</u>	<u>2023</u>	<u>% Fleet</u>	<u>Difference</u>	<u>% Change</u>
1960-2006 Diesel	8	7.48%	1	0.81%	-7	-87.50%
2007-2018 Diesel	46	42.99%	22	17.89%	-24	-52.17%
Gasoline	7	6.54%	29	23.58%	22	314.29%
CNG	39	36.45%	58	47.15%	19	48.72%
Hydrogen	0	0.00%	12	9.76%	12	#DIV/0!
Diesel/Electric	4	3.74%	1	0.81%	-3	-75.00%
Gasoline/CNG	3	2.80%	0	0.00%	-3	-100.00%
Total	107		123		16	14.95%

2015-2023 Vehicle Count by Fuel Class

	<u>2015</u>	<u>% Fleet</u>	<u>2023</u>	<u>% Fleet</u>	<u>Difference</u>	<u>% Change</u>
Fossil	61	57.01%	52	42.28%	-9	-14.75%
Alternative	39	36.45%	70	56.91%	31	79.49%
Hybrid	7	6.54%	1	0.81%	-6	-85.71%
	107		123			