

PSTA



STEERING TOWARD A SUSTAINABLE FUTURE

SUSTAINABLE STRATEGIC PLAN
Pinellas Suncoast Transit Authority

Final, March 2021






PSTA riders waiting for transit service (Source: PSTA)


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PSTA's newest additions to the growing electric bus fleet promoting cleaner air for all. (Source: PSTA)

MESSAGE FROM THE CEO

In an environment of ongoing transit funding challenges, a global pandemic, and climate change affecting our coastal community, it is more important than ever that the Pinellas Suncoast Transit Authority (PSTA) integrate environmental, financial, and social sustainability in all areas of the agency. This includes contributing to the resiliency of our community, being fiscally responsible, and strengthening the access to jobs, educations, medical services and other life sustaining activities in a way that shows our respect for diversity and commitment to inclusion.

While PSTA has implemented numerous sustainability-related policies and projects over the last five years, I am excited to introduce this first formal PSTA Sustainable Strategic Plan (SSP) that will strategically guide decision making into the future.

PSTA began implementing sustainability initiatives in 2014, upon becoming a Founding Signatory to the American Public Transportation Association (APTA) Sustainability Commitment Program. This Plan builds upon our participation in the APTA Sustainability Commitment Program by addressing energy conservation, climate change, waste reduction, sustainable purchasing practices, financial sustainability, and a healthy and resilient workforce and community.

The SSP was developed through extensive collaboration with leaders from across the agency and features three overarching focus areas and their sub-areas:

- Healthy Community and Workforce – Resilience; Safety & Security; Diversity, Equity & Inclusion; Community Engagement; Customer Service; Workforce Training & Wellbeing.
- Environmental Sustainability – Energy; Water; Waste & Recycling; Greenhouse Gas Emissions & Criteria Air Pollutants.
- Economic Vitality – Ridership and Mobility; Operating Expenses; Procurement; Capital Projects.

The SSP identifies existing sustainability practices in each of these areas and new policies, practices, and projects that can be implemented to ensure a more sustainable future for PSTA and our community. PSTA's provision of providing a transportation alternative to the single occupancy vehicle is and always will be our primary sustainability initiative. The implementation of the SSP will demonstrate PSTA's commitment to sustainability in every aspect of our agency both internally and for our larger Pinellas County community in lasting and meaningful ways. I am pleased now to share it with you.

Sincerely,

Brad Miller, CEO
Pinellas Suncoast Transit Authority



Brad Miller, Chief Executive Officer, PSTA

Acronyms and Abbreviations

ADA	Americans with Disabilities Act	OPS	Transportation Operations
APTA	American Public Transportation Association	PL	Planning
BE	Business Enterprise	PMO	project management
BESS	battery energy storage system	PR	Procurement
BM	Benefits	PSTA	Pinellas Suncoast Transit Authority
BRT	bus rapid transit	PTASP	Public Transportation Action Safety Plan
CAP	criteria air pollutant	PV	photovoltaics
COOP	Continuity of Operations Plan	RH	revenue hours
CS	Customer Service	RM	risk management
DBE	Disadvantaged Business Enterprise	SBE	Small Business Enterprise
EPA	U.S. Environmental Protection Agency	SMS	Safety Management System
EX	Executive (CEO) office	SSP	Sustainable Strategic Plan
FDOT	Florida Department of Transportation	SST	Safety, Security, and Training
FM	Facilities Maintenance	TAMS	Transit Asset Management System
FN	Finance	TBL	triple-bottom-line
FTA	Federal Transit Administration	TD	transportation disadvantaged
FY	fiscal year	TNC	transportation network companies
GHG	greenhouse gas	UPASS/CPass	University and Corporate Pass Program
HR	Human Resources	UPT	unlinked passenger trips
HSE	health, safety, and environment	VBE	Veteran-Owned Business Enterprise
HVAC	heating, ventilation, and air conditioning	VMT	vehicle miles travelled
IT	Information Technology	WBE	Women-Owned Business Enterprise
kW	kilowatt		
LED	light-emitting diodes		
LEED	Leadership in Energy and Environmental Design		
MaaS	Mobility as a Service		
MBE	Minority-Owned Business Enterprise		
M&C	Marketing and Communications		
MN	Maintenance		
MO	Mobility		
MW	megawatt		
MWh	megawatt-hour		



A public awareness campaign called PSTA CARES using the acronym Community Awareness Results in Everyone's Safety to educate Pinellas County residents about the importance of safety on and around PSTA transit vehicles. (Source: PSTA)

EXECUTIVE SUMMARY

Pinellas Suncoast Transit Authority (PSTA) is the main transit operator in St. Petersburg, Clearwater, and throughout Pinellas County, Florida, and has developed its first Sustainable Strategic Plan (SSP). The plan, developed through a series of workshops with employees and stakeholders, provides a clear framework for implementing sustainable projects and actions to meet PSTA’s goals. This bold, new plan will support PSTA to be a leader in sustainable transit, establish a resilient service for the community, and support diversity and inclusion, to name just a few of the many benefits of the SSP.

Approach to the Triple Bottom Line

The SSP incorporates a holistic approach to sustainability using the triple bottom line (TBL)—Healthy Community and Workforce, Environmental Sustainability, and Economic Vitality. The plan establishes short-, medium-, and long-term goals along with key metrics to measure performance or progress over time. Furthermore, the plan defines, initiates, and advances sustainability to fully align with the American Public Transportation Association’s (APTA) Sustainability Commitment Program in the following strategic focus areas: energy, water, waste, greenhouse gases, and criteria air pollutants. PSTA’s guiding principles are expanded in the SSP to address Workforce Training and Well-being, Environmental Sustainability, and Economic Vitality.

Stakeholder Engagement

Stakeholder engagement is an essential component in the preparation of the SSP. PSTA engaged a diverse group of internal PSTA stakeholders and staff to help develop the SSP in an open, transparent process. The process included interviews, action-oriented workshops with broad participation of numerous PSTA divisions, and focus group meetings.

Goals / Stretch Goals

Each of the TBL sections, Healthy Community and Workforce, Environmental Sustainability, and Economic Vitality, identify multiple goals and stretch goals. Stretch goals are identified to expand PSTA’s level of performance and might take longer to implement or execute. Each goal identified includes a performance target and target year. Goals are described in Chapters 2-4 and summarized in Appendix A.

Projects / Actions

Projects and/or actions have been identified for each goal and have been prioritized. The projects and/or actions may be construction-oriented projects, plans and procedures, or policies and programs. Each project has been identified with PSTA staff through extensive stakeholder engagement and addresses all aspects of the TBL. Projects/actions are found in Chapters 2-4 and summarized in Appendix B.

Roadmap for Implementation

Within each TBL section, Healthy Community and Workforce, Environmental Sustainability, and Economic Vitality, a roadmap for implementation has been summarized (see Chapters 2-4) to include goals addressed, responsible lead department and supporting department, time horizon (short-, medium-, and long-term), relative cost to implement [low (\$), medium (\$\$), high (\$\$\$)], and how the TBL has been addressed. The roadmap strives to target relatively low cost and high impact projects and/or actions with multiple co-benefits.

Vision Forward

PSTA has taken a bold leap forward toward achieving sustainable transit service by purchasing its first electric buses in the past few years, and planning to purchase more electric buses in the years ahead. Furthermore, PSTA has a strong vision going forward to become a more sustainable resilient agency to better serve Pinellas County, including its largest cities of St. Petersburg and Clearwater, 22 other cities of varying size, and unincorporated Pinellas County. Execution and implementation of the SSP will be led by the Planning department with support from all departments and employees. By executing the roadmap for implementation identified in the SSP, PSTA will become more sustainable and resilient and will be able to better support customers, staff, and the greater community over the long term.



Groundbreaking of SunRunner, the region's first Bus Rapid Transit (BRT) line (Source: PSTA)



CHAPTER 1: INTRODUCTION

Pinellas Suncoast Transit Authority (PSTA) is the main transit operator in Pinellas County, Florida, including St. Petersburg, Clearwater, and 22 other local jurisdictions, and unincorporated Pinellas County, Florida. PSTA operates 36 local fixed-route bus routes, two trolley routes, and two express routes that connect to downtown Tampa. PSTA also contracts with the Jolley Trolley and Looper Group, Inc. to operate the North County Coastal trolley route, two Clearwater Beach trolley routes, and the downtown St. Petersburg Looper trolley route. PSTA also contracts with private operators for its ACCESS paratransit service.

As a transit agency that operates in the most densely populated county in Florida, PSTA is committed to making a meaningful difference in

the community in which it operates, works, and lives. PSTA believes in fostering a culture of collaboration and continual improvement in its operations, and PSTA's efforts in sustainability are reflective of that. PSTA has made great strides toward realizing the triple bottom line (TBL) by targeting a Healthy Community and Workforce, Environmental Sustainability and Economic Vitality.

Pinellas County is the most densely populated county in Florida, and St. Petersburg is the largest city in the county, both in terms of population and geography.

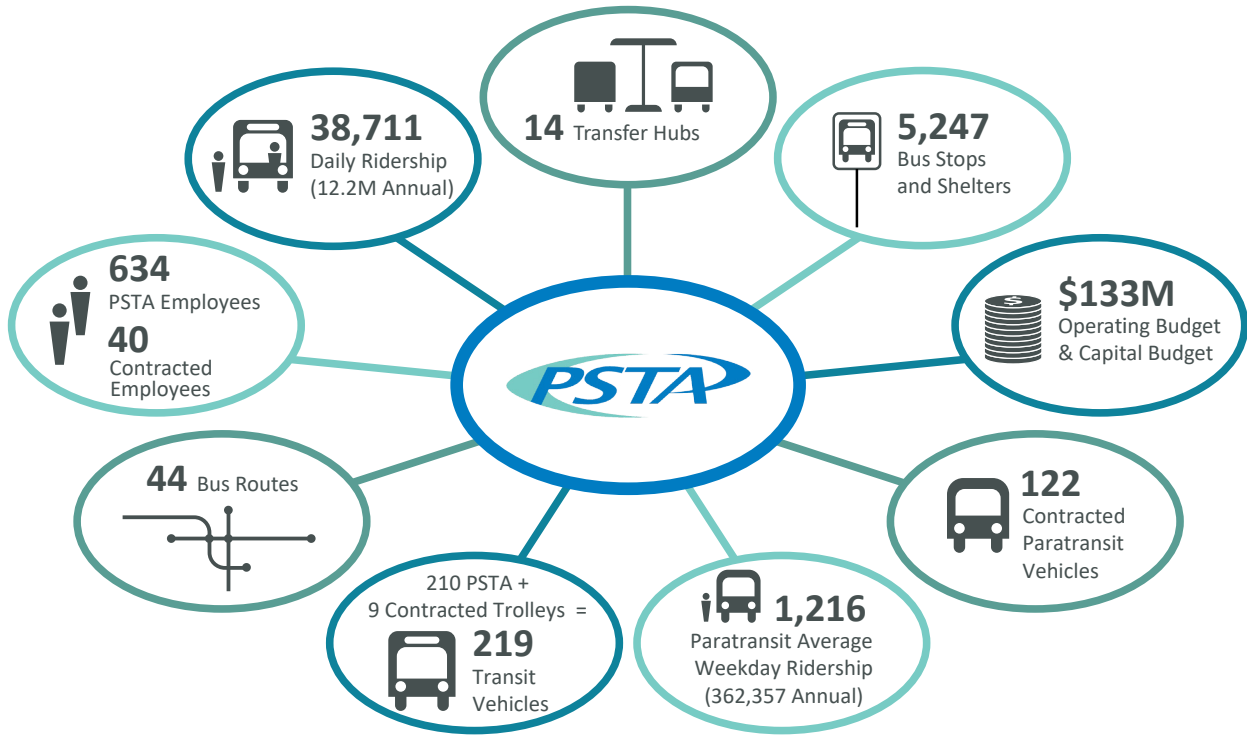


Figure 1: PSTA at a glance (Data Source: PSTA Facts and Figures FY19)

SUSTAINABLE STRATEGIC PLAN (SSP) BACKGROUND

PSTA can shape its future environmental footprint by making impactful changes in its daily operations and strategizing capital investments. The PSTA Sustainable Strategic Plan (SSP) is a key step in that direction. The SSP provides a framework for effectively implementing strategies and projects that address all three aspects of the TBL—Healthy Community and Workforce, Environmental Sustainability, and Economic Vitality. The plan establishes short-, medium-, and long-term goals along with key metrics to measure performance or progress over time. Furthermore, the plan defines, initiates, and advances sustainability to

fully align with the American Public Transportation Association (APTA) Sustainability Commitment in the following strategic focus areas: energy, water, waste, greenhouse gases (GHG), and criteria air pollutants (CAP).

This plan is intended to complement PSTA's existing scorecard-based performance management system called *Performance Counts*, which focuses on the following five key strategic areas: Community Support, Financial Stability, Customer Satisfaction, Employee Engagement, and Commitment to Performance. It is built on a similar approach wherein each of the sections consists of a set of metrics that support the corresponding strategic area.



Figure 2: SSP Approach Roadmap, Energy example (Source: AECOM)

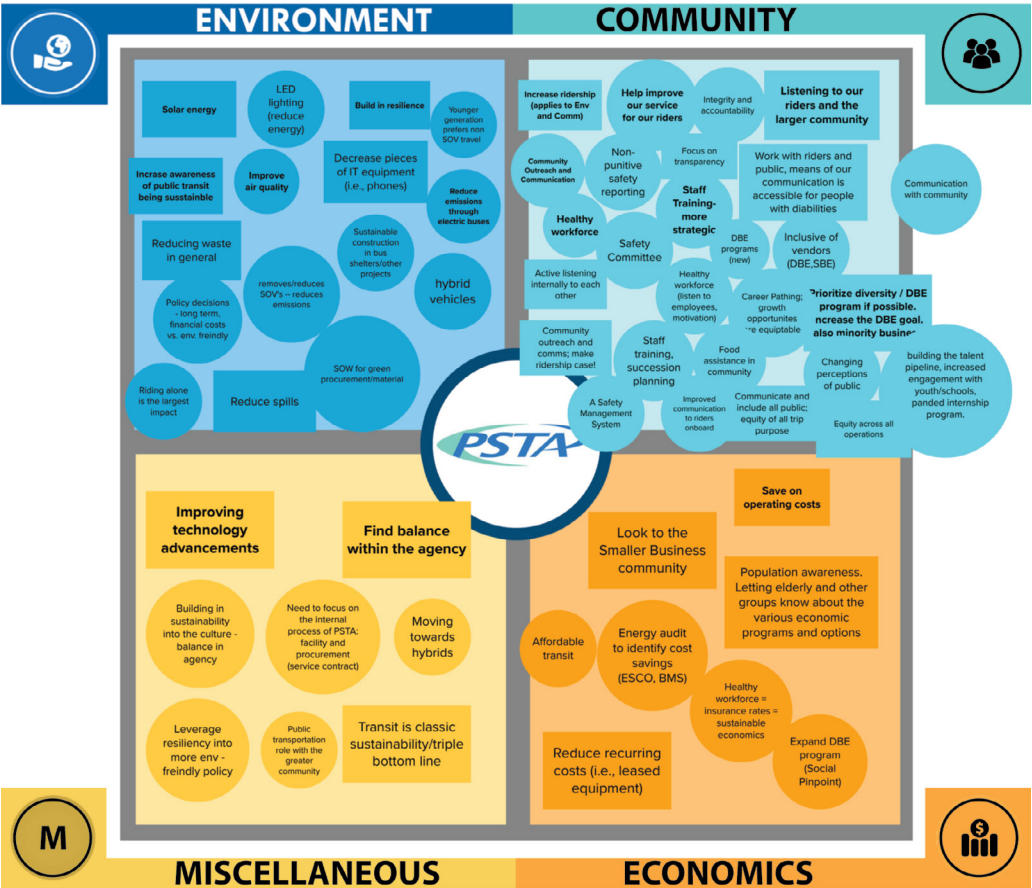


Figure 3: Guiding Principles MURAL exercise based on a TBL approach conducted during Sustainability Working Group Workshop (Source: PSTA and AECOM)

SSP GUIDING PRINCIPLES

Guided by the TBL approach and its mission, PSTA established the following principles to guide the SSP. These principles are grounded in an effort to rigorously track and monitor key sustainability metrics and performance indicators over time. Specific action items and projects are identified and prioritized through the development of the SSP effort to support the implementation phase.

Overall Guiding Principles

- Support PSTA’s vision and mission with a TBL approach to sustainability.
- Build sustainability into the culture of PSTA.
- Incorporate innovation.

Healthy Community and Workforce

- Demonstrate commitment toward community.
- Prioritize diversity and inclusion.
- Continue to improve service for riders.
- Continue to improve safety, security, and resilience.
- Invest in employee growth and development.
- Prioritize employee wellness.

Environmental Sustainability

- Continue resource conservation (i.e., energy, water, waste).
- Reduce emissions.

Economic Vitality

- Continue to increase ridership.
- Maintain affordable transit and mobility options.
- Improve operational efficiency.

SSP PROCESS

Stakeholder engagement was an essential component in the preparation of the SSP. PSTA engaged a diverse group of internal PSTA stakeholders and staff to help develop the SSP and engage in an open, transparent process. At various steps of the SSP development, the team performed the following:

- Leadership interviews and action-oriented workshops with broad participation of numerous PSTA departments. Four sustainability group workshops were conducted that featured group exercises, brainstorming sessions, and interactive presentations.
- Focus group meetings with PSTA subject matter experts on technical topics. Meetings were geared toward detailed discussions with selected PSTA staff on specific items or individual focus areas to understand the current resources and challenges.
- Reviewed peer agency case study research findings and best practices to inform PSTA’s position in the industry, establish a practical baseline, and set achievable targets and applicable strategies that could help PSTA meet those targets.

APTA SUSTAINABILITY COMMITMENT AND ABOUT THE DATA

PSTA participates in APTA’s Sustainability Commitment Program, which requires annual reports and progress toward sustainability goals. In 2019, PSTA was awarded the Silver recognition level. PSTA will work to improve on environmental sustainability metrics and implement identified action items with the goal of receiving Gold level recognition.

A primary goal of developing the SSP is to collect and analyze data to track PSTA’s progress in achieving sustainability goals, while following APTA guidelines for sustainability reporting.

Resource consumption data and historical trends per fiscal year (FY) have been studied to provide an update on the organization’s performance and its contribution to the reduction of GHG as well as air pollutants.

Data related to the APTA indicators are organized by fiscal year per the *Recommended Practice for Quantifying and Reporting Transit Sustainability Metrics*, as developed by APTA. The indicator areas include the following:

- Water use.
- Energy use.
- Waste and recycling.
- CAP emissions.
- GHG emissions.
- Operating expenses.

APTA recommends that transit agencies select the appropriate normalization factors to provide a better context for their operations and sustainability performance. As the main transit agency that operates in the most densely populated county in Florida, PSTA’s goal is to provide efficient and effective transit services for Pinellas County. The SSP focuses on unlinked passenger trips (UPT), vehicle miles travelled (VMT), and revenue hours (RH) as the primary normalization factors to evaluate the balance of PSTA service expansion and sustainability impact. The social and financial aspects of PSTA’s sustainability program are tracked primarily through PSTA’s *Performance Counts Scorecard*.

PSTA participates in APTA’s Sustainability Recognition Program which requires annual reports and progress toward sustainability goals. In 2019, PSTA was awarded the Silver recognition level.






Figure 4: PSTA Divisions participating in the SSP Development (Source: PSTA and AECOM)

SSP DOCUMENT STRUCTURE

The SSP document is structured to reflect the vision statement of achieving TBL goals while delivering robust public transit services for the region. The document is organized by three TBL categories as listed below:

- Healthy Community and Workforce.
- Environmental Sustainability.
- Economic Vitality.

For each category, the SSP expands on multiple topics based on workshops and input from representatives of various PSTA departments. Each topic is structured with the following:

- Goals.
- Projects and Actions.
- Implementation Roadmap.

The Implementation Roadmap in each section identifies each project by priority level, what goal it supports, responsible parties, time horizon, relative cost to implement [Low (\$), Medium (\$\$), High (\$\$\$)], and how well the project addresses the TBL.

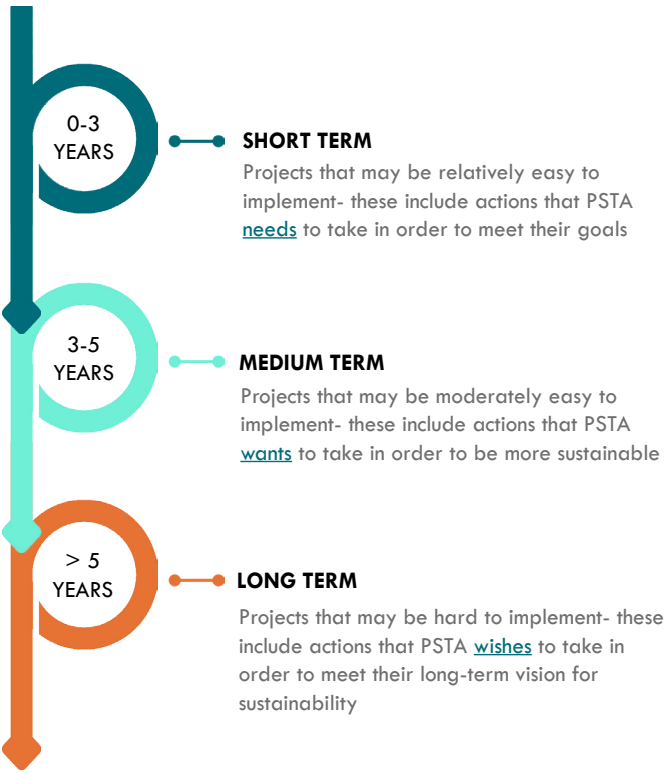


Figure 5: Time horizon for project implementation

The last section of the SSP is Vision Forward, providing a summary of goals and next steps for implementing the SSP. The Appendix includes a summary matrix of all goals and projects and/or action items.



PSTA Staff Juan Luvian showing elementary students how to ride the bus (Source: PSTA)



Chapter 2: Healthy Community and Workforce

PSTA's TBL approach to sustainability includes addressing community and workforce opportunities. These opportunities identify a wide range of goals and supporting strategies, including implementing resilience strategies to support continuity of transit service and reduced risks of climate change, promoting safety and security for riders and employees, expanding community engagement, improving customer service, expanding workforce training opportunities, and enhancing the well-being of the community and employees.

RESILIENCE

Being located on the Gulf Coast of Florida, PSTA has regularly considered and tested its resilience strategies for hurricanes and other coastal weather events. Even during the development of the SSP, PSTA's ability to continue service during difficult and uncertain times was tested by the COVID-19 pandemic (see page 8 for more about the COVID-19 response). These experiences have emphasized the need to adequately prepare and plan for shocks and stresses to PSTA's systems. PSTA is stronger and more resilient because of these experiences and has incorporated many lessons learned into the SSP.

As the community continues to grow and evolve, the Resilience section of the SSP will encourage PSTA to work with stakeholders across the Tampa Bay region to prepare for anticipated increased occurrence of shocks, such as hurricanes and infrastructure failures, as well as to mitigate stresses, such as sea level rise, extreme heat days,

PSTA'S DEFINITION OF RESILIENCE:

The capacity for PSTA to respond, adapt, and continue to provide safe and functional service to riders in the event of an acute shock or chronic stressor (Adapted from 100RC and AASHTO-TRB)

and economic inequities. Key successes to date regarding resilience at PSTA include the following:

- Reaching an agreement with the local school board to use their parking lots as higher ground during potential flooding or storm surge events. PSTA can safely store buses that could be at risk in its lower-lying parking lots.
- Responding quickly to the COVID-19 pandemic. PSTA was able to continue service while protecting its employees and riders. The Information Technology (IT) department was able to quickly change PSTA's processes to allow more employees to work from home.
- Updating the Continuity of Operations Plan (COOP) to continue service under all conditions.

By meeting the goals set forth in the SSP, PSTA can become more resilient to serve the surrounding communities with much needed transportation services.

COVID-19 Response

Keeping employees safe and transporting passengers safely

During the COVID-19 pandemic, PSTA’s main focus has been on keeping its employees safe and passengers safely moving to essential jobs and services. To do so, PSTA finished installing operator barriers on all buses, went fare free to prevent grouping at the farebox, required rear door boarding, provided and required face coverings for operators and passengers, reduced maximum capacity on buses, cordoned off the front of the bus for wheelchair passengers only, and reduced service to ensure PSTA would have the operators needed to run service daily. Because of service reductions and the reduced capacity on buses, some customers were unable to make their trips. To minimize this, PSTA analyzed ridership data and customer complaints to deploy buses as needed on higher ridership routes. PSTA also created the Essential Workers program to provide door-to-door service on Uber, taxi, or wheelchair van for people unable to take the bus due to COVID-19 restrictions.

Since March, PSTA has distributed more than 60,000 masks, bandanas, and other personal protective equipment.

Between March and September 2020, PSTA provided more than 1,400 trips through its Essential Workers program designed for riders affected by service reductions or capacity limitations to make sure they could still get to their essential jobs in manufacturing, food service, healthcare, and the service industry.

“We have all been impacted in some shape or form due to this pandemic, but there are essential workers who still need to get to work who rely on us to get them there,” said Brad Miller, Chief Executive Officer of PSTA. “This program will help those workers still get to their jobs so they can continue making the critical items needed to fight this virus.”



PSTA patron waiting at Grand Central Station for a bus to his essential services job (Source: PSTA)

GOALS

Below is a list of resilience goals identified through a series of workshops with PSTA stakeholders and employees.

Goal	Resilience Goal Description	Target	Target Year
1	Integrate resilience into operations and planning decisions	50% of capital projects and protocols screened	FY23
2	Enhance participation with external stakeholders to enhance resilience	50% of capital projects to have external stakeholder participation	FY25
3	Reduce risks of climate change to ensure passenger service and business continuity	Establish process to log complaints related to thermal comfort or flooding	FY23
		Zero reports of preventable negative impact to PSTA facilities and fleet due to flooding or extreme heat	FY27 (5-7 year goal)
STRETCH GOAL	Develop plan to build redundancy into systems (solar facilities, IT), minimize length of time before service is fully restored		FY25



PSTA bus at Grand Central Station wrapped in partnership with Visit St. Petersburg/Clearwater to encourage health and safety during the COVID-19 pandemic (Source: PSTA)

PROJECTS AND ACTIONS

The highlighted projects target increasing PSTA’s resilience to both major shocks (e.g., hurricanes, security breaches) and chronic stressors (e.g., temperature change, sea level rise). This plan approaches resilience from multiple perspectives, which are captured in the project initiatives developed through working sessions with PSTA staff and department leads.

Project 1: Develop a mobile dispatch center

A mobile dispatch center would build redundancy into PSTA’s safety and security by serving as backup for temporary operations if primary PSTA buildings are impacted by any event.

PSTA plans to convert two buses, one for administration and one for operations, to serve as “on the go” mobile dispatch centers. By converting buses instead of buying new vehicles, PSTA is focusing on its environmental impact. This project includes the following benefits:

- Minimizes use of virgin materials by repurposing old buses.
- Reduces response time and increases readiness.

This project will be led by the Maintenance department with support from IT and Transportation Operations (Safety, Security, and Training).

Project 2: Update the COOP to fully integrate resiliency

PSTA’s COOP provides planning and program guidance to ensure that PSTA can conduct its essential functions under all environmental conditions. PSTA aims to update the COOP to integrate resiliency language and initiatives that address a range of shocks and stressors, including those caused or exacerbated by climate change. For example, the update can specifically identify strategies for PSTA facilities and fleet to minimize/avoid the impact of flooding or extreme heat events, both of which are projected to increase in intensity and frequency in the region. By adding

PSTA Project Prioritization

High

Medium

Low

RESILIENCE

Project 1: Develop a mobile dispatch center

Project 2: Update the COOP to fully integrate resiliency

Project 3: Take a more active role in regional resiliency efforts

Project 4: Implement battery export project using hybrid bus batteries

Project 5: Establish protocols for resilience screening of capital projects

Project 6: Incorporate climate into TAMS

Project 7: Build a Satellite Maintenance and Emergency Operations Facility

this language into the COOP, PSTA considers the impacts during the planning phase. This project includes the following benefits:

- Increases readiness.
- Reduces/ mitigates disruptions to operations.
- Protects the safety of customers and staff.
- Ensures the longevity of assets.

This project will be led by the Finance (Risk Management) and the Transportation Operations (Safety, Security, and Training) department with support from all other departments.

Project 3: Take a more active role in regional resiliency efforts

PSTA is proud to be a partner in the region with many organizations and stakeholders that are tackling resiliency issues, such as the Tampa Bay Regional Resiliency Coalition. The goal of this project is to increase PSTA’s active involvement and make intentional effort and space in staff schedules to engage in resiliency discussions. By enhancing these partnerships, PSTA can offer



PSTA’s first electric buses went into service in fall 2018 (Source: PSTA)

key expertise related to transportation solutions and collaborate with others on the integration of transit solutions with other resiliency efforts to build a more resilient Pinellas County and Tampa Bay Region. Additional benefits of this project include the following:

- Increases attention and funding for climate initiatives.
- Builds trust and relationships among staff and elected officials from different jurisdictions.

This project will be led by the Planning department with support from all other departments.

Project 4: Implement battery export project using hybrid bus batteries

Given the region’s propensity for tropical storms and hurricanes, power outages can be common, creating an ongoing need for backup generators. PSTA’s hybrid bus batteries could potentially be used as backup emergency generators during power outages. These could be used to power essential traffic lights or air conditioning units at vulnerable locations such as hospitals and nursing

homes. PSTA has already begun discussions with Pinellas County Emergency Operations but requires additional coordination with the county and city department staff, as well as manufacturers/ suppliers to bring this product to market. This project includes the following benefits:

- Improves community infrastructure resilience.
- Supports continuity of essential functions.

This project will be led by the Maintenance department with support from Finance, Project Management, and Planning.

Project 5: Establish protocols for resilience screening of capital projects

Given the considerable capital costs of PSTA projects, resilience must be included in these projects to reduce maintenance and repair costs during the useful life of the infrastructure in the face of shocks and stressors. PSTA will review large-scale projects and develop a list of recommended adaptation strategies for projects identified as vulnerable to potential impacts.

PSTA will also explore the usefulness of pursuing resilience credits on relevant projects using third-party systems, such as Leadership in Energy and Environmental Design (LEED) or Envision (a third-party certification program, offered by the Institute for Sustainable Infrastructure, designed for infrastructure projects).

This project includes the following benefits:

- Improves relationship between investment needs and financing.
- Reduces cost in terms of physical, social, and economic loss by proactive planning.
- Leverages existing resiliency framework to further improve PSTA’s infrastructure resilience.

This project will be led by the Finance (Procurement) department with support from Planning and Project Management.

Project 6: Incorporate climate into Transit Asset Management System

PSTA’s Transit Asset Management System (TAMS) is a comprehensive inventory of the assets essential to operations. Climate change risk can be integrated into TAMS by assessing the vulnerability of assets to future climate scenarios such as sea level rise, storm surge, and extreme heat. This project allows PSTA to better understand future maintenance needs and prioritize resilience projects. This project includes the following benefits:

- Improves lifecycle management of assets with climate vulnerability considerations.
- Supports development of adaptation strategies.
- Allows for improved cross-asset planning.

This project will be led by the Maintenance department with support from Planning and all other departments.



PSTA works in coordination with the Pinellas County EOC during hurricanes or other emergency situations (Source: PSTA)

Project 7: Build a Satellite Maintenance and Emergency Operations Facility

A satellite maintenance and operations facility would build redundancy into PSTA’s safety and security by allowing full, long-term continuity of operations if PSTA operations are impacted by any event. A co-benefit of a satellite facility is that it could be designed to serve as a maintenance facility for articulated buses, which PSTA may purchase in the future, and provide another location for electric bus charging to allow deployment of that fleet along more routes.

This project includes the following benefits:

- Increases redundancy.
- Supports expnsion of services.

This project will be led by the Project Management department with support from Transportation Operations and IT. As it would require the acquisition of land, this project is considered a long-term project.

IMPLEMENTATION ROADMAP

Resilience Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Develop a mobile dispatch center	1	MN / IT, OPS (SST)	Short	\$\$	●	●	
Update the COOP to fully integrate resiliency	1 3	FN (RM), OPS (SST) / ALL	Short	\$\$	●	●	●
Take a more active role in regional resiliency efforts	2	PL / ALL	Short	\$	●		●
Implement battery export project using hybrid bus batteries	2 3	MN / FN, PMO, PL	Long	\$\$	●	●	
Establish protocols for resilience screening of capital projects	1 3	FN (PR) / PL, PMO	Short	\$	●		●
Incorporate climate into TAMS	1 3	MN / PL, ALL	Medium	\$\$	●		●
Build a Satellite Maintenance and Emergency Operations Facility	1 3	PMO / OPS, IT	Long	\$\$\$	●	●	

As with all public services, PSTA faces a growing range of adversities and challenges in the 21st century, from the effects of climate change and changing population demographics to aging infrastructure, pandemics, and cyber-attacks. Resilience is what helps to adapt and transform

in the face of these challenges, giving PSTA the tools and insight to prepare for both the expected and the unexpected. By increasing the capacity to continue operations through major events, PSTA can continue to serve the community and restore the community back to normal.



Hurricane Irma evacuation (Source: PSTA)

SAFETY AND SECURITY

As a public transportation agency, safety is core to the mission and culture at PSTA. It is PSTA’s responsibility to promote the safety of operators, customers, and the community while operating transit vehicles and within the maintenance facilities and offices.

PSTA has implemented several programs related to safety including the following:

- Responded to the COVID-19 pandemic to include the following: installed safety shields to protect bus operators, enhanced cleaning measures, limited the number of riders on buses, required riders to use the rear doors of buses, and reduced routes and route frequency.
- Began geo-tagging locations where accidents or incidents have occurred to identify hot-spots and implement interventions to reduce risk.

- Equipped all buses with audio and visual surveillance systems that record activity inside and outside of the bus.
- Trained all bus operators to respond and communicate to first responders in the event of an emergency on board or along their routes.

By meeting the goals set forth in this plan and the requirements set forth for safety under the Federal Transit Administration (FTA), and by being more proactive about safety concerns across the systems, PSTA can become a more sustainable agency.

GOALS

Below is a list of safety and security goals identified through a series of workshops with PSTA stakeholders and employees.

Goal	Safety and Security Goal Description	Target	Target Year
1	Ensure safety and security of PSTA employees and riders	Less than 4 preventable bus accidents per 100,000 miles	FY21
		2% reduced claims/costs of claims per 100,000 miles each year for 3 years	FY22
2	Enhance internal safety tracking capabilities	Increase in health, safety, and environment (HSE) incidents addressed through improved internal tracking, investigating, and reporting process	FY22

PROJECTS AND ACTIONS

PSTA is working to achieve the safety requirements set forth by the FTA. The projects outlined in this section align with those requirements and were developed through working sessions with PSTA staff and department leads.

Project 1: Develop a Public Transportation Action Safety Plan

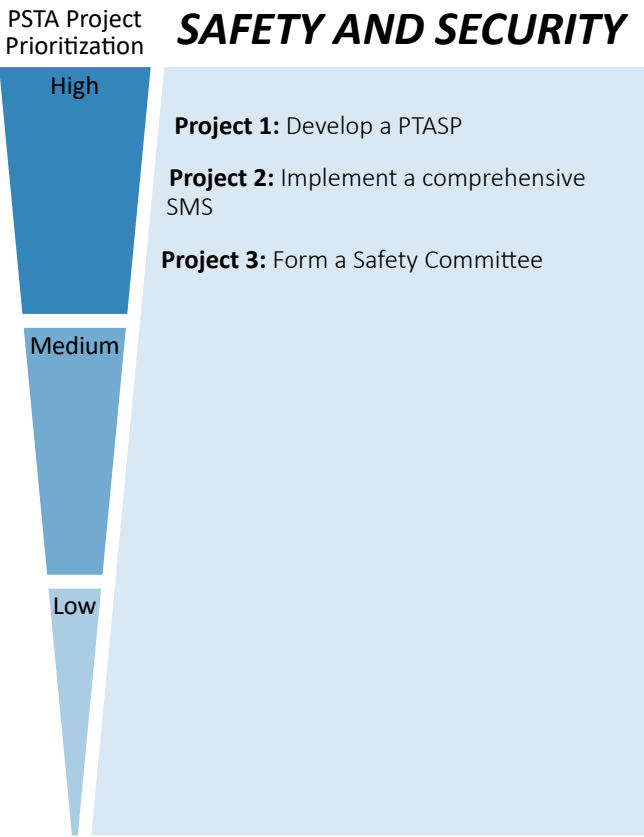
As mandated by the FTA, PSTA is developing its first Public Transportation Action Safety Plan (PTASP). The PTASP will feature PSTA’s safety performance targets and the processes and procedures to implement the agency’s Safety Management System (SMS). This will be in place and certified by the end of December 2020 and will be reviewed and updated annually. The PTASP includes the following benefits:

- Ensures safety and security.
- Enhances system reliability.

This project will be led by the Transportation Operations (Safety, Security, and Training) department with support from all other departments.



Safety, Security, and Training Staff Trainers teaching a new bus operator training class (Source: PSTA)



Project 2: Implement a comprehensive Safety Management System

As a part of the FTA’s guidance, PSTA is developing a comprehensive Safety Management System (SMS). The SMS will improve the agency’s safety and provide PSTA with a structure for understanding and addressing safety risks through proactive and data-driven decision making. The SMS will ensure that PSTA has the necessary structures, activities, and tools in place, and the necessary safety accountabilities to direct and control resources to manage safety efficiently. Two key components of the SMS include safety training specific to job responsibilities and anonymous non-punitive reporting of safety related incidents or environmental design features. The SMS includes the following benefits:

- Ensures safety and security.
- Improves system reliability.
- Enhances employee training.

This project will be led by the Transportation Operations (Safety, Security, and Training) department with support from Finance.

Project 3: Form a Safety Committee

As required by the FTA, PSTA is forming a Safety Committee that will be made up of representatives across all departments. The committee will coordinate activities, establish and maintain safety training, and monitor and analyze trends in incidents and accidents. The committee will meet monthly to review transit safety matters and make recommendations for improvement, as necessary.

Central to the committee’s mission will be implementing a process of non-punitive reporting for all PSTA employees. It is fundamental to PSTA that employees do not feel any threat of

retribution by reporting safety concerns. This is essential to supporting the safety culture at PSTA and allowing PSTA to be more proactive about safety concerns. The Safety Committee includes the following benefits:

- Ensures safety and security.
- Improves incident monitoring.
- Encourages information sharing.

This project will be led by the Transportation Operations (Safety, Security, and Training) department with support from all other departments.

IMPLEMENTATION ROADMAP

Safety and Security Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Develop a PTASP	12	OPS (SST)/ FN, ALL	Short	\$	●		●
Implement a comprehensive SMS	12	OPS (SST)/ FN	Short	\$\$\$	●		●
Form a Safety Committee	12	OPS (SST)/ ALL	Short	\$	●		●

By improving safety culture and refining safety data reporting and monitoring, it is expected that PSTA will have fewer incidents and accidents across the system. This will benefit PSTA

employees, riders, and the community, and will decrease the cost of claims and accidents to the agency. As such, a co-benefit of the safety and security projects is economic vitality.



PSTA Safety, Security, and Training staff leading a SWAT team transit training on a PSTA bus (Source: PSTA)

DIVERSITY AND INCLUSION

Prioritizing diversity and inclusion is critical to creating and maintaining a healthy community and workforce. When our employees from all backgrounds feel valued and seen, it has the impact of increasing retention. When our community feels like they are actively considered in agency decision-making, they are more likely to be engaged and to recommend PSTA to others. PSTA is taking the initiative and has established goals to address diversity and inclusion in significant ways. To date, PSTA has led a very successful Disadvantaged Business Enterprise (DBE) program and will be building on the success of this program to create a Business Enterprise (BE) program that is inclusive of small (SBE), minority owned (MBE), women owned (WBE), and veteran owned (VBE) businesses. Furthermore, PSTA has created a Diversity and Inclusion Council

and will be developing and adopting a newly crafted Diversity and Inclusion Strategic Plan. All these efforts demonstrate PSTA’s commitment to diversity and inclusion in the region for customers and employees.

GOALS

PSTA promotes a culture of diversity and inclusion through existing programs and targeted new programs. The goals and stretch goals related to diversity and inclusion are summarized below.

Goal	Diversity and Inclusion Goal Description	Target	Target Year
1	Adopt Diversity and Inclusion Strategic Plan		FY21
2	Maintain DBE participation	7.71%	FY21
3	Establish internal Diversity & Inclusion Leadership Council		FY21-FY22
4	Develop an SBE/ MBE/WBE/VBE program and target		FY23
+	Increase DBE participation	8.50%	FY23
+	Incorporate equity and inclusion in all areas of the PSTA scorecard		FY24



PSTA staff walking in the MLK Day Parade in St. Petersburg (Source: PSTA)

Increased DBE Participation

Focused outreach to DBEs

PSTA strongly believes in improving participation of DBEs in its contracts and projects. While PSTA has an overall DBE goal of 7.1 percent for FY21, it has more aggressive goals for specific projects, including the construction of PSTA's first bus rapid transit line. For that project, the goal is 11.82 percent with over \$1.6 million designated to the DBE program.

To achieve these goals, PSTA has been expanding its overall DBE program. This included hiring a dedicated DBE Coordinator, increasing participation in outreach events and trade shows, and hosting PSTA-led outreach forums.



DBE Networking Forum hosted by PSTA in partnership with COMTO (Source: PSTA)

The DBE Coordinator helps promote DBE participation and continuously monitors the program's progress by identifying areas which may present issues to small companies; providing support and information on upcoming projects; and aiding prime contractors in achieving their goal commitment.

The following successful outreach events have also helped to increase DBE participation.

- As one of 35 exhibitors at the Florida Department of Transportation (FDOT) /Construction, Engineering, and Inspection inaugural DBE and SBE Winter 2020 Expo, PSTA provided handouts about its solicitation website, information on DBE certification, and guidelines to prime contractors on hiring DBE firms.
- At the Matchmaker Reverse Trade Show Small Business and Supplier Program, PSTA met with DBEs, prime contractors, suppliers, and consultants. The one on one sessions gave participants and PSTA staff from the procurement and project management departments the opportunity for open dialogue.
- PSTA also held an outreach Contractor's Forum for the upcoming BRT project. While the forum was open to all contractors, staff emphasized the project DBE goal of 11.82 percent, with over \$1.6 million designated to the project's DBE program. Targeted outreach to PSTA's DBE contract list was conducted to provide information regarding solicitation.

These efforts have already led to more DBE participation, including 7.9 percent participation in the first half of FY20 and 11 percent in the second half.

PROJECTS AND ACTIONS

PSTA has identified three projects related to diversity and inclusion. The graphic to the right identifies the highest priority project as adopting the Diversity, Equity, and Inclusion Strategic Plan, followed by maintaining the DBE program and developing other business enterprise programs.

Project 1: Adopt Diversity and Inclusion Strategic Plan

The Diversity and Inclusion Strategic Plan outlines how PSTA will effectively continue to address and expand its commitment to diversity and inclusion in the workplace, for customers, and for Pinellas County. The strategic plan includes the creation of a diversity and inclusion toolkit that includes equity-related procurement guidelines and employee hiring best practices and tactics. The strategic plan includes the following benefits:

- PSTA leadership commitment to diversity, equity, and inclusion.
- Ongoing professional development for employees.
- Inclusive workplace strategies.
- Strategies for talent acquisition.
- Community engagement.

This project will be led by the Human Resources department with support from all other departments.



PSTA participated in the Dr. Martin Luther King Jr. parade and wrapped a bus in honor of Dr. King and all those who made a difference in promoting civil rights (Source: PSTA)

DIVERSITY AND INCLUSION

PSTA Project Prioritization

High

Project 1: Adopt Diversity and Inclusion Strategic Plan

Project 2: Maintain DBE participation

Medium

Project 3: Develop an SBE/MBE/WBE/VBE program and target

Project 4: Create Equity Assessment Tool

Low



DBE networking event in 2018 (Source: PSTA)

Project 2: Maintain DBE participation

The existing DBE program has been very successful at PSTA by not only meeting the goal of 7.71 percent DBE participation but also by exceeding the goal, achieving 12.44 percent DBE participation totaling over \$2 million in DBE contacts in 2019. This success is a result of having a clear DBE plan in place and following up on the procedures in the plan. The DBE program includes the following benefits:

- Engages a wide range of disadvantaged vendors/contractors.
- Expands the number of contracts that PSTA engages in.
- Expands the vendor list specifically in the area of disadvantaged business.
- Builds capacity, resources, and skills of DBE firms by teaming with larger prime vendors/contractors.
- Increases competitiveness for federal and state funding.

This project will be led by the Finance (Procurement) department with support from the Executive CEO Office.

Project 3: Develop SBE/MBE/WBE/VBE program and target

PSTA has the opportunity to build upon the success of the DBE program and develop a program for other small and disadvantaged business certification holders and a corresponding target. A program will be developed, and current DBE strategies can be extended to reach small and other disadvantaged businesses. A percentage participation target will be developed by 2021. The SBE/MBE/WBE/VBE program includes the following benefits, similar to Project 2:

- Engages a wide range of small and disadvantaged business vendors/contractors.
- Expands the number of contracts that PSTA engages in.
- Expands the vendor list specifically in the area of small, minority, women, and veteran owned businesses.
- Builds capacity, resources, and skills of SBE firms by teaming with larger prime vendors/contractors.

This project will be led by the Finance (Procurement) department.

Project 4: Create Equity Assessment Tool

Adopting the Diversity and Inclusion Strategic Plan is the first step in advancing diversity, equity, and inclusion at PSTA. To ensure equity in planning projects, public outreach and engagement, service changes, and prioritization of capital projects, PSTA will create an equity assessment tool. The assessment tool will involve the creation of an index using demographic data from the United States (US) Census, which will serve as a resource for identifying potentially disadvantaged populations within Pinellas County, evaluating how PSTA currently serves those populations, and assessing equity in the planning process.

The Equity Assessment Tool will include the following benefits:

- Allow PSTA to proactively evaluate equity in the prioritization of capital projects.
- Ensure PSTA reaches low-income and other marginalized communities for outreach and engagement for projects and service changes. Formally integrates equity and inclusion as a primary goal in the planning process.

This project will be led by the Planning department with support from Project Management.

					TBL		
					Community	Environment	Economy
Diversity and Inclusion Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement			
Adopt Diversity and Inclusion Strategic Plan	1	HR / ALL, EX	Short	\$	●		●
Maintain DBE participation	2	FN (PR)/ EX	Short	\$	●		●
Develop SBE/MBE/WBE/VBE program and target	3	FN (PR)	Medium	\$\$	●		●
Create Equity Assessment Tool	+	PL/ PMO	Medium	\$	●		●

DBE participation, and developing a SBE/MBE/WBE/VBE program and target, will all have strong benefits for the community and the local economy. Co-benefits of achieving these projects include job creation, economic vitality, and

commitment to the local economy. These projects have a relatively low cost to implement but a high impact on the region, customers, and PSTA employees.

COMMUNITY ENGAGEMENT

PSTA seeks to engage the community in a meaningful dialogue that will inform and improve projects and programs. As a community service, PSTA strives to meet the needs and expectations of the community while bringing awareness about the value of public transportation. PSTA has led and participated in many successful community events such as the Feeding Tampa Bay Food Bank, the Martin Luther King parade, the Great American Teach-In, and the Pride Parade and Festival, to name a few. In addition, PSTA regularly

engages partner agencies, organizations, and the general public in the development of new services, operating plans, and capital projects. PSTA will continue to engage the community and expand opportunities for dialogue through projects identified in this section.

GOALS

The goals and stretch goals related to community engagement are summarized below.

Goal	Community Engagement Goals Description	Target	Target Year
1	Expand marketing and outreach awareness	4 impactful marketing/ community events	FY21
		6,000 individuals in public engagement events annually, with an emphasis on inclusive involvement	FY21
		Develop online engagement forum (Social Pinpoint)	FY21
2	Develop brand refresh		FY21
3	Maintain community sentiment survey score	90%	FY21
+	Increase project-focused outreach	5 events annually	FY22
STRETCH GOAL			



PSTA partners with St. Pete Pride to provide a Free Park & Ride to the biggest Pride Parade and Festival in the state (Source: PSTA)

Feeding Tampa Bay

A community impact project involving a mobile food pantry serving PSTA riders



“We couldn’t be more thrilled about continuing our partnership with PSTA in our mission to create a hunger-free Tampa Bay. We know that much of our success depends on support from strong and thoughtful organizations in our community. The first step is giving those in need convenient access to healthy food options, that begins today. Together, we have the opportunity to reach thousands of children, seniors, and families in Pinellas County and place a nutritious meal on their table,” Kelley Sims, Feeding Tampa Bay Chief Development Office.



Community Participation at the Feeding Tampa Bay Event (Source: PSTA)

PROJECTS AND ACTIONS

PSTA has identified six projects related to community engagement. The graphic to the right identifies each project in order of priority.

Project 1: Target 4 impactful community connection events annually

The first community engagement project focuses on facilitating at least 4 impactful marketing events annually that create a community connection. PSTA participates in events such as Dr. Martin Luther King Day community events, the St. Pete Pride month celebrations, World Car Free day, and the Leadership PSTA Community Impact Project. The marketing events include the following benefits:

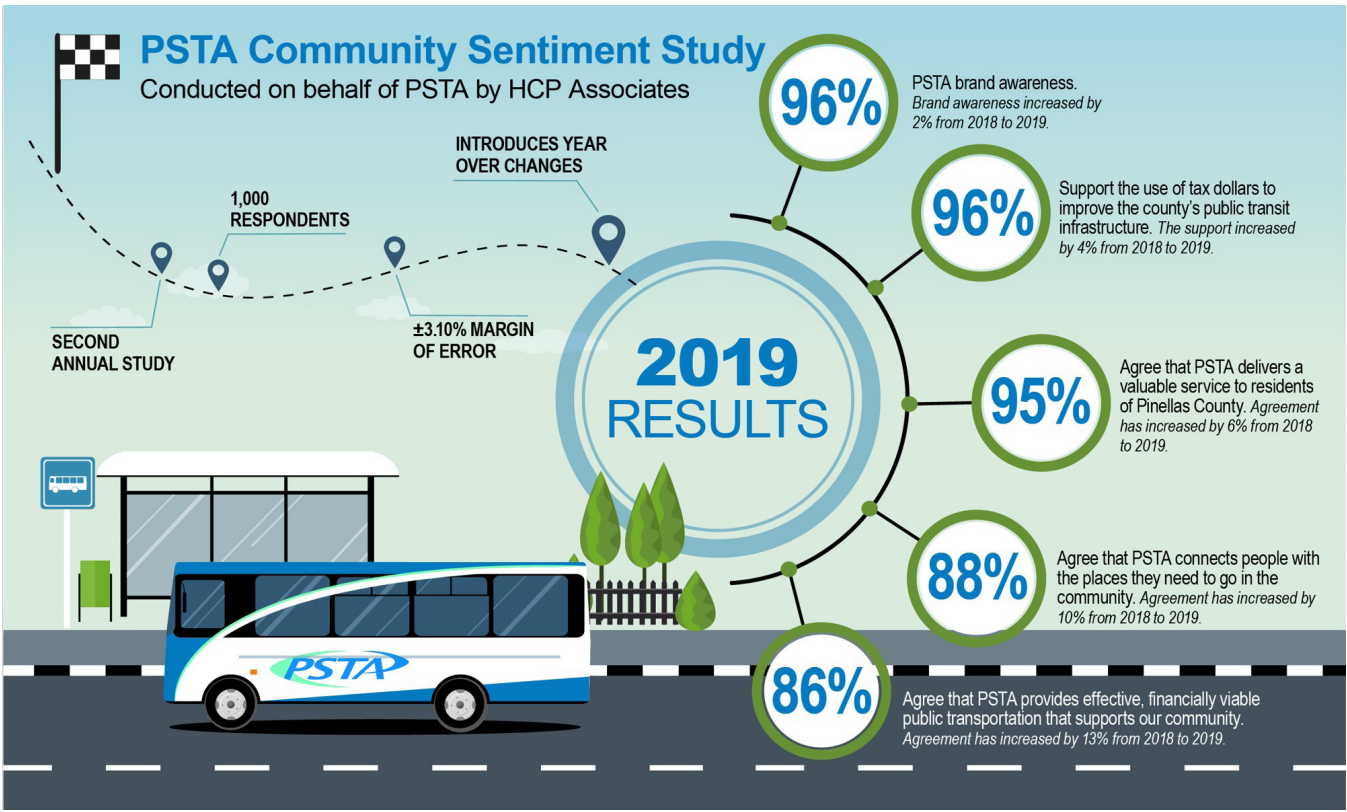
- Increases diversity and inclusion.
- Demonstrates community value.

These events have been impacted by COVID-19 in 2020, so the number of events will need to be adjusted as needed and some events may need to be accommodated virtually. This project will be led by the Marketing and Communications department with support from Planning and Transportation Operations.



PSTA Graphic Coordinator Liselle Murray teaches a classroom of elementary students about the benefits of public transit during the 2019 Great American Teach-In (Source: PSTA)

COMMUNITY ENGAGEMENT



Annual Survey completed by Pinellas County residents regarding their support of public transit in their community (Source: PSTA)

Project 2: Target 5 projects that include activities that listen to and engage the community

The second community engagement project focuses on how PSTA listens to and engages the community in a dialogue that creates or improves services, projects, or programs. The project should include strategies and tactics that document public comments and suggestions designed to inform PSTA. These strategies or tactics may include the use of workshops, open houses, surveys, interactive digital tools, and personal interviews. The project-focused outreach events include the following benefits:

- Enhances mobility.
- Increases ridership.
- Increases community awareness.
- Improves customer service.
- Improves service planning.
- Enhances public engagement.

These events have been impacted by COVID-19 in 2020, so the number of events will need to be adjusted as needed and some events may need to be accommodated virtually. This project will be led by the Planning department with support from Marketing and Communications and Executive CEO Office.

Project 3: Maintain Community Sentiment Survey scores from the prior survey

The third community engagement project focuses on maintaining and ideally increasing the Community Sentiment Survey results from the prior survey (community surveys are conducted every 3 years). The increase of the Community Sentiment Survey scores include the following benefits:

- Increases ridership.
- Enhances mobility.
- Improves customer service.
- Demonstrates community value.

The Community Sentiment Survey is used to collect quantitative data for the organization baseline and determine how the community associates PSTA with their intended mission and vision. The past survey has shown strong recognition of PSTA as a transit organization, and most of the survey respondents see PSTA as providing value to the community. Areas of improvement identified include better communication and public outreach on PSTA’s programs and services. This information will help PSTA continue to grow and improve over time. This project will be led by the Marketing and Communications department with support from Planning (Outreach).

Project 4: Develop a brand refresh

The fourth community engagement project focuses on a refresh of PSTA branding and guidelines. The project includes the following benefits:

- Enhances community engagement.
- Increases ridership.
- Improves Community Sentiment Survey results.

The PSTA brand refresh will be led by the Marketing and Communications department with support from Planning.

Project 5: Develop online engagement tool

In 2020, PSTA acquired a new online engagement tool, Social Pinpoint, which allows PSTA to connect virtually with the public on various PSTA projects. PSTA has established a page to provide information on the SunRunner BRT construction and will continue to use the tool for other project-related outreach. The online engagement tool include the following benefits:

- Provides community engagement.
- Enhances community awareness.
- Improves customer service.

This project will led by the Planning department with support from Marketing and Communications.

Project 6: Target 6,000 individuals in public engagement events annually

The sixth community engagement project focuses on targeting 6,000 individuals in public engagement events annually with an emphasis on inclusive outreach. The outreach events include the following benefits:

- Increases diversity and inclusion.
- Increases awareness of transit services.
- Increases ridership.
- Enhances mobility.
- Demonstrates community value.
- Improves service planning.

These events have been impacted by COVID-19 in 2020, so the number of participants will need to be adjusted as needed and some events may need to be accommodated virtually. This project will be led by the Marketing and Communications department with support from Planning and Transportation Operations.



PSTA Safety, Security, and Training staff showing elementary school students all the safety and security features on a PSTA bus during the Great American Teach-in (Source: PSTA)

IMPLEMENTATION ROADMAP

Community Engagement Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Target 4 impactful marketing events annually	1	M&C / PL, OPS	Short	\$\$	●	●	●
Target 5 projects that include activities that listen to and engage the community	+	PL / M&C, EX	Medium	\$\$	●	●	●
Maintain Community Sentiment Survey scores from the prior survey	3	M&C / PL (Outreach)	Short	\$\$	●		●
Develop a brand refresh	2	M&C / PL	Short	\$\$	●		●
Develop online engagement tool	1	PL / M&C	Short	\$\$	●		●
Target 6,000 individuals in public engagement events annually	1	PL / M&C, OPS	Short	\$	●	●	●

The community engagement projects, including expanding events, maintaining the community sentiment survey scores, and a PSTA brand refresh, will have benefits for the community, environment, and local economy. Co-benefits include economic

vitality and environment through increased ridership. These projects have medium to low cost to implement but could effectively address the TBL aspects of community, environment, and economy.






Tourists boarding a free PSTA Spring Break park & ride shuttle to Clearwater Beach (Source: PSTA)

CUSTOMER SERVICE

PSTA’s mission statement is to safely connect people to places. Providing high quality customer-oriented public transit service is a primary goal for the organization and PSTA is continuously looking at its own processes as well as new tools to improve customer satisfaction. As a result, PSTA has identified goals and projects or actions that enhance the customer experience, as described in this section.

GOALS

The goals and stretch goals related to customer service, developed by PSTA through workshops with stakeholders and staff, are summarized below.

Customer Service Goals			
Goal	Description	Target	Target Year
	Minimize turnaround time of customer complaints and comments	24–72 hours / establish Customer Response Committee	FY21
	Increase and improve communication channels (i.e., provide more text options, better real-time information)	Two-way texting / Transit App updates	FY22
 STRETCH GOAL	Provide improved Wi-Fi for passengers	50% of fleet to have updated Wi-Fi improvements	FY27



PSTA bus operator AKA “Customer-service-on-wheels” helping secure a passenger in a wheelchair (Source: PSTA)

PROJECTS AND ACTIONS

PSTA has identified four projects related to customer service. The graphic to the right identifies each project in order of priority.

Project 1: Minimize turnaround time of customer complaints and comments

The first customer service project focuses on minimizing the turnaround time of customer complaints and comments to no longer than a 24- to 72-hour response time. Minimizing the turnaround time of customer complaints results in the following benefits:

- Improves customer service.
- Enhances mobility.
- Increases ridership.
- Ensures safety and security.

This project will be led by the Transportation Operations department with support from IT and Marketing and Communications.

Project 2: Develop a Rider Response Committee

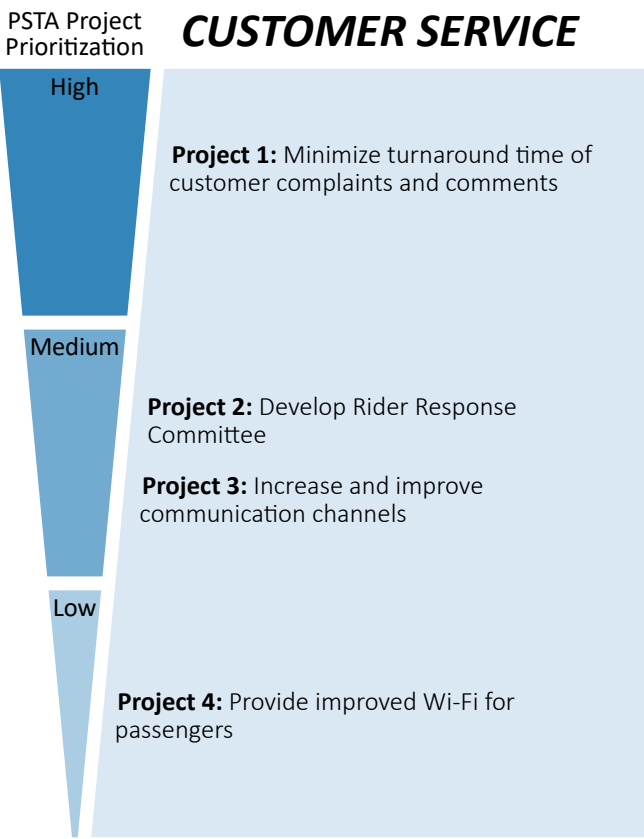
The second customer service project focuses on developing a Rider Response Committee within PSTA to address customer comments, complaints, and suggestions. The overall goal is to improve the PSTA’s passenger experience. The Rider Response Committee includes the following benefits:

- Increases ridership.
- Improves customer service.

This project will be led by the Transportation Operations department with support from Planning.

Project 3: Increase and improve communication channels

The third customer service project focuses on increasing or improving communication channels with riders such as two-way texting so customers



can text comments, complaints, and suggestions. This project also includes improvements to real time information available to riders. The overall goal is to improve the lines of communication with PSTA to enhance the passenger experience. Increasing communication channels includes the following benefits:

- Improves customer service.
- Enhances public engagement.
- Increases ridership.

This project will be led by the IT department with support from Transportation Operations and Marketing and Communications.

Project 4: Provide improved Wi-Fi for passengers

The fourth customer service project focuses on providing improved Wi-Fi for passengers. Generally, Wi-Fi on PSTA buses is limited to approximately 10 people per bus. The overall goal

is to improve PSTA’s rider experience. Providing improved Wi-Fi for passengers includes the following benefits:

- Improves customer service.
- Strengthens the Community Sentiment Survey results.
- Increases ridership.

This project will be led by the IT department with support from Maintenance and Marketing and Communications.



Southeastern Guide Dog training on a PSTA bus (Source: PSTA)

IMPLEMENTATION ROADMAP

Customer Service Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Minimize turnaround time of customer complaints and comments	1	OPS / IT, M&C	Short	\$	●		●
Develop Rider Response Committee	2	PL / OPS, M&C	Medium	\$	●		●
Increase and improve communication channels	2	IT / OPS, M&C	Medium	\$\$	●		●
Provide improved Wi-Fi for passengers	+	IT / MN, M&C	Medium	\$\$\$	●		●

The customer service projects, including minimizing turnaround time of customer complaints and comments, forming a rider response committee, increasing communication channels, and providing improved Wi-Fi for

passengers will all improve the passenger experience. Co-benefits of achieving these projects include increased ridership, improved Community Sentiment Survey results, and improved safety and security.

WORKFORCE TRAINING AND WELL-BEING

PSTA continues to expand employee training and well-being opportunities for its workforce and broader community. Efforts to increase opportunities for more workforce training include the professional development program, Leadership PSTA (modeled after APTA’s Leadership Program) as well as adopting the LinkedIn Learning platform, accessible to all administrative employees. PSTA’s Maintenance Department also provides extensive training opportunities for fleet technicians to increase their pay and credentials.

Employee and community well-being are promoted through agency-wide wellness challenges as well as through partnerships with Feeding Tampa Bay as a part of Leadership PSTA’s community impact project.

GOALS

The goals and stretch goals related to workforce training and well-being (both employee and community) are summarized below.

These goals will help to support staff retention and engage staff to connect with the community effectively.



PSTA Fleet Maintenance Technician Bobby Farris won FPTA Technician of the Year in 2016 (Source: PSTA)

Goal	Workforce Training and Well-being Goals Description	Target	Target Year
1	Continue to focus on employee wellness	25% of employees participate in two wellness challenges annually	FY21
		Form Wellness Committee	FY21
2	Maintain employee training opportunities and increase participation	100% of operators completing one refresher training course within 2 years	FY26
+	Increase employee training participation	88% of administrative employees participate in at least one training annually	FY21
STRETCH GOAL			

Employee Training

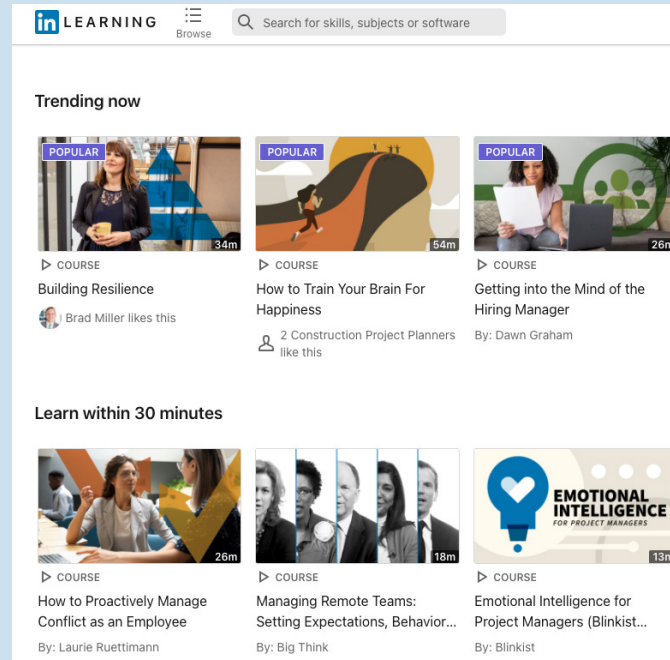
Programs at all Levels

PSTA has an extensive employee training program, with different offerings available depending on department and position. Highlights include the maintenance vehicle certification training programs, Leadership PSTA, and LinkedIn Learning, made available during the pandemic to provide more virtual training opportunities.

Leadership PSTA

Leadership PSTA was modeled after APTA's Leadership APTA Program. To date, four classes of PSTA employees have gone through the program, which began in 2017. Program goals are to increase organizational knowledge, develop high-performing employees by enhancing leadership skills, and foster cross-functional cooperation. Leadership PSTA includes a 360 Assessment to identify individual strengths and weaknesses, a facilitated classroom leadership training, an individual applied learning project, and a group community impact project. Successfully completed community impact projects include the following:

- Making all PSTA buses and facilities a "Safe Place" and training staff on how to handle incidents where someone requests a safe place.
- Donating to the Ronald McDonald House and providing free rides to anyone staying at a Ronald McDonald House.
- Partnering with Feeding Tampa Bay to host mobile food pantry events at PSTA to increase access to food by bus.



LinkedIn Learning dashboard recommending topics for ongoing learning and training (Source: PSTA)

Program participants often are considered for promotion or other industry leadership programs. Ten program participants between 2017 and 2019 have been promoted so far, and two have participated in APTA leadership programs.

LinkedIn Learning

To continue to offer training during the global pandemic, PSTA began offering LinkedIn Learning, which includes more than 16,000 expert-led online video tutorials. LinkedIn Learning offers training in software, creative endeavors, and business and leadership skills.

PROJECTS AND ACTIONS

PSTA has identified three projects related to workforce training and well-being. The table to the right identifies each prioritized project followed by a brief description of each project, benefits and co-benefits.

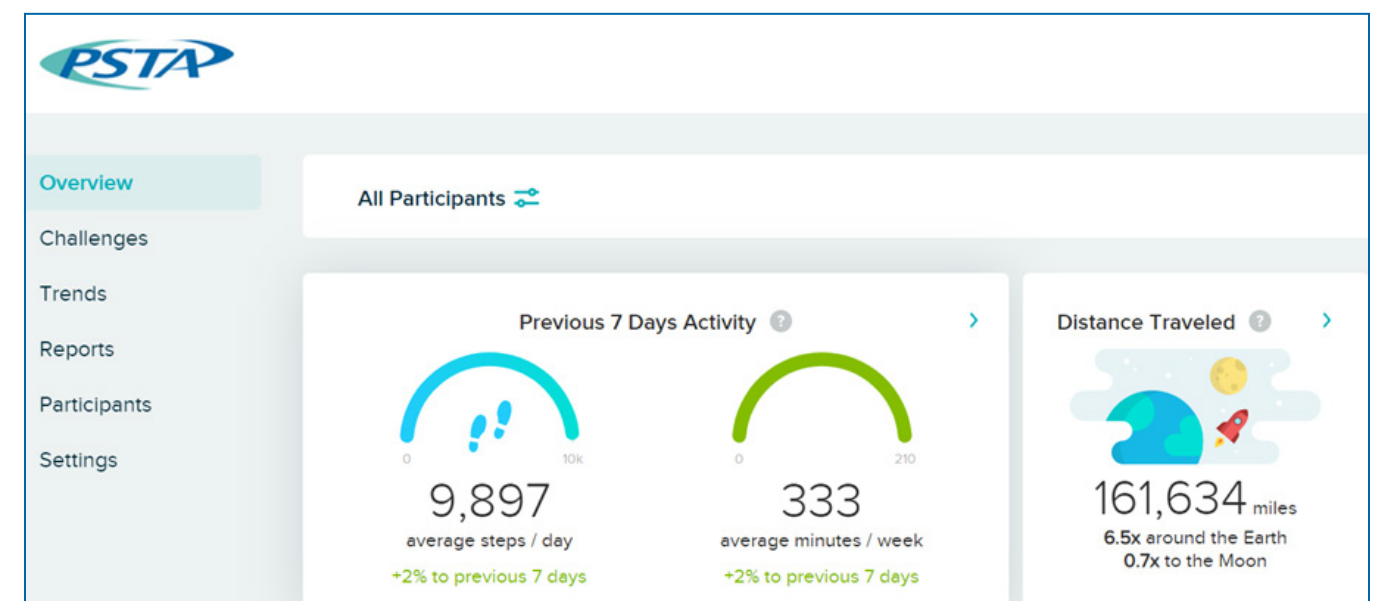
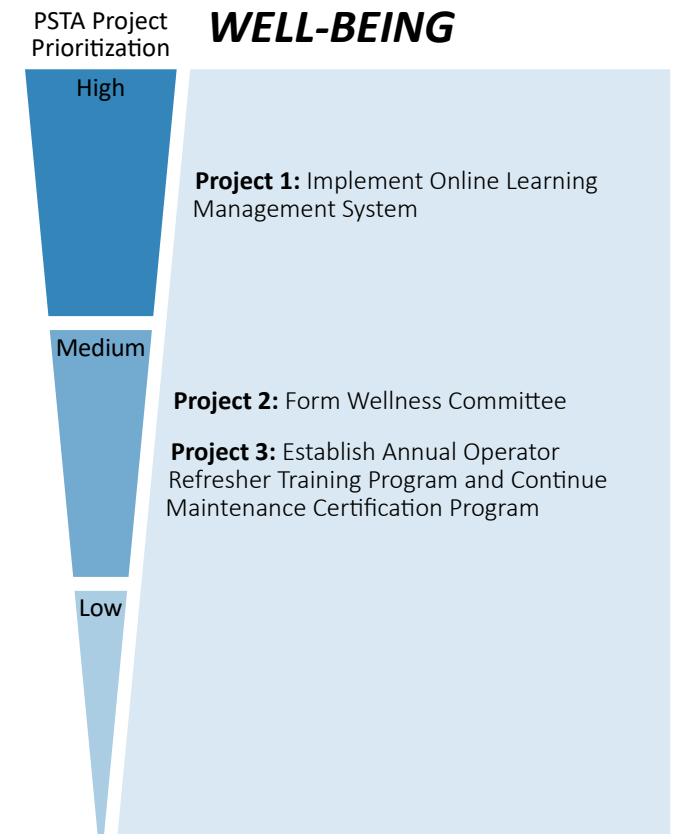
Project 1: Implement Online Learning Management System

The first workforce training and well-being project is to maintain and expand employee training opportunities and participation through implementing an Online Learning Management System. The Online Learning Management System includes the following benefits:

- Improves workforce training.
- Improves staff well-being.
- Expands equity and inclusion.

Employee training efforts is being led by Human Resources. Employee training has been impacted by COVID-19 in 2020 so PSTA is pivoting to focus on virtual training and has launched LinkedIn Learning.

WORKFORCE TRAINING AND WELL-BEING



FitBit Dashboard- part of PSTA's employee wellness program (Source: PSTA)

Project 2: Form Wellness Committee

The second workforce training and well-being project is to continue to focus on employee wellness by creating a Wellness Committee to expand the employee well-being programs and implement wellness challenges and educational opportunities. The employee well-being programs include the following benefits:

- Improves workforce training.
- Improves staff health and well-being.
- Expands equity and inclusion.

Employee wellness is being led by the Benefits team in Finance with support from Transportation Operations. Employee wellness programs have been impacted by COVID-19 in 2020 so PSTA is pivoting to focus on virtual wellness program opportunities.

Project 3: Establish Annual Operator Refresher Training Program and Continue Maintenance Certification Program

Creating an Annual Operator Refresher Training Program will assist with PSTA’s goal in reducing the number of both preventable and nonpreventable bus accidents. Refresher training includes wheelchair securement, defensive driving, and human trafficking awareness.

The Annual Operator Refresher Training Program and Maintenance Certification Program include the following benefits:

- Increased professional development opportunities.
- Improves staff well-being.
- Improves safety and security.

This project will be led by the Transportation Operations and Maintenance department with support from Human Resources.



PSTA Fleet Technicians performing a routine preventative maintenance inspection (Source: PSTA)

PSTA’s Maintenance department participates in numerous certification programs so that PSTA technicians can repair and maintain the fleet without having to outsource the work. Following the purchase of its first BAE hybrid buses, 15 PSTA technicians were trained by BAE and certified to work on the buses. Similarly, Voith transmission trained PSTA technicians allowing PSTA to become a certified warranty repair facility and successfully extend the useful life of the 2005-2008 legacy bus fleet. Other certifications include Allison Transmission Hybrid Drive, High Voltage Certification required to work on the electric buses, and 7 ASCE certifications that are open to all technicians. As technicians earn more certifications, they can advance more quickly through the pay steps.

PSTA also strives to hire the best technicians possible and works closely with the Pinellas Technical Education College to help develop curriculum for the diesel certification program and bring students of the program to PSTA through a work study program. This partnership, which began in 2015 has resulted in the hiring of 15 of the program’s graduates by PSTA.

IMPLEMENTATION ROADMAP

Workforce Training and Well-Being Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Implement Online Learning Management System	3	HR	Short	\$	●		●
Form Wellness Committee	2	FN / OPS	Short	\$	●		●
Establish annual Operator Refresher Training Program and Continue Maintenance Certification Program	3	OPS, MN/HR	Medium	\$	●		●

The workforce training and well-being projects identified, including the Online Learning Management System, employees’ wellness programs, operator refresher training, and maintenance certification programs will all have strong benefits for PSTA employees and

the community. Co-benefits of achieving these projects include economic vitality by reducing risk, staff retention, and improved health outcomes. These projects have relatively low cost to implement but have a positive impact on PSTA employees and the community.



PSTA staff and riders at a food distribution event in partnership with Feeding Tampa Bay (Source: PSTA)



PSTA's contracted service, the Jolley Trolley, driving down Clearwater Beach (Source: PSTA)



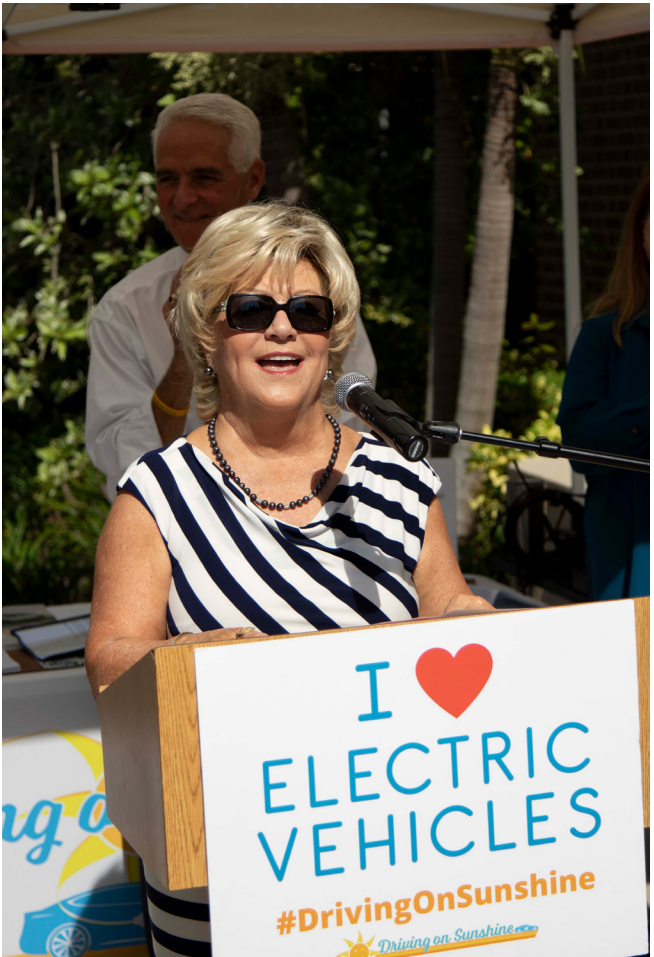
Chapter 3: Environmental Sustainability

Environmental sustainability for PSTA includes a wide range of goals and strategies that include expanding energy conservation, efficiency, and renewable energy projects; improving fuel efficiency; establishing a sustainability staff position; reducing water consumption and improving water efficiency; improving effective waste management and recycling; establishing green procurement policies; and reducing GHG emissions. Numerous projects (or action items) have been identified to support goals crafted to improve PSTA's sustainability performance, potentially reduce operating expenses, as well as reach for Gold level APTA Sustainability recognition.

ENERGY

PSTA uses energy for all aspects of its operations—from powering electric buses to conditioning facilities and illuminating bus stops. PSTA has long understood and embraced the benefits of effective energy management in its operations via conservation and efficiency. Over the years, PSTA has implemented various energy conservation strategies, including the following:

- Upgraded to an energy-efficient cooling system.
- Upgraded lighting to light-emitting diodes (LED) fixtures.
- Upgraded heating, ventilation, and air conditioning (HVAC) controls and temperature scheduling.



PSTA Past Chair Janet Long speaks about PSTA's electric buses at a Driving on Sunshine event (Source: PSTA)

Building on the progress in improving the energy efficiency of its facilities and operations, PSTA will continue to reduce its energy consumption and increase renewable energy production with initiatives summarized in this section. By virtue of meeting the goals set forth in this plan, in alignment with the performance requirements under APTA, PSTA can become more efficient and sustainable in how it monitors, purchases, generates, and uses energy. Furthermore, PSTA can potentially save on operating costs while targeting higher levels of sustainable achievement.

Energy conservation projects

For the last several years, PSTA has been making upgrades to the overall energy efficiency of the campus headquarters as well as to the main transfer locations.

In 2016, PSTA worked with Duke Energy to convert all the stadium light stations in the employee parking lot and bus yard to energy-efficient LED lighting. PSTA has also been converting fluorescent lights to LEDs in all maintenance bays as well as the administration and operations offices.

In 2017, PSTA installed a new, more efficient HVAC system for PSTA’s maintenance and administration facilities, which included 2 energy efficient 150-ton water chilled AC units and a new state of the art buildings management control system. The entire campus was rezoned for optimal efficiency of cooling areas, including the calibration of all variable air valves and make up air handler units.

With these enhancements PSTA’s energy consumption has decreased by 41 percent since 2015.

The success of PSTA’s energy efficient upgrades has flourished with Duke Energy’s partnership. In addition to the LED lights, Duke Energy assisted with electric bus infrastructure needs and the purchase and installation of six depot chargers. Duke Energy installed at no cost to PSTA two DC fast chargers as a part of Duke’s Park and Plug Program to promote energy efficient electric vehicle use by PSTA staff. PSTA plans to continue this partnership as the agency prioritizes more energy improvements.



LED Lighting retrofit at Grand Central Station (Source: PSTA)

GOALS

PSTA promotes a culture of energy efficiency and conservation through quantifiable metrics and demonstrated energy leadership. Below is a list of energy goals identified through a series of workshops with PSTA stakeholders and employees.

Goal	Energy Goal Description	Target	Target Year
1	Reduce energy consumption	3% reduction annually	FY21
2	Improve normalized energy efficiency	10% improvement over FY15 baseline	FY21
3	Improve fuel efficiency for PSTA fleet	5% improvement over FY15 baseline for PSTA-owned fleet	FY21
		Establish baseline for PSTA-contracted fleet	FY22
4	Increase renewable energy systems on-site	400 kW system size	FY25
5	Establish a formal sustainability staff position	n/a	FY25
+	Transition 100% of fleet to electric and hybrid vehicles	50 electric buses in service	FY30
		250 electric buses in service	FY50

Overall, energy consumption at PSTA facilities has gone down from the baseline year of FY15 by 41 percent (Figure 6), which is a reflection of the efficiency measures that the agency has implemented over time. Diesel consumption for the PSTA fleet (PSTA-owned fleet and contracted fleet) has gone down by 10 percent from the baseline year of FY15 (Figure 7), and PSTA expects to continue the reduction trend as the older diesel fleet is replaced by hybrid and/or electric buses. The fuel efficiency trend shown in Figure 7 is only reflective of PSTA owned fleet.

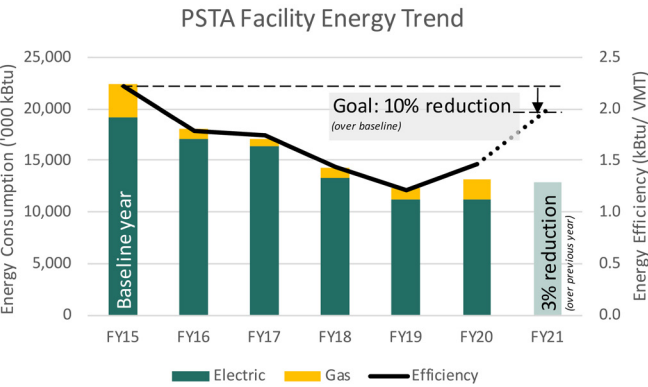


Figure 6: Energy reduction goals for PSTA facilities

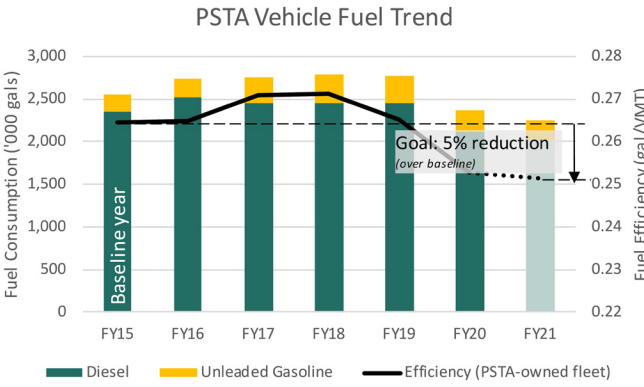


Figure 7: Fuel reduction goals for PSTA fleet

PROJECTS AND ACTIONS

The first step toward an effective and comprehensive energy strategy is to understand the level of energy consumption at the different facilities because PSTA cannot control what cannot be measured. This will allow PSTA to focus the conservation efforts on areas that result in the most benefits. This plan approaches energy efficiency and conservation from multiple perspectives that are captured in the following project initiatives and actions, which have been developed through working sessions with PSTA maintenance and fleet experts.

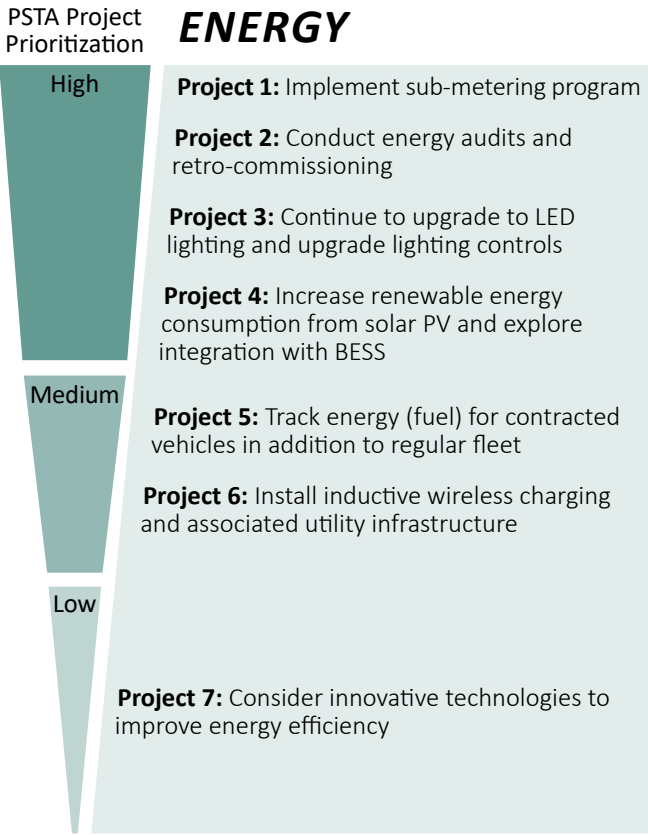
Project 1: Implement sub-metering program

Sub-metering allows for tracking of energy consumption by end use and offers more visibility into the energy trends of various facilities under PSTA’s portfolio.

Sub-metering provides the following benefits:

- Maximizes the impact of effective energy management.
- Identifies, quantifies, and prioritizes the implementation of energy projects.
- Improves energy reporting accuracy.
- Provides PSTA with specific and detailed information/energy performance analytics for buildings needed for energy management.
- Collects peak, annual, and daytime usage trends per building.

Once the energy meters for sub-metering are installed, this program can be expanded to include a comprehensive and scalable energy monitoring implementation plan. An energy monitoring plan enables tracking, reporting, and benchmarking of energy use on a facility-level and allows more insight into greater energy-saving opportunities. This project will help with the implementation of other energy projects and actions. This project will be led by the Maintenance department with support from Finance.



Project 2: Conduct energy audits and retro-commissioning

Energy audits can help PSTA identify future energy projects, directing the focus of energy conservation efforts toward areas that provide the most benefit.

Energy audits involve a systematic assessment of facility energy systems, to ensure buildings are operating at their peak efficiency. Retro-commissioning, or existing building commissioning, involves testing and short-term diagnostic monitoring to uncover and systematically evaluate energy and cost-saving opportunities associated with system tune-ups and no-cost to low-cost measures. Having a robust energy audit and retro-commissioning plan/program provides the following benefits:

- Identifies potential opportunities for energy performance improvements.
- Includes a list of energy efficiency measures (e.g., projected cost savings, implementation costs, return on investment costs).

Typically, an energy savings of 15 percent to 45 percent can be achieved through ongoing retro-commissioning supported by systematic maintenance, monitoring, and audits.¹

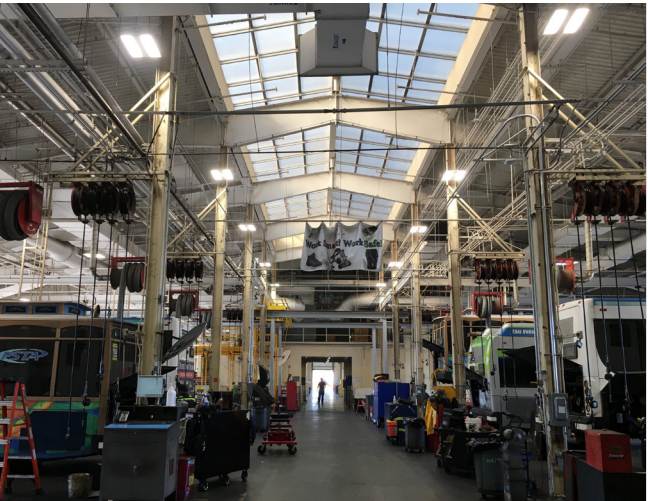
- Ensures that the useful life of mechanical equipment is maintained and extended.
- Allows the facility to operate at designed efficiency, leading to operational cost savings.

Commercial account incentives are available through Duke Energy to offset the cost of energy efficiency projects. This may include equipment upgrades, energy assessments, and demand response programs. Duke Energy also offers custom rebates for a set of measures that addresses unique systems and variable operations. Duke Energy’s offering may help PSTA acquire and install the most energy efficient equipment available. This project will be led by the Maintenance department with support from Finance.

Project 3: Continue to upgrade to LED lighting and upgrade lighting controls

LED light sources are high-efficiency lighting systems that offer substantial benefits to energy savings. LED lighting can be coupled with lighting controls, and PSTA has implemented LED lighting upgrades throughout much of its main facility, including stadium lighting upgrades in the parking lots, and at Grand Central Station, PSTA’s largest transfer center. This project recommends continuing to upgrade the lighting systems and controls, targeting the completion of all maintenance high-bay lighting. The benefits include the following:

- Improves energy consumption.
- Lower maintenance costs.



Lighting Upgrades at the Maintenance Bays (Source: PSTA)

This project will be led by the Maintenance department with support from Finance.

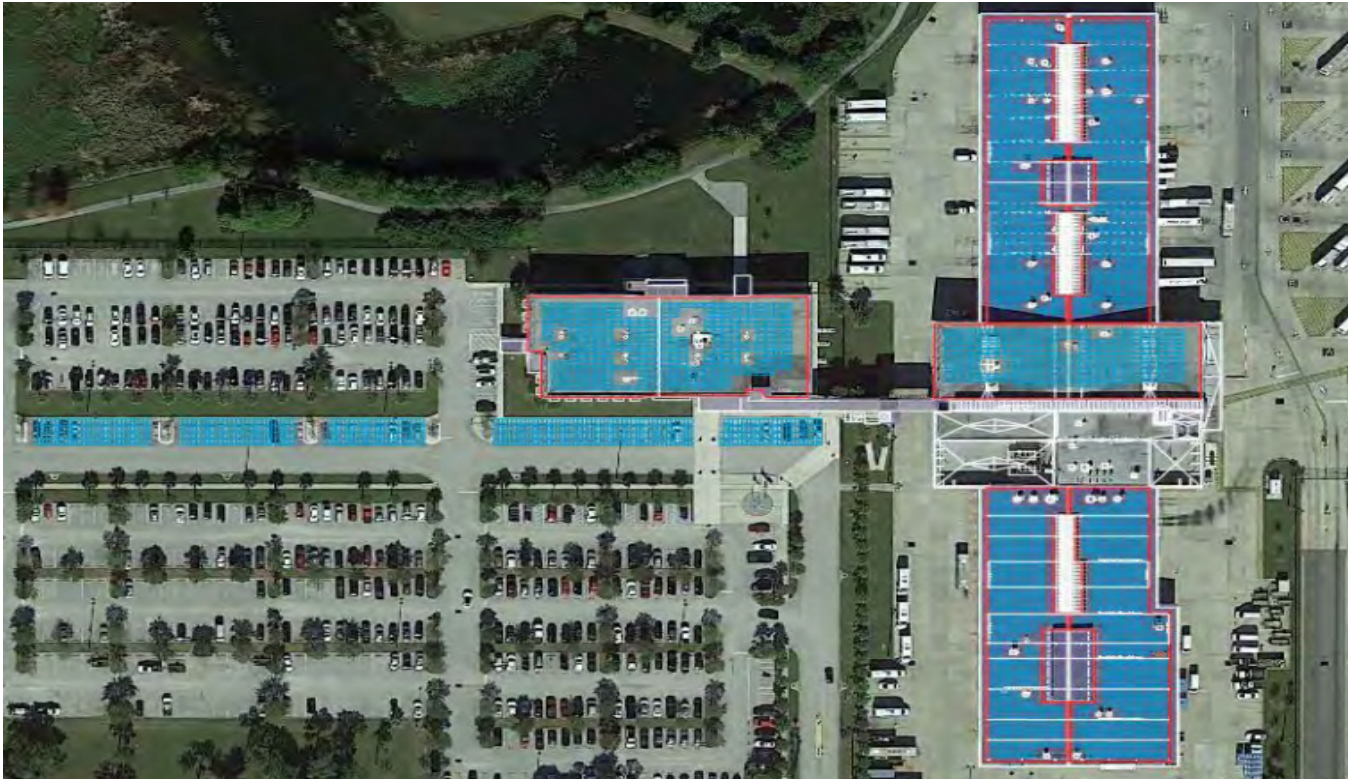
Project 4: Increase renewable energy consumption from solar photovoltaics and explore integration with battery energy storage system

An economic and technical feasibility study to offset PSTA’s energy consumption with on-site solar was completed in 2020. The options that were evaluated involved installing solar photovoltaics (PV) on rooftop as well as carport canopies. The site can accommodate approximately 1 megawatt (MW) of solar PV, using all available mounting space. Cost estimates included re-roofing considerations and had a payback of approximately 13 years.²

On-site solar offers PSTA a more diverse, sustainable, and resilient supply of energy to meet present and future needs. The installation of an on-site solar PV system and integration with battery energy storage system (BESS) provide the following benefits:

- Reduces peak demand and associated energy costs.
- Improves resiliency.
- Provides power during a utility outage.
- Generates lower carbon emissions than conventional energy sources.

¹ Source: National Renewable Energy Laboratory
² Source: PSTA Solar PV Feasibility Analysis - St. Petersburg, FL. AECOM, 2019



PSTA Facility Solar PV System Option (Source: AECOM)

This project will be led by the Project Management department with support from Planning and Finance. Since this is a fairly large project, the implementation of this project can be done in phases as suggested below:

Phase	Action	Implementation year
Phase 1	Solar on the roof including re-roofing	2021
Phase 2	Solar in bus parking lot and battery backup (16 MWh)	2025
Phase 3	Battery backup (42 MWh)	2030
Phase 4	Battery backup (98 MWh)	2050

MWh = Megawatt-Hour

Project 5: Track energy (fuel) for contracted vehicles in addition to regular fleet

By implementing a policy that would require contracted vehicles to report their fuel use, PSTA gains more insight into the efficiency of fleet operations beyond just the PSTA-owned vehicles.

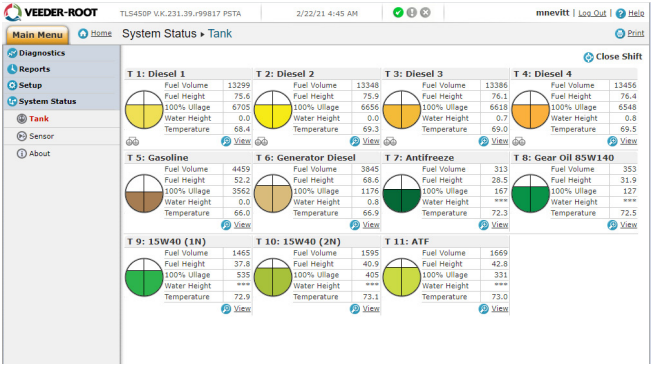


St. Petersburg Downtown Looper, one of the contracted fleet vehicles providing trolley services to the tourist destinations of downtown St. Petersburg (Source: PSTA)

This includes trolleys, Americans with Disabilities Act (ADA) paratransit vehicles, etc. The benefits of this program are as follows:

- Increases visibility into fuel usage.
- Allows more accurate tracking of vehicle costs per mile.
- Offers an opportunity to improve fleet efficiency and/or ensure fleet performance compliance as determined by PSTA.

This project will be led by the Maintenance department.



Veeder Root Fuel and Energy Management Systems used by PSTA Facility Maintenance staff (Source: PSTA)

Project 6: Install inductive wireless charging and associated utility infrastructure

PSTA continues to seek cost-effective methods to reduce capital and operating costs associated with cleaner modes of transportation, including smart charging solutions, which are a viable economic option to consider with electric mobility. PSTA currently operates two electric buses and plans to incorporate four additional buses into their fleet by 2021. Besides using plugs to charge the buses overnight at the depot, they also can be wirelessly charged with inductive power transfer systems. With wireless charging, the transition to clean transportation will be easier and faster. PSTA currently has one 250-kilowatt (kW) inductive charger.

Traditionally, electric vehicles return to a maintenance depot for overnight parking where they are charged by plug-in chargers and placed back into operation the next day. These chargers require frequent maintenance and space for electrical equipment. The wireless charging system consists of a charging pad conveniently embedded in the pavement that transfers power through the air to a receiving pad mounted on the vehicle’s undercarriage. The benefits of this system are as follows:

- Inductive power transfer eliminates the hassle of cords or overhead infrastructure. The system requires no cables or connectors and has no moving parts, substantially reducing maintenance requirements both on and off the bus.



Wireless charging with inductive power transfer system at a PSTA transfer facility (Source: PSTA)

- Automated high-power inductive charging of electric vehicles allows for more frequent charging events and consequently an extension of driving range.
- Inductive charging systems can be operated automatically without dependence on people to plug and unplug. This results in higher reliability.
- Such technology can provide on-route charging options.

Assuming a full fleet conversion to electric, a total of 22 inductive chargers with 228 plug-ins will be required to support full operations.³

3 Source: PSTA Current and Future EV and Solar Study, AECOM, 2019



PSTA’s newest electric buses delivered and ready to be wrapped with environmental messaging (Source: PSTA)

This project is an enabling strategy for electrifying PSTA’s fleet. It can be implemented in conjunction with the electrical upgrades required for plug-in chargers, in the following suggested phased approach:

Phase	Action	Implementation year
Phase 1	4 new charger plug-ins + 2 existing plug-ins = total 6 buses	2022
Phase 2	7 new and 6 existing plug-ins and 2 new inductive = total 15 buses	2025
Phase 3	20 new inductive and 15 new plug-ins and 15 existing = total 50 buses	2030
Phase 4	200 new plug-ins and 50 existing = total 250 buses	2050

This phased approach assumes that charging of the fleet at the depot will start off as plug-in only. Inductive wireless will be considered once the technology has fully matured and PSTA has gained enough operational data from the current inductive charger to make a determination as to whether depot charging will be all inductive. This project will be led by the Maintenance department with support from Planning.

Project 7: Consider innovative technologies to improve energy efficiency

This project aims to consider implementing innovative technologies to improve energy efficiency when designing for new facility construction or major facility renovations. These technologies include the following:

- Geothermal heat pump HVAC systems.
- Variable refrigerant flow HVAC systems.
- Electrochromic windows (i.e., windows with electronically tintable glass) to reduce cooling loads.
- Wireless sensor networks for energy management.
- Advanced power strips for plug load control.
- Daylighting systems.

This project will be led by the Planning department with support from Project Management.

IMPLEMENTATION ROADMAP

Energy Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Implement sub-metering program	① ②	MN / FN	Short	\$\$		●	
Conduct energy audits and retro-commissioning	① ②	MN / FN	Short	\$\$		●	●
Continue to upgrade to LED lighting and upgrade lighting controls	① ②	MN / FN	Short	\$\$		●	●
Increase renewable energy consumption from solar PV and explore integration with BESS	④	PMO / PL, FN	Medium	\$\$\$		●	●
Track energy (fuel) for contracted vehicles in addition to regular fleet	③	MN	Medium	\$		●	
Install inductive wireless charging and associated utility infrastructure	④	MN / PL	Short	\$\$\$		●	
Consider innovative technologies to improve energy efficiency	① ②	PL / PMO	Long	\$\$\$		●	●



PSTA Zero emissions bus at ribbon cutting (Source: PSTA)

Effective energy management via conservation, efficiency, and the use of renewable energy allows PSTA to minimize its environmental impact and reduce the cost of operations. These efforts have other co-benefits such as lowering GHG emissions and improving air quality by reducing emissions from on-site energy generation. Co-benefits also include long-term financial stability and resiliency.

WATER

PSTA uses water for domestic uses and bus washing. The landscaped areas are not irrigated, so potable water is not currently being used for irrigation. In this section, we review water conservation strategies as they apply to PSTA to identify areas where additional conservation may be possible, or reclaimed, or non-potable water can be used instead.

In Pinellas County, the main source of potable water is surface and ground water, which is replenished by rainfall. However, due to ever-changing rainfall patterns and the threat of moderate droughts in the area, PSTA continues to plan for reduced water consumption as part of its responsibility as environmental stewards. PSTA has made great strides in conserving water. Selected accomplishments include the following:

- Capturing water from the bus wash facility for non-potable reuse.
- Implementing water conservation measures across most facilities.

Gray water: Wastewater from laundry, bathtubs, showers, and sinks.

Non-potable / Reclaimed water: Water or treated wastewater that is not suitable for human consumption but may be reused for other purposes such as irrigation and flushing.

Building on the progress in improving the water efficiency of its facilities and operations, PSTA will continue to reduce its water consumption and increase the use of reclaimed water through the implementation of initiatives summarized in this section. By virtue of meeting the goals set forth in this plan, in alignment with the performance requirements under APTA, PSTA can become more efficient and sustainable in how it purchases, uses, reclaims, and monitors water. Furthermore, PSTA can potentially save on operating costs while targeting higher levels of sustainable achievement.



PSTA’s bus washing facility over 15 years old needs to be upgraded to capture and reuse water more effectively (Source: PSTA)

GOALS

PSTA supports effective water management through quantifiable metrics and demonstrated water leadership. Below is a list of water goals identified through a series of workshops with PSTA.

Goal	Water Goal Description	Target	Target Year
1	Reduce water consumption	Reduce to FY15 baseline level	FY21
2	Improve normalized water efficiency	2% improvement over FY15 baseline	FY25
+	Track gray water use	5% of total water usage	FY25
STRETCH GOAL			

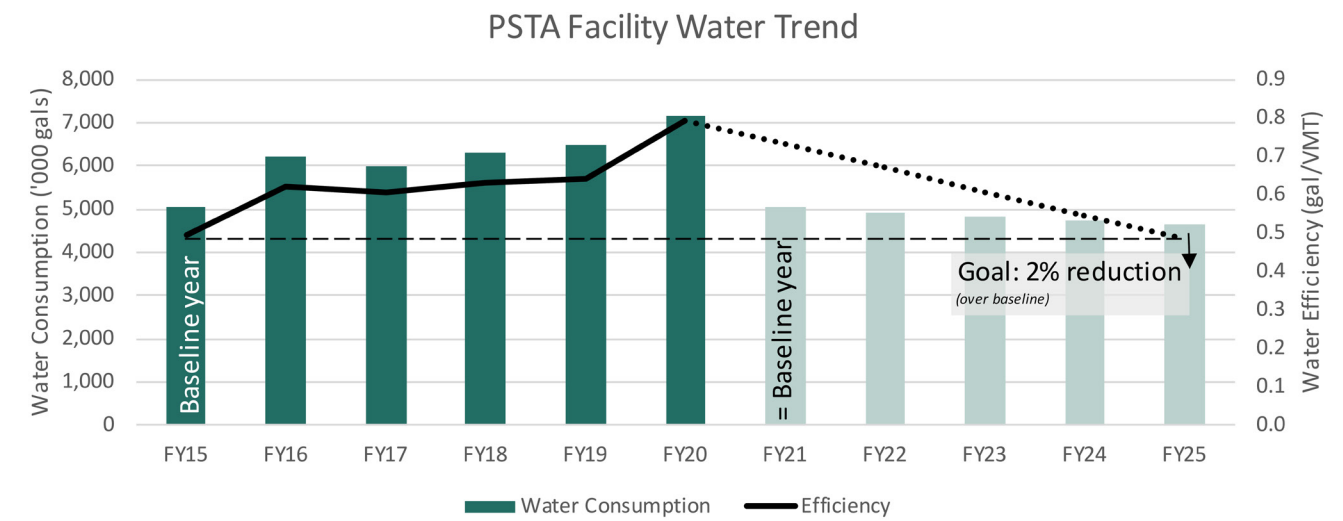


Figure 8: Water reduction goals for PSTA facilities

Water consumption at PSTA facilities in FY20 has increased from baseline year FY15 by 42 percent (Figure 8), and efficiency has reduced over the past years. This highlights the continuous need for implementing water efficiency measures.

PROJECTS AND ACTIONS

The first step toward an effective and comprehensive water strategy is to improve the visibility of water consumption between the different facilities similar to energy management. This visibility allows PSTA to focus the conservation efforts on areas that provide the most benefit. This plan includes water efficiency and conservation efforts, some of which can be carried out in tandem with energy projects. The following project initiatives and actions have been developed through working sessions with PSTA experts.

Project 1: Replace bus washing facility

The current bus washing system at PSTA is over 15 years old and is very inefficient. Replacing this system with a modern equivalent one will help PSTA to significantly reduce water usage. This project provides the following benefits:

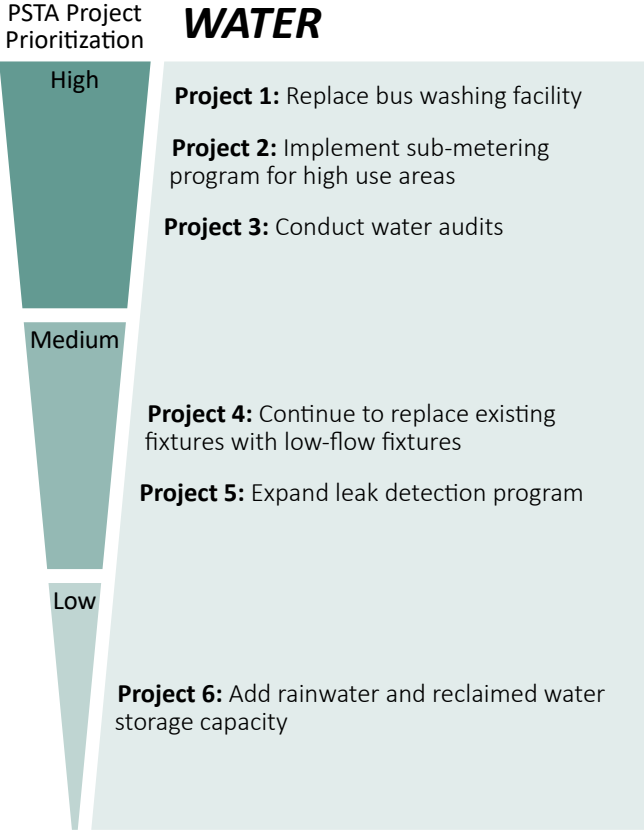
- Reduces water consumption and associated electricity use.
- Reduces potable water demand by using non-potable water.

This project will be led by the Maintenance department with support from Finance.

Project 2: Implement water sub-metering program for high use areas

Sub-metering allows for tracking of water consumption by end use and offers more visibility into the water trends of various PSTA facilities. Sub-metering provides the following benefits:

- Maximizes the impact of effective water management in high use areas.
- Identifies, quantifies, and prioritizes the implementation of water projects.
- Improves water reporting accuracy and helps to identify areas with potential leaks.



- Provides PSTA with specific and detailed information/water performance analytics for buildings needed for water management.

Sub-metering enables the implementation of other water projects and actions. This project will be led by Maintenance.

Project 3: Conduct water audits

Water audits can provide updated information on water system performance, tagging what is failing and highlighting those areas that are functioning properly. These audits are important for evaluating previous maintenance and repair operations prompted by the results of previous audits. In short, a water system audit provides an information feedback loop.

Water audits can help PSTA to identify future water projects, directing the focus of water conservation efforts toward the largest consumers



PSTA's current bus washing facility (Source: PSTA)

within PSTA's portfolio. Having a robust water audit results in the following benefits:

- Identifies potential opportunities for water consumption reduction.
- Includes a list of water efficiency measures (e.g., projected cost savings, implementation costs, return on investment costs).
- Ensures that the useful life of water systems is maintained and extended.
- Allows the facility to operate at designed efficiency, leading to operational cost savings.

Utility incentives may be available to offset the funding required to implement additional water audits, increase the use of reclaimed water, and purchase water conservation measures. This project will be led by Maintenance with support from Finance.

REPLACING FAUCETS AND AERATORS

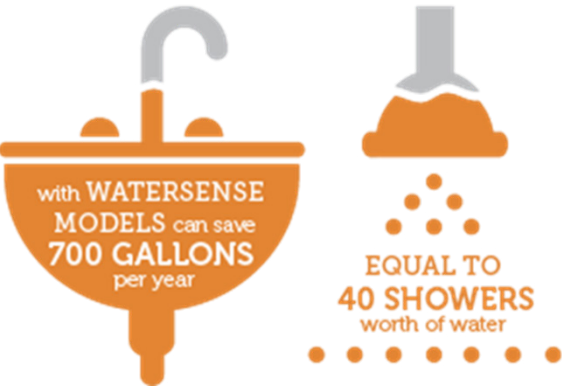


Figure 9: WaterSense labeled fixtures save water. (Source: Pacific Northwest National Laboratory)

Project 4: Continue to replace existing fixtures with low-flow fixtures

PSTA has been implementing water fixture upgrades throughout its facilities on an as-needed basis. PSTA maintains a stockpile of fixtures to be used if and when necessary. This project recommends continuing to upgrade the existing fixtures by installing more efficient fixtures, such as low-flow toilets, urinals, and faucets, as part of the regular operation and maintenance routine, and as older assets are being replaced by new ones. This project includes the following benefits:

- Reduces water consumption and lowers the water bills.
- Reduces maintenance requirements for the newly installed assets.

This project will be led by the Maintenance department.

Project 5: Expand leak detection program

Water is lost through leaks and cracks in pipes and their fittings. Since most infrastructure is underground, it is virtually impossible to visually determine the location of these leaks unless the water has reached the surface and even then, the exact location may be indeterminate. However, an expansion of the current leak detection program as well as new water audits can help to expose problems in the equipment or distribution system, minimize leakage loss, and precisely determine the location and severity of the leaks. A regular and expanded leak detection program needs to be implemented.

An acoustic leak detection program deploys listening and pinpointing devices throughout the system of water main pipes and customer service line connections to listen for leaks.



A leak detection device in operation (Source: WaterWorld)

The benefits of implementing a regular leak detection program include the following:

- Ensures reliable system performance by proactively finding main breaks, leaking service lines, and losses in the water distribution system.
- Reduces system-wide water losses (and thereby reduces the associated water cost).
- Reduces costs associated with maintenance and repair.

Acoustic leak detection is the most common approach, but strategically placed water flow meters and pressure gauges may also be used to bracket the location of the leak. Intelligent cable sensors are an emerging area of technological development for leak detection. This project will be led by the Maintenance department.

Project 6: Add rainwater and reclaimed water storage capacity

PSTA recognizes the need to mitigate the impact of peak stormwater runoff, thereby easing the burden on sewer systems. PSTA has some stormwater management practices in place such as capturing stormwater runoff at/near the bus washing facility, but currently the system does not have enough capacity to capture runoff from washing activities and excess stormwater runoff. This project advocates for the creation or increase of the capture tank capacity (approximately 15,000 gallons) for capturing reclaimed water, and

for an expansion of the storage capacity available for runoff capture at the bus wash.

The benefits of increased storage capacity include the following:

- Creates an alternate water source for irrigation (if used) while reducing demand on potable water sources.

- Reduces the cost of bus washing when it replaces potable water.

This project will be led by the Planning department with support from Maintenance.

IMPLEMENTATION ROADMAP

Water Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Replace bus washing facility	12	MN / FN	Medium	\$\$\$			
Implement sub-metering program for high use areas	12+	MN	Short	\$\$			
Conduct water audits	12	MN / FN	Short	\$\$			
Continue to replace existing fixtures with low-flow fixtures	12	MN	Short	\$\$\$			
Expand leak detection program	12	MN	Medium	\$\$			
Add rainwater and reclaimed water storage capacity	+	PL / MN	Long	\$\$\$			

Effective water management via conservation, efficiency, and the use of reclaimed water allows PSTA to minimize its environmental impact and reduce the cost of operations. These efforts have economic and community co-benefits such

as lowered maintenance requirements, and improved resilience against future droughts. Further, the synergy within the energy-water nexus can be leveraged to minimize PSTA’s environmental impact and carbon footprint.

WASTE AND RECYCLING

Managing waste, water, and energy more efficiently is a core component of sustainability. An effective waste management system requires the coordination of waste collection, handling, education, and waste prevention practices. Together, these activities improve diversion rates. PSTA aims to minimize the amount of waste generated at passenger stations, facilities, and construction sites, and maximize the amount of that waste that is reused or recycled.

PSTA’s past efforts in solid waste management include the following:

- Implementing an employee recycling program.
- Improving recycling rates.
- Purchasing an oil filter crusher.

PSTA will continue to support waste reduction efforts and explore ways to improve recycling accessibility for passengers and staff through the implementation of initiatives summarized in this section. By virtue of meeting the goals set forth in this plan, in alignment with the performance requirements under APTA, PSTA can become

more efficient in minimizing waste generation and maximizing the amount of that waste that is reused or recycled. This in turn results in other positive environmental outcomes, such as reduced pollution, fewer GHG emissions from transportation and landfills, reduced life-cycle energy, and minimized usage of raw material.

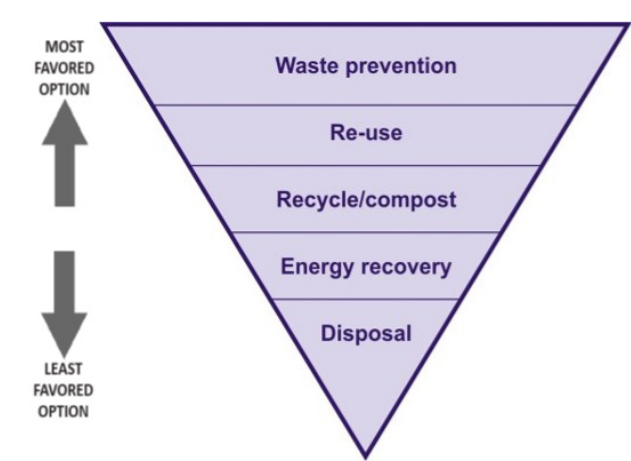


Figure 10: Waste management hierarchy (Source: US EPA)



PSTA bales its own cardboard which is collected for recycling by a third party (Source: PSTA)



Oil filter crusher saves space in waste collection (Source: PSTA)

GOALS

PSTA supports effective waste management through quantifiable metrics and demonstrated waste leadership. Below is a list of waste goals identified through a series of workshops with PSTA.

Waste and Recycling Goals			
Goal	Description	Target	Target Year
1	Improve outreach regarding recycling	1 outreach campaign per year	FY21
2	Increase recycling rate	Establish baseline (External: non-facility waste)	FY21
		10% of total waste (Internal: within PSTA facilities)	FY23
3	Ensure data collection and tracking is representative of program	Gather baseline / Recycling audit	FY23
+	Reduce solid waste	Maintain FY20 level	FY21
STRETCH GOAL			

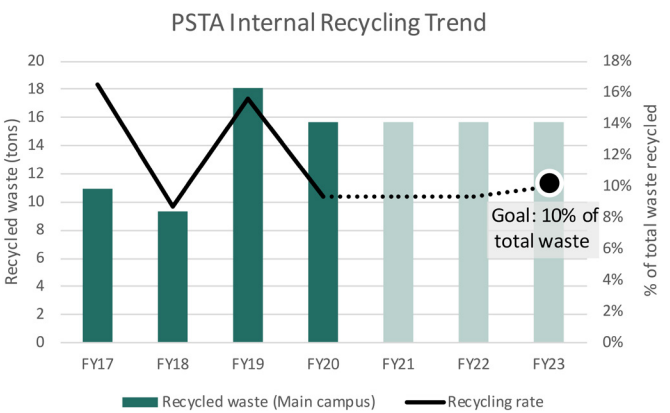


Figure 11: Waste recycling trend for PSTA facilities

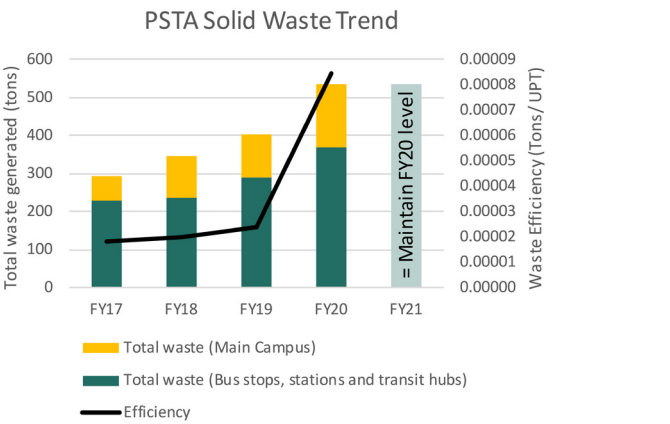


Figure 12: Waste generation trend for PSTA bus stops

Recycling rates have fluctuated in the past years at PSTA, ranging from 9 percent to 16 percent of the total waste generated (Figure 11). This only includes the waste generated at PSTA’s main campus. Recycling has never been provided or tracked at PSTA bus stops or transfer facilities. Therefore, currently there is no baseline for non-facility generated waste.

Despite the introduction of employee recycling at its main campus, PSTA’s waste generation numbers have been consistently increasing over the years (Figure 12).

Implementation of additional waste management practices will help PSTA improve the recycling trend and manage waste more efficiently.

PROJECTS AND ACTIONS

Opportunities have been identified at PSTA to improve current waste programs and establish new efforts. This plan includes new efforts that are specifically designed to improve overall waste diversion and offer the greatest potential to meet PSTA’s waste goals. The following projects and actions have been developed through working sessions with PSTA experts.

Project 1: Revamp point-of-disposal signage

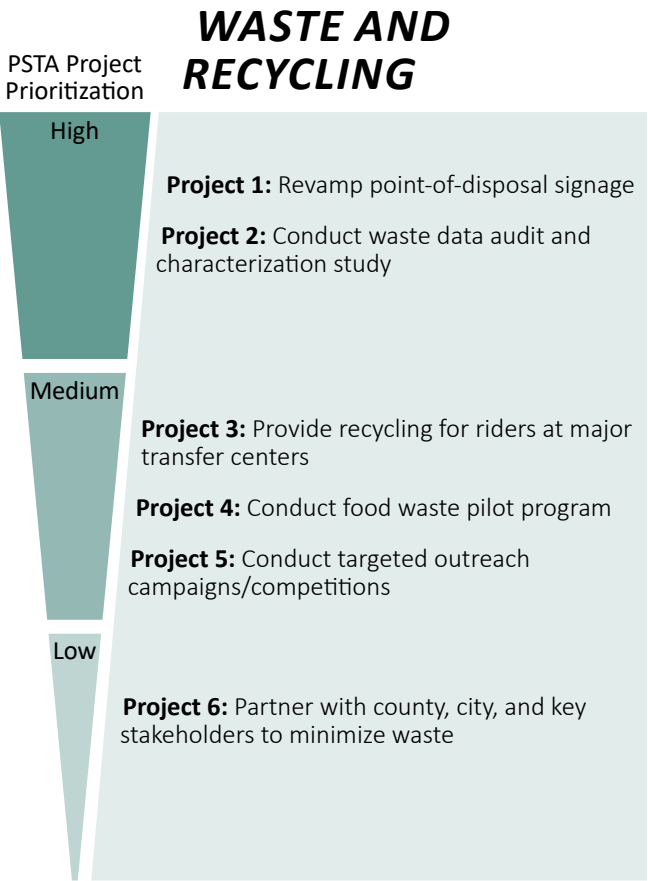
A single piece of contaminated material can send an entire batch of recyclables to landfills. Contamination is an issue that significantly reduces the value of recyclable materials and renders them non-recyclable. The largest issue with contamination is people’s confusion about how to recycle and what to recycle. Understanding the psychological mechanisms by which signage influences behavior is a critical first step to achieve the desired outcomes in waste management. Signage specific to a location and common materials have been proven to increase recycling rates. This project ensures that the size, location, and type of signage used at point-of-disposal is optimized. Working in close collaboration with the marketing and communications team, PSTA can develop point-of-disposal signage that acts as an instrument for behavioral change. The associated benefits are described below:

- Clearly labeled bins eliminate the guesswork and provide appropriate guidance to discard waste materials into the proper receptacles.
- Better signage may result in improved recycling rates and less contamination.

This project will be led by the Marketing and Communications department with support from Planning.

On average 375 tons of trash is generated per year from shelters and buses. 1875 tons of trash from facilities is collected.

WASTE AND RECYCLING



Project 2: Conduct waste data audit and characterization study

Materials and waste offer an often-overlooked opportunity to improve an organization’s sustainability, prevent GHG emissions, and reduce costs. Tracking waste and recycling provides the key foundation for a successful waste reduction program. At PSTA, simply keeping up with the waste stream has been a challenge in the past. This project recommends collating and reviewing all data from multiple haulers to better understand the current status. This effort could be carried out in partnership with local community-focused colleges as part of a student internship program.

A comprehensive waste audit provides the following benefits:

- Reduces reliance on hauler data through internal and/or third-party data tracking system.
- Provides more insight on how to improve waste management.

Once there is a clearer understanding of the data (i.e., how the waste management program is performing), PSTA can prioritize activities for preventing waste and expanding recycling programs. To gain insights on how to improve PSTA’s current program, a comprehensive waste assessment through a characterization study and container audit is essential. This study offers PSTA the following benefits:

- Establishes baseline waste generated by type and amount.
- Offers a window into the kinds of opportunities that exist to improve diversion.
- Provides a starting point for internal tracking.
- Facilitates right-sizing of containers and optimizing collection schedules.



Waste characterization: Sorting waste to establish origin and composition (Source: AECOM)



CEO Brad Miller and staff at Grand Central Station informing riders about PSTA Rider Recycling pilot program (Source: PSTA)

Simple waste audit guidance can be found on the US Environmental Protection Agency (EPA) website.⁴ This project will be led by Maintenance with support from Planning and Finance.

Project 3: Provide recycling for riders at major transfer centers

Per Pinellas County guidelines, PSTA practices single stream recycling. PSTA currently has an employee recycling program for administrative offices that helps to divert waste from landfills. The program can be expanded to encourage riders to participate in recycling at the major transfer centers with assistance from the County or other local jurisdictions. Easily accessible recycling bins and clear signage—in multiple languages, as necessary—can help ensure the success of recycling programs at PSTA transit hubs. These actions would result in the following benefits:

- Facilitates recycling at high activity transfer centers.

PSTA’s employee recycling program has diverted more than 35 tons of waste from landfills over the past 2 years.⁵

4 Source: <https://www.epa.gov/smm/managing-and-reducing-wastes-guide-commercial-buildings>
5 Source: <https://www.tbreporter.com/transportation/psta-earns-national-recognition-for-sustainability/>

- Accentuates the public space around the receptacles through creative art.

This project will be led by Maintenance with support from Finance.

Project 4: Conduct food waste pilot program

The link between food waste and its impact on the environment is significant. Food waste programs improve waste diversion and can help offset waste hauling costs as food waste is among the heaviest waste streams. PSTA can set up a separate collection to prevent food waste from entering the landfill. A food waste program has the following benefits:

- Improves waste diversion.
- Reduces waste hauling costs.
- Reduces greenhouse gas emissions.

While PSTA’s main campus currently falls out of the collection area for Suncoast Compost, there is the potential to consider a “drop-off” option or expansion given PSTA’s position in the community. In addition, PSTA can explore internal/on-site processing of food waste. This project will be led by Planning with support from Maintenance.

Food waste is the single largest component of waste sent for disposal, much of which ends up in landfills, where it generates methane, a powerful greenhouse gas.

Project 5: Conduct targeted outreach campaigns/competitions

Lack of awareness and education is often a barrier to improving waste minimization. PSTA staff and riders have a critical role in managing their solid waste, and it is essential that communication with them be well-considered and coordinated so that the whole system functions properly. Waste reduction campaigns can focus on a single outcome (e.g., reusable cups) or can be “gamified” by introducing competition around a desired outcome. This can be done through digital communication, permanent installation (prompts), or incentivizing behavior. Once PSTA has a clearer understanding of its performance in waste management, PSTA can customize its focused

outreach to address the key areas that need attention. This project has the following benefits:

- Improves awareness among community and staff.
- Supports regional efforts in minimizing waste.

This type of focused outreach provides core support to the regional solid waste system and provides important mechanisms for reaching the goals and objectives of this SSP. This project will be led by Marketing and Communications with support from Planning.

Project 6: Partner with county, city, and key stakeholders to minimize waste

Pinellas County and its partners are regularly reaching out to engage, educate, and inform the

community in order to encourage and facilitate stewardship of the natural environment. Strategic partnerships can have the following benefits:

- Leverages existing knowledge and expertise of the region
- Collaboration with other cities and key stakeholders.

There is an opportunity to share resources while reducing the cost of labor. The University of South Florida St. Petersburg may offer one such avenue for partnerships as they have a sustainability program in place. In addition, PSTA can engage with the county on an anti-litter outreach effort. This project will be led by Planning with support from Project Management.

IMPLEMENTATION ROADMAP

Waste and Recycling Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Revamp point-of-disposal signage	2 1	M&C / PL	Short	\$	●	●	
Conduct waste data audit and characterization study	3	MN / PL, FN	Short	\$		●	
Provide recycling for riders at major transfer centers	2 +	MN / FN	Medium	\$\$	●	●	
Conduct food waste pilot program	2 +	PL / MN	Medium	\$		●	
Conduct targeted outreach campaigns/competitions	1 +	M&C / PL	Short	\$	●	●	
Partner with county, cities and key stakeholders to minimize waste	1 +	PL / PMO	Short	\$	●	●	●

The components of a successful waste minimization program include commitment from management and program leadership. In addition to environmental benefits, an enhanced waste management program includes community and

economic co-benefits. Evolving industry conditions and progressive local and state-wide policies in Florida will continue to create opportunities for PSTA to enhance waste management practices.



Example of a targeted Outreach campaign: Durable Cup Strategy (Source: Portland International Airport)

GREENHOUSE GASES AND CRITERIA AIR POLLUTANTS

As a public transit agency, PSTA emits GHGs and CAPs through its daily operations, while also displacing GHG emissions from other forms of transportation. This section covers three types of information related to air quality as highlighted below.

GHG emissions: Emissions of carbon dioxide, methane, and nitrous oxide as a result of PSTA’s operations. These are primarily sourced from PSTA’s electricity usage to power facilities, stations, and offices, as well as PSTA’s fuel usage to move revenue and non-revenue fleets and to cool and heat buildings. These are often presented in carbon dioxide equivalent, which accounts for all the kinds of GHGs in a single unit.

CAP emissions: Bus tailpipe emissions of nitrogen oxides, hydrocarbons, carbon monoxide, particulate matter, and sulfur oxides. These are often added together and presented as a single CAP emission total.

GHG savings: Emissions savings or displacement represents an estimate of the emissions that would have resulted from private automobiles had the PSTA ridership not been able to accomplish their transportation needs by using PSTA’s services. This is dependent on ridership, local fuel economy, and land use changes.

Changes in GHG and CAP is heavily reliant on PSTA’s energy use and ridership, therefore many of the successes highlighted in the previous sections are relevant here, including:

- Procurement and integration of electric buses into the PSTA bus fleet.
- Continued removal of diesel engines from the fleet in favor of diesel-hybrid or electric buses.

By meeting goals set forth in this section, as well as those in the Energy and Ridership sections, both GHG and CAP emissions would be expected to decrease and GHG savings would increase.

GOALS

Below is a list of GHG and CAP emission goals identified through a series of workshops with PSTA.

GHGs and CAPs Goals			
Goal	Description	Target*	Target Year*
1	Improve GHG emission calculations	n/a	FY21
2	Reduce normalized GHG emissions	-5% from FY15 baseline	FY23
3	Improve normalized GHG savings	+2% from FY15 baseline	FY23
4	Reduce normalized CAP emissions	-2% from FY15 baseline	FY23

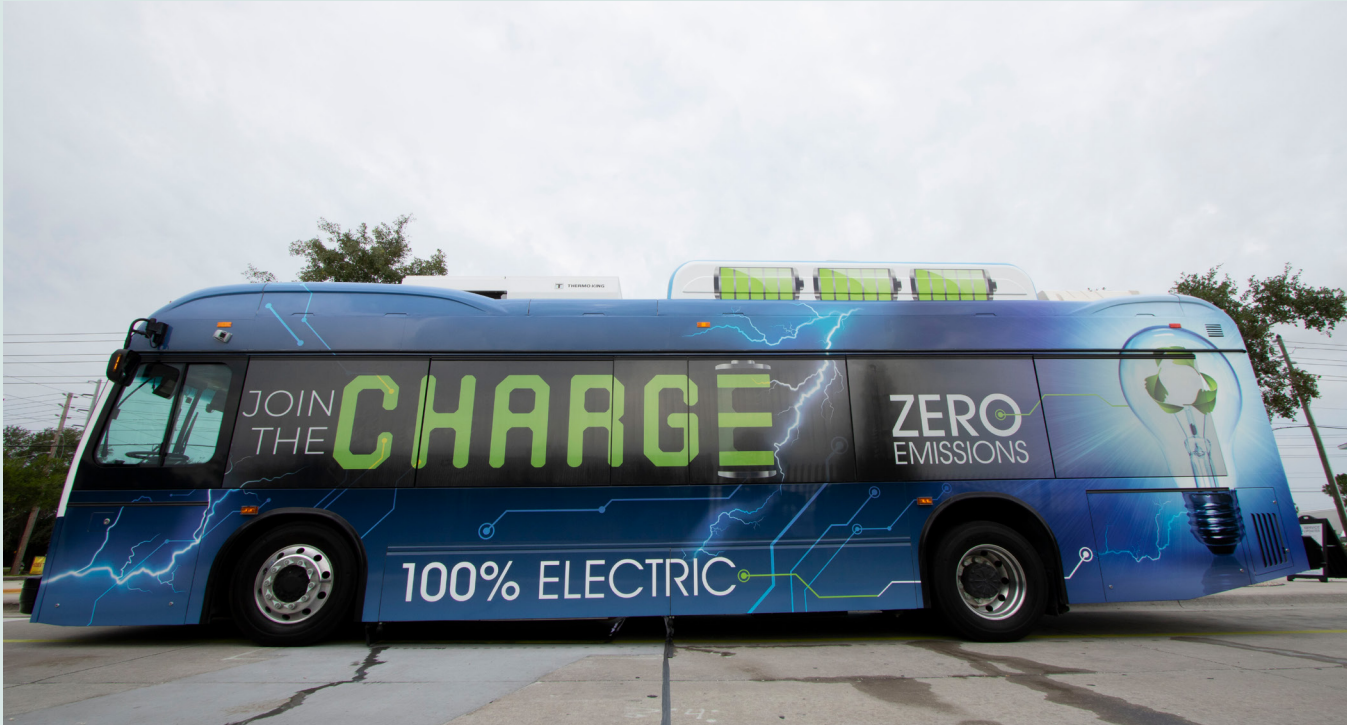
* The targets above are set based on the historical GHG emissions calculated to date. This only includes the revenue diesel bus fleet, and as per Project #2, PSTA intends to expand its GHG emission calculations to cover the entire operational footprint. Therefore, these targets and target years are likely to change once these calculations have been updated.

Reducing GHG emissions

Converting fleet to hybrid and electric

PSTA’s strategy to reduce GHG emissions has been to convert its fleet over time to hybrid and electric buses. PSTA currently has the largest fleet of hybrid buses in Florida, with 88 hybrid buses, which comprise 43 percent of the fleet. PSTA also operates two electric buses. Four more electric buses will go into service in 2021 and another two electric buses in 2022. In 2020, PSTA installed the first in-route 250 kW inductive wireless charging station on the US East Coast at a transfer area adjacent to the PSTA main facility.

“We are excited that this rapid charger will allow our all-electric buses to remain in continuous service throughout the workday,” said Joe Barkley, PSTA Board Chair. “As we add additional all-electric buses to our fleet, this charging system will add dramatically to our efficient, cost saving electric bus service.”



PSTA’s electric bus (Source: PSTA)

All data presented here represent emissions from PSTA’s revenue diesel and diesel-hybrid bus fleet and are shown as raw overall emission or emission savings numbers, as well as normalized by UPT to represent efficiency. PSTA’s UPT has decreased by 23 percent from baseline year FY15 to FY19, which is important when considering efficiency. Moving forward, PSTA will consider emissions from their entire revenue (including electric buses) and non-revenue fleet and buildings.

Overall, FY19 GHG emissions increased by 1 percent from baseline year FY15. When looking at the normalized GHG emissions, GHG/UPT has increased by 22 percent in FY19 from FY15 (Figure 13). This means that efficiency has reduced over this time period. This does not reflect the direction that PSTA wants to go in. However, as the fleet adds more electric buses and reduces reliance on diesel fuel, PSTA expects this trend to shift to lower emissions.

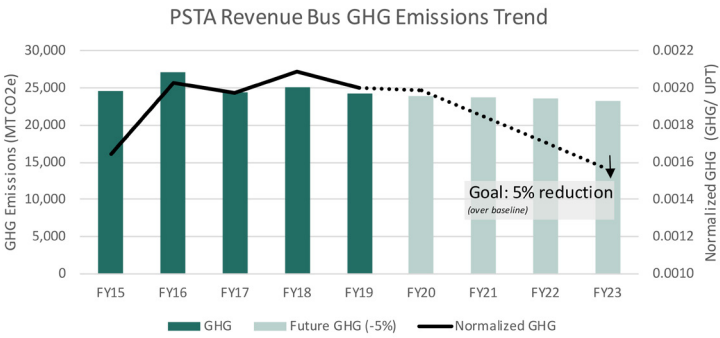


Figure 13: GHG reduction goals for PSTA Revenue bus fleet

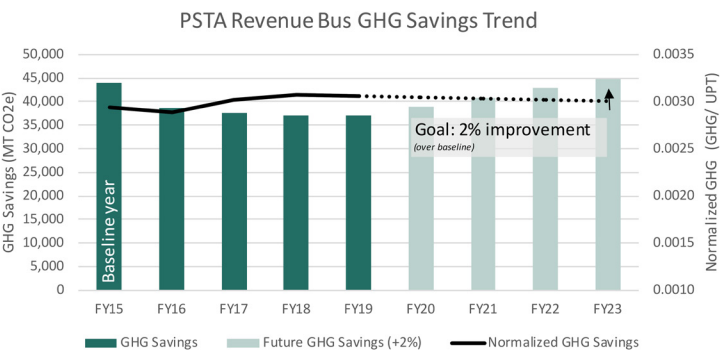


Figure 14: GHG savings increase goals for PSTA Revenue bus fleet

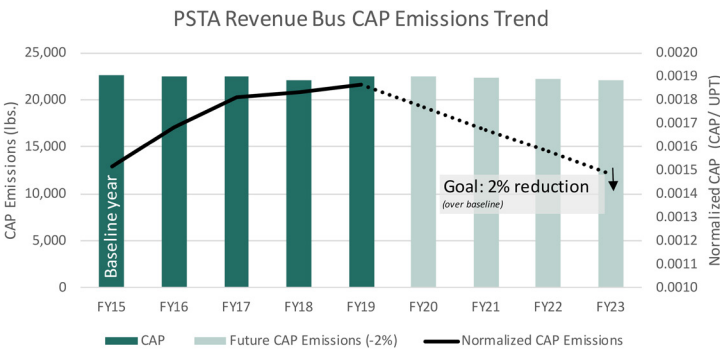


Figure 15: CAP reduction for PSTA Revenue bus fleet

Overall, FY19 GHG savings or displacement decreased by 16 percent from baseline year FY15. When looking at the normalized GHG savings, GHG/UPT has increased by 4 percent in FY19 from FY15 (Figure 14). This means that the current goal of 2 percent for normalized savings has already been achieved. However, as seen in the historical data, it can vary widely from year-to-year. These calculations are heavily reliant on increasing ridership and trips on PSTA.

Overall, FY19 CAP emissions have decreased by 0.1 percent from baseline year FY15. When looking at normalized CAP emissions, CAP/UPT has increased by 23 percent in FY19 from FY15 (Figure 15). The normalized amount does not reflect the general direction that PSTA wants to take. However, as the fleet adds more electric buses and reduces reliance on diesel fuel, PSTA expects this trend to shift downwards.

PROJECTS AND ACTIONS

All three indicators for air quality (GHG emissions, GHG savings, and CAP emissions) are heavily dependent on PSTA’s energy usage and ridership; therefore, actions to improve air quality are heavily linked to other sections (Energy and Ridership). However, there are some direct actions that PSTA plans to focus on that will allow a reduction in emissions while benefiting the local community. This plan approaches air quality from multiple perspectives, which are captured in the following project initiatives and actions that have been developed through working sessions with PSTA staff and department leads.

Project 1: Convert fleet to environmentally friendly vehicles

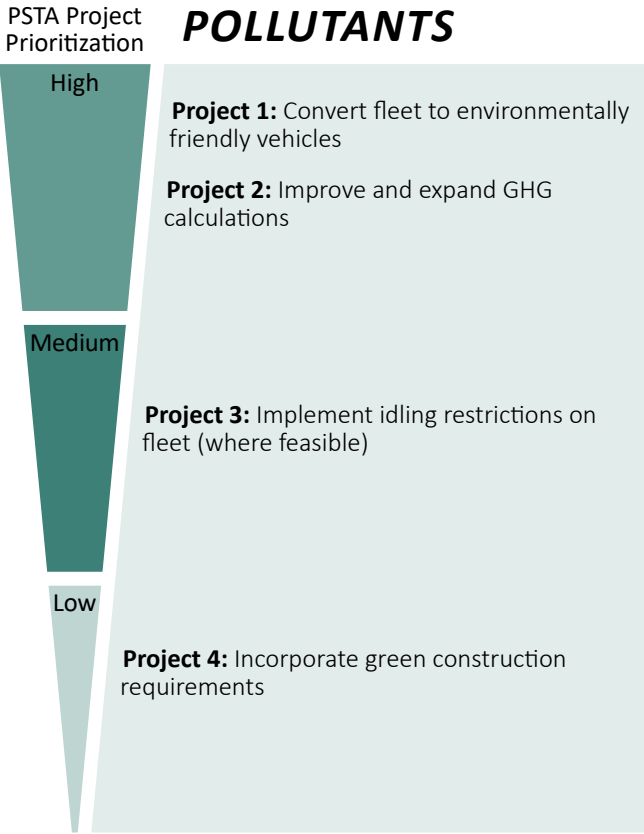
PSTA has already begun to convert its fleet to more environmentally friendly vehicles through the procurement of diesel-hybrid and electric buses. As of FY20, PSTA’s bus fleet comprises 56 percent diesel, 43 percent hybrid and 1 percent electric buses.

Continuing to convert the fleet away from older, less efficient diesel buses to more hybrids and electric buses will have the following benefits:

- Reduces GHG and CAP emissions.
- Reduces overall diesel fuel use and associated costs.

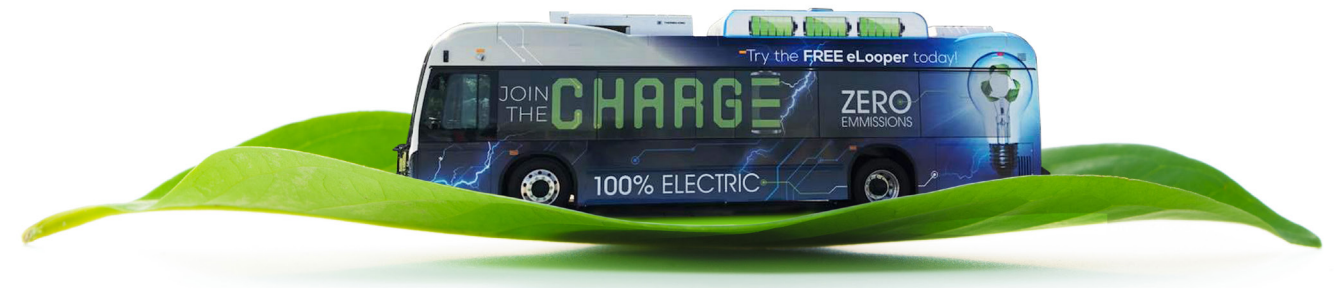
The plan is to continue to procure additional electric buses and to build out the electric vehicle charging infrastructure at PSTA and in the surrounding area over the next couple of years. This project is being led by the Maintenance department with support from Finance.

GREENHOUSE GASES AND CRITERIA AIR POLLUTANTS



Project 2: Improve and expand GHG emission and displacement calculations

Currently, PSTA GHG emissions are solely calculated for the revenue diesel bus fleet. Expanding and improving calculations by including all relevant emissions sources such as facility electricity and gas use, non-revenue fleet, and contracted revenue fleet will provide a more holistic look at PSTA operations and total emissions.



PSTA’s electric bus sustainable graphic (Source: PSTA)

Reliable and meaningful GHG emissions data furthers the implementation of PSTA’s operational and environmental stewardship goals, including:

- Identifying agency wide GHG emissions sources and quantities generated.
- Fostering evaluation of energy efficiency and cost-saving initiatives.
- Increasing the confidence and reliability of GHG data to be used in support of internal decision making and for external reporting.
- Assessing the benefits from emissions displacement of passenger vehicles, which can be used to promote the significant environmental benefits of using PSTA.

PSTA will use the most current guidance and emission factors from APTA, The Climate Registry, and the US EPA when preparing the annual emission inventory.

Holistic and accurate GHG calculations and tracking is a key sustainability indicator for transit agencies. The APTA Sustainability Commitment, of which PSTA is a Silver level member, includes GHG emissions and GHG displacement as core metrics. This project will be led by the Planning department with support from Maintenance.

Project 3: Implement idling restrictions on fleet (where feasible)

Many transit agencies implement anti-idling policies, which limit the time that bus operators can idle the vehicle when stopped and not actively transporting customers. This effort of implementing idling restrictions on fleet has the following advatages:

- Reduces tailpipe emissions from buses.
- Saves on fuel and associated costs by reducing engine runtimes.

Given the location in Florida with high heat and humidity, turning off the air conditioning is not

entirely feasible when considering the health and safety of PSTA’s riders and employees. PSTA will explore implementing idling restrictions in the hybrid bus fleet where the engine itself would shut down when stopped after an allotted time period, but the air conditioning would still run to keep the occupants safe and cool.

This project will be led by the Maintenance department with support from Transportation Operations.

Project 4: Incorporate green construction requirements

Construction often relies on large diesel-powered engines, which are a major source of harmful pollutants. To reduce PSTA’s air quality impact during capital projects, PSTA plans to incorporate green construction requirements into the contracting process to use greener and less polluting construction equipment and vehicles, as well as evaluate the impact of the green construction requirements relative to cost. By requiring the use of construction equipment that relies on renewable diesel or less polluting fuels, PSTA could potentially reduce harmful emissions on-site without impacting the cost and schedule of construction projects. Other examples of green construction requirements include recycling of construction materials waste, renewable materials selection, as well as implementing idling restrictions on-site.

The benefits of this project include the following:

- Ensures improved resource efficiency.
- Ensures waste reduction.
- Reduces GHG and CAP emissions.
- Supports green job creation.

This project will be led by the Project Management department with support from Finance (Procurement) and Transportation Operations (Safety, Security, and Training).

IMPLEMENTATION ROADMAP

GHGs and CAPs Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Convert fleet to environmentally friendly vehicles	24	MN / FN	Short-Long	\$\$\$	●	●	●
Improve and expand GHG calculations	1	PL / MN	Short	\$		●	
Incorporate green construction requirements	12	PMO / FN (PR), OPS (SST)	Short	\$		●	
Implement idling restrictions on fleet (where feasible)	2	MN / OPS	Medium	\$		●	●

By reducing GHG and CAP emissions, while also providing public transit and GHG savings, PSTA will improve the region’s air quality. As the primary public transit agency in Pinellas County with hundreds of buses and several upcoming

capital projects, these impacts can be significant. These efforts have community and economic co-benefits including reducing fuel cost for PSTA and contributing to improving the community respiratory health.



PSTA’s new addition to the electric bus fleet idling with cleaner air on Clearwater Beach (Source: PSTA)



PSTA Bus Stop (Source: PSTA)



CHAPTER 4: ECONOMIC VITALITY

An important component of the TBL is economics. PSTA’s approach toward economic vitality for riders and employees includes improving ridership and mobility, improving operating expense performance, and establishing sustainable procurement policies.

PSTA’s primary goal is to maintain service and to fully participate in collaborative transportation policy and priority setting as well as financial partnerships with other federal, state, and regional partners to ensure that PSTA has financial stability for both capital projects and operations in the long term. The goals and projects identified in this section are integral to the healthy community and workforce and environmental sustainability sections.

RIDERSHIP AND MOBILITY

As the Pinellas County public transportation provider, PSTA provides essential fixed-route bus service as well as ADA paratransit service and innovative mobility programs. PSTA also partners with local municipalities and FDOT to improve the rider experience and attract ridership. Over the years PSTA has implemented various programs to enhance transit services in Pinellas County, including but not limited to the following:

- Created the Mobility on Demand program and integrated paratransit eligibility process to provide more mobility options and deliver cost effective service for disabled customers.

- Created the first/last mile Direct Connect Program that allows riders to use private taxis, wheelchair vans, or transportation network companies (TNC) to travel to and from the bus network from areas that are not within a comfortable walking distance.
- Implemented the Transportation Disadvantaged (TD) Late Shift program which allows lower-income bus riders to get on-demand trips to/from work during late night or early morning hours when the fixed route system isn’t running.
- Implemented the Essential Workers Program, a variation of the TD Late Shift program, to get essential workers to and from their jobs during the COVID-19 pandemic when a bus is not available due to passenger limits or reduced service.
- Collaborated with Advent Health North Pinellas and The City of Tarpon Springs to create a mobility on demand program for low-income seniors—Healthy Hop.
- Developed a University and Corporate Pass Program (UPASS/CPASS) to increase access to transit for students, employees, and hotel visitors.
- Implemented a New Bus Shelter Deployment Program and amenities partnership program.
- Advanced a regional fare collection project including SmartCard/Mobile Pay.
- Implemented bus-on-shoulder pilot project on I-275 and expanded regional express services.

Consistent with the APTA guidance, PSTA is committed to report on the following key metrics related to core transit services and ridership.

Innovative Mobility

Benefits of the TD Late Shift Program

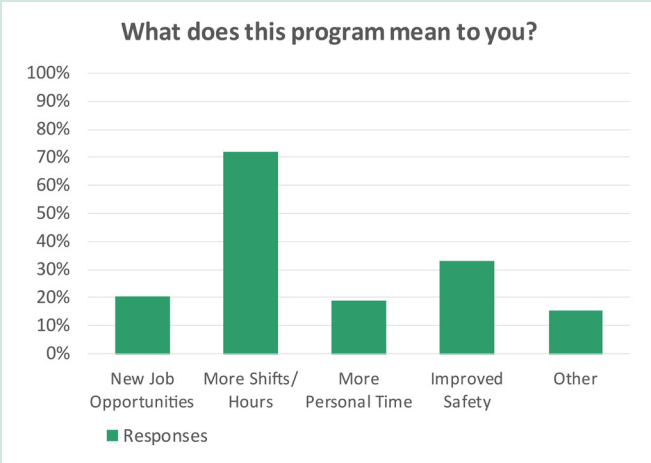
PSTA has been operating the TD Late Shift program for more than 4 years, with the assistance of a grant from the Florida Department of Transportation. This program allows lower-income bus riders to receive late night/early morning trips to or from their jobs via transportation network companies, taxi providers, or wheelchair van services.

The program has been very successful at meeting its goals to provide high quality, on-demand service. Over 80 percent of program participants surveyed in FY20 said that the program has allowed them to take on more shifts and hours, ultimately improving their household economics. Over 40 percent felt safer than walking or biking home in the dark.

Over 20 percent of participants reported getting a new job or having more personal/family time due to the program.



Eligible riders with jobs during the late-night hours are able get rides home from work on PSTA's innovative TD Late Shift program (Source: PSTA)



“The program is important to me because it has allowed me to become a full-time employee, making more money for my family, and giving me a safe way home at night.” Heather Stuckrath TD Late Shift program user.

The term UPT is defined as a total number of times passengers board public transportation vehicles. Consistent with trends nation-wide, PSTA has experienced a decline in passenger trips over the last several years. The cause of this trend is multi-faceted. According to the USDOT, research shows that growth in personal vehicle ownership, reduced gas prices, and the increase in popularity of rideshare services are among the main factors impacting public transit ridership.⁶ More recently, the COVID-19 pandemic caused a large drop in ridership that has not fully come back as of the end of 2020. To encourage ridership, PSTA is fully committed to implementing new programs and initiatives to improve local and regional transit service and enhance the customer experience to make public transit attractive to residents and visitors of Pinellas County.

GOALS

Ridership has been impacted significantly due to the pandemic beginning in 2020. Transit ridership

has dropped considerably since COVID-19 emerged due to the reduced trip demands and social distancing requirements. PSTA initially reduced service to a level that would provide mobility for essential workers and services while maintaining service on key routes with the highest ridership. Through a series of service changes, PSTA has been bringing services back and in some cases adding service where passenger loads are higher. A primary goal for PSTA moving forward is to restore ridership to pre-COVID levels.

Overall ridership had decreased from 14.9 million UPT in FY15 to 12 million in FY19. VMT has remained steady from 10.1 million miles in FY15 to 10 million miles in FY19. RH has shown an increase from 617,089 in FY15 to 663,583 in FY19. Although PSTA has experienced a reduction in ridership in FY20 (as seen in Figure 16 and Figure 17), as all transportation agencies have experienced due to COVID-19, PSTA is positioned to restore and enhance transit service effectively.

Ridership and Mobility Goal			
Goal	Description	Target	Target Year
1	Improve On-Time Performance	75%	FY22
		85%	FY25
2	Restore ridership back to pre-COVID	FY19 Fixed Route Ridership	FY23

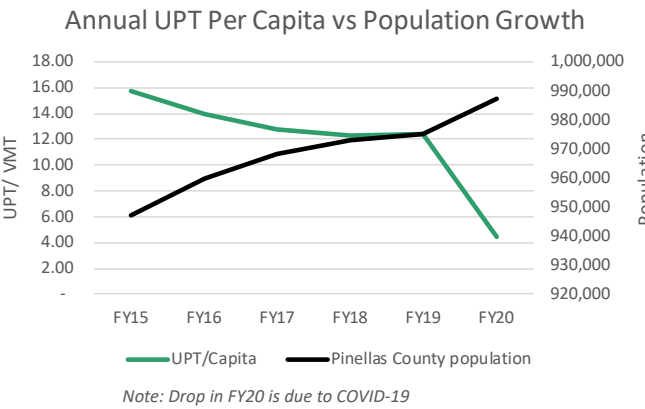


Figure 16: Annual UPT per capita vs population growth

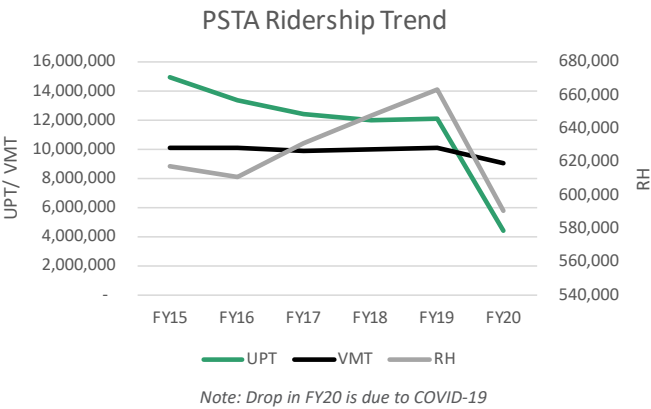


Figure 17: PSTA ridership trend

6 Source: <https://fas.org/sgp/crs/misc/R45144.pdf>

PROJECTS AND ACTIONS

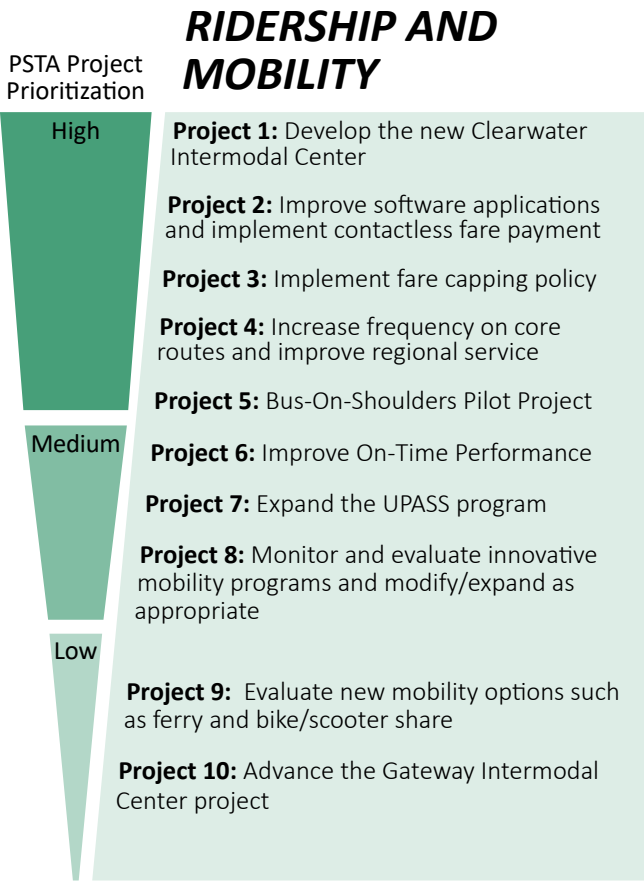
PSTA plans to implement a variety of projects and initiatives to support the recovery of ridership post-COVID. These projects have been discussed among multiple departments and prioritized by evaluating the relevant timeframe to implement, responsible departments, cost to implement, and potential co-benefits.

Project 1: Develop the new Clearwater Intermodal Center

The Park Street Terminal in downtown Clearwater is currently over capacity and will be replaced by the new Clearwater Intermodal Center. The development process has kicked off with site selection followed by environmental analysis and design. PSTA is working closely with the City of Clearwater and Pinellas County on this project and will consider the incorporation of green building practices.

The new Clearwater Intermodal Center will provide the following benefits:

- Increases public transit capacity for downtown Clearwater and the surrounding region.
- Improves customer transit experience.
- Integrates with the Clearwater Downtown Redevelopment Plan.



- Promotes economic growth.
 - Increases ridership over time.
- This project is being led by the Project Management department with support from the Executive CEO office, Planning, Finance, Marketing and Communications.



PSTA’s Park Street Terminal that is being replaced by the new Clearwater Intermodal Center (Source: Tampa Bay Times)

Project 2: Improve software applications and implement contactless fare payment

PSTA plans to develop new software applications or enhance existing software to provide better services. This will include the implementation of the contactless smartcard application. The new Flamingo Fare allows riders to pay using a reloadable smartcard or smartphone App. The improved software application will help to simplify transit use.

Improving the software application will provide the following benefits:

- Improves customer and transit experience.
- Ensures better integration of various programs.
- Improves data tracking and management.
- Helps identify areas for continued improvements.
- Increases ridership and mobility.
- Improves equity.

This project will be led by the IT department with support from Project Management and Finance.

Project 3: Implement fare capping policy

In 2020, PSTA partnered with HART to roll out Flamingo Fares. This new regional fare payment system will allow riders to access all PSTA and HART bus services including the TECO Line Streetcar System, Looper Trolley, and Jolley Trolley. The new system will also allow customers to take advantage of the fare capping option, which caps the cost at \$5 per day per rider. Similarly, PSTA will offer monthly fare capping that allows customers to earn a monthly pass once they have paid \$70 in a calendar month. After reaching the cap, the customers can use public transit for free during the rest of that month.

The Fare Capping Policy will provide the following benefits:

- Reduces cost of fare for frequent riders.
- Encourages more customers to take public transit more frequently.

- Improves system efficiency.
- Allows for better tracking of fare through improved software.
- Increases equity.

This project will be led by the Finance department with support from Transportation Operations and Planning.

Project 4: Increase frequency on core routes and improve regional service

During COVID-19, PSTA reduced transit service in response to the decrease in demand. As communities recover from COVID-19, PSTA will prioritize and increase frequency on core routes and improve regional service. Addressing the more critical routes and regional express routes will help meet the most increase in demand post-COVID and support recovery of ridership. An increase in frequency is planned in the following corridors and regional express routes:

- East Bay/49th
- Alternate 19/Seminole Blvd
- 34th Street
- Gulf-to-Bay
- 4th St./Ulmerton
- US 19
- 100X

New regional service planned includes the following:

- 300X
- Clearwater Beach Express
- St. Petersburg Airport Express

Increased frequency and improved regional services will have the following benefits:

- Addresses highest service demand in key corridors.

- Prioritizes recovery of PSTA public transit services in the most needed neighborhoods.
- Prioritizes resources and programs for core routes and regional express routes.
- Increases ridership.

This project will be led by the Planning department with support from Marketing and Communications.

Project 5: Bus-On-Shoulders Pilot Project

PSTA in coordination with FDOT is working to introduce the “Bus on Shoulder” concept to Pinellas County. With the extension of route 100X service further south to downtown St. Petersburg, FDOT identified a five-mile segment of the I-275 corridor between 22nd Ave N and the Gandy Boulevard interchange to run the pilot program. PSTA is purchasing and installing Opticom ITS equipment on six (6) buses to communicate with the ramp signals to control the flow of traffic coming from the on-ramp and provide clearance for the buses driving on the shoulder to safely cross the ramp intersection.

The benefits of this project include the following:

- Increases connectivity.
- Improves travel times.
- Improves system reliability.
- Increases transit visibility.

This project will be led by the Planning department with support from Transportation Operations.

Project 6: Improve On-Time Performance

On-time performance is important to ensure reliability of the transit network. PSTA measures on-time performance as the percentage of buses that depart within 0-5 minutes of scheduled departure time. In FY19, PSTA’s systemwide on-time performance was approximately 68%. Using data analysis, customer and operator information, and scheduling strategies, PSTA is working to improve this to 75% in the short term, with a longer term goal of 85%.

The benefits of this project include the following:

- Improves system reliability.
- Improves customer experience.
- Increases ridership over time.

This project will be led by the Planning and Transportation Operations departments.

Project 7: Expand the UPASS program

PSTA’s UPASS program allows schools, universities, agencies, and major employers to pay an annual rate in exchange for unlimited public transit access for their students or employees. The program has proven to be effective to grow ridership over time.

PSTA plans to pursue additional UPASS/CPASS partners with more hotels and businesses. Expanding the program will promote public transit service to more employees, students, and visitors by making transit easier to use and even more affordable. Expanding the UPASS program will provide the following benefits:

- Increases ridership over time.
- Provides public transit service to larger organizations.
- Maintains fare affordability.
- Improves the efficiency of public transit.

This project will be led by the Planning department with support from the Executive CEO Office and Finance.



PSTA providing information to students about how to ride the bus with UPASS partner St. Petersburg College (Source: PSTA)

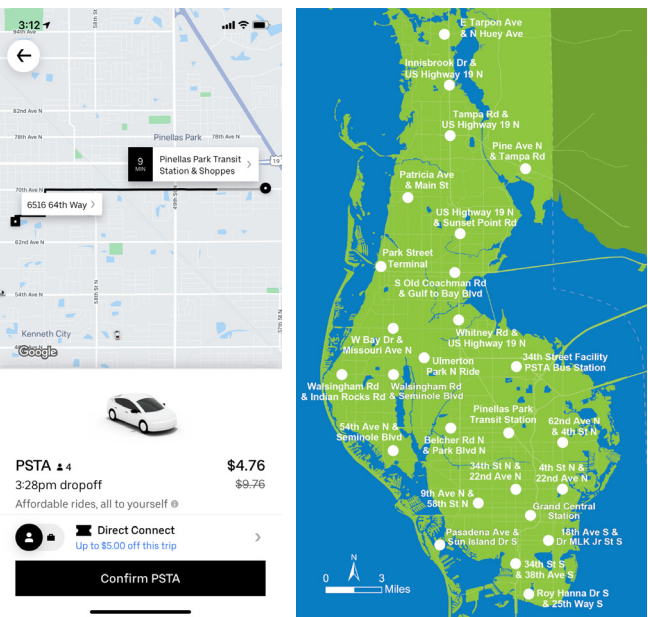
Since its inception in 2014, UPASS ridership has increased from 10,000 rides per month to 40,000 rides per month.

Project 8: Monitor and evaluate innovative mobility programs and modify/expand as appropriate

PSTA has multiple innovative mobility programs that allow riders to receive on-demand trips from several service providers including taxis, TNCs, and wheelchair accessible vans. These include TD Late Shift, Direct Connect, TD Direct Connect, Healthy Hop, and Mobility on Demand. These programs supplement PSTA fixed route and paratransit services to increase access to transit and overall mobility. Ridership, utilization, and trip costs should continue to be monitored and evaluated and the programs modified or expanded as appropriate to ensure they continue to provide high quality, cost effective mobility solutions.



Wheelchair accessible vans contracted by PSTA (Source: PSTA)



PSTA’s Direct Connect mobility program (Source: PSTA)

This project will provide the following benefits:

- Increases ridership over time.
- Improves customer transit experience.
- Promotes overall mobility for all users of the transportation system.
- Ensures cost effective service delivery.

This project will be led by the Transportation Operations department with support from Planning.

Project 9: Evaluate new mobility options and technology solutions

PSTA continues to evaluate how to integrate new Mobility as a Service (MaaS) programs and technologies into its service offerings. This includes an evaluation of autonomous vehicle technology and the 3-month AVA pilot being tested in downtown St. Petersburg, how to expand ferry services countywide and regionally, and an expansion of bike/scooter share countywide. This project also includes evaluation of how to better integrate real-time information, fare payment, and trip planning through technology solutions.

This project will provide the following benefits:

- Increases ridership over time.
- Improves customer transit experience.
- Promotes overall mobility for all users of the transportation system.

This project will be led by the Transportation Operations department with support from Planning.

Project 10: Advance the Gateway Intermodal Center

PSTA currently serves mid-county with a transfer center adjacent to a shopping mall and at the PSTA layby. The location of the Gateway Mall transfer center requires regional and local routes to deviate off the main route to serve it, creating service inefficiencies.

It is a long-term priority to develop a more centralized Gateway Intermodal Center to better service the largest employment center in Pinellas County and to create more multi-modal, local, and regional connections. The project will consider the incorporation of green building practices.

The Gateway Intermodal Center will provide the following benefits:

- Improves customer transit experience.
- Integrates with the Gateway Master Plan.
- Promotes economic growth.
- Increases ridership over time.

This project will be led by the Planning department with support from Project Management.



PSTA’s battery-powered electric bus at the Suncoast Beach Trolley stop (Source: PSTA)

IMPLEMENTATION ROADMAP

Ridership and Mobility Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Develop the new Clearwater Intermodal Center	2	PMO / EX, PL, FN, M&C	Medium	\$\$\$	●	●	●
Improve software applications and implement contactless fare payment	2	IT / PMO, FN	Medium	\$\$	●		●
Implement fare capping policy	2	FN / OPS, PL	Short	\$	●		●
Increase frequency on core routes and regional express	2	PL / M&C	Short	\$\$\$	●	●	●
Bus-On-Shoulders Pilot Project	1	PL / OPS	Short	\$\$	●		●
Improve On-Time Performance	1	PL, OPS	Short	\$	●		●
Expand the UPASS program	2	PL / EX, FN	Short	\$\$	●	●	●
Monitor and evaluate innovative mobility programs and modify/expand as appropriate	2	OPS / PL	Short	\$	●		●
Evaluate new mobility options and technology solutions	2	OPS / PL	Short	\$	●		●
Advance the Gateway Intermodal Center	1	PL / PMO	Long	\$\$\$	●	●	●

COVID-19 has significantly impacted public transportation operations throughout the country. National transit organizations are releasing guidelines and resources to help transit agencies with post-COVID recovery. Following the guidelines, PSTA has been implementing additional and enhanced measures to ensure the safety of employees and passengers and

increase public confidence in transit. Recovery from COVID-19 is a high priority for the authority. The projects highlighted in the table above are specific action items based on input from various departments at PSTA. Many have co-benefits gained through increased ridership, improved customer service, enhanced mobility, and increased support for the local economy.

OPERATING EXPENSES

Fiscal and financial responsibility is a critical component of sustainability at PSTA. Annual operating expense has been trending upward since 2015. These increases are accompanied by expansion of bus routes and additional mobility programs. These programs and initiatives help provide a more convenient and robust transit system for residents and visitors of Pinellas County.

GOALS

PSTA operating expenses increased from \$63.4 million in FY15 to \$85.3 million in FY20. The operating expenses per vehicle mile grew from \$6.26 in FY15 to \$9.41 in FY20. Due to the impact of COVID-19 and recovery process, PSTA established a goal to maintain operating expenses at the same level as FY19, while implementing a plan to restore services and ridership.



PSTA Bus Operator Milan Rakovic and Safety, Security, and Training officer A.J. Ortiz completing Operator Refresher Training (Source: PSTA)

Operating Expenses Goal			
Goal	Description	Target	Target Year
1	Improve operating expense performance	Maintain FY19 level	FY22

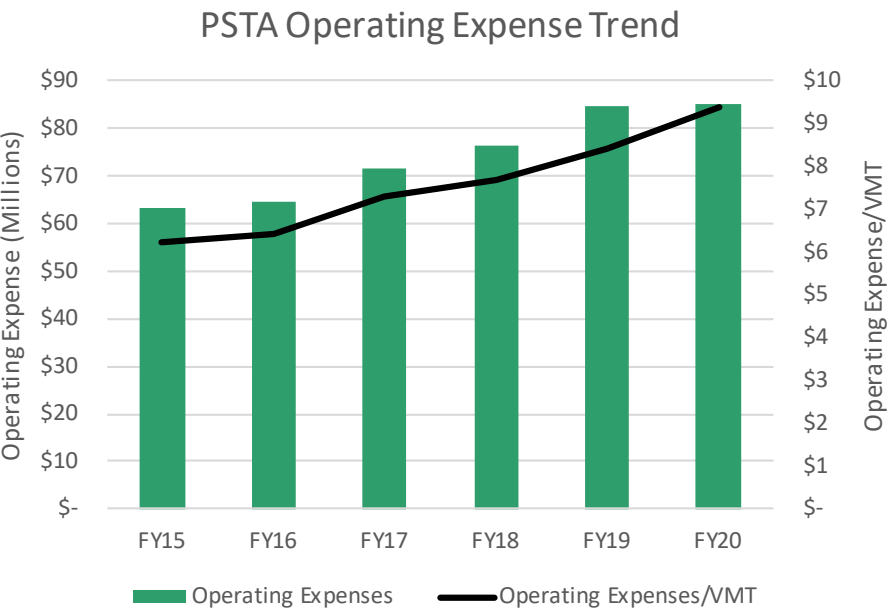


Figure 18: Operating expense and efficiency trend

Grant Awards

In FY20, PSTA was awarded 5 discretionary federal grants totaling more than \$23 million and 2 discretionary state grants for \$900,000.

Federal grants will fund a public safety initiative, bus purchases, increased functionality of Transit App (PSTA’s real-time bus information), and construction of the SunRunner BRT Line. The state funding allows for the continuation of the TD Late Shift and Direct Connect Programs.

FY19 federal and state grant awards totaling \$2.5 million were used for transit-oriented development planning along the BRT corridor, bus purchases, and the development and continuation of integrated mobility programs, including the Mobility on Demand program that helps to reduce PSTA’s cost to provide door-to-door trips for paratransit customers.

“As a member of the powerful Appropriations Committee, I’ve been proud to provide funding to support PSTA as they work to connect our growing beach communities and St. Pete’s exciting Central Avenue districts,” said Congressman Charlie Crist. “I look forward to the completion of the SunRunner and the opportunities it will bring to support our local businesses, drive tourism, and propel sustainable development for generations to come.”



USDOT award delivered by Congressman Crist during SunRunner BRT Groundbreaking (Source: PSTA)

PROJECTS AND ACTIONS

PSTA identified four projects to improve operational expense efficiency. Two of these projects are confirmed as high priority efforts: improve efficient operations and cost reductions while maintaining a reserve and continue to test routes with electric buses. These projects have been discussed among multiple departments and prioritized by evaluating the relevant timeframe to implement, cost to implement, and potential co-benefits.

Project 1: Improve efficient operations and cost reductions while maintaining a reserve

PSTA’s focus in FY21 is to maintain service to Pinellas County, improve efficiency of operations, and to fully participate in financial partnership with federal, state, and regional partners to ensure the financial stability for both long-term operations and capital improvement projects.

Net reserve is typically not budgeted as a resource to support routine annual operating expenses. It is a resource to support capital, debt, or extraordinary significant maintenance needs and typically not recurring costs. Maintaining a reserve will help to strengthen safety and resiliency for PSTA and Pinellas County.

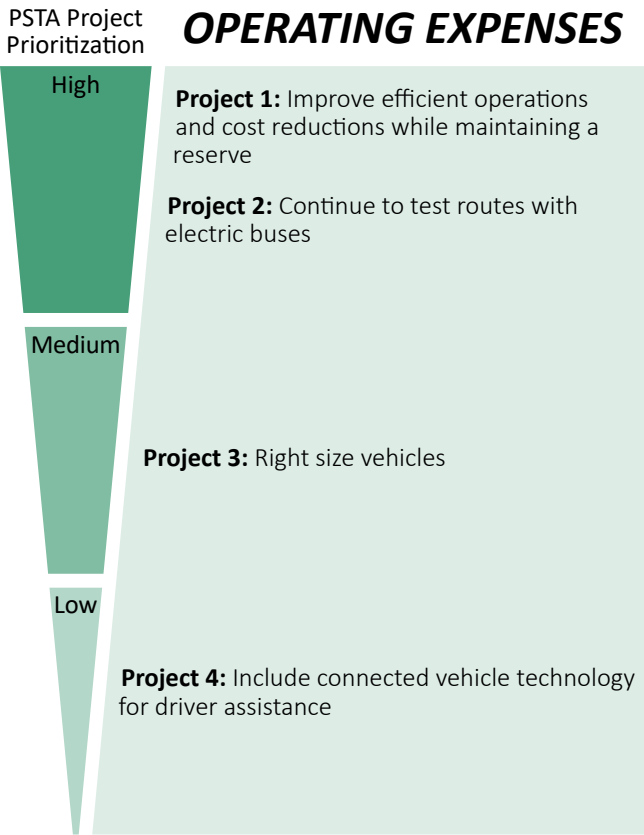
Improving operational efficiency while maintaining a reserve provides the following benefits:

- Secures funding to implement capital improvement projects overtime.
- Improves ridership and customer service.
- Stimulates local economy and job growth.

This project will be led by the Transportation Operations team, supported by Finance, Executive, and Planning.

Project 2: Continue to test routes with electric buses

For the bus replacement program, PSTA has been working with federal, state, and community partners to advocate for capital funding for



electric buses and electric charging infrastructure in support of long-term sustainability and operational efficiency. As additional electric buses become available, PSTA will continue to test new routes and expand the necessary infrastructure.

Testing new routes with electric buses provides the following benefits:

- Reduces energy consumption and cost of fuel.
- Improves air quality and minimizes GHG emissions.
- Enhances the PSTA procurement program.
- Replaces conventional buses with zero-emission buses.
- Provides cleaner and quieter public transit options.
- Ensures efficient deployment of electric buses.

This project will be led by the Operations team, supported by Marketing and Communications.

Project 3: Right size vehicles

PSTA continues to improve the provision of cost-efficient and effective public transit service to the public. To achieve higher efficiency, PSTA will evaluate and monitor service needs on an ongoing basis, while adjusting vehicle sizes accordingly. Oversized vehicles beyond demand should be minimized to control both capital costs and maintenance costs.

Right sizing vehicles provides the following benefits:

- Improves operation expense efficiency by reducing capital and maintenance costs.
- Increases community support.
- Improves fleet efficiency by maintaining sustainable, fuel-efficient fleets.
- Reduces GHG emissions and improves air quality.
- Increases community support.

This effort will be led by the Finance department and supported by Planning and Maintenance.

Project 4: Include connected vehicle technology for driver assistance

PSTA has been partnering with the FDOT to test various vehicle technologies. Connected vehicle technology will assist drivers in navigating the roads more efficiently, as well as transportation system operators to improve transit operations, reduce congestion, reduce travel delay, and improve overall mobility. This will also help improve operational efficiency and reduce costs.

The incorporation of connected vehicle technology provides the following benefits:

- Improves operating expense efficiency.
- Enhances safety and security.
- Reduces roadway congestion.
- Reduces travel delays.
- Improves rider experience.

The project will be led by the IT department and supported by Transportation Operations, Planning, and Maintenance.

IMPLEMENTATION ROADMAP

Operating Expenses Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Improve efficient operations and cost reductions while maintaining a reserve	1	OPS / FN, EX, PL	Short	\$	●		●
Continue to test routes with electric buses	1	OPS / M&C	Short	\$	●	●	●
Right size vehicles	1	FN / PL, MN	Medium	\$\$	●	●	●
Include connected vehicle technology for driver assistance	1	IT / OPS, PL, MN	Short	\$\$	●	●	●

PSTA operating expenses include the cost of operating, maintaining, and supporting transit services and related capital assets, administrative expenses, and depreciation. The four projects summarized above have been identified as key action items based on working sessions and discussions with various PSTA departments and

representatives. Many of the projects will require collaboration among multiple departments to ensure successful implementation. All four projects will have direct or indirect benefits for the community, environment, and economy, supporting a TBL approach of the SSP.

PROCUREMENT


Sustainable procurement is about taking social and environmental factors into consideration alongside financial factors in making procurement decisions. It involves looking beyond the traditional economic parameters and making decisions based on the whole life cost, the associated risks, and measures of success and implications for society and the environment. Through its current procurement process, PSTA strives to foster open competition in the business community, promoting integrity, public confidence and accountability of PSTA procurement and contracting. Procurement currently does not have standard green or sustainable practices, creating a significant opportunity to affect sustainable performance. By implementing sustainable or green procurement policies, PSTA may consider the following factors at the time of purchasing and/or contracting assets, supplies, or services:

- Value considerations such as price, quality, availability, functionality, durability, and sustainability.

- Sustainable or recycled materials/product considerations to encourage bids/proposals from suitable vendors with sustainability credentials and experience. Sustainability criteria may be given additional weight to facilitate bidder selection.
- Healthy communities and workforce considerations to promote diversity and inclusion as well as well-being.
- Environmental considerations such as “green procurement” methods to reduce waste and support a whole life-cycle approach to assets, supplies, and services.
- Economic vitality considerations to promote local businesses and services.

GOALS

The goals related to procurement are summarized below.

Goal	Procurement Goal Description	Target	Target Year
	Establish green procurement practices	Draft and final policy development	FY22



PSTA Suncoast Beach Trolley in front of Pier 60 on Clearwater Beach, voted #1 beach in the country in 2018 (Source: PSTA)

PROJECTS AND ACTIONS

PSTA has identified two projects related to sustainable procurement. The sections below identify each prioritized project, followed by a brief description of each project, timeframe to implement, responsible department(s), and co-benefits.

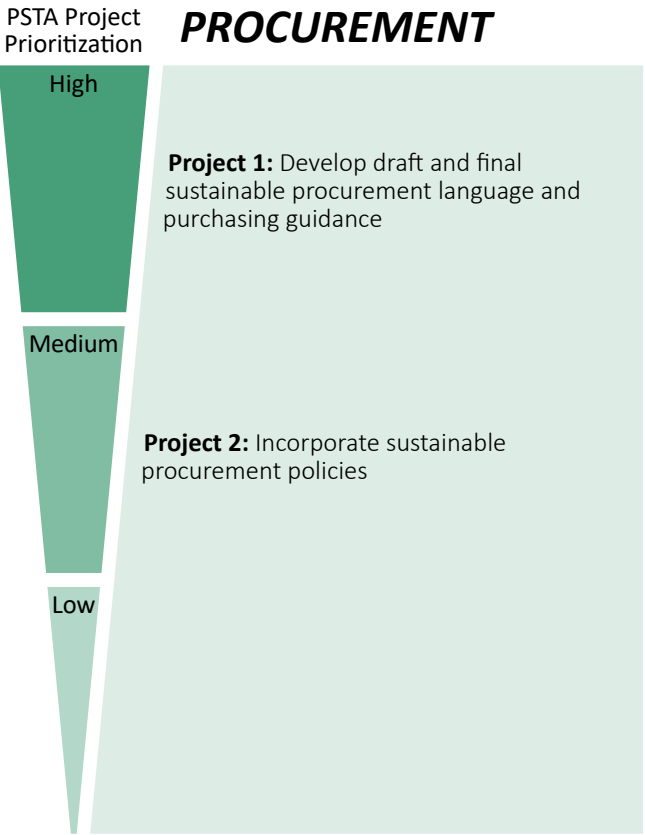
Project 1: Develop draft and final sustainable procurement language and purchasing guidance

This project will develop draft and final sustainable or green procurement language and/or specifications to incorporate into bidding, contracting, and purchasing. Purchasing activities have a fundamental role in minimizing environmental impact (energy, water, and waste in particular) and managing risks. Source reduction and reuse are the first priorities in the solid waste management hierarchy, and sustainable procurement and green purchasing is one of the ways to address that. PSTA can make an impact through integration of circular economic principles by ordering products that produce less waste, are comprised of recycled materials, and save on resources like energy and water.

Consistent with PSTA’s goals to reduce resource consumption and reduce operating expenses, this project aims at developing guidance for sustainable procurement and green purchasing that may incorporate the following principles:

- Encourage shifting to products with reduced product life-cycle impact.
- Consider total cost of ownership rather than low purchase price as the only factor when evaluating the financial competitiveness of purchasing decisions.
- Require sustainability standards and certifications whenever possible, with preference for those which are developed by third parties and independently.

7 Source: <http://www.epa.gov/cpg/> and www.epa.gov/oppt/epp.



- Monitor purchasing and procurement activities.
- Target low-flow water fixtures where feasible.
- Specify energy saving equipment and vehicles.
- Incorporate green building practices.

Sustainable procurement programs may provide tangible benefits to PSTA such as the following:

- Minimizes environmental footprint and GHG emissions.
- Prevents waste and reduces hauling costs.
- Promotes “de-siloing” of sustainability efforts.

EPA’s *Comprehensive Procurement Guideline* and EPA’s *Environmentally Preferable Purchasing* website are good resources to reference while developing these guidelines.⁷

The project will be led by the Finance (Procurement) department and supported by Project Management and Planning.

Project 2: Incorporate sustainable procurement policies

This project is the actual execution and rollout of the final sustainable procurement language and purchasing guidance. While this will be a process to implement, each contract and supply order will ultimately have significant benefits for PSTA and will not necessarily mean increased costs—in fact, in a competitive pricing environment, costs may stay the same or perhaps go down while sustainable performance increases. PSTA’s procurement department has proven from its success in the DBE program that partnering with vendors, contractors, and suppliers can be a win-win. Building off this success, the procurement department has systems and procedures in place to draw upon for executing sustainable procurement policies.

- Incorporating sustainable procurement policies provides the following benefits:
- Achieves lower costs, higher quality, improved safety and enhanced sustainability
 - Improves PSTA operational efficiency and financial performance.
 - Establishes best practice standards for the local business community.
 - Promotes local economy growth by supporting small business enterprises and disadvantaged business enterprises.

The project will be led by the Finance (Procurement) department and supported by Project Management.

IMPLEMENTATION ROADMAP

Procurement Project	Goal Addressed	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
					Community	Environment	Economy
Develop draft and final sustainable procurement language and procedures	1	FN(PR) / PMO, PL	Short	\$	●	●	●
Incorporate sustainable procurement policies	1	FN(PR) / PMO	Short	\$	●	●	●



Jolley Trolley picking up riders at the Clearwater Transit Center (Source: PSTA)

The procurement projects identified, including developing and implementing sustainable procurement language, will have strong benefits for the environment, community, and economy. Co-benefits of achieving these projects may include minimizing energy, water, and waste; increased economic vitality; and increased commitment to the local economy. Effective procurement policy will support PSTA’s collaboration with diversified groups with a sense of fairness and equity. These projects have relatively low cost to implement but have high impact on the TBL for PSTA.

CAPITAL PROJECTS

Strategic capital investments will help to ensure that PSTA continues to provide effective, financially viable public transportation that supports the community, and not only sustains service but also grows service for the customers.

PSTA has set aside a \$64.5M budget for capital improvement projects in FY21.⁸

The FY21 proposed capital budget is focused on the sustainable bus replacement plan. The plan maintains emphasis on customer service through implementation of customer amenities such as new bus shelters, and the design and construction for the SunRunner BRT.

PSTA’s 10-year capitol priorities, as listed in the Advantage Pinellas Transit Plan, include both funded and unfunded projects that are aligned with PSTA’s overall goals associated with improvements in the following areas:

- Community Support
- Financial Sustainability
- Customer Satisfaction
- Employee Engagement
- Performance

The following capital projects incorporate sustainable actions to implement the SSP roadmap.



Figure 19: PSTA 10- year capital priorities (Source: PSTA)

8 Source: <https://www.psta.net/media/4975/fy-2021-proposed-budget-v1.pdf>

SunRunner BRT

Tampa Bay Region’s first Bus Rapid Transit

PSTA’s first BRT line has been advancing through the federal process for the last few years. On May 29, 2020, PSTA received notice that the FTA was awarding PSTA \$21.8 million for the project. The federal funding, in addition to state and local funding, will cover the costs of constructing the BRT line linking downtown St. Petersburg to the county’s world-famous beaches. The first transit project of its kind in the Tampa Bay region, BRT is a globally proven solution to improve transit reliability and address traffic congestion. Features on the Pinellas County project include semi-dedicated lanes, limited stops, and safety enhancements for riders including level boarding platforms and ADA-compliant crosswalks.

On August 17th, 2020, construction of the Tampa Bay Region’s first BRT began. Elected officials, board members, and PSTA staff broke ground on the SunRunner. Construction is expected to be complete in 2022.

PSTA also received Transit Oriented Development and Business Assistance grants that allow PSTA to work with Forward Pinellas and the local jurisdictions along the corridor to develop Transit Oriented Development design guidelines and to work with the businesses and communities along the corridor to provide information and minimize disruption during construction.

“The SunRunner will “be a tremendous boost to our economy, industry, and quality of life while also serving as a vision of what preferred transit service could be throughout our community” – Mayor Rick Kriseman, St. Petersburg

“This is the next chapter in a brand-new future of transportation options for our citizens that will make our community more economically competitive and the best place possible to live, work, and play,” said Past-Chair Commissioner Janet Long, of Pinellas County.



SunRunner BRT brand unveiling (Source: PSTA)

PROJECTS

PSTA’s 10-year capital priorities are highlighted in the table below. Regular revenue replacement vehicles, the SunRunner, and Flamingo Fares are funded for implementation. Unfunded projects would be considered as legislative priorities, for grant funding opportunities, or as part of a potential future local funding referendum. Projects and their relationship to PSTA’s Sustainable Strategic Plan are discussed below.

Project 1: Revenue replacement vehicles and expansion including electric bus infrastructure

PSTA had 124 buses that had reached their useful life as of August 2018. The agency has established a sustainable fleet plan to provide for extending the life of an aging bus fleet and to annually purchase a minimum of 8–9 buses. When purchasing new buses, the Board and staff evaluate various fuel technology options to balance sustainability with fiscal constraints. As of March 2020, PSTA operates 89 hybrid buses and two electric buses in addition to its diesel fleet. To support the expansion of electric buses, PSTA will also need to invest in additional electric bus charging infrastructure at its Scherer Drive facility and in-route charging infrastructure at PSTA transfer centers or other strategic locations within Pinellas County.

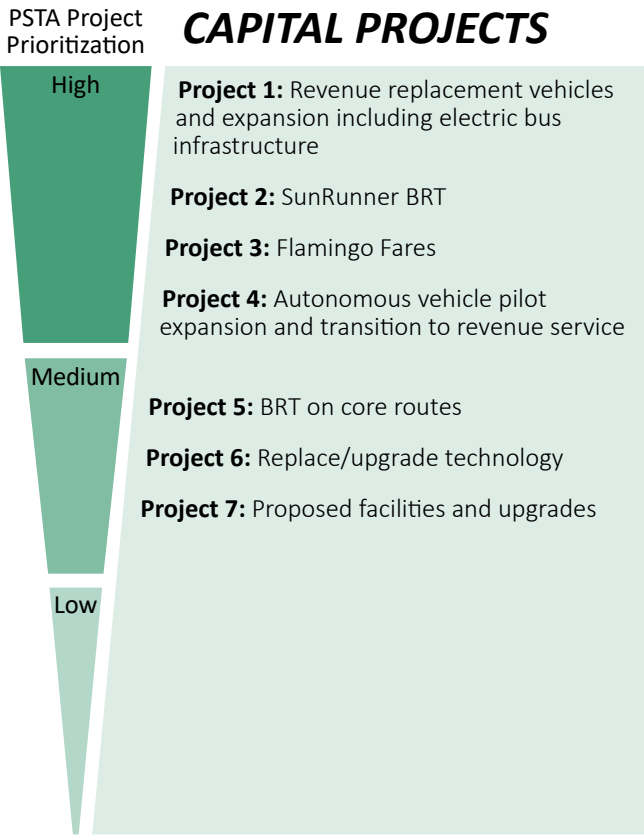
Benefits of this project include the following:

- Reduces energy and GHG emissions.
- Increases ridership and mobility.

This project will be led by the Maintenance department with support from Finance.

Project 2: SunRunner BRT

PSTA began construction of the SunRunner BRT service in August 2020. The SunRunner will provide faster, limited stop travel from downtown to the beaches, seven days a week on 1st Avenue N



and 1st Avenue S, Central Ave, Pasadena Avenue, and Gulf Boulevard. This BRT route will be the first of what is envisioned as a future network of rapid transit services connecting workers, residents, and visitors to economic centers and tourist destinations. The BRT will support local revitalization and economic development plans as well as tourism. It is complemented by local service provided by the existing Central Avenue Trolley.

Benefits of this project include the following:

- Increases ridership and mobility.

This project will be led by the Project Management department with support from Planning.

Project 3: Flamingo Fares

See project description under Ridership and Mobility section.

Project 4: Autonomous vehicle pilot expansion and transition to revenue service

PSTA is partnering with the City of St. Petersburg to pilot an autonomous vehicle route in downtown St. Petersburg which begun in November 2020. PSTA would like to expand the program to two additional pilot routes in Clearwater and Dunedin. These pilot routes will better position the agency to provide these services longer term as the technology evolves.

Benefits of this project include the following:

- Leverages partnerships.
- Increases ridership and mobility.

This project will be led by the Planning department with support from Transportation Operations.

Project 5: BRT on core routes

The 10-year plan includes capital associated with improving frequency and span and the streamlining of the highest performing routes. Limited stop overlay routes like the 52LX are recommended for most core routes, eventually transitioning to either BRT or express service. These services will require additional fleet and other capital items such as Transit Signal Priority, marked bus lanes, and fiber installation to improve communications with other traffic management systems.

Benefits of this project include the following:

- Increases ridership and mobility.

This project will be led by the Planning department.

Project 6: Replace/upgrade technology

Recognizing that most of the equipment in the IT department equipment has a relatively short useful life, PSTA is working to reduce the ecological footprint by addressing a number technological upgrades with new hardware, software, cloud solutions, as well as removing

unnecessary redundancies and ensuring equipment energy efficiency. For example, reducing the number of physical hardware on campus or on board buses by consolidating communications into single routing devices and analyzing resource requirements to develop cloud solutions or incorporate soft applications. Consolidating cellular communication combines fare payment systems, real time information, WiFi, and automatic passenger counters into one system with one device.

Benefits of this project include the following:

- Improves resource and operating efficiency.
- Reduces maintenance.

This project will be led by the IT department with support from Maintenance.

Project 7: Proposed facilities and upgrades

Clearwater Intermodal Center

See project description under Ridership and Mobility section.

Gateway Intermodal Center

See project description under Ridership and Mobility section.

Satellite Maintenance and Emergency Operations Facility

See project description under Resilience section.

Solar Panels

See project description under Energy section.

Expanded Deployment of Passenger Wait Facility Improvements

PSTA will continue its program of amenity provisions and replacement as appropriate. PSTA has developed a Bus Shelter Deployment Plan that identifies potential locations for future shelters based on specific criteria. PSTA has a shelter match program and partners with cities

to maximize deployment of shelters, and is also exploring opportunities to add bus pull-outs to locations with high transfer activity.

Park & Ride Enhancements

Two official year-round park & ride facilities exist in Pinellas County, including one at Ulmerton Road near Starkey Road in Largo and one on 22nd Avenue N at I-275 in St. Petersburg. The Ulmerton Road facility was improved within the last few years. PSTA plans to improve the 22nd Avenue park & ride lot so that it can be used in

conjunction with current and future express bus service on I-275.

Rehab of Support Facilities

Improvements to extend useful life and improve energy and water efficiency.

Proposed facilities and upgrade projects will be led by the Planning department with support from Project Management and Maintenance (Facilities Maintenance).

IMPLEMENTATION ROADMAP

	Responsible Party (lead in bold)	Time Horizon	Cost to Implement	TBL		
				Community	Environment	Economy
Capital Project						
Revenue fleet replacements	MN / FN	Long	\$\$\$	●	●	●
Sunrunner BRT	PMO / PL	Medium	\$\$\$	●		●
Flamingo Fares	FN / IT, M&C	Short	\$\$\$	●		●
Autonomous vehicle pilot expansion and transition to revenue service	PL / OPS	Medium-Long	\$\$\$	●		●
BRT on core routes	PL	Long	\$\$\$	●		●
Replace/upgrade technology (Fareboxes etc.)	IT / MN	Medium	\$\$\$	●		●
Proposed facilities and upgrades	PL / PMO, MN (FM)	Short-Long	\$\$\$	●	●	●



PSTA provides Free Rides to the polls, every Election Day, providing those without transportation a chance to ensure their vision for the future is heard (Source: PSTA)



CHAPTER 5: VISION FORWARD

PSTA has a strong vision for becoming a more sustainable, resilient agency to better serve Pinellas County and its many local jurisdictions, including the largest cities of St. Petersburg and Clearwater. Execution and implementation of projects contained in the SSP will be led by appropriate departments, with support from Planning to ensure the larger vision and goals are carried out going forward.

The PSTA's SSP steers the organization toward a sustainable future with a strong framework for implementation. The SSP sets out key strategies and action projects from all three aspects of the TBL approach to sustainability:

- Healthy Community and Workforce.
- Environmental Sustainability.
- Economic Vitality.

A robust set of metrics and a quantification system have been established for PSTA to track and manage its sustainability performance throughout the implementation process. PSTA has identified high priority strategies as critical next steps to achieve the sustainability goals established.

To enhance resilience and customer service, PSTA aims to develop a mobile command center, update the COOP to fully integrate resilience, and develop a process to track and resolve passenger complaints efficiently. To improve safety and security, PSTA will create a PTASP, implement a comprehensive SMS, and form a Safety Committee. The agency will also adopt a Diversity and Inclusion Strategic Plan and maintain DBE participation at the pre-COVID level. PSTA will continue to engage the community and expand community outreach efforts through online platforms and creative ways considering COVID challenges.

Conserving resources such as energy and water and improving efficiency are core components of environmental sustainability. PSTA has prioritized the need to implement a sub-metering program at main facilities, conduct energy and water audits and retro-commissioning, replace the bus washing













facility, and increase energy offset from solar PV and potential integration with a BESS. Through the SSP's development, PSTA has identified opportunities to improve the current waste management effort. The agency is looking to revamp point-of-disposal signage, conduct a waste characterization study and container audit, provide recycling for riders, and develop procurement guidance to minimize waste. Additionally, PSTA plans to focus on key projects such as fleet conversion and quantifying GHG emissions to help improve air quality.

Economic vitality has always been one of the cornerstones for PSTA. PSTA has prioritized vital projects to help recover ridership on fixed routes and mobility programs, while being cognizant of the environmental impacts. These projects include expanding the UPASS program, increasing frequency on core routes and improving regional service, improving software application, and investing in electric buses. Capital infrastructure projects such as the Clearwater Intermodal Center and Gateway Intermodal Center will become drivers for local economic development, job growth, transit service enhancement, and demonstrations for sustainable design and innovation.














PSTA has already begun implementing its commitment to sustainability through actions and projects as described in this document, many of which will require close collaboration among various departments. Sustainability champions will be confirmed to lead a task force, have regular meetings, and provide ongoing progress updates. Through a more robust TBL approach, PSTA will continue to measure and evaluate sustainability performance with goals established to ensure continuous improvement. The results of executing the roadmap for implementation will be a more sustainable and resilient PSTA to support customers, employees, and the greater community.









Annual progress reports will document PSTA's performance against the goals set forth in this plan. The SSP will be updated approximately every five years.

Appendix A: Goals Summary

Sustainability Focus Area		Goal	Target	Target Year	
Healthy Community and Workforce	Resilience	 1	Integrate resilience into operations and planning decisions	50% of capital projects and protocols screened	FY23
		 2	Enhance participation with external stakeholders to enhance resilience	50% of capital projects to have external stakeholder participation	FY25
		 3	Reduce risks of climate change to ensure passenger service and business continuity	Establish process to log complaints related to thermal comfort or flooding	FY23
				Zero reports of preventable negative impact to PSTA facilities and fleet due to flooding or extreme heat	FY27 (5-7 year goal)
		 +	Develop plan to build redundancy into systems (solar facilities, IT), minimize length of time before service is fully restored		FY25
	Safety	 1	Ensure safety and security of PSTA employees and riders	Less than 4 preventable bus accidents per 100,000 miles	FY21
				2% reduced claims/costs of claims per 100,000 miles each year for 3 years	FY22
		 2	Enhance internal safety tracking capabilities	Increase in health, safety, and environment (HSE) incidents addressed through improved internal tracking, investigating, and reporting process	FY22
	Diversity and Inclusion	 1	Adopt Diversity and Inclusion Strategic Plan		FY21
		 2	Maintain DBE participation	7.71%	FY21
		 3	Establish internal Diversity & Inclusion Leadership Council		FY21-FY22
		 4	Develop an SBE/MBE/WBE/VBE program and target		FY23
		 +	Increase DBE participation	8.50%	FY23
		 +	Incorporate equity and inclusion in all areas of the PSTA scorecard		FY24

Sustainability Focus Area		Goal	Target	Target Year
Healthy Community and Workforce	Community Engagement	1	Expand marketing and outreach awareness	FY21
			6,000 individuals in public engagement events annually, with an emphasis on inclusive involvement	FY21
			Develop online engagement forum (Social Pinpoint)	FY21
		2	Develop brand refresh	FY21
		3	Maintain community sentiment survey score	FY21
		+	Increase project-focused outreach	FY22
	Customer Service	1	Minimize turnaround time of customer complaints and comments	FY21
		2	Increase and improve communication channels (i.e., provide more text options, better real-time information)	FY22
		+	Provide improved Wi-Fi for passengers	FY27
	Workforce Training and Well-being	1	Continue to focus on employee wellness	FY21
			Form Wellness Committee	FY21
		2	Maintain employee training opportunities and increase participation	FY26
		+	Increase employee training participation	FY21

Sustainability Focus Area		Goal	Target	Target Year	
Environmental Sustainability	Energy		Reduce energy consumption	3% reduction annually	FY21
			Improve normalized energy efficiency	10% improvement over FY15 baseline	FY21
			Improve fuel efficiency for PSTA fleet	5% improvement over FY15 baseline for PSTA-owned feet	FY21
				Establish baseline for PSTA-contracted fleet	FY22
			Increase renewable energy systems on-site	400 kW system size	FY25
			Establish a formal sustainability staff position	n/a	FY25
			Transition 100% of fleet to electric and hybrid vehicles	50 electric buses in service	FY30
				250 electric buses in service	FY50
	Water		Reduce water consumption	Reduce to FY15 baseline level	FY21
			Improve normalized water efficiency	2% improvement over FY15 baseline	FY25
			Track gray water use	5% of total water usage	FY25
	Waste and Recycling		Improve outreach regarding recycling	1 outreach campaign per year	FY21
			Increase recycling rate	Establish baseline (External: non-facility waste)	FY21
				10% of total waste (Internal: within PSTA facilities)	FY23
			Ensure data collection and tracking is representative of program	Gather baseline / Recycling audit	FY23
			Reduce solid waste	Maintain FY20 level	FY21

Sustainability Focus Area		Goal	Target	Target Year	
Environmental Sustainability	Greenhouse Gases and Criteria Air Pollutants	 1	Improve GHG emission calculations	n/a	FY21
		 2	Reduce normalized GHG emissions	-5% from FY15 baseline	FY23
		 3	Improve normalized GHG savings	+2% from FY15 baseline	FY23
		 4	Reduce normalized CAP emissions	-2% from FY15 baseline	FY23
Economic Vitality	Ridership and Mobility	 1	Improve On-Time Performance	75%	FY22
				85%	FY25
		 2	Restore ridership back to pre-COVID	FY19 Fixed Route Ridership	FY23
	Operating Expenses	 1	Improve operating expense performance	Maintain FY19 level	FY22
	Procurement	 1	Establish green procurement practices	Draft and final policy development	FY22



PSTA's buses are bike-friendly (Source: PSTA)

Appendix B: Project Summary



PSTA Divisions participating in the SSP Development (Source: PSTA and AECOM)

Sustainability Focus Area							TBL		
							Community	Environment	Economy
Healthy Community and Workforce	Resilience	Develop a mobile dispatch center	MN / IT, OPS (SST)	Short	\$\$	Future Grant (FEMA), Future PSTA Capital Reserve	●	●	
		Update the COOP to fully integrate resiliency	FN (RM), OPS (SST) / ALL	Short	\$\$	Operating	●	●	●
		Take a more active role in regional resiliency efforts	PL / ALL	Short	\$	Staff Time	●		●
		Establish protocols for resilience screening of capital projects	FN (PR) / PL, PMO	Short	\$	Staff Time	●		●
		Incorporate climate into TAMS	MN / PL, ALL	Medium	\$\$	Staff Time	●		●
		Implement battery export project using hybrid bus batteries	MN / FN, PMO	Long	\$\$	Future Grant (FTA)	●	●	
		Build a Satellite Maintenance and Emergency Operations Facility	PMO / OPS, IT	Long	\$\$\$	Future CIP / Future Grant	●	●	
	Safety	Develop a PTASP	OPS (SST) / FN, ALL	Short	\$	Operating	●		●
		Implement a comprehensive SMS	OPS (SST) / FN	Short	\$\$\$	Future Grant (FEMA) / Future Operating	●		●
		Form a Safety Committee	OPS (SST) / ALL	Short	\$	Staff Time	●		●
	Diversity and Inclusion	Adopt Diversity and Inclusion Strategic Plan	HR / ALL, EX	Short	\$	Staff Time	●		●
		Maintain DBE participation	FN (PR) / EX	Short	\$	Operating	●		●
		Develop SBE/MBE/WBE/VBE program and target	FN (PR)	Medium	\$\$	Operating	●		●
		Create Equity Assessment Tool	PL / PMO	Medium	\$	Staff Time	●		●
	Community Engagement	Target 4 impactful marketing events annually	M&C / PL, OPS	Short	\$\$	Operating	●	●	●
		Target 5 projects that include activities that listen to and engage the community	PL / M&C, EX	Medium	\$\$	Operating	●	●	●
		Maintain Community Sentiment Survey scores from the prior survey	M&C / PL (Outreach)	Short	\$\$	Operating	●		●
		Develop a brand refresh	M&C / PL	Short	\$\$	Operating	●		●
		Develop online engagement tool	PL / M&C	Short	\$\$	Operating / Staff Time	●		●
		Target 6,000 individuals in public engagement events annually	PL / M&C, OPS	Short	\$	Operating	●	●	●

						TBL			
						Community	Environment	Economy	
Sustainability Focus Area			Responsible Party (lead in bold)	Time Horizon	Cost	Funding Stream			
Healthy Community and Workforce	Customer Service	Minimize turnaround time of customer complaints and comments	OPS / IT, M&C	Short	\$	Staff Time	●		●
		Develop Rider Response Committee	PL / OPS, M&C	Medium	\$	Staff Time	●		●
		Increase and improve communication channels	IT / OPS, M&C	Medium	\$\$	Staff Time	●		●
		Provide improved Wi-Fi for passengers	IT / MN, M&C	Medium	\$\$\$	Staff Time	●		●
	Workforce Training and Well-being	Implement Online Learning Management System	HR	Short	\$	Operating	●		●
		Form Wellness Committee	FN / OPS	Short	\$	Operating	●		●
		Establish annual Operator Refresher Training Program and Continue Maintenance Certification Program	OPS, MN / HR	Medium	\$	Operating	●		●
Environmental Sustainability	Energy	Implement sub-metering program	MN / FN	Short	\$\$	Future Partnership Funding/ Future Grant		●	
		Conduct energy audits and retro-commissioning	MN / FN	Short	\$\$	Operating		●	●
		Continue to upgrade to LED lighting and upgrade lighting controls	MN / FN	Short	\$\$	Operating		●	●
		Increase renewable energy consumption from solar PV and explore integration with BESS	PMO / PL, FN	Medium	\$\$\$	Existing CIP		●	●
		Track energy (fuel) for contracted vehicles in addition to regular fleet	MN	Medium	\$	Staff Time		●	
		Install inductive wireless charging and associated utility infrastructure	MN / PL	Short	\$\$\$	Partnership Funding/ Future Grant		●	
		Consider innovative technologies to improve energy efficiency	PL / PMO	Long	\$	Operating		●	●

Sustainability Focus Area						TBL			
						Community	Environment	Economy	
Environmental Sustainability	Water	Replace bus washing facility	MN / FN	Medium	\$\$\$	Existing CIP		●	●
		Implement sub-metering program for high use areas	MN	Short	\$\$	Partnership Funding/ Future Grant or Operating dependent on cost		●	●
		Conduct water audits	MN / FN	Short	\$\$	Operating		●	●
		Continue to replace existing fixtures with low-flow fixtures	MN	Short	\$\$\$	Operating		●	●
		Expand leak detection program	MN	Medium	\$\$	Existing CIP		●	●
		Add rainwater and reclaimed water storage capacity	PL / MN	Long	\$\$\$	Future CIP / Future Grant		●	●
	Waste and Recycling	Revamp point-of-disposal signage	M&C / PL	Short	\$	Operating	●	●	
		Conduct waste data audit and characterization study	MN / PL, FN	Short	\$	Operating		●	
		Provide recycling for riders and at stations	MN / FN	Medium	\$\$	Operating	●	●	
		Conduct food waste pilot program	PL / MN	Medium	\$	Operating		●	
		Conduct targeted outreach campaigns/competitions	M&C / PL	Short	\$	Operating	●	●	
		Partner with county, cities and key stakeholders to minimize waste	PL / PMO	Short	\$	Operating	●	●	●
	Greenhouse Gases and Criteria Air Pollutants	Convert fleet to environmentally friendly vehicles	MN / FN	Short-Long	\$\$\$	Future Formula, Future Grant (VW), Other Future FTA	●	●	●
		Improve and expand GHG calculations	PL / MN	Short	\$	Future Formula, Future Grant (VW), Other Future FTA		●	
		Incorporate green construction requirements	PMO / FN (PR), OPS (SST)	Short	\$	Future Formula, Future Grant (VW), Other Future FTA		●	
		Implement idling restrictions on fleet (where feasible)	MN / OPS	Medium	\$	Future Formula, Future Grant (VW), Other Future FTA		●	●
Economic Vitality	Ridership and Mobility	Develop the new Clearwater Intermodal Center	PMO / EX, PL, FN, M&C	Medium	\$\$\$	Operating	●	●	●
		Improve software applications and implement contactless fare payment	IT / PMO, FN	Medium	\$\$	Future FTA	●		●
		Implement fare capping policy	FN / OPS, PL	Short	\$	Staff Time	●		●

						TBL			
						Community	Environment	Economy	
Sustainability Focus Area			Responsible Party (lead in bold)	Time Horizon	Cost	Funding Stream			
Economic Vitality	Ridership and Mobility (Contd.)	Increase frequency on core routes and regional express	PL / M&C	Short	\$\$\$	Future Operating/Future FDOT	●	●	●
		Bus-On-Shoulders Pilot Project	PL / OPS	Short	\$\$	State/ Local Grants and Funding	●		●
		Improve On-Time Performance	PL, OPS	Short	\$	Staff Time	●		●
		Expand the UPASS program	PL / EX, FN	Short	\$\$	Staff Time	●	●	●
		Monitor and evaluate innovative mobility programs and modify/expand as appropriate	OPS / PL	Short	\$	Future Operating	●		●
		Evaluate new mobility options and technology solutions	OPS / PL	Short	\$	Staff Time	●		●
		Advance the Gateway Intermodal Center	PL / PMO	Long	\$\$\$	Future CIP / Future Grant	●	●	●
	Operating Expenses	Improve efficient operations and cost reductions while maintaining a reserve	OPS / FN, EX, PL	Short	\$	Operating	●		●
		Continue to test routes with electric buses	OPS / M&C	Short	\$	Operating	●	●	●
		Right size vehicles	FN / PL, MN	Medium	\$\$	Staff Time	●	●	●
		Include connected vehicle technology for driver assistance	IT / OPS, PL, MN	Short	\$\$	FTA- Future Grant/ Future Formula	●	●	●
	Procurement	Develop draft and final sustainable procurement language and procedures	FN (PR) / PMO, PL	Short	\$	Operating	●	●	●
		Incorporate sustainable procurement policies	FN (PR) / PMO	Short	\$	Operating	●	●	●
	Capital Projects	Revenue fleet replacements	MN / FN	Long	\$\$\$	Current and Future FTA Formula/Discretionary Grant	●	●	●
		Sunrunner BRT	PMO / PL	Medium	\$\$\$	Future FTA/TBARTA FTA	●		●
		Flamingo Fares	FN / IT, M&C	Short	\$\$\$	Current CIP	●		●
		Autonomous vehicle pilot expansion and transition to revenue service	PL / OPS	Medium-Long	\$\$\$	Future Operating/Future FDOT	●		●
		BRT on core routes	PL	Long	\$\$\$	Future Local Funding and State/FTA Grants	●		●
		Replace/upgrade technology (Fareboxes etc.)	IT / MN	Medium	\$\$\$	Future FTA	●		●
		Proposed facilities and upgrades	PL / PMO, MN (FM)	Short-Long	\$\$\$	Future CIP / Future Grant	●	●	●

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