



# 2023 SUSTAINABILITY BOND PROGRESS REPORT

Massachusetts Bay Transportation Authority  
October 2024



Senior Sales Tax 2023 Subseries A-2 (Sustainability Bonds)

## Introduction

As described in the Environmental Management & Sustainability Policy, sustainability is a priority for the Massachusetts Bay Transportation Authority (MBTA). The transit agency has a goal to make transportation more eco-friendly, reliable, and equitable; and Sustainability Bonds play a key role in financing capital initiatives that advance this goal.

The MBTA relies on its Sustainability Bond Framework to identify capital projects that make targeted environmental and social improvements. Environmental goals help to achieve low carbon emissions, building climate resilient infrastructure and a sustainable community. Social goals help to construct critical infrastructure to ensure communities have equal and affordable access to safe and reliable public transportation.

In March 2023, the MBTA issued Sustainability Bonds on its Sales Tax lien to fund a diverse set of projects focused on sustainability. The 2023 Subseries A-2 provided capital for 18 different projects. The projects that dominated spending were **Fare Transformation (\$36.60 million)**, **Green Line Transformation (\$25.74 million)**, and the **Bus Facility Interim Improvements (\$10.05 million)**.

Fare Transformation is a major MBTA project aimed at making transit payment easier and more convenient for our customers. The Green Line Transformation and Track Upgrades project is focused on enhancing safety, efficiency, and speed on the Green Line for our riders.

An additional \$53,243,517.33 was used to fund 15 other projects focused on sustainability. As of the publication of this report, all of bond proceeds have been spent. There will be no further disclosure relating to this series of bonds.

The MBTA partially defeased its \$325 million Subordinated Sales Tax Bond Anticipation Notes, Series 2021 for the Commuter Rail Safety and Resiliency Program's Automatic Train Control (ATC) program in June 2023 for interest savings. Of the \$325 million, \$24.8 million remains outstanding and will mature in May 2025. All the proceeds from this BAN have since been spent. For sustainability metrics of the ATC project, please reference prior reports.

Sustainability remains a central focus of the MBTA, and we anticipate further issuances of Sustainability Bonds.

Sincerely,

Mary Ann O'Hara, Chief Financial Officer

Patrick Landers, Treasurer

Christina Marin, Director of Treasury Services and P3 Finance

## Sustainability Bond Framework & Capital Projects

Since 2017, MBTA has issued several sustainability bonds to fund capital projects and most recently issued the 2023 Sales Tax bonds as Sustainability Bonds.

New Issuance	Outstanding Issuance
<b>\$121,685,207 Senior Sales Tax Bonds Subseries A-2</b> AAA/Stable (Fitch) and AAA/Stable (Kroll) and AA/Positive (S&P) at issuance, revised to AA+ CUSIP: 575579W37 Maturity: July 1, 2038	<b>\$24,380,000 Subordinated Sales Tax Bond Anticipation Notes, Series 2021</b> AA/Positive (S&P) and Aa3/Stable (Moody's) CUSIP: 575579M95 Maturity: May 1, 2025

Capital projects that are eligible for sustainability funds are selected by an internal Sustainability Committee, which relies on the MBTA Sustainability Bond Framework to identify projects. The framework evaluates the environmental and social benefits provided by these projects. The use of proceeds from a sustainability bond fall into one (or more) of the following categories:

### Environmental Considerations:

1. **Built Environment:** Enhancing the quality of the travel experience while respecting and improving the built environment.
2. **Capacity:** Reducing emissions from personal vehicle trips by increasing passenger capacity and making public transit more attractive through frequent, reliable, and comfortable service.
3. **Carbon, Energy, and Climate Resilience:** Reducing carbon emissions and preparing for climate change and extreme weather impacts.
4. **Natural Environment:** Protecting and enhancing the natural environment to contribute to quality of life.
5. **Noise:** Managing and controlling transport-related noise and vibration.
6. **Pollution Prevention:** Minimizing and controlling pollution through proactive management.
7. **Resource Management:** Using resources (including water) wisely and minimizing waste.

### Social Considerations:

1. **Affordability:** Balancing customer means, especially for low-income riders, with the organization's financial constraints.
2. **Accessibility:** Operating an inclusive system that accommodates a diverse customer base.
3. **Availability:** Ensuring equitable access to the system within the service area.
4. **Equity:** Striving for an even distribution of benefits and burdens across diverse modes, customer bases, and service areas, while offsetting social and environmental burdens experienced by certain populations or communities.
5. **Safety:** Protecting the well-being of passengers, operators, and the general public.
6. **Workplace Environment:** Maintaining a safe, empowering, and satisfying workplace for MBTA and affiliated employees.

## Fare Transformation Project

The Fare Transformation project will make paying for MBTA transportation services more convenient and easier for customers. The current fare collection system is complex and labor-intensive, having reached the end of its useful life. This project introduces a unified fare collection system that simplifies the process for both customers and the MBTA.

### Key Upgrades

- **Multiple Payment Methods:** Effortlessly pay with a single tap using credit cards, debit cards, smartphones, or fare media, streamlining the payment process for all passengers.
- **All-Door Boarding:** Speed up your commute with the convenience of boarding from any door on buses and Green Line trains, minimizing stop times and improving overall efficiency.
- **Backend Efficiency:** Optimized processes cut down on labor requirements and lower future costs, enhancing the operational efficiency of the transit system.
- **Cashless Buses and Light Rail:** Transition away from cash payments to improve efficiency and reduce wait times.

### Environmental and Social Benefits

- **Enhanced Accessibility:** The new fare system promotes equitable access to public transit by offering discounted fare options such as distance-based pricing and fare capping for low-income riders, seniors, and students. Additionally, upgraded fare vending machines and gate technology cater to riders with disabilities and non-English speakers, supporting social equity and ensuring affordable, efficient transportation for all.
- **Data-Driven Improvements:** The modern fare system facilitates the collection of comprehensive ridership data, which is crucial for making informed decisions about service enhancements, route adjustments, and resource allocation. This data-driven approach enhances the overall efficiency and sustainability of the transit network by optimizing operations and targeting areas for improvement.
- **Increased Availability:** With the introduction of the new fare system, passengers can choose from a variety of payment methods, including mobile apps, contactless cards, and traditional options. This flexibility accommodates diverse preferences and needs, making public transit more accessible and user-friendly for everyone.

### Project Details

- **Contract awarded:** March 2018
- **Projected completion:** June 2026
- **Budget:** \$930.2 million
- **Sustainability Bond Proceeds Used:** \$36.60 million



## Green Line Transformation Project (GLT)

The Green Line Transformation (GLT) Program is a comprehensive initiative designed to modernize the Green Line, focusing on enhancing accessibility, capacity, and environmental sustainability across the transit system. The work includes state of good repair upgrades for critical track infrastructure, planning and design to tackle critical infrastructure upgrades needed to operate new Green Line vehicles, and station and platform upgrades necessary to provide for level boarding between the platforms and the train floors for all-door, barrier-free boarding.

### Key Projects:

Projects listed below have been planned and developed to satisfy the project goals over the course of the multi-year program duration. Construction of the projects is sequenced to coincide with roll-out of the new vehicles and to provide the maximum feasible benefit for the most customers at the earliest date.

- **Green Line Track Upgrades**
- **B-Branch Accessibility Upgrades**
- **C-Branch Accessibility Upgrades**
- **D-Branch Accessibility Improvements**
- **E-Branch Capacity Improvements (Core Capacity Project)**
- **Newton Highlands Station Accessibility**
- **Symphony Station Improvements**
- **Hynes Station Enhancements**

### Key Upgrades

- **Level Boarding Infrastructure:** Renovations and new designs to facilitate level boarding, enhancing accessibility for passengers with mobility challenges, including those using wheelchairs and strollers.
- **Upgraded Stations:** Comprehensive renovations including expanded platforms, improved signage, and accessibility features such as elevators and ramps to ensure ease of access for all passengers.
- **Track Improvements:** Complete overhaul of tracks, including rail, ties and ballast particularly within street running areas, to remove speed restrictions and bring the rail system into a state of good repair and supporting faster, more reliable service to customers.





## Environmental and Social Benefits

- **Carbon Emission Reduction:** The GLT enhances the appeal and efficiency of public transit, leading to a reduction in carbon emissions. Upgrading outdated infrastructure and improving service reliability help lower the system's overall carbon footprint.
- **Climate Resilience:** The project incorporates measures to bolster the system's resilience against extreme weather. Upgraded surface drainage systems, raising critical infrastructure components above areas prone to flooding, and flood-proofing measures for stations contribute to a more robust and climate-adaptive transit network.
- **Increased Accessibility:** By upgrading 70 stations and replacing outdated trains with modern low-floor models, the GLT ensures that all passengers, including those with mobility challenges, have easier access to the transit system. These accessibility enhancements will facilitate smoother boarding and alighting, promoting inclusivity and equal access to public transportation.
- **Enhanced Safety:** The Green Line Transformation Project will dramatically boost rider safety by integrating state-of-the-art safety technology and modernizing station infrastructure. Upgraded lighting and improved platform designs will further enhance the safety of passengers, creating a more secure and reassuring travel experience.

## Program Details

- **Contract Awarded:** Multiple Awards
- **Projected Completion:** Post 2031
- **Budget:** +\$900 million
- **Sustainability Bond Proceeds Used:** \$25.74 million



New overhead doors installed at the Everett Bus Facility and repainting at the Albany Bus Garage

## Bus Facility Interim Improvement

The MBTA's Bus Facilities Improvement Program is designed to address critical upgrades at existing bus facilities, enhancing production, workforce quality of life, and overall safety for employees. This initiative reflects MBTA's ongoing commitment to supporting Local 264 and ensuring that our facilities meet the needs of the dedicated staff who keep the transit system running. The average age of MBTA's bus facilities is approximately 50 years, with nearly half of the 13 facilities being over 70 years old. Given the age and condition of these facilities, the program prioritizes interim improvements based on comprehensive condition assessments conducted at each location.

### Key Upgrades

- **Bus Facility Paving:** Reducing wear and tear on vehicles and fall hazards for employees.
- **Upgraded HVAC Systems:** Modernizing heating, ventilation, and air conditioning systems, in conjunction with roof repairs, to ensure optimal climate control and energy efficiency in facilities.
- **Improved Vehicle Exhaust Systems:** Upgrading existing exhaust systems to reduce emissions, improving air quality within maintenance facilities and promoting a healthier work environment.
- **Renovated Staff Facilities:** Updating restrooms, shower rooms, break rooms, locker rooms, and other designated staff areas to create a more comfortable and supportive work environment.
- **Shop Tools and Equipment:** Procuring tools and equipment to enhance safety and efficiency.
- **Lighting Upgrades:** Enhancing working conditions and safety.

### Environmental and Social Benefits

- **Resource Management:** Modernizing outdated lighting, HVAC, and exhaust systems will contribute to a more sustainable workplace. Energy-efficient lighting and improved ventilation systems will lower energy consumption, aligning with MBTA's broader goals of sustainability and reducing the environmental impact of its operations.
- **Workplace Environment:** Upgrading older facilities with new, safer systems helps the MBTA meet modern safety standards and reduce the risk of workplace injuries. Improved lighting, air quality, and climate control are crucial elements in creating a safer environment for employees.

### Program Details

- **Contract Awarded:** Multiple Awards
- **Projected Completion:** June 2027
- **Budget:** \$81.5 million
- **Sustainability Bond Proceeds Used:** \$10.05 million

## Additional Projects Financed from the 2023 Sustainable Bond Issuance

Projects Funded	Sustainability Priority Satisfied	Sum of Total
Facility Roof Replacement	Resiliency	\$ 9,167,897.42
Red Line PM/CM and Owners Rep Professional Services	Safety, Resiliency, Capacity	\$ 7,914,594.59
Cabot Yard Complete Upgrade	Resiliency, Pollution Prevention	\$ 5,510,173.05
Wellington Yard Complete Upgrade	Capacity, Resiliency, Pollution Prevention, Equity, Safety	\$ 5,373,819.54
Courthouse Station Leaks	Resiliency	\$ 5,215,588.16
Orange Line PM/CM and Owners Rep Professional Services	Safety, Resiliency, Capacity	\$ 5,212,758.82
Lechmere Viaduct Rehabilitation Project	Availability and Capacity	\$ 4,762,672.56
Alewife Garage Rehabilitation	Resiliency	\$ 4,045,300.45
Franklin Double Track and Signal	Availability, Capacity	\$ 3,907,861.80
Route 128/University Park Garage Improvements	Resiliency	\$ 1,500,565.68
Durante Wetland Mitigation – Greenbush Expansion Remediation	Natural Environment	\$ 217,216.06
ATC Implementation - North Side Commuter Rail Lines	Safety, Resiliency	\$ 209,179.98
Commuter Rail Positive Train Control	Safety, Resiliency	\$ 100,129.17
Power Systems Resiliency Program	Resiliency	\$ 95,966.05
Quincy Bus Facility Modernization	Built/Workplace Environment, Resource Management	\$ 9,794.00

### Contact Information:

**Mary Ann O’Hara**, Chief Financial Officer

**Patrick Landers**, Treasurer  
 Phone: (617) 222-6958  
 Email: [PLanders@MBTA.com](mailto:PLanders@MBTA.com)

**Christina Marin**, Director of Treasury Services and P3 Finance  
 Phone: (617) 222-2938  
 Email: [CMarin@MBTA.com](mailto:CMarin@MBTA.com)

Arjun Sodhani contributed to this report.