



**Massachusetts Bay
Transportation Authority**

Policy Development Working Group

September 17, 2024

Ground Rules

Principles in action/ Ways of being :

- Aspire to assume the best intention of those in the group/space.
- Recognize the existing tension between the MBTA and advocates on some issues: this group seeks to work on issues in which we can collaborate, bearing that tension in mind.
- What is said in the meeting stays in the meeting.



Introductions: Name, Organization, What are you most looking forward to about fall?



PDWG Agenda

Note for next month: October 15 meeting in person at **CLF, 62 Summer St., Boston**

- ❖ Income-Eligible Reduced Fares Enrollment Update Marissa Rivera, MBTA
- ❖ Climate Assessment Kat Eshel, MBTA
- ❖ Discussion on History of MBTA Funding Mary Ann O'Hara, MBTA
- ❖ Strategic Planning Update Laura Gilmore, MBTA



Income Eligible Reduced Fares

Marissa Rivera, Deputy Director of Reduced Fare Programs



Income-Eligible Enrollment Progress

- **Over 5,800 MBTA riders enrolled in income-eligible reduced fares (~4,300 since 9/4)**
 - 109 in-person
 - 1,489 manually approved online
 - 4,203 auto-approved online
 - 27 income-eligible entitlements linked to contactless payment methods via the Charlie Digital Assistant
- 5 current ABCD service locations for in-person income-eligible assistance; 31 additional ABCD & MASSCAP service sites forthcoming over September & October
- In-person card pickup forthcoming at end of September



Reduced Fares on the RIDE

- **17,213 RIDE customers enrolled in reduced fares**
 - 17,098 RIDE customers auto-enrolled in Senior discount on 9/4
 - 115 RIDE customers have opted into income-eligible reduced fares
- Senior reduced fare application now enables a one-step enrollment process for RIDE customers who turn 65 on or after 9/16



Climate Assessment

Kat Eshel, Senior Director of Climate Policy & Planning



Our Team



Kat Eshel

Senior Director of Climate Policy and Planning



Caroline Bean

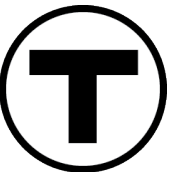
Director of Climate and Sustainability Planning



Alex Oster

Director of Climate Policy

-- working in close coordination with subject matter experts in our resiliency and energy programs in the Environmental Department --



Last September, the Office of Climate Policy and Planning was announced to increase the MBTA's sustainability and resilience, as well as achieve state mandates.

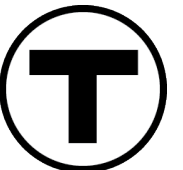
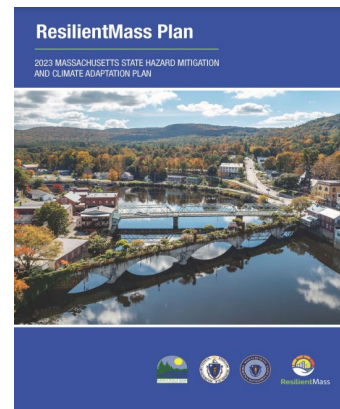
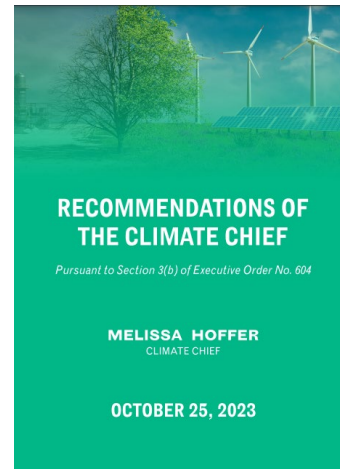
Home // Local Coverage

MBTA announces new climate office to reduce its environmental footprint

September 28, 2023 By [Andrea Perdomo-Hernandez](#)



A bus bound for Wakefield at the MBTA Ashmont Station in Boston. (Jesse Costa/WBUR)



Coastal flooding, extreme precipitation and temperatures, and heavy winds are the primary climate hazards facing the MBTA.



Coastal Flooding



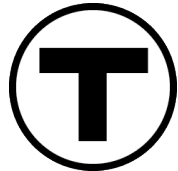
Extreme Temperatures



Heavy Rain



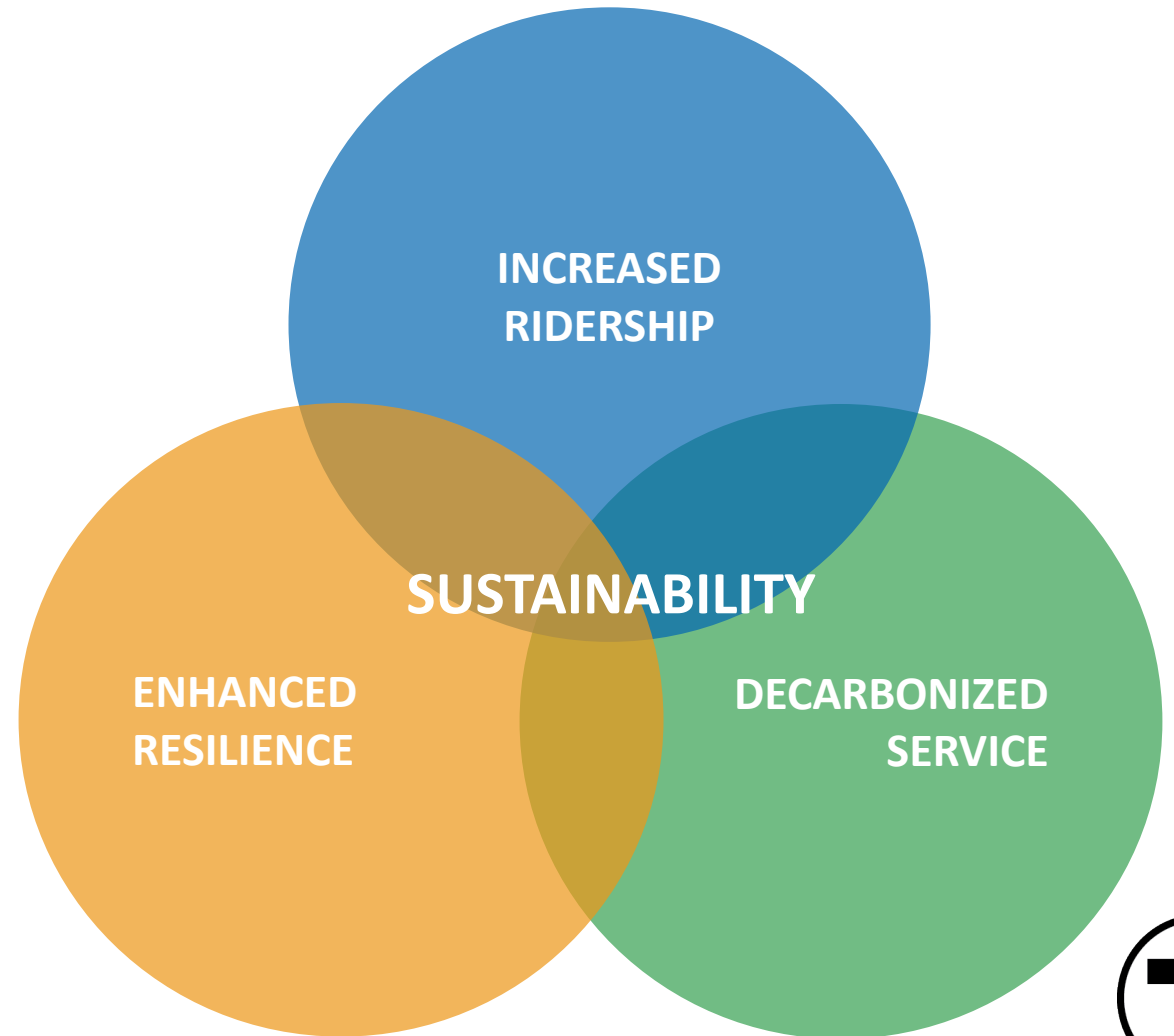
Heavy Winds



The Climate Assessment lays out the MBTA's vision for sustainability and resilience.

A sustainable and resilient MBTA is a climate solution twice over: providing reliable, accessible and safe transportation solutions for the greater Boston region and making those services themselves environmentally sustainable and ready for a changing climate.

The Climate Assessment identifies how to embed resilience to protect the system, employees, riders and operations despite climate-related impacts and to reduce our environmental footprint.

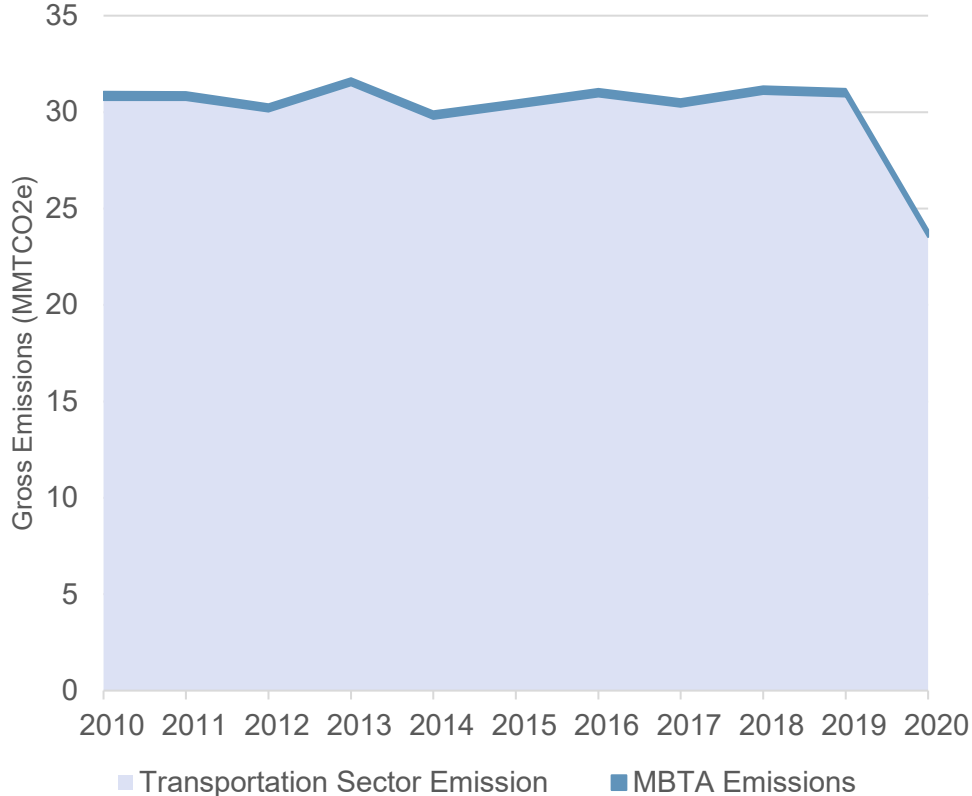
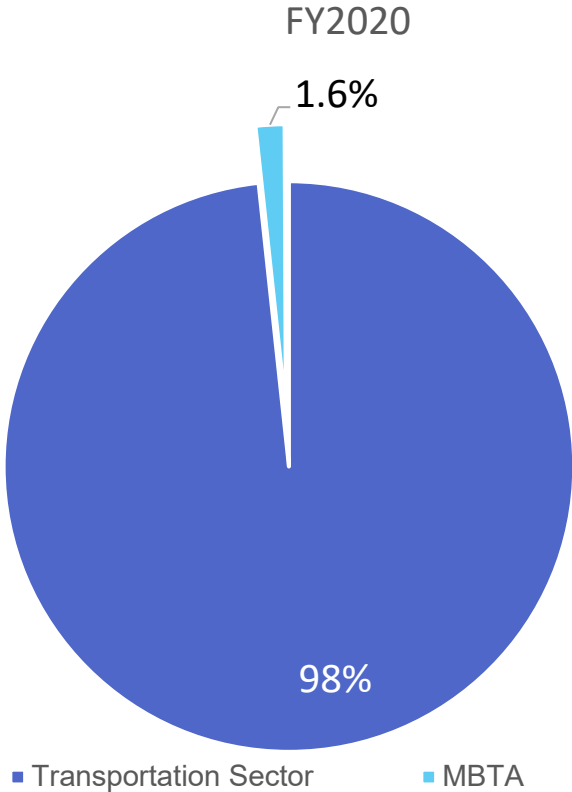


A sustainable MBTA system contributes to meeting MA's net zero emissions goal

The MBTA provides low carbon transportation for the region

At **37%** of emissions, transportation is the largest source of GHG emissions in Massachusetts.

However, MBTA's emissions represent less than ~2% of the sector's emissions and are declining, while accounting for ~10% of commuter trips in the Boston metro area.



MBTA contributes to Massachusetts emission reduction goals through:



Providing transit service as an alternative to single occupancy vehicle (SOV) travel



Fleet and facility decarbonization



Non-revenue fleet electrification



Sustainability is a core value and increasing sustainability and climate resilience is a strategic goal of the MBTA.

Our Sustainability Value Statement:
We invest resources wisely in solutions for our team, our communities and our environment.



GOALS

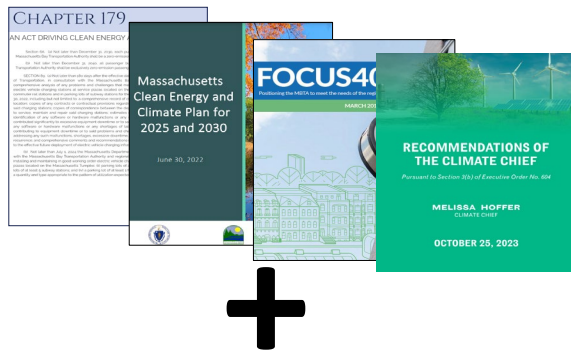


The Assessment provides MBTA with a roadmap of next steps.

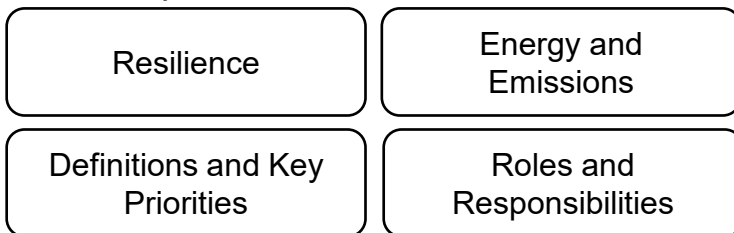
Climate Assessment project overview

MBTA engaged ARUP to support development of the Climate Assessment:

150+ relevant documents/plans, and **40+** state and federal regulations, policies, and programs reviewed



Engaged **50+** staff from **20+** departments through 1-on-1 interviews and 3 topic-specific workshops



Climate Assessment Outcomes

Internal review of current activities to assess progress made to date and underway

Assessment of internal capacity, gaps, and process changes within the MBTA to address the impacts of climate change and achieve greenhouse gas reductions

Determination of key priorities and actions needed to support implementation and track progress

Opportunities for interdepartmental alignment through engagement on delivering a resilient and sustainable MBTA



The MBTA has taken significant steps to increase sustainability and resilience.

Energy



Procured Renewable Energy Certificates to offset the entirety of MBTA's electricity load



Invested \$22 Million in energy efficiency projects over 10 years, yielding \$17 Million in annual savings (81 total projects)

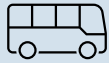


Leveraged the Energy Enterprise Management System (EEMS) and factored energy load into all new projects

Decarbonization



Reduced GHG emissions 43.8% and energy consumption 20% from 2009 baseline



Issued Bus Electrification Plan, procured new BEBs and started construction on maintenance facilities

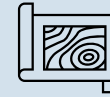


Approved a \$54 million plan to bring battery-electric train service to the Fairmount Commuter Rail Line by 2028

Resilience



Conducted vulnerability assessments for future climate conditions, including Rapid Transit Lines, Critical Facilities, and Tunnel Networks

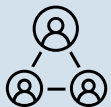


Mapped infrastructure against real-time storm data

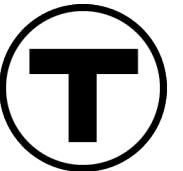


Established a climate resilience score for use in CIP project evaluations

Cross-cutting



Created new Climate Policy and Planning team in alignment with the Climate Chief's recommendation



In addition, MBTA has numerous in-progress and on-going initiatives

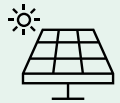
Energy



Expansion of Energy Management Systems to include traction power sub metering, building management systems, 5-minute interval data and demand management



Building upgrades for existing HVAC, Energy Recovery Systems, energy metering, windows, and insulation



Renewable Energy opportunities (i.e. Offshore wind, Battery Installations, On Site)

Decarbonization



Enhancement of sustainable design standards for new construction projects



Installation of EV Chargers



Upgrade of station lighting, including accessibility improvements



Electrification of non-revenue fleet



Implementation of bus facility electrification (construction of Quincy and North Cambridge facilities)



Development of a Facility Master Plan prioritizing decarbonization investments

Resilience



Continue to develop systemwide Tunnel Flood Mitigation Program: Tunnel Portal Doors, Pump Room upgrades, Emergency Planning improvements



Incorporating resilience into design reviews and risk management



Funding for climate resilience projects has been allocated through the CIP and various grants are being pursued such as PROTECT Grant, and SHMCAP Funding from EEA



On-going regional collaboration on adaptation strategies for priority infrastructure, in collaboration with Boston, Cambridge, Somerville, and other municipalities



Recommendations to build and deliver a more sustainable MBTA

Examples of recommendations within the Climate Assessment



Planning and prioritization

- Establish systemwide plan to achieve net zero emissions and ensure power needs
- Complete vulnerability assessments and use to create a systemwide resilience plan



Organizational and Workforce Needs

- Incorporate sustainability into Authority decision-making processes



Design enablement & integration

- Create energy efficiency protocols for projects outside the capital planning process
- Integrate climate risk and sustainability reviews into asset management platform and decision-making processes



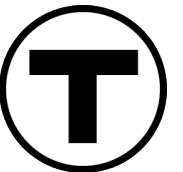
Analysis and quantification

- Conduct economic analyses of resilience needs and of achieving net zero by 2050
- Evaluate renewable energy generation and energy storage opportunities



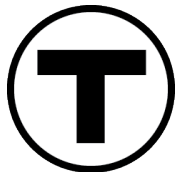
Communication of risks and priorities

- Develop an internal and external communications strategy to strengthen public trust in public transit and understanding of its role in combating climate change



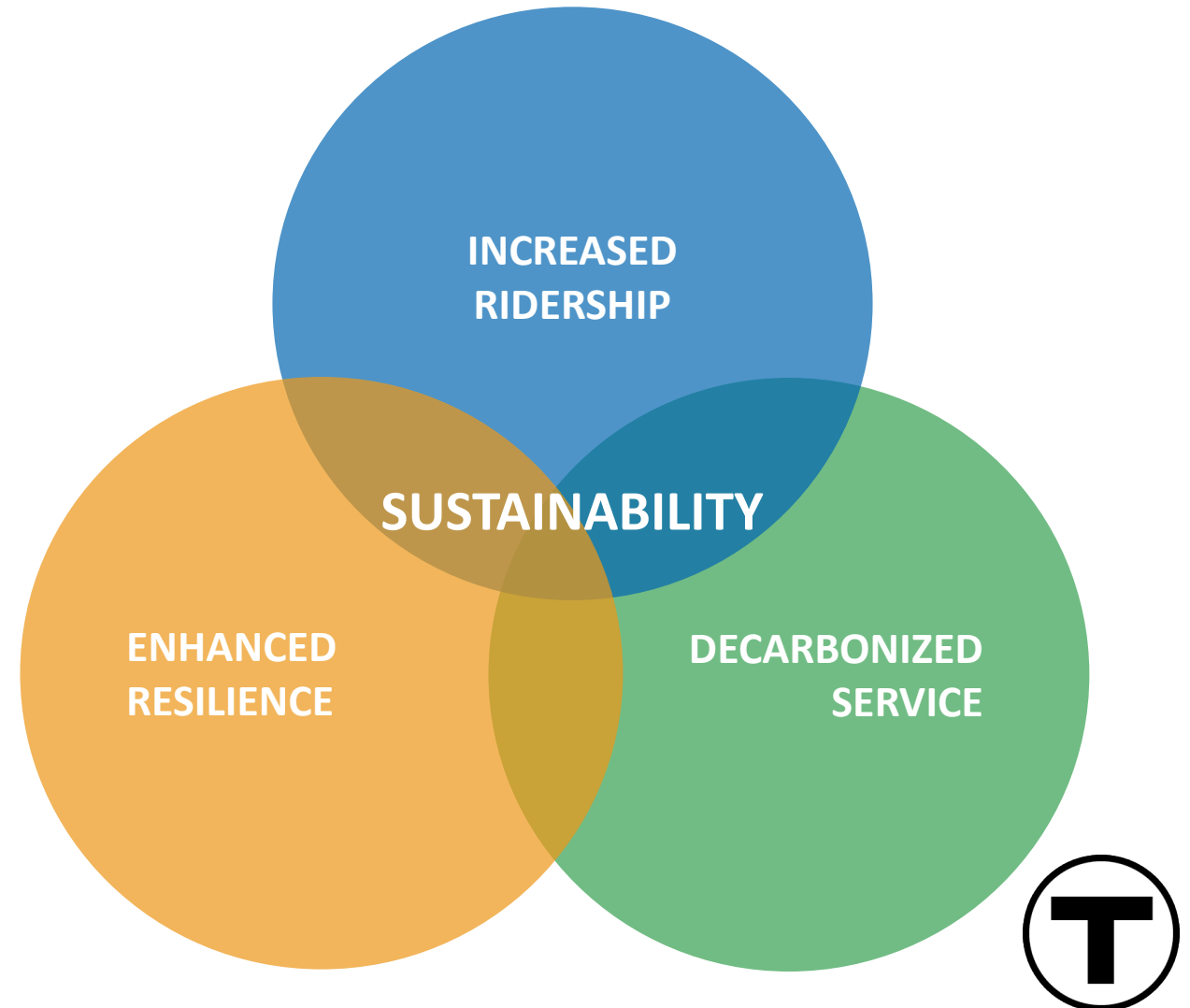
Join us at a Climate Week event!

- 9/26: Public release of MBTA Climate Assessment, accessible at mbta.com/sustainability
- 9/27: Deployable Day 11am-3pm
 - Participation in City of Boston event
 - Partial deployment of Aquarium station flood planks
 - Table at resource fair on City Hall Plaza
- 10/1: Virtual event hosted with MAPC to share an overview of the Climate Assessment and raise awareness with regional, municipal and non-profit partners



Implementing the Climate Assessment means collaborating and navigating tradeoffs with partners across our service area.

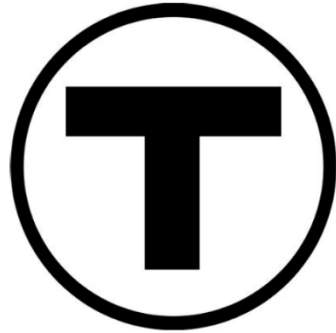
- How do we prioritize constrained resources between the 3 goals that contribute to sustainability? How can the T better communicate costs for resilience (e.g., power, heat), for decarbonization?
- How can we navigate the different tradeoffs between electrification and reliability?
- How do we balance our infrastructure needs with regulatory and policy constraints for electrification (expanded distribution needs), for resilience (environmental impacts of railway elevation)?
- How should we navigate conversations on the climate future of transit lines?



History of Funding

Mary Ann O'Hara, Chief Financial Officer





Massachusetts Bay Transportation Authority

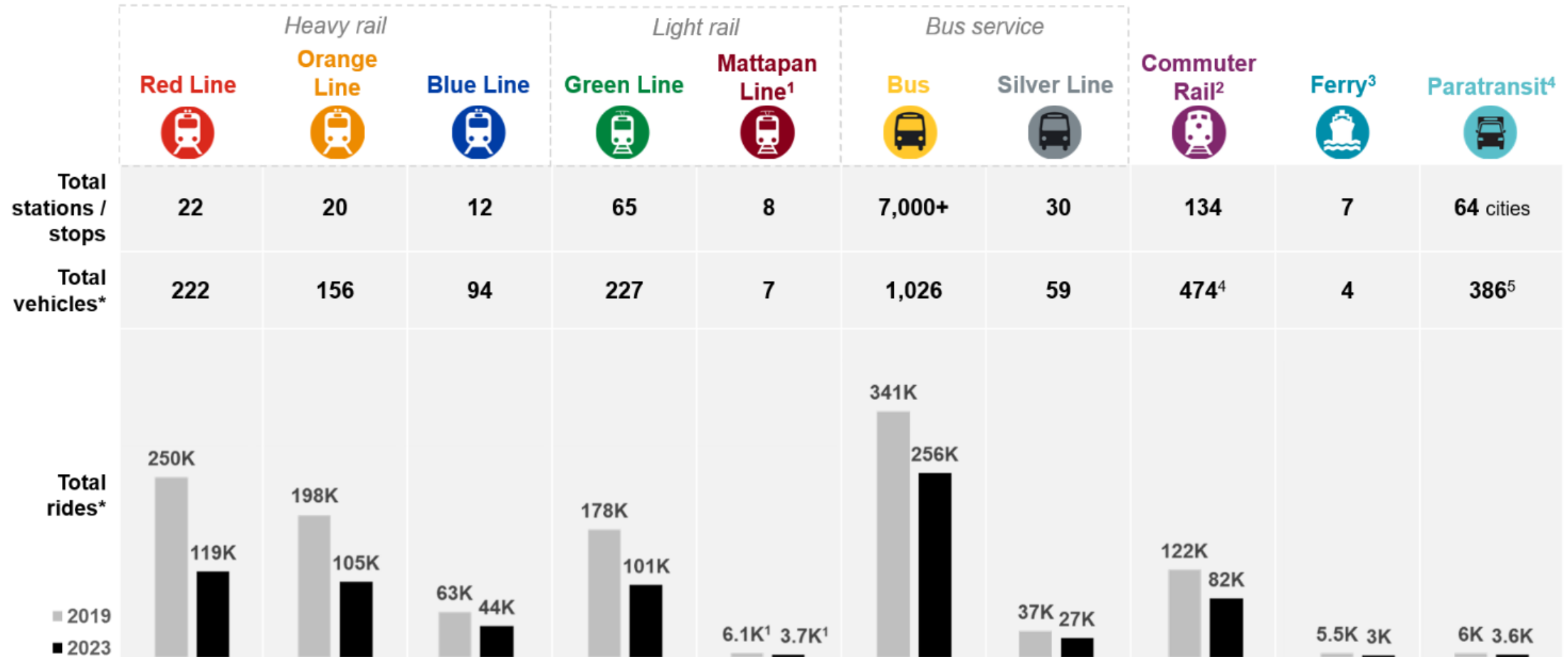
History of Funding Update

MBTA Board of Directors
August 22, 2024

Mary Ann O'Hara, CFO
Pat Landers, Treasurer

MBTA by the Numbers

The MBTA is the oldest transit system in the US and the 4th largest, operating 5 modes of travel.



*Reflects active vehicle counts as of June 2022 and average weekday unlinked trips/rides as of March 2019 and March 2023; ¹2019 Mattapan Line ridership estimated as of Fall 2018. 2023 average weekday trips on the Mattapan Line is estimated from passenger counts conducted during Spring 2023; ²Operated by Keolis; ³Operated by Boston Harbor Cruises; ⁴Operated by National Express Transit and Veterans Transportation Services; ⁵ 81 locomotives and 393 coaches; ⁶ 151 automobiles and 235 vans

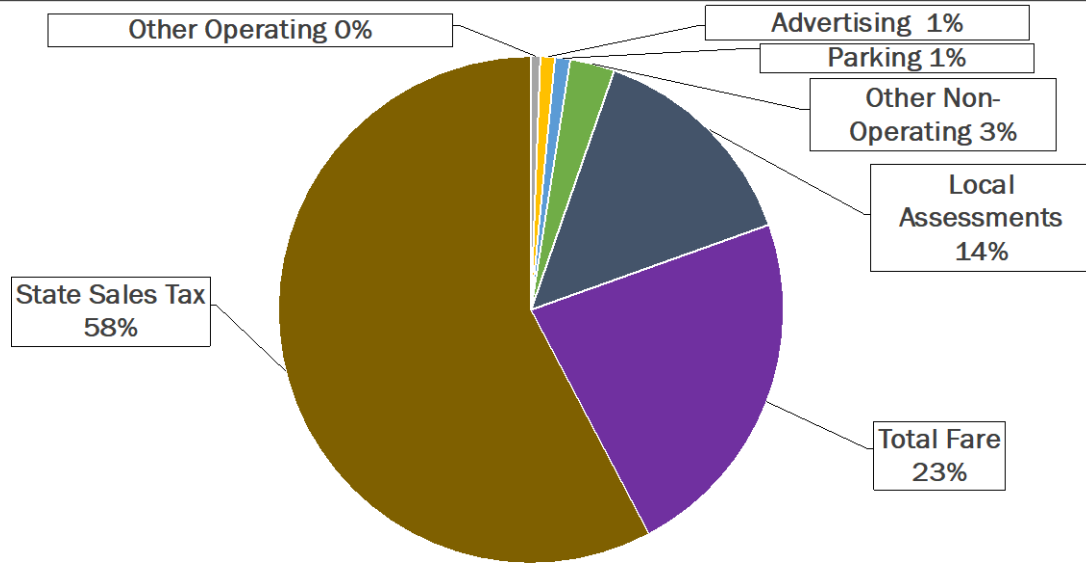
2000: Implementation of Forward Funding / Sales Tax & Debt

- Forward Funding was an attempt by the legislature to impose fiscal discipline on the Authority, which was perceived to be operating in an environment in which they could incur expenses and pass them along to the Commonwealth without legislative control.
- Forward Funding aimed to identify a dedicated source of revenue and to impose fiscal discipline on the MBTA. (Sales Tax)
- Prior to Forward Funding, MBTA's debt was supported by the full faith and credit of the Commonwealth's General Obligation pledge. This debt is commonly referred to as 'Legacy Debt.'
- With Forward Funding, the MBTA was given dedicated tax sources, however, the MBTA also took on **\$3.3 billion** of Legacy Debt associated with prior obligations of the MBTA and took on **\$0.5 billion** for a series of transit commitments in connection with the Central Artery Project, eventually Post 2000 increasing to **\$1.5B**

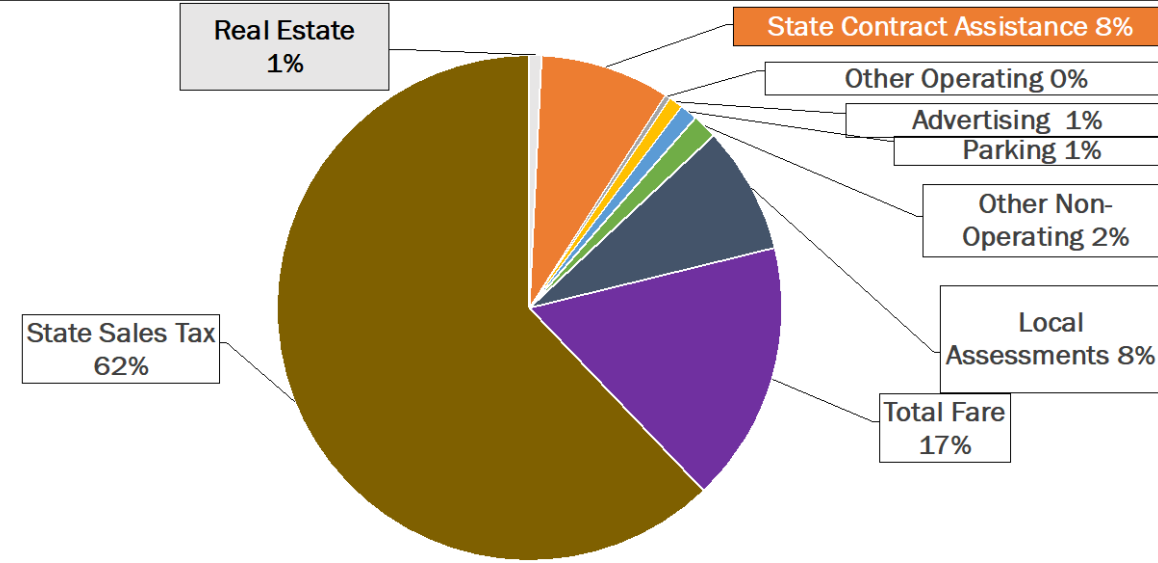


MBTA Total Revenue by Source

2000



2023

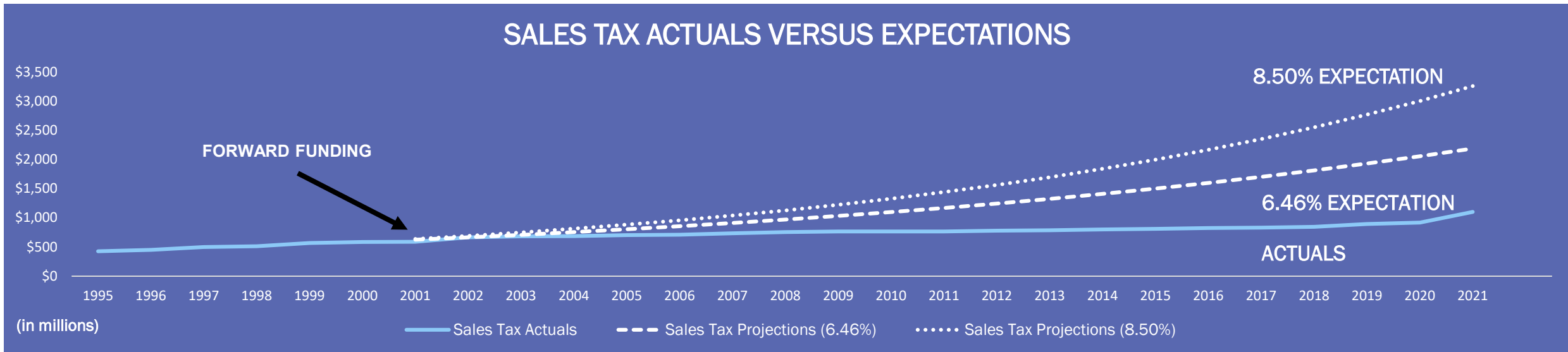


Forward Funding Sales Tax Performance

In 2000, the Commonwealth established “Forward Funding” to fix what was perceived as ungoverned spending by the MBTA.

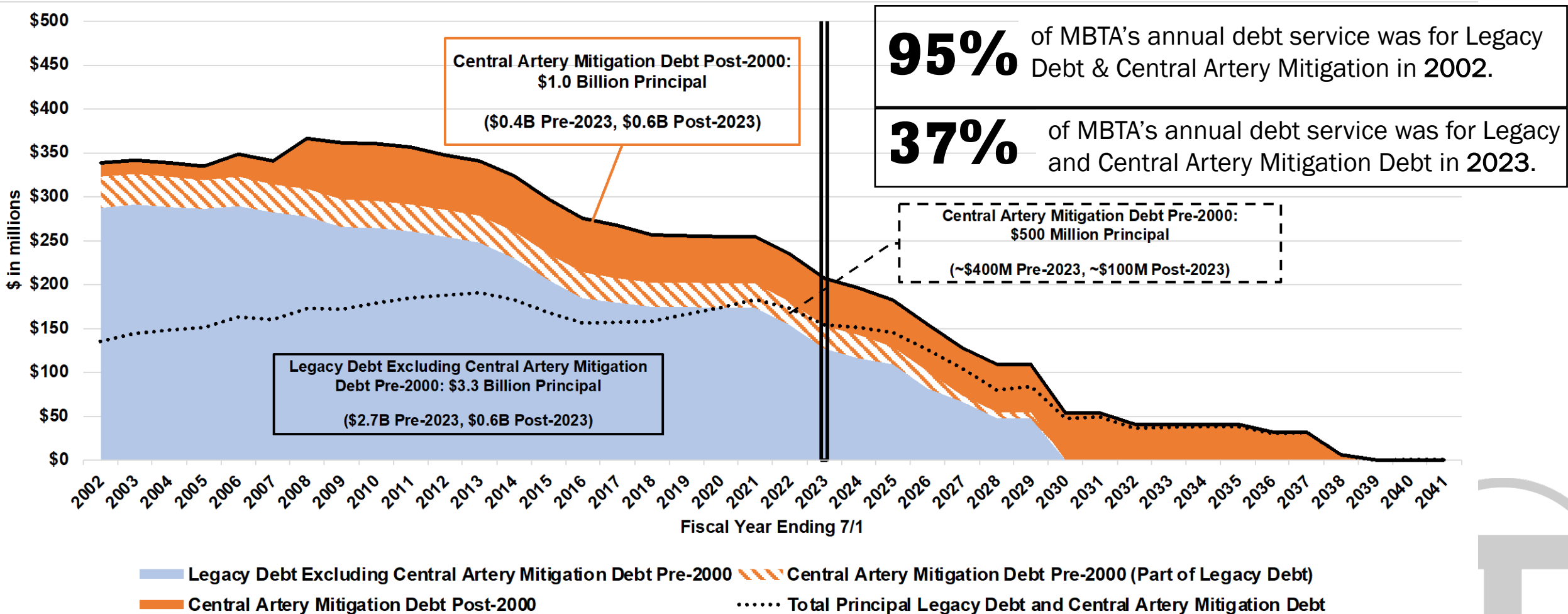
- With Forward Funding, the MBTA receives one percent of the statewide sales tax (6.25%) and local assessments that were conditioned upon payment of the debt service on these obligations.

Sales tax revenue grossly underperformed expectations in the first 20 years, growing at an average annual growth rate of 2.29% instead of the anticipated 6.46% - 8.50%, which resulted in **\$8.9-\$15.5 billion of lost revenue in nominal dollars** as compared to expectation.



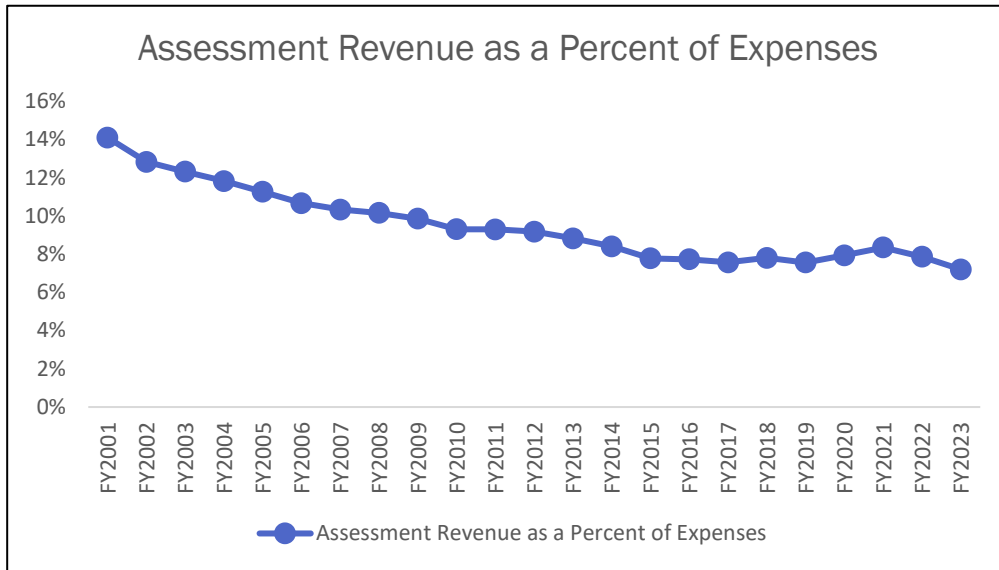
MBTA: Legacy & CA/T Debt Burden

COMBINED LEGACY & CA/T (transit related) ANNUAL DEBT SERVICE



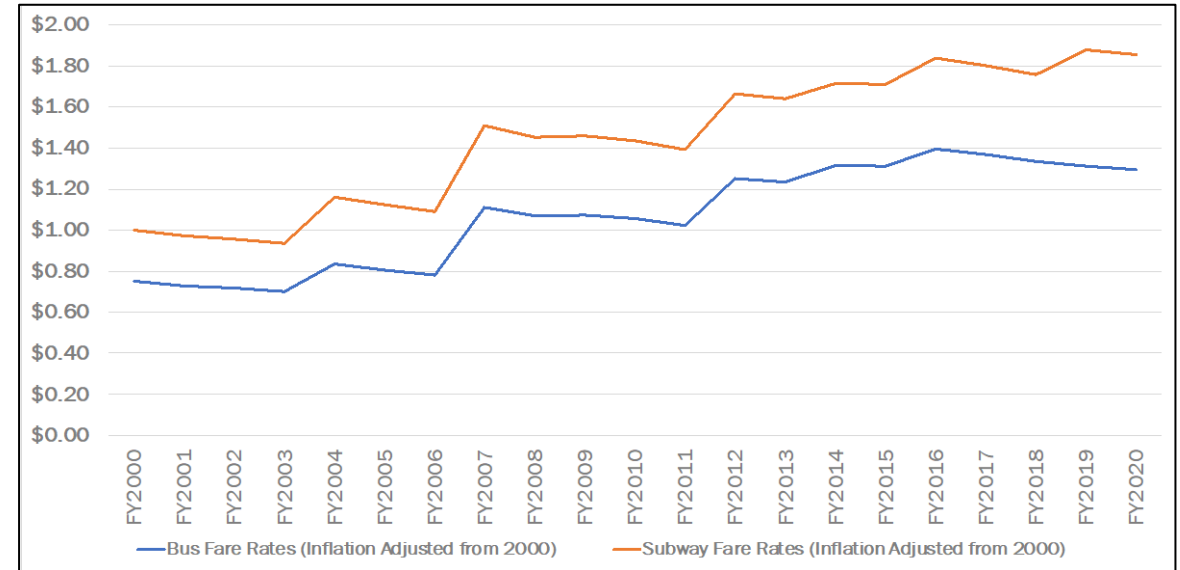
Other MBTA Revenue - Actuals

ASSESSMENT



Assessment revenue matched revenue projections in The Forward Funding Finance Plan (May 2000) (Finance Plan). **The ramp down in the first five fiscal years was in the Forward Funding Act**, with subsequent growth limited to 2 1/2 % by statute, well below inflation in some years.

FARE RATE INCREASES

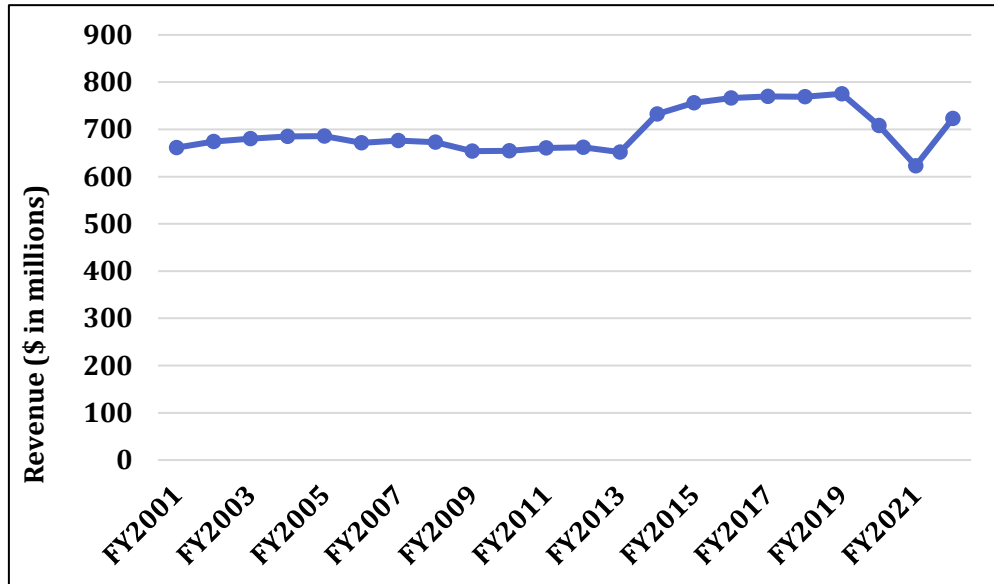


Since 2000, Fare rates have only increased by \$0.54 (Bus) and \$0.85 (Subway) on an inflation adjusted basis.¹

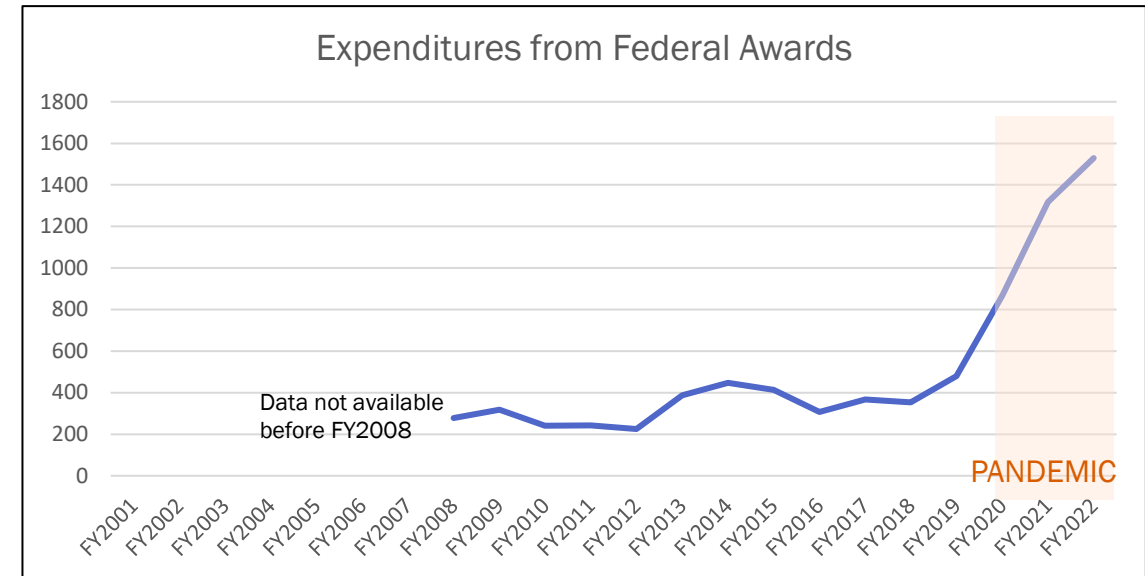


Other MBTA Revenue - Actuals

Massachusetts Motor Fuel Sales Tax Revenue (funds Commonwealth Transportation Fund)



FEDERAL



Federal funding has provided support for the MBTA capital program. It has remained relatively flat during this period, with TEA-21 and SAFETEA-LU relying primarily on formula funding, with a shift in the MAP-21 and FAST Act reauthorizations to adding more innovative finance and competitive grant programs. Other federal awards were from special stimulus programs and special acts.



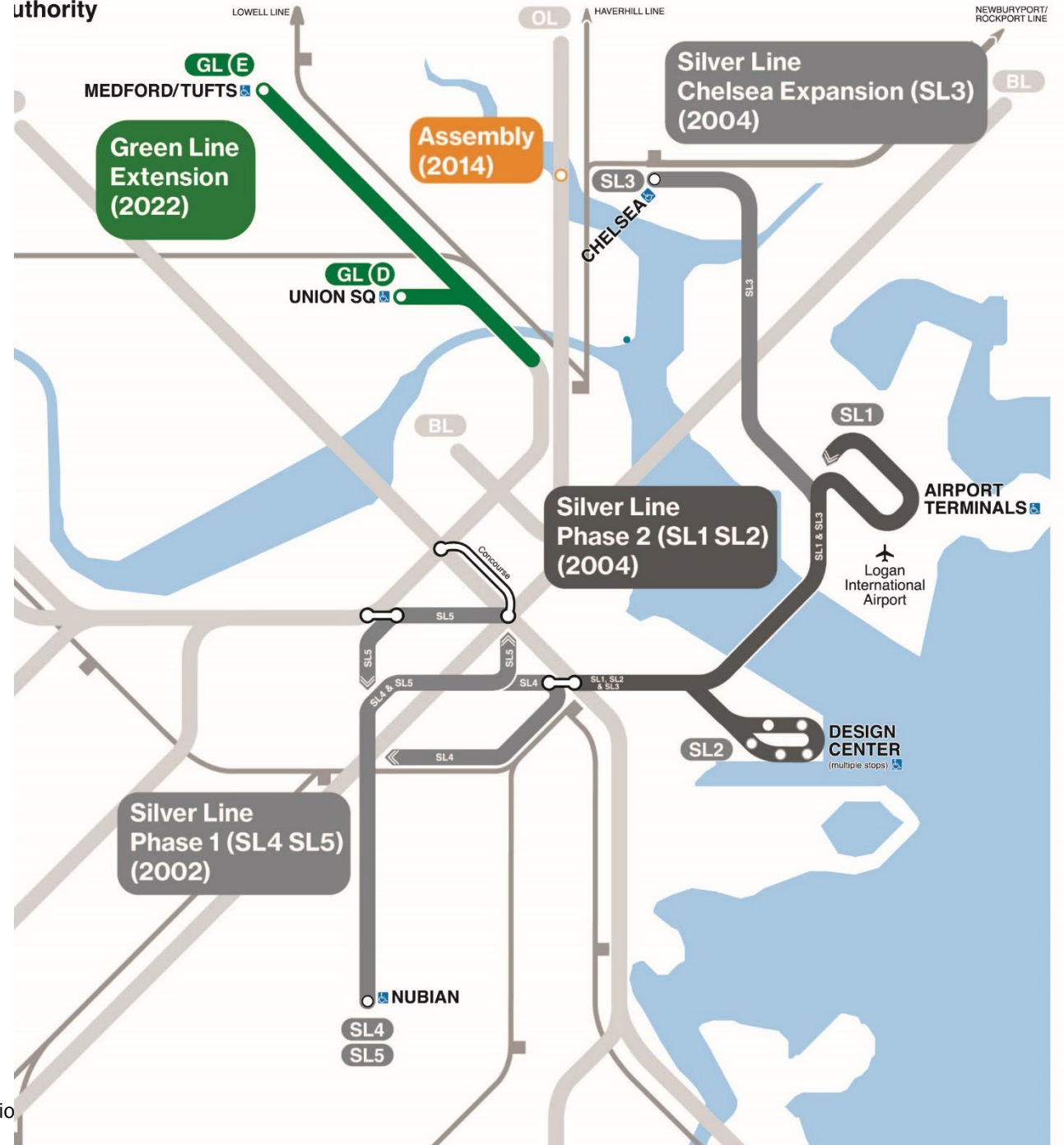
System Expansion Increases Operating Expenses

- When you expand a subsidized system, it requires *more subsidy* to operate the system.
- Pre-Pandemic fare recovery ratio was 41%, so 59% of operating expenses were absorbed by MBTA's operating budget.
- Post-Pandemic fare recovery ratio has dropped to roughly 19%, leaving about 81% of operating expenses absorbed by the operating budget.

Major Capital Commitments related to Central Artery Mitigation Plan:

Central Artery Project	Estimated Spend as Part of MBTA Central Artery Debt (\$ in millions) ¹
Greenbush	\$518.0
Red Line Rolling Stock	\$156.5
Old Colony Extension to Middleboro and Plymouth	\$120.4
South Boston Piers Electric Bus Service (Silver Line)	\$120.0
Blue Line Lengthening and Modernization	\$118.2
Commuter Rail Extension to Worcester	\$99.9
Commuter Rail Extension to Newburyport	\$91.2
Green Line Extension (GLX)	\$38.0







Expanded or New Commuter Rail Lines



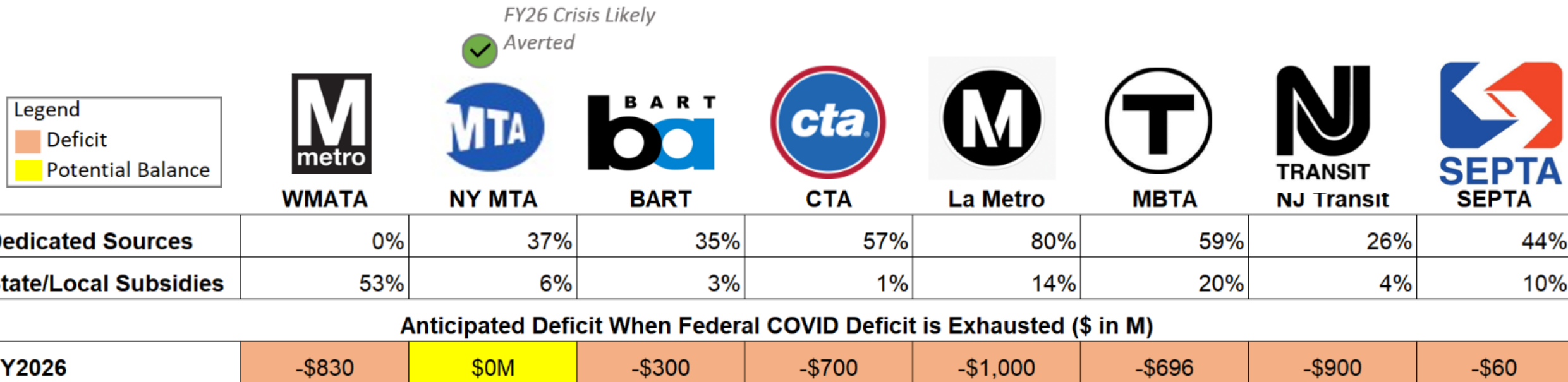
Recap of State Support for the MBTA



Peer Transit Agencies Projected Deficits

(Presented 1/18/24)

- Peer transit agencies with significant legislative support, such as MTA, have leveraged new revenue sources such as payroll mobility taxes, fare increases, and gaming license revenue to create future year surpluses for investments in safety & service
- Agencies without legislative support, such as WMATA, originally proposed up to 60% service cuts to balance their FY25 budgets
- The MBTA's FY25 recently passed with support from the Governor and Legislature, which is a huge step in the right direction to help support ambitious safety & service investments



From WMATA Future Financial Planning FY2025-2035 presentation June 22, 2023. SEPTA Federal Relief depletes in FY2024. SEPTA using Stabilisation Fund for FY2025 and FY2026 CTA amount for entire Chicago -RTA region. MBTA Deficits Updated with January 2024 Pro Forma Projection (Outcome C). Based on publicly available sources as Month/Year

Service has expanded while revenues have decreased, supplemented by state assistance

Service & Expenses Up

- South Coast Rail
- Green Line Extension
- Expansion of Ferry routes
 - Lynn, Winthrop, East Boston
- Income Eligible Reduced Fares
- Bus Network Redesign
- Tap to Ride/AFC 2.0 Fare transformation
- 1000 + New Hires
 - More hires necessary per Workforce Assessment
- Track Improvement Program
- Central Artery & Legacy Debt

MBTA Revenue Down

- Federal COVID Relief funds backstopping structural decrease in fare revenue no longer available
- The year over year ridership recovery has slowed, despite some recent gains on the commuter rail, compound the structural deficit
- Sales Tax revenue growth is flat and has not kept pace with Forward Funding projections
- Gas Tax revenue not keeping pace with inflation

State & Fed Assistance Up

- Sales Tax 5% to 6.25%, led to \$160M annually recurring Contract Assistance (2009)
- Transportation Finance Framework, \$500M of new tax revenue. Led to \$187M of annually recurring Contract Assistance (2014)
- Federal Assistance \$2B (2020 - 2023)
- Fair Share \$211M (2024)

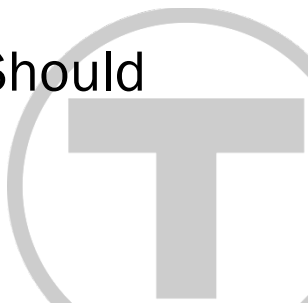


Establishment of Contract Assistance



Increased Sales Tax in 2009

- In 2000, Forward Funding established that the MBTA would receive a 1% statewide Sales Tax, excluding meals, with the establishment of the MBTA State and Local Contribution Fund (Section 35T of Chapter 10).
 - 20% of the then current 5% statewide Sales Tax
 - This amount is known as the Dedicated Sales Tax Revenue Amount (“DSTRA”).
- In 2009, the Commonwealth raised the statewide Sales Tax from 5% to 6.25%.
 - The justification for the increase was to make investments in transportation and education and other pressing public needs.
- During implementation of the tax increase, a question arose as to what effect the additional 1.25% of Sales Taxes would have on the MBTA’s DSTRA disbursements: Should the MBTA receive 20% of the 1.25% increase?



Establishment of Contract Assistance

- It was determined that the MBTA would not receive 20% of the 1.25% increase as it would have required an amendment to the original language which specifies 1% of collections rather than 20% of total collections

Enabling Act, Title 12, Chapter 161A of the General Laws, Section 35T

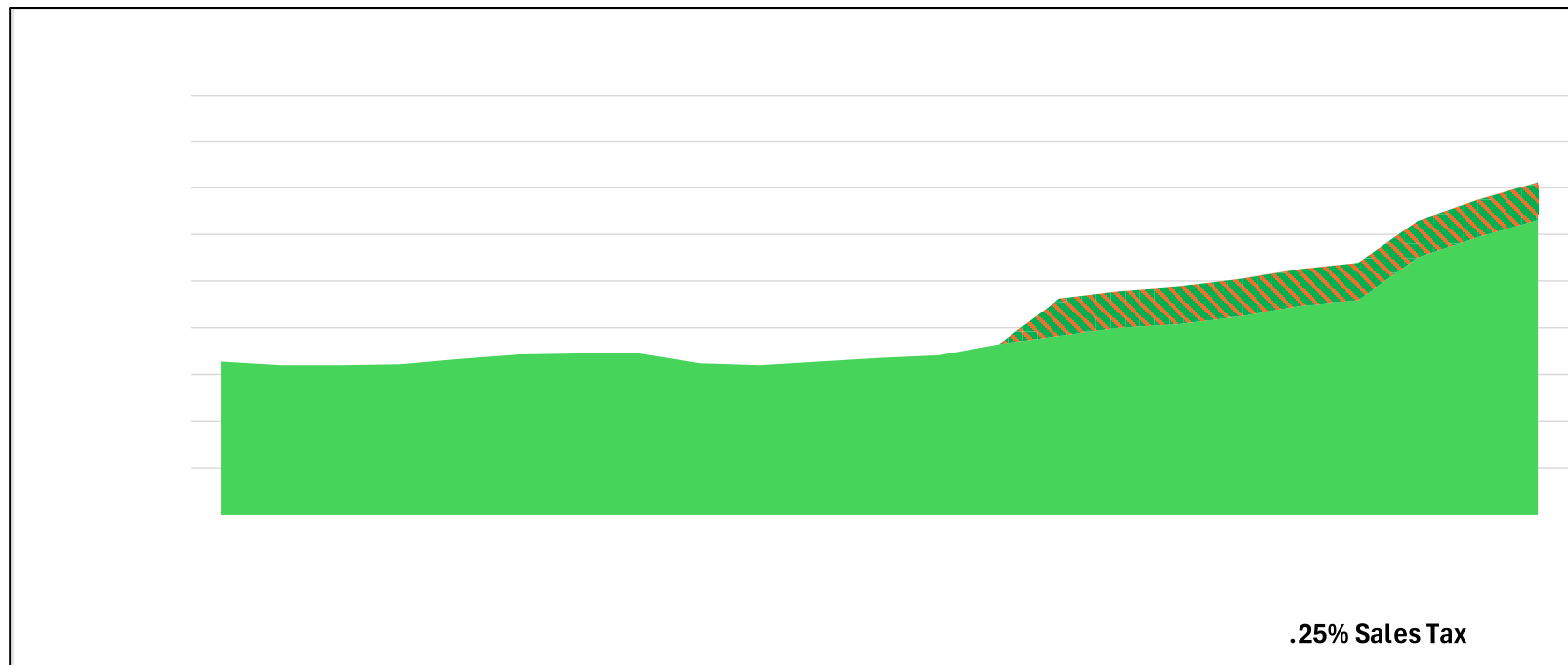
"Dedicated sales tax revenue amount", all monies received by the commonwealth equal to 1 per cent of the gross receipts of a sale as defined in chapter 64H and 1 per cent of the sales price of a purchase as defined by chapter 64I from that portion of the taxes imposed under said chapters...."

- In recognition of that one of the stated goals of the revenue increase was to assist the MBTA, the State created a **\$160 million Contract Assistance payment** which was annually appropriated.



Impact of a Flat \$160 Million Payment

- The gross MA sales tax collections (ex-meals) more than doubled between 2010 and 2023 from \$3.85 billion to \$7.90 billion
- If the MBTA had received 20% of the 2009 Sales Tax Increase, the Agency would have received an additional ~\$725 million (More than half of which would have been received from 2021 to 2023)



2013 Transportation Finance Framework



2013 Transportation Finance Framework (“TFF”)

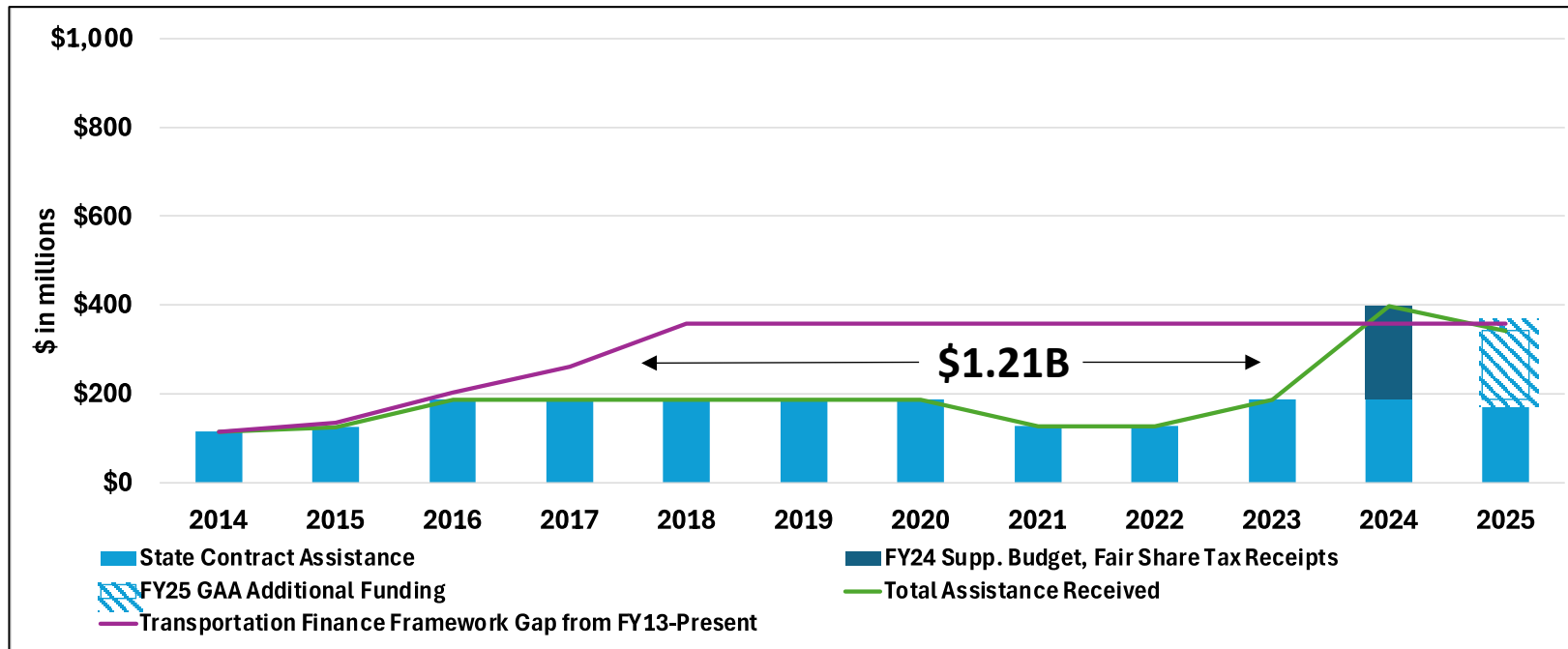
- In April 2013, the legislature agreed on the “TFF” which formed a ‘common financial ground’ between the House and the Senate as they enacted transportation reform.
- Newly proposed taxes would generate ~\$500M in annual sustainable revenue:
 - \$165M in sales taxes on computer systems
 - \$165M on increased tobacco taxes
 - \$110M 3 cent increase in the gas tax (the gas tax indexing to inflation was repealed in Nov. 2014)
 - \$83M in changes to utility tax classification
- One of the preeminent TFF goals was to generate new sustainable revenues that do not disproportionately affect any one area of the state.
 - Transportation, and the MBTA in particular, had been identified as a clear need for these additional revenues. The table below details the projected operating gaps for the MBTA from 2013:

	FY14	FY15	FY16	FY17	FY18
MBTA Starting Gap	\$ (115.2)	\$ (135.1)	\$ (202.4)	\$ (260.5)	\$ (357.2)



Actual Contract Assistance Following TFF

Since the new TFF revenue sources were implemented, MBTA Contract Assistance received* has been **\$1.21 billion** less than the projected operating budget gap detailed in the “TFF” totals



Fair Share Amendment

- Fair Share Tax Increase was passed by voters in 2022, effective in 2023, was created to generate support for transportation and public education.
- Distributions to the MBTA to Date:
 - \$211 million distribution is in FY24 budget (Education & Transportation Fund)
 - \$260.5M* appropriated direct to MBTA in FY25 State Budget (Education & Transportation Fund)
 - Future distributions beyond FY25 from this source are not known

***Note:** \$260.5M is the total direct appropriation of Fair Share revenue to the MBTA (\$10M MBTA Academy, \$36M Workforce, \$60M Capital, \$20M Income Eligible Reduced Fares, \$7.5M Ferries, \$127M doubling of contract assistance). Other fair share revenues not noted on this slide have been appropriated to Mass DOT and various state trust funds.

Outcomes of Recent Revenue Initiatives

- **Sales Tax Increase in 2009**
 - \$160 million of recurring annual Contract Assistance
- **Transportation Finance Framework of \$500M in New Revenue from 4 Sources in 2013**
 - \$187 million of recurring annual Contract Assistance (more years than not)
- **Fair Share Tax Increase Effective 2023**
 - \$211 million distribution is in FY 24 budget; \$260 million appropriated for FY 25
 - Future recurring annual Contract Assistance from this source is still uncertain

The initial proposals expressed in 2009 and 2013 resulted in less actual recurring annual support to the MBTA than needed.



The Fiscal Cliff



MBTA Revenue History

Total Revenue Received Before Transfers, Updated 7/15/2024

Source: MBTA FMIS Data, CC-H_REV Report adjusted to reflect total state revenue received by fiscal year on the operating budget

**State Contract Assistance Transfer of \$187M from FY16 – FY20 had \$60M Transferred to the Capital Budget*



The Fiscal Cliff

- The MBTA faces a ~\$700M deficit in FY26 per the most recent pro forma*
- The MBTA has faced critical operating budget gaps before
- Previous initiatives have resulted in less recurring annual support to the MBTA than needed
- History shows the importance of:
 - A recurring non-appropriation type revenue source
 - A revenue source with a reliable growth trajectory
- The MBTA FY26 budget planning begins in December 2024
- With the Transportation Funding Task Force report not due until December 2024, the MBTA faces fiscal uncertainty heading into the FY26 budgeting process



Strategic Planning Update

Laura Gilmore, Senior Director of Strategic Transit Planning





What's next for MBTA Strategic Planning?



Engaging in development of the PMT and articulating a vision for transit moving forward tied to social, policy and economic goals



Developing outcomes and priorities to guide internal alignment



Continuing to socialize the strategic plan and using it to drive our work



Finalizing metrics and developing targets to track our progress

END

