Reducing Operating Costs and Improving Efficiencies

New York City Transit

Update to Finance Committee

July 17, 2023

Four strategies to reduce operating costs

Harness technology and data to improve productivity

Develop common standards and best practices

Sharpen management focus on cost drivers

Invest capital to reduce operating expenses

MTA New York City Transit

NYC Transit is lowering costs while pursuing its goal to improve customer satisfaction 10% by June 2024

Faster, Cleaner, Safer Plan

- Faster service
- Cleaner stations and vehicles
- Safer environment
- Better weekend service
- Enhanced communications

■ Baseline (Satisfied & Very Satisfied)[*]
■ June 2024 Goal
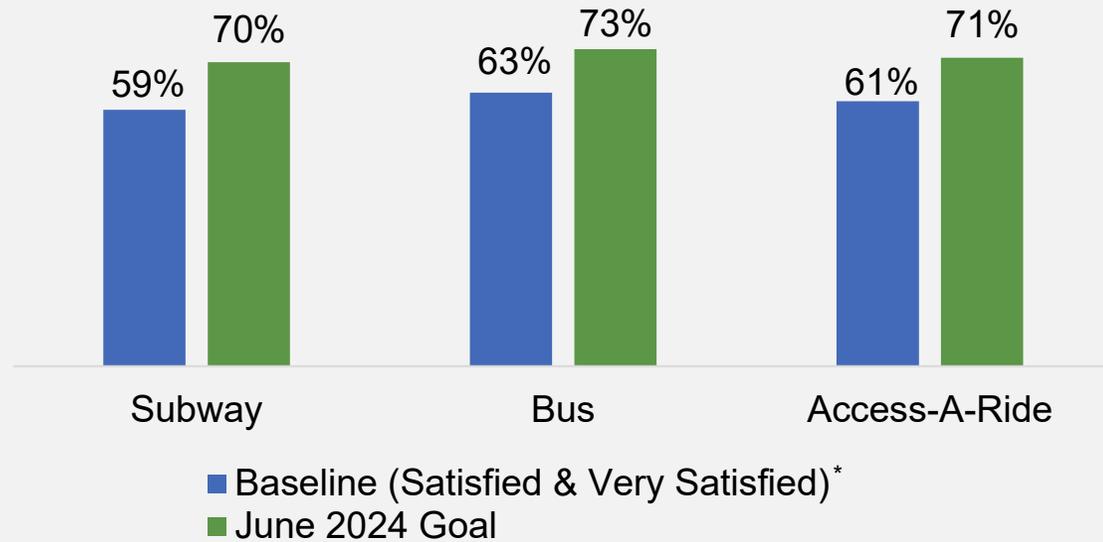
Baseline based on results from September 2022 customer survey

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Harness technology and data to improve productivity

Sample initiatives

Lever	Context	Savings	
Subways Predictive Maintenance	Tailor intervals based on review of failure data	$41M	*Details below*
Bus Predictive Maintenance	Expand successful prognostics pilot for aftertreatment	$5M	
Optimize emergency response	Analyze utilization data in order to balance responsiveness and cost	$6M	
Access-A-Ride self-booking	Provide ability to book rides through myMTA, reducing costs related to handling calls	$4M	

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Harness technology and data to improve productivity

Pursuing predictive maintenance to improve reliability while lowering costs

Subways

Piloting new maintenance intervals for Car Equipment and Maintenance of Way
- Major Car overhauls every ~6.5 years (recent intervals have been either 6 years or 7 years)
- Routine Car inspections every 75-85 days or 11K-13K miles, up from 68-78 days or 10-12K miles
- Switch maintenance at non-critical locations every 60 days, up from every 30[1]

Results will be monitored to continue to optimize costs and reliability

Buses

Expanding from the initial pilot of engine after-treatment monitoring on 326 buses up to 1,528 in 2023 and up to 5,000 buses in 2024

Since December 2022, 552 predictive maintenance repair plans have been completed, yielding an estimated cost avoidance of $1.2M

In addition, Bus is partnering with Procurement on a RFP to expand predictive maintenance to include other bus sub-systems beyond after-treatment

1. To be reflected in November financial plan

Sharpen management focus on cost drivers

Sample initiatives

Lever	Context	Savings	
Insource cleaning	Transition contracted cleaning to new hires, maintaining standards while reducing cost	$16M	*Details below*
Extend maximum train crew shifts	By extending maximum shift, achieve scheduling efficiencies	$2M	
Consolidate real estate	Cancel expiring lease and consolidate staff within existing available space	$2M	

Sharpen management focus on cost drivers

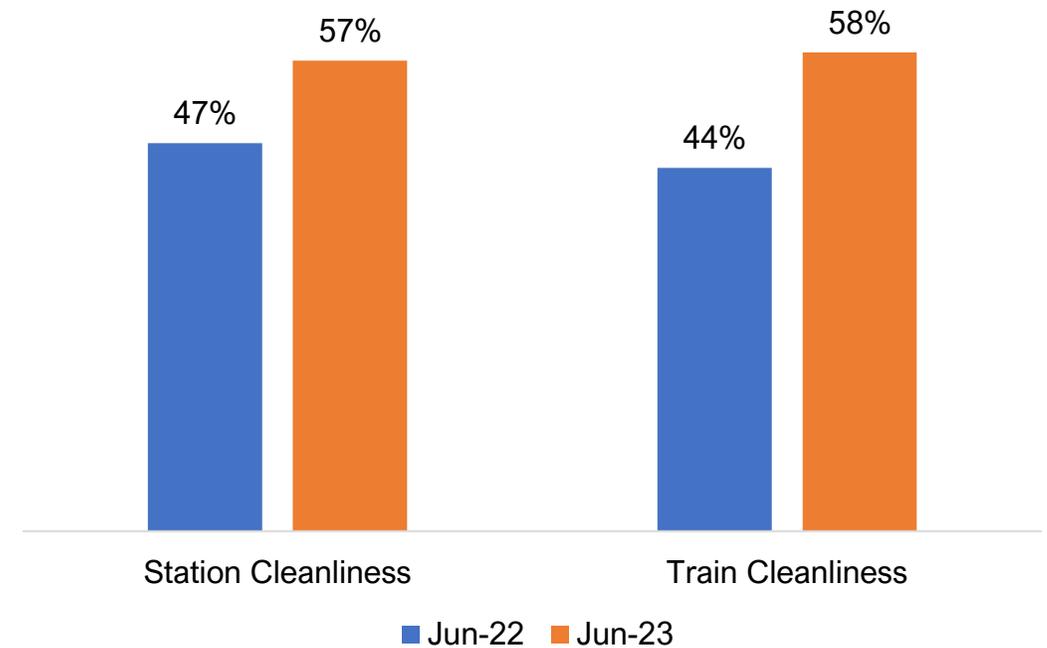## Insourced cleaning positions to increase customer satisfaction at lower cost

During COVID, NYCT rapidly increased cleaning of Stations and Cars by contracting out for support

After reviewing results, NYCT determined it could improve results by insourcing. Changes include:
- More cost effective
- Greater specialization (e.g., power washing)
- New training

NYCT will continue to monitor performance and revise its operating model (e.g., ideal supervisor to staff ratio) as we continue to balance costs and cleanliness

Customer satisfaction has increased ~10pp for both Station and Train Cleanliness

Station Cleanliness: Jun-22 47%, Jun-23 57%
Train Cleanliness: Jun-22 44%, Jun-23 58%

■ Jun-22 ■ Jun-23

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Develop common standards and best practices

Sample initiatives

Lever	Context	Savings	
Re-imagine station agents	Improve customer service and hourly pay while reducing net cost	$10M	
Scale LEDs	Reduce costs related to materials and energy, while improve customer satisfaction	$1M[1]	*Details below*
Reduce peak demand	Work with ConEdison to reduce peak demand in exchange for financial credit	$1M	

1. Initial tranche, additional savings will be reflected in the November financial plan

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Develop common standards and best practices

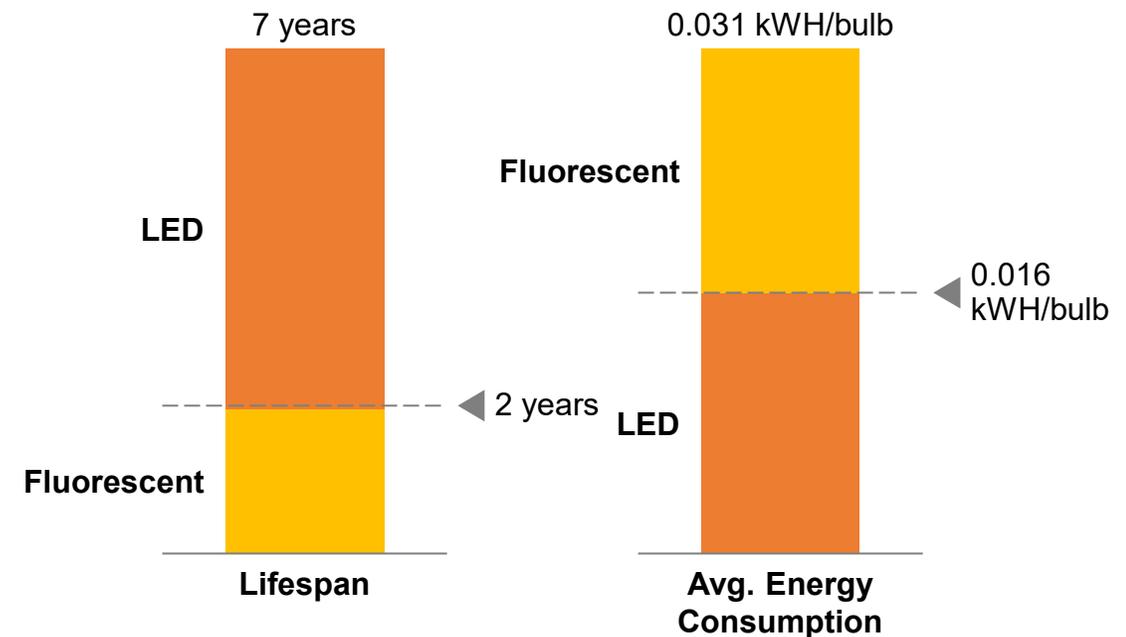## Scale LEDs across the Subway system

LEDs provide multiple benefits compared to traditional fluorescent bulbs:

- Lower energy consumption
- Longer-lasting (resulting in lower material and labor costs for replacements)
- Brighter light and greater feeling of safety

Subways has successfully piloted LEDs on cars, in stations, and in tunnels

As part of the Faster, Cleaner, Safer plan, Subways will be rolling out LEDs at scale over the coming years, driving higher customer satisfaction at lower cost

On average, LEDs last over 3x as long and consume ~50% less energy vs. fluorescents

7 years

LED

Fluorescent

◄ 2 years

Lifespan

0.031 kWH/bulb

Fluorescent

0.016 kWH/bulb

LED

Avg. Energy Consumption

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NYCT is pursuing $150M more in savings for the November plan, including:

Harness technology and data to improve productivity	• Expand pilot of e-mirrors to reduce collisions • Digitize business processes • Enhance Access-A-Ride self-booking to increase uptake
Sharpen management focus on cost drivers	• Improve employee availability • Further optimize emergency response capacity • Right-size phone, data and software licenses based on usage review
Develop common standards and best practices	• Collaborate with Metro-North Railroad and Long Island Rail Road to reduce contractor costs in common areas (e.g., rail grinding) • Optimize track access to improve productivity and minimize customer impact • Audit energy usage in order to lower consumption and costs
Invest capital to reduce operating expenses	• Optimize Total Cost of Ownership of non-revenue fleet • Improve maintenance productivity by enhancing shop layout and equipment • Install energy-efficient boilers to lower heating costs

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LIRR and Metro-North Railroad
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Identifying and implementing strategies to achieve efficiencies and recurring savings while continuing to provide excellent service and customer experience

Growing ridership
YTD June 2023

LIRR: 24.5%
Metro-North: 14.8%

Consistently high on-time performance
YTD June 2023

LIRR: 94.4%
Metro-North: 97.6%

Declining customer injuries
June 2022 – May 2023

LIRR: 2.24 per million
Metro-North: 2.07 per million

Challenge and opportunity: Balancing short term financial savings with longer term business improvements

Harness technology and data to improve productivity

Sample initiatives

Lever	Context	Savings	
Train Scheduling	Utilize passenger loading data to better match train lengths to customer demand	$1M	
Materials Management	Consistent, data-driven review of material usage and requirements	$7M	
Energy Management	Improve efficiency of facility heating systems through a wireless sensor network to save heating fuel costs	$0.4M	*Details below*

Harness technology and data to improve productivity

Increasing efficiency of building heating systems
to reduce costs and environmental impacts

- Leveraging our partnership with **Transit Tech Lab** to identify new technologies and vendor solutions

- Pilot program showed positive results at both railroads:

Facility	Sensors Installed	Decrease in Fuel Usage	Savings
Jamaica	32	40%	$7K
Hillside	32	43%	$32K
Harmon	12	16%	$7K

- Expanding to additional buildings in 2024

MTA Long Island Rail Road
Metro-North Railroad

Develop common standards and best practices

Sample initiatives

Lever	Context	Savings
Rolling Stock Productivity Improvements	Streamline M7 truck overhaul Reliability Centered Maintenance program as well as reduce certain inspection frequencies	$12M
Rolling Stock Standard Work	Develop work standards that will optimize work and increase inspection throughput	$1M

Details below

Develop common standards and best practices

M7 Standard Work optimization is a key productivity enabler that can create value from job time reduction and increased predictability

- M7s are 30% of Metro-North's fleet & 65% of LIRR's

- Utilizing Lean Six-Sigma principles to determine optimal sequencing and timing of the work to reduce overall time cars spend in the shop

- Initial task-by-task review of FRA required 92-day Periodic Inspection will be performed in Croton-Harmon

- Implementation teams will build skills and methodology for scaling this approach to other types of work across both railroads

MTA **Long Island Rail Road**
Metro-North Railroad

Sharpen management focus on cost drivers

Sample initiatives

Lever	Context	Savings	
Maintenance of Equipment Overtime Management	Aggressively hiring to reduce the need to cover vacant shifts on overtime and strengthening management oversight	$7M	*Details below*
Maintenance of Way Overtime Management	Drive accountability for overtime further down into sub-department level	$2M	
Contracts	Comprehensive review of maintenance, materials and service contracts for targeted reductions and changes to business practices	$4M	

Sharpen management focus on cost drivers

Filling key craft vacancies to reduce overtime coverage and costs

Hiring and retention initiatives include:

- "Day in the Life" videos
- Open houses
- Connecting with trade schools
- Internship program with CUNY (MTA)
- Engineer Trainee program (MNR)
- Other incentives across RRs

289
New hires onboarded at LIRR*

221
New hires onboarded at MNR*

Year-to-date through June

Join the team that moves millions

Metro-North is hiring

Learn about our steady jobs, competive pay, and outstanding benefits.

mta.info/careers
MTA Metro-North Railroad is an Equal Opportunity Employer

Long Island Rail Road
Metro-North Railroad

LIRR and Metro-North are pursuing $50M more in savings for the November Plan, including:

Harness technology and data to improve productivity	• Leverage advanced data analytics to optimize staffing and resourcing of maintenance activities • Materials Management software and analysis
Sharpen management focus on cost drivers	• Improve employee availability • Right-size phone, data and software licenses based on usage review
Develop common standards and best practices	• Scale up M7 Standard Work pilot outcomes to other locations • Improve relationships and business case analyses for cost savings with top suppliers
Invest capital to reduce operating expenses	• Industrial engineering and equipment use efficiencies • Strategic work equipment investments

Four strategies to reduce operating costs

Harness technology and data to improve productivity	**Develop common standards and best practices**
Sharpen management focus on cost drivers	**Invest capital to reduce operating expenses**

MTA Long Island Rail Road Metro-North Railroad