OPTA LIVE

Presented by MTB TRANSIT SOLUTIONS

Confidential

Bus Refurbishment and Life Extensions of Transit Assets in Today's Landscape

September 25, 2024

www.mtbtransitsolutions.com

Bus Refurbishment and Life Extensions of Transit Assets

Agenda

- **Who we are**

- **What is Mid-Life Refurbishment?**
  - Processes
  - Costs/ROI

- **How and why Refurbishment has been adopted by other transit authorities**
  - Case study
  - Costs/ROI

- **What is End-of-Life Extension?**
  - Bridging the gap

MTB Transit Solutions
Canada's Leading Bus Repair Specialist

50+ YEARS EXPERIENCE

25,000+ BUSES REFURBISHED & REPAIRED

55+ SKILLED WORKERS

110,000ft²+ STATE OF THE ART FACILITY

60 DEDICATED BAYS ON SITE

ISO 9001:2015 CERTIFIED

Proudly defined by an untiring pursuit of complete customer satisfaction

MTB TRANSIT SOLUTIONS

Management Team: Experienced, Dedicated Management Team

MTB's senior management team combines significant industry experience with new energy and enthusiasm

Over 100 Years Bus Experience

Tom Glover
SVP Sales & Marketing

Career:

MTB	1988
Orion Bus Industries	81-88

Liam Finan
SVP Operations

Career:

MTB	2006

Gara Hay
President

Career:

MTB	2018
Peterbilt/Cervus	13 - 18

Carlos Raposo
VP Production

Career:

MTB	1990
Body Shop Owner	80-90

Dennis Rowe
VP Production, Mechanical

Career:

MTB	2015
Pacific Western	98-15

Jay Menard, PMP
VP Project Management

Career:

MTB	2013
Automotive Sector	08-13

MTB TRANSIT SOLUTIONS

Our Business
Refurbishment, Repair, OEM Support and Project Work

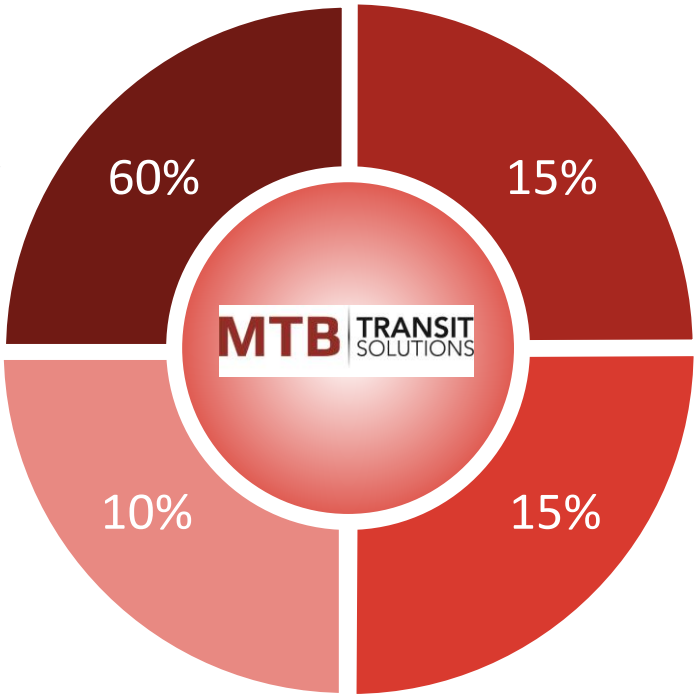
Service Lines

Refurbishment

Refurbishment
- Overhauls existing buses to extend the useful life
- At less than half the cost of a new bus, a properly executed mid-life refurbishment (8-10 years) is a very cost-effective solution to extend an aging fleet and maximizing the capital dollar

Fire & Collision Repair

Repair
- Fully dedicated team to repair all major collisions
- Advanced fire repair capability to return every bus to near new condition
- Contractual services to all types of customers from coach lines to transit authorities, OEMs and emergency vehicles



OEM Upgrades, Modifications & Warranty

OEM Upgrades, Modifications and Warranty
- OEM upgrades & modifications
- Hybrid, electronic and lighting upgrades
- Full OEM pre-and post-delivery support
- Battery replacements and upgrades

Project Work

Project Work, Repowering
- Safeties (PMCVI)
- Seat retro-fit
- Paint
- Articulating joint repairs & overhaul
- Engine re/re
- HVAC repairs
- General services
- Deisel to clean propulsion conversions

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MTB Has the Experience Required

MTB has refreshed and refurbished **1,000+ buses** for transit authorities throughout Canada and the United States with contract sales of **$107,000,000+**.

MTB is familiar with the refurbishment of all OEM products within North America

Bus manufacturers and models include;

- New Flyer D40LF, D60LF, XD40 & XD60 low floor transit buses
- Nova LFS 40 ft. and 60 ft. low floor transit buses
- MCI D4500, D4505 highway motor coaches
- ADL Double Deck coaches
- VanHool 40 ft. And 60 ft. low floor transit buses

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Our Clients: Municipalities, OEMs, and Private Coach Operators

MTB TRANSIT SOLUTIONS

Our clients range from municipalities to multinational bus manufacturers to private coach operators

Service provider of choice to the Transit Industry

Municipalities

METROLINX
YORK REGION TRANSIT
Guelph Transit
MiWAY
Brampton Transit
Durham Region Transit
Burlington Transit
Saskatoon Transit
GRT Grand River Transit
Oakville Transit
TTC

Original Equipment Manufacturers

Alexander Dennis
New Flyer
Motor Coach Industries
Nova Bus

Private Coach Operators

AYR Coach Lines
Badder
Coach Canada A Stagecoach Group Company
Denny's Bus Lines

Facility: The Largest State of the Art Independent Bus Facility in Canada

Facility Overview

Commentary

- ✓ Over 110,000 sq. ft. in **Two purpose-built** facilities which include 60 working bays, two state of the art paint booths, frame rack and all equipment certified to ministry standards
- ✓ 10 acres of monitored, secured fenced land for parking and on-site storage
- ✓ Strategically located north of Highway 401 in Milton, Ontario
- ✓ Ideally located to service municipality owned transit authorities
- ✓ 6,500 sq. ft. Indoor parts warehouse as well as outdoor parts storage areas which are also contained

MTB's facility is ideally set up to support large Refurbishment requirements

Quality Assurance: MTB Utilizes Highly Stringent Quality Control Procedures – ISO9001:2015 Certified

Quality Assurance Program Overview

- All work is signed off by the shop supervisor, technician and inspected by senior management before leaving the facility
- Spot checks by customers are highly recommended - we believe that our customers should be involved in the ongoing process, **and see the work behind the panels**

- The foundation for quality at MTB is the pride that our people have in their work, the oversight and guidance that our Supervisors provide to our Technicians, and the **importance that our most senior leaders place on doing the job right**

- MTB utilizes checklists on labor requirements, master checklists of all parts requirements and any related backorder lists
- Internal work order database tracks all parts and track each technician per job
- **Rigorous and thorough testing of finished products before any job leaves our facility**

- Knowledge and experience of how to do the job right the first time are keys to quality workmanship
- **We have the most experienced staff in the industry**, with many of our key employees being with the company for over 10 years
- We recruit and retain the most skilled people

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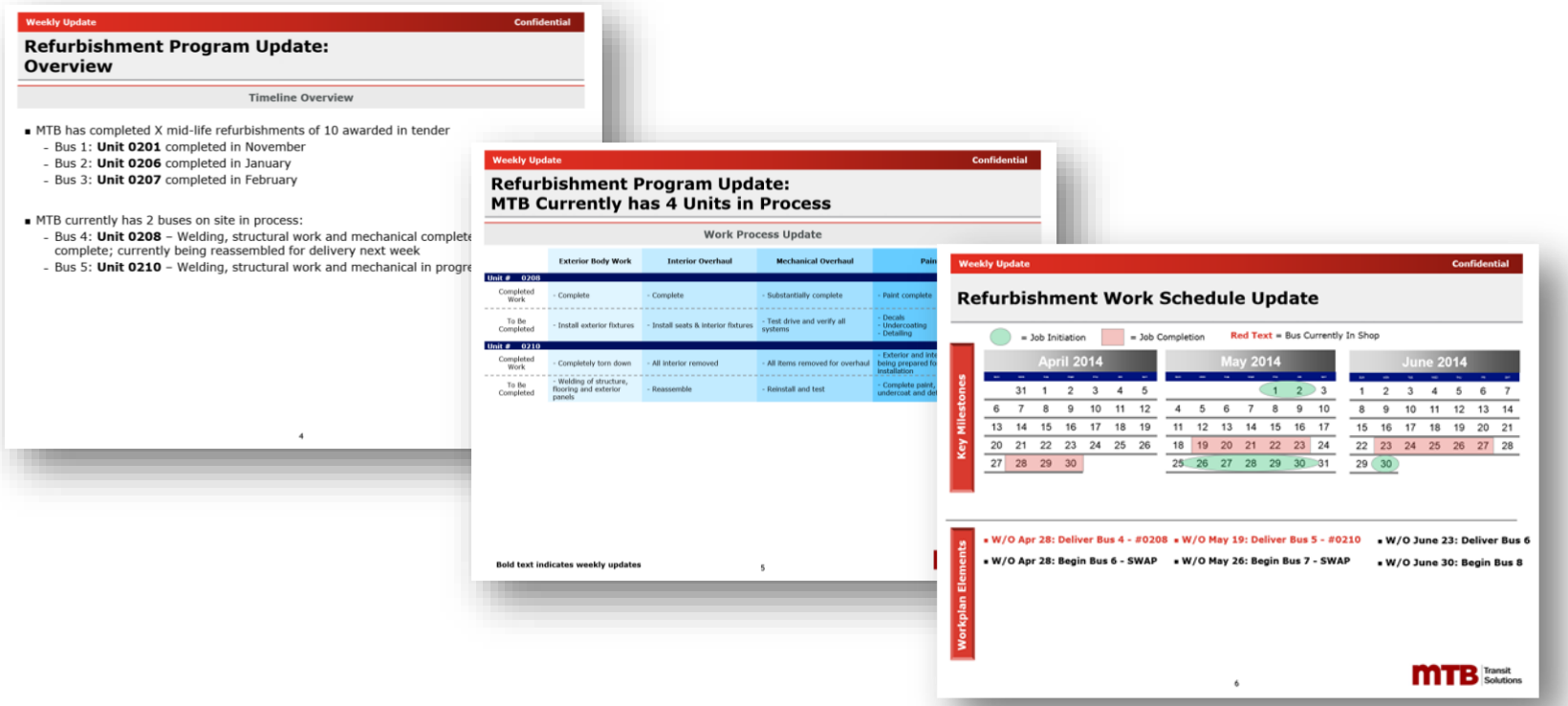
Weekly Reports For Customers

Quality Assurance Program Overview

MTB pride itself on giving the customer the best finished product in the business. MTB provide each customer with a **weekly update** report for full transparency and progress in the repair process.



MTB TRANSIT SOLUTIONS

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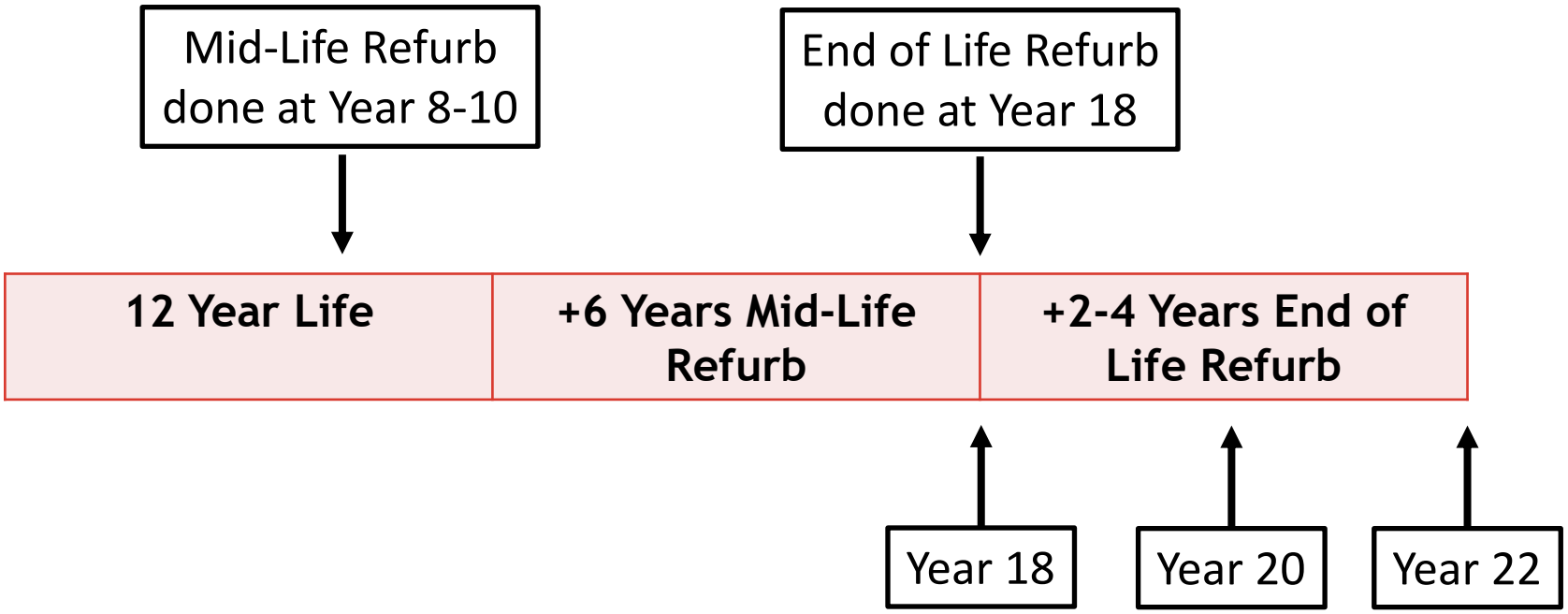
What is Mid-Life Refurbishment?

What is a typical Mid-Life Refurbishment scope?

- Replacement of;
  - Corroded structure as necessary throughout the unit
  - Exterior panels and fixtures
  - Interior floor covering and subfloor
- Operator seat overhaul
- Interior and main HVAC overhaul
- Suspension overhaul
- Steering component overhaul
- Passenger seat insert replacement
- Refinishing and exterior branding

The scope can be added to or minimized based on the Transits needs

Refurb process to extend life of bus by 8 to 10 years



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MTB has Mastered the 8 Week Refurbishment Process

1. Tear Down

2. Structural

3. Mechanical

4. Rebuild

5. Prep & Paint

6. Final Assembly & Test

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What Can Refurbishment of Transit Assets Provide?

Extending the Capitol Dollars

- Post COVID-19 has put tremendous strain on transit operations
- Transit authorities need to consider this option for use of government funding
- Many Ontario transit authorities currently conducting mid-life refurbishments
- Overhauls existing buses to extend the useful life
- Without mid-life refurbishment, transit buses have a 12-year life; with refurbishment that life is extended to 18 years
- **Economic benefit**: At 1/4 to 1/3 the cost of a new bus, a properly executed mid-life refurbishment (at years 8-10) is a very cost-effective solution to extend an aging fleet and maximizing the capital dollar
- **Environmental benefit**: Fewer buses are sent to landfill

Supply Chain Challenges

Challenge:

- World conditions have resulted in an unreliable supply chain with many parts back-ordered for several months causing delays in "New Bus" delivery
- New diesel bus purchase pricing has escalated approximately 30%+ since 2021
- Newer in-service units require parts that have long lead times as the new production vehicles are depleting the supply chain

Solution:

- All products and parts are procured for the refurbishment programs are common day to day parts used by all transit agencies for years
- The parts being acquired are common in the industry and supply chain
- There are many aftermarket vendors able to supply reliable parts if acceptable to the customer

Evaluating the Advantages of Mid-Life Refurbishment

Outsourcing Mid-Life Refurbishment

- Minimizes Transit shop floor space

- Material management, and employee risk leading to lower overhead costs

- Transit facilities typically are not equipped for this process
  - The process is highly labour intensive
  - Takes up valuable shop space
  - Requires a large, experienced labour force
  - The process is a 'production' focus rather than a 'maintenance' focus
    - Therefore, a shop must be properly set up to handle a volume of work to make the process efficient

- Allows staff to carry out day to day repairs and maintenance which enables better fleet deployment

- Updates your fleet and reduces the environmental impact by extending the life of the bus and sending fewer buses to landfill

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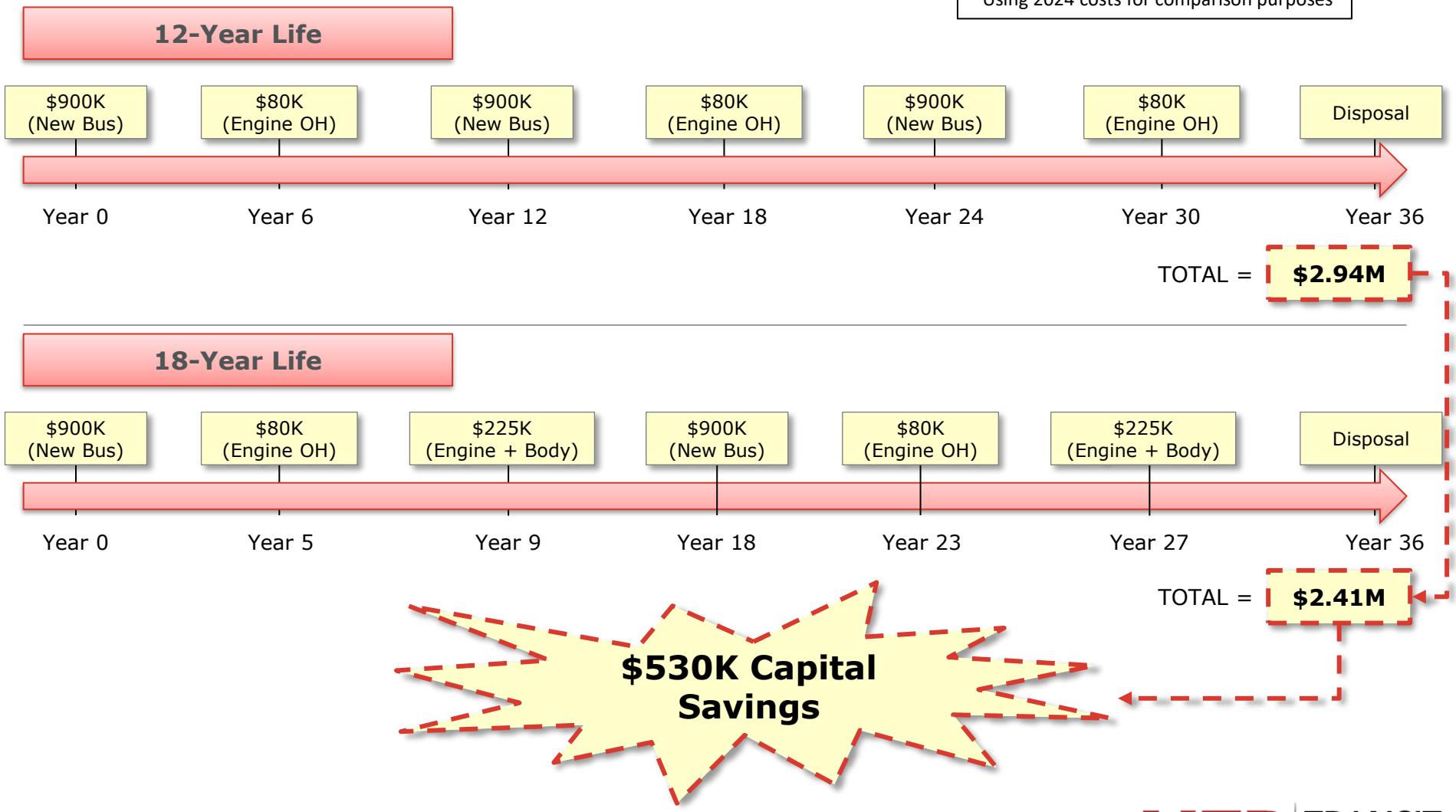
Case Study: Protecting Your Bottom Line
Capital Payback of the Mid-Life Refurbishment

*Using 2024 costs for comparison purposes



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What is End-of-Life Extension?

- Extending the useful life of buses past their 18-year life

What is a typical End-of-Life Extension scope?

- Bus assessed on a bus-by-bus basis
- The scope can be added to or minimized based on the Transits needs

- Replacement of;
  - Corroded structure as necessary throughout the unit
  - Exterior panels and fixtures as necessary
  - Interior floor covering and subfloor as necessary
- Refinishing and exterior branding as necessary
- Operator seat overhaul

What Can End-of-Life Extension of Transit Assets Provide

Bridging the Gap

- New OEM vehicles have a long delivery lead-time as the OEM's are overwhelmed with orders
- Most Transit Agencies are not prepared for the future of the new propulsion era; with clean propulsion demands and limited sources available to procure
- Growing ridership is affecting the demand of more assets to be in service

Benefits are:

- Keeping you existing assets in service for a minimal cost of a full refurbishment
- No significant change to your fleet make-up
- Keeping common assets in service
- Parts supply chain will not be impacted
- Life Extension programs could be tailored to each agencies needs

In Conclusion

Thank you for your time!

Questions?

Please do not hesitate to contact our offices or myself for any questions and further discussion.

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