Alexandria Transit Company

Joint Board/City Council Meeting

Presentation

September 10, 2025

Agenda

- About DASH
- Core Questions
- Goals and Metrics
- Focus Areas*
  - Service
  - ZEB Transition
  - SGR
- How these focus areas intersect with each other
- Core Questions, Revisited

*Fleet Expansion needs are influenced by the goals in our agreed upon focus areas

About DASH

- Established 1984
- 11 routes serving 15.35 sq miles
- Over **5.6 million trips/year**
- Serving a population of ~159k
- Fleet of 103 buses, 16 of which are electric buses
- **$20 million in infrastructure improvements** in the works
  - Facility expansion – dedicated electric bus charging yard
  - Region's first on-route opportunity charger

Core Questions

- How should DASH prioritize State of Good Repair (SGR) relative to other goals and what methods are preferred?
- What are our tradeoffs when it comes to balancing our priorities? Service Expansion vs. Fleet electrification

  - If you think **adding service is the priority** but don't want to abandon the zero-emissions bus (ZEB) transition, how would you like us to adjust our goals and expectations for zero emissions?

  - If you think the **ZEB transition is the priority**, how should we approach the funding challenge, and how should we adjust our goals and expectations for the rollout of increased service?

  - Should adding service be the priority to such a degree that we abandon the zero emissions transition?

Let’s Take A Quick Pulse

What do you believe **DASH’s top priority** should be over the next five years?

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Goals and Metrics

DASH Board Strategic Goals	Metrics
1. System Excellence	• % within ¼ mile of DASH bus stop • % of service that is 15 mins or better • Ridership per capita
2. Customer Experience	
3. Environmental Stewardship	• # of single-occupancy vehicle miles replaced by transit • % of fleet that is zero emissions by 2037
4. Workplace Excellence	
5. Fiscal Responsibility	• % funding for current services • % funding available for expansion services

Transit is a Great Investment

In Alexandria...

Every **$1 invested in transit returns that original dollar, plus an additional $1.60** in statewide tax revenue.

Saves commuters an estimated **$15 million in vehicle operating costs.**

Supports **37,000 jobs** and **20,000 households**

Avoids **8,000 metric tons** of **CO2 emissions.**

Without transit...

+ 36,000 daily vehicle trips on our roadways

+ 220% increase of vehicle traffic delays in our City

Source: NVTC (Value of Northern Virginia Transit to the Commonwealth, 2023)

To put it in perspective…

8,000 metric tons of CO_2 emissions

About **1,780 gasoline-powered cars** driven for one year

Annual electricity use of about **1,480 U.S. homes**

Equal to charging about **970 million smartphones**

(8,000 metric tons) of Coal burned

You'd need to grow about **137,000 tree seedlings for 10 years** to sequester that much CO_2

Sources: EPA.GOV
Greenhouse Gas Emissions from a Typical Passenger Vehicle
Greenhouse Gases Equivalencies Calculator
Equivalencies Calculator – Calculations and References

Service

Successes

- **79%** of Alexandria residents are **within ¼ mile** of frequent, all-day service.
- **40% increase of service hours** since FY19 with near 24-hour access.
- **Fare Free since FY 22**, removing major barriers to transit access.
- We have had **record-breaking ridership** the last three (3) years.

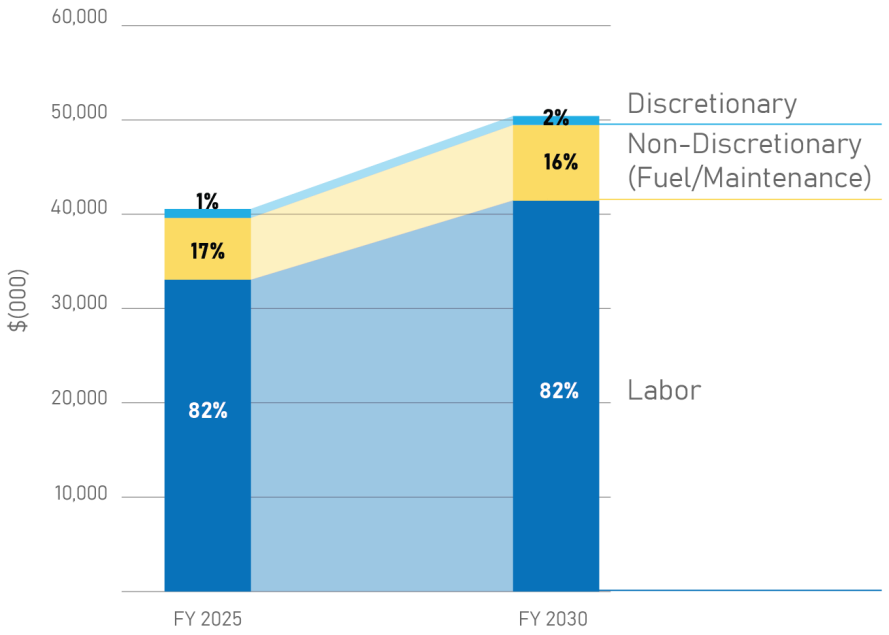
Challenges

- Just to maintain current service levels, **costs will increase and may outpace City Revenue Growth** (labor, supply chain, and inflation)
- Our Community spoke – They want more: **the ATV calls for 20% more service** by 2030.

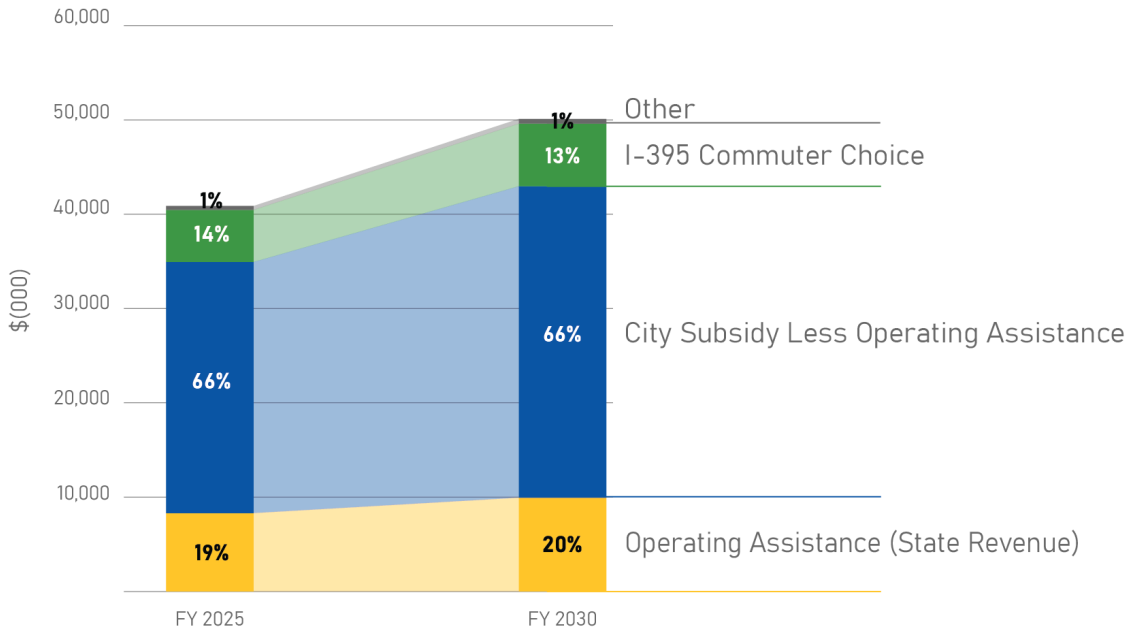
Operational Funding

To maintain existing levels of service

DASH Expenses, FY 25 & 30



DASH Sources of Funding, FY 25 & 30



Even without expanded service investments, current operating costs are projected to rise due to increased labor costs and the impacts of supply chain and inflation issues

Zero-Emission Bus (ZEB) Transition

Goals and Successes

- Goal: **100% ZEB fleet by FY2037**
- Plan aligned with City's EAP to support the city's goals of **decarbonization.**
- Today, ZEBs comprise **16% of fleet;** six depot chargers implemented.

ECO-CITY ALEXANDRIA

City of Alexandria Environmental Action Plan

Target Year	Action	Page Ref.
FY2024	Electrify at least 25% of applicable non-electric passenger City fleet vehicles (per Fleet Replacement Plan).	p.26
FY2028	**Electrify at least 10% of DASH buses, rapid transit routes, and King Street Trolley. Provide charging infrastructure at City facilities.**	**p.26**
FY2040	Electrify all non-electric City vehicle fleets, including ACPS, DASH, rapid transit routes, and heavy-duty equipment. Provide full charging infrastructure. Hybrids as interim solution.	p.27

Zero-Emission Bus (ZEB) Transition

Challenges

- **ZEBs cost ~67% more** to purchase but are expected to cost less in the long run to operate.
- **DASH does not have access to Federal Formula Funding** like other agencies; City's CIP budgeting practice has been to fund diesel buses only.
- Filling our funding gaps relies on **winning competitive discretionary State/Federal grants**.

Environmental Stewardship Goal in Focus

Environmental Stewardship

Metrics:

1. # of single-occupancy vehicle miles replaced by transit
2. % of fleet that is zero emissions by 2037

Current Plan

By focusing on converting 100% of the fleet to ZEBs by 2037, the current plan focuses entirely on **Metric #2**.

Variations & Alternatives

(A) DASH could instead focus on Metric #1 by **increasing service levels**: with improved frequency and coverage, more Alexandrians could take transit instead of driving.

> To achieve the same system-wide Net Carbon Reductions as ZEB's: DASH would need to **increase service by 114% costing up to $84 million** annually

(B) DASH could use exclusively State/Local funding to procure buses from the global market.

Capital

State of Good Repair (SGR)

Successes

- **SGR: Achieved in 2019** and maintained ever since.
- **CIP:** Secured Fleet Replacement Funding through FY2027 (Diesel Buses)
- **DASH Facility:** Major upgrades completed including maintenance lifts, flood barriers, and security system replacements.

Challenges

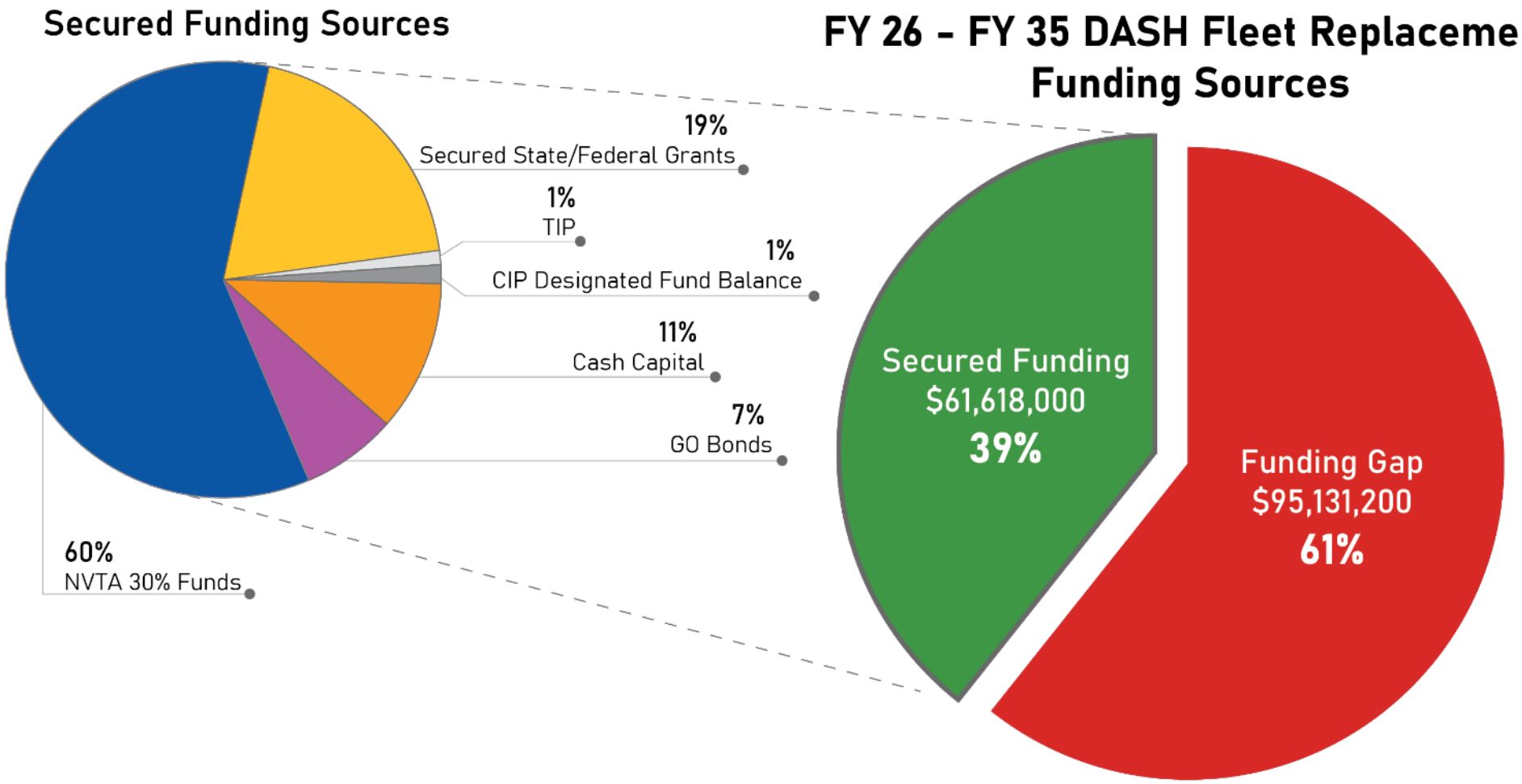
- **~8-10 vehicles** need to be replaced annually.
- **With today's ZEB technology: more vehicles** for **same service**
  - Est. when 72% of fleet is electric[1]
- **To maintain our current ZEB Goals > $95m funding gap[2]**
- **Limited Options to Fund Gap:**
  - Federal Discretionary
  - VA Smart Scale
  - State Merit Funding
    - Reimbursements based on the type of bus we purchase

[1] *Improves with on-route charging infrastructure*

[2] *Including required charging & maintenance infrastructure*

Capital Funding

w/ Current ZEB Goal



Zero Emissions Pathways

If we continue down the path to Zero-Emission Buses, what pathway should we explore, evaluate, and report back on?

Staying the Course: 100% ZEB by 2037

Moderate Approach: 100% ZEB by 2047

Balanced Approach: 50% ZEB by 2037

Pivot: End ZEB Transition at ~33% (as currently funded)

Alternatively Defined Goal: Find any funding we can, use unrestricted (non-federal) sources of funding – capitalize on the Global EV market

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How do all these focus areas intersect?

If our focus is to...	It leads to...	It impacts operating costs by...	It impacts Capital costs by...	It Supports these Goals...
Increase Service	• Increased Ridership • Better Access to Transit • Fewer SOV's on Roads	$$$	Diesel - $ Electric - $$$	
Electrify the Fleet	• Decarbonization • Accomplish EAP Goals • Improved Air Quality	$	Electric - $$$	
Prioritize SGR	• Improved Reliability • Improved Customer Experience • Reduced Maintenance Costs	$	Diesel - $ Electric - $$$	

Tradeoffs

Let’s weigh tradeoffs, please rank in order of importance for DASH’s next phase of growth:

Expanding Service to meet demand

Zero-emission bus (ZEB) transition

State of Good Repair (SGR) investments

Something Else (we will ask you to discuss)

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Core Questions – Revisited

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Discussion & Wrap Up