



TRANSIT ELECTRIFICATION : State Mandates and Federal Grants

STATE LEGISLATIVE CONFERENCE – JUNE 2024

TRANSIT ELECTRIFICATION: STATE MANDATES AND FEDERAL GRANTS

State Mandates

- Trends
- Headwinds
- Mandate Structure
- Examples

Federal Grants

- IIJA
- Requirements
- Implementation
- Letters of Support
- Final Thoughts

WHAT ARE ATU MEMBERS OWED IN THE ENERGY TRANSITION?

RESOLUTION B

Submitted by Amalgamated Transit Union

PROTECTING WORKERS' JOBS AND SAFETY IN TRANSITION TO CLEAN TRANSIT

WHEREAS, many states and provinces, responding to climate change, are now requiring that transit systems transition to zero emission buses, some with very aggressive timelines; and

WHEREAS, while this is a laudable goal, it will require a massive undertaking to provide the training necessary to thousands of transit workers who will be responsible for operating and providing preventive maintenance and repair on these cutting-edge vehicles; and

WHEREAS, performing this work safely must be an industry priority; and

WHEREAS, a recent ATU poll found that a whopping 83% of local transit union leaders do not feel that our operations and maintenance members are adequately trained to operate and work on zero-emission buses; and

WHEREAS, preventive maintenance on a transit bus nowadays is substantially different than it was just a few years ago, when skilled mechanics could likely have made do with the contents of their toolboxes; and

WHEREAS, advances in computer technology have fundamentally changed the nature of the job; and

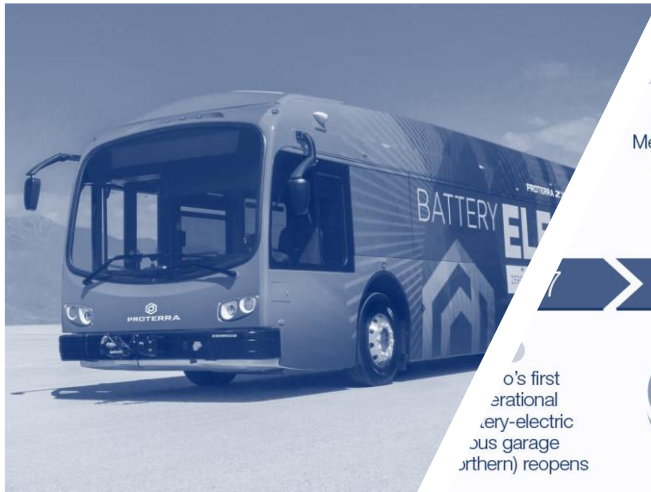
WHEREAS, not one transit worker should be injured because they were operating or working on an electric vehicle without proper training or equipment; and

WHEREAS, the provision of training on the operation and maintenance of zero emission buses is critical to ensure that ATU members' jobs are not contracted out; and

- Adequate training for operations and maintenance workforce
- Development of ZEB specific safety procedures and procurement of safety equipment
- Development of workforce impact assessments and plans
- Protection from displacement and worsening of conditions
- Funding for joint labor-management partnership and registered apprenticeships

STATE LEGISLATIVE AND FTA COMPETITIVE GRANTS PROGRAM

- ATU's State Legislation Goals:
 - Require training for impacted workforce
 - Secure funding for training and workforce development programs
 - Protection against worsening of employment conditions
- ATU's FTA Low-No and Buses/Bus Facilities Competitive Grant Programs Goals:
 - Ensure agencies request full 5% of the federal award to train the impacted transit workforce
 - Encourage establishment of joint labor-management training and registered apprenticeships
 - Ensure consultation with ATU locals on Workforce section of Zero-Emission Transition Plan



Transition Projected Timeline

Five of nine of Metro's garages are zero-emission bus ready



All 9 garages zero-emission bus ready

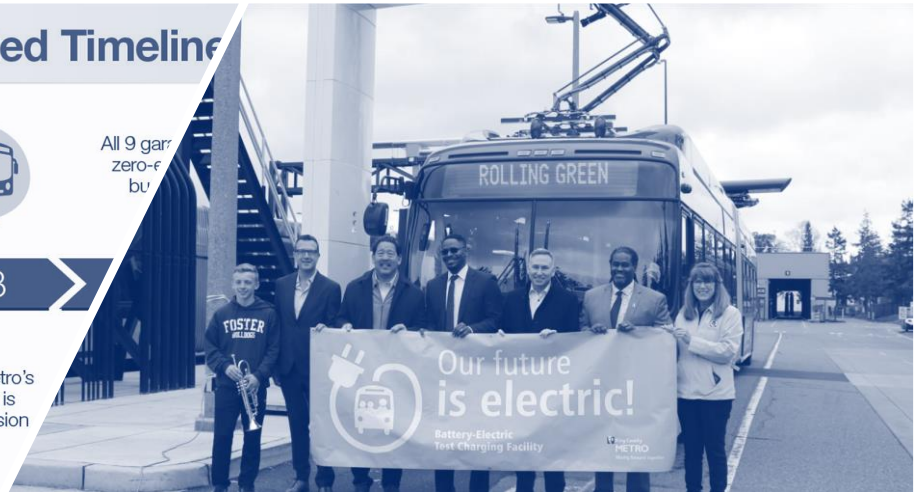
2031

2033



50% of Metro's bus fleet is zero-emission

Metro's first operational battery-electric bus garage (at Northland) reopens



STATE MANDATES

STATE MANDATES – TRENDS IN STATE LEGISLATION

- Fewer transit mandate bills introduced, and the carryover bills have not advanced through committees.
- Mandates are less aggressive, include language to delay adoption under certain conditions and often adopt the agency's own ZEB fleet goals.
- Efforts to amend previous mandates/goals (e.g., Maryland, LA Metro).

STATE MANDATES – HEADWINDS FOR ZEBS

- **Delivery delays**
 - Diminished domestic bus manufacturing capacity due to supply chain issues, financing, order customization, etc.
- **Facility upgrade challenges**
 - Supply chain issues, coordination with utilities, general complexity of upgrading
- **Equipment limitations**
 - Range, performance and reliability issues
- **Uncertainty about future federal and state funding**

HEADWINDS – FUNDING GAPS AND COMPLEXITY OF TRANSITION

News | Getting to 100% zero-emission buses for LA Metro will take five years longer

[dailynews.com/2024/04/26/getting-to-100-zero-emission-buses-for-la-metro-will-take-five-years-longer/](https://www.dailynews.com/2024/04/26/getting-to-100-zero-emission-buses-for-la-metro-will-take-five-years-longer/)

Steve Scauzillo



Ocean City transit staff facing potential 'aggressive' mandate to electrify bus fleet

oceancitytoday.com/news/ocean-city-transit-staff-facing-potential-aggressive-mandate-to-electrify-bus-fleet/article_e0b5de30-8413-11ee-8caa-13d28019e06e.html

By Mallory Panuska, Managing Editor mallorypanuska

November 16, 2023

Resort officials may need to find a way to speed up electrification of the city's transportation fleet as a potential state mandate targeting local transit systems' use of internal combustion engines gains support.

Transit Manager Rob Shearman said during a Transportation Committee meeting this week that members of the Maryland Commission on Climate Change have included a recommendation in their annual report to require all local transit systems to buy only electric vehicles beginning in 2025.

NJ Transit faces huge hurdles to expand electric bus program

[northjersey.com/story/news/transportation/2023/11/21/nj-transit-faces-huge-hurdles-to-expand-electric-bus-program/71658076007/](https://www.northjersey.com/story/news/transportation/2023/11/21/nj-transit-faces-huge-hurdles-to-expand-electric-bus-program/71658076007/)

TRANSPORTATION

NJ Transit electric bus project zips along. But to expand it statewide

POLITICO PRO



Gift article

Upstate transit agencies seek funding for electric bus mandate



BY: MARIE J. FRENCH | 01/09/2020 03:23 PM EST

HEADWINDS – DOMESTIC BUS MANUFACTURING CAPACITY

DIVE BRIEF

FTA to help electric transit bus buyers amid tough times for manufacturers

The White House convened a roundtable Wednesday on electric transit agencies working to green their fleets struggle with delivery times.

Published Feb. 8, 2024



[Dan Zukowski](#)
Senior Reporter

What the Proterra bankruptcy means for the electric bus industry

A bump in the road could shake confidence — and hold lessons for other climate tech startups.

By [Mike De Socio](#)

October 6, 2023

HEADWINDS – UNCERTAINTY ABOUT FEDERAL/STATE FUNDING

ECONOMIC POLICY

Trump plans to claim sweeping powers to cancel federal spending

In a second term, allies said the former president would look at unilateral funding cuts for the World Health Organization and green energy initiatives.

By [Jeff Stein](#) and [Jacob Bogage](#)

June 7, 2024 at 6:00 a.m. EDT

[Donald Trump](#) is vowing to wrest key spending powers from Congress if elected this November, promising to assert more control over the federal budget than any

The Constitution gives control over spending to Congress, but Trump and his aides maintain that the president should have much more discretion — including the even if lawmakers fund them. Depending on the response from the Supreme Court and Congress, Trump's plans could upend the balance of power between the thr

During his first term, Trump was impeached after refusing to spend money for Ukraine approved by Congress, as he pushed Ukrainian President Volodymyr Zelen about the Biden family. At the time, Trump's aides defended his actions as legal but largely did not dispute that the president is bound to adhere to budgetary law.

Since then, however, Trump and his advisers have prepared an attack on the limits on presidential spending authority. On his [campaign website](#), Trump has said h the 1974 law that restricts the president's authority to spend federal dollars without congressional approval. Trump has also said he will unilaterally challenge that

ELEMENTS OF STATE FLEET ELECTRIFICATION MANDATES

- Procurement vs Fleet Mandate
- Contingency Language
- Workforce retraining requirements (ATU GOAL)
- Protection against worsening of employment (ATU GOAL)
- Certification of compliance (ATU GOAL)

STATE MANDATES – UNFUNDED MANDATES

**Electrification mandates are
(usually) unfunded mandates!**

STATE MANDATES – UNFUNDED MANDATES

Table 5-8. SolTrans Estimated Costs and Funding Shortfall by Year (in millions of YOE\$)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Estimated Capital Costs	\$0.00	\$18.66	\$17.26	\$10.05	\$2.33	\$0.68	\$0.00	\$0.00	\$0.00	\$0.00	\$48.98
Potential Funding Identified in SRTP	\$3.78	\$1.46	\$1.46	\$3.96	\$2.91	\$2.92	\$0.59	\$0.00	\$0.00	\$0.00	\$0.00
Other Potential Existing Capital Revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.61	\$2.13	\$0.47	-\$28.70
Surplus / Gap	\$3.78	-\$17.21	-\$15.80	-\$6.08	\$0.58	\$2.23	\$0.59	\$0.61	\$2.13	\$0.47	-\$28.70

STRUCTURE OF STATE MANDATES – PROCUREMENT TARGET

Procurement Target

x-percentage of new procurements must be ZEBs by x-year
(e.g., 20% of new bus procurements by 2026)

STRUCTURE OF STATE MANDATES – FLEET TARGET

Fleet Target

x-percentage of bus fleet must be ZEBs by x-year
(e.g., 25% of bus fleet must be ZEB by 2026)

DELAWARE TRANSIT CORPORATION—ANNUAL BUS PURCHASES

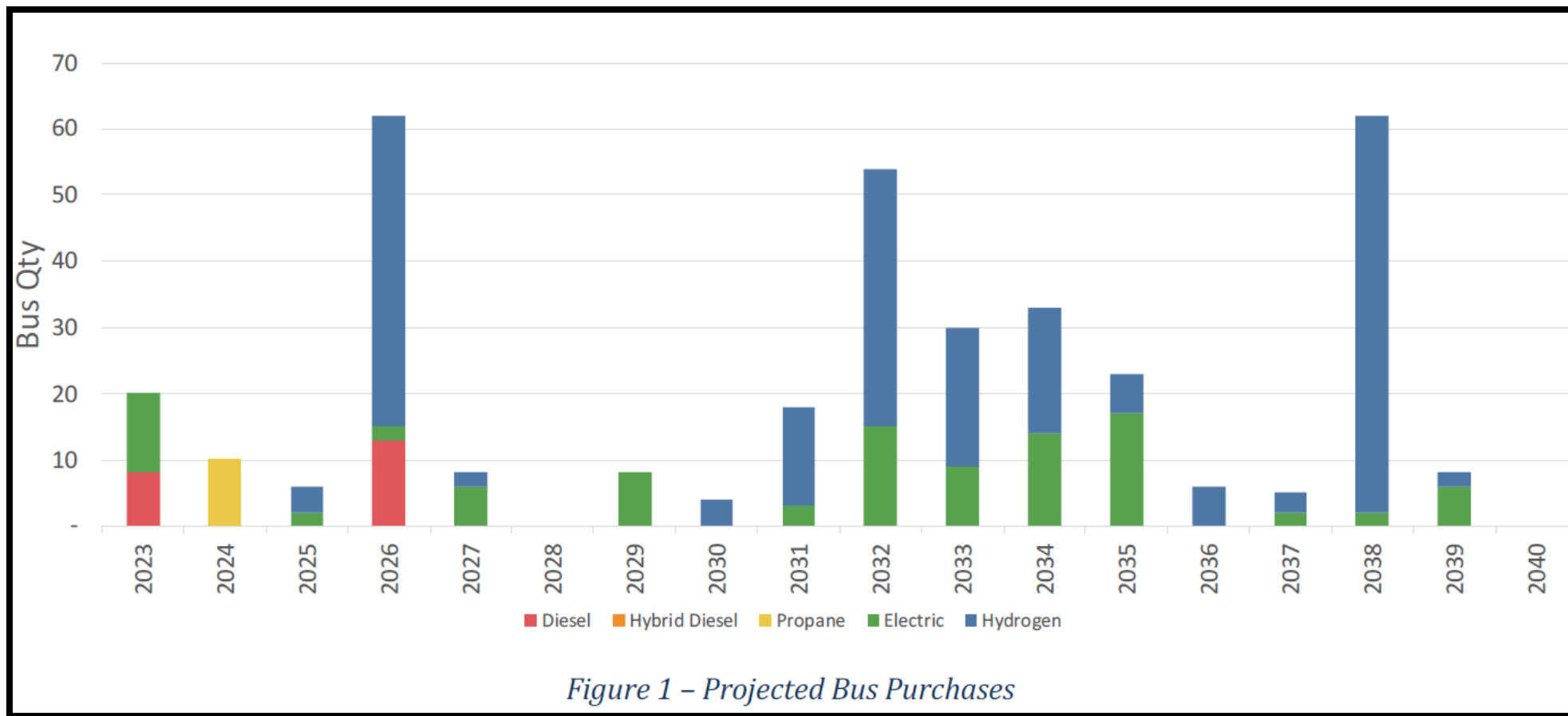


Figure 1 – Projected Bus Purchases

DELAWARE TRANSIT CORPORATION – FLEET COMPOSITION

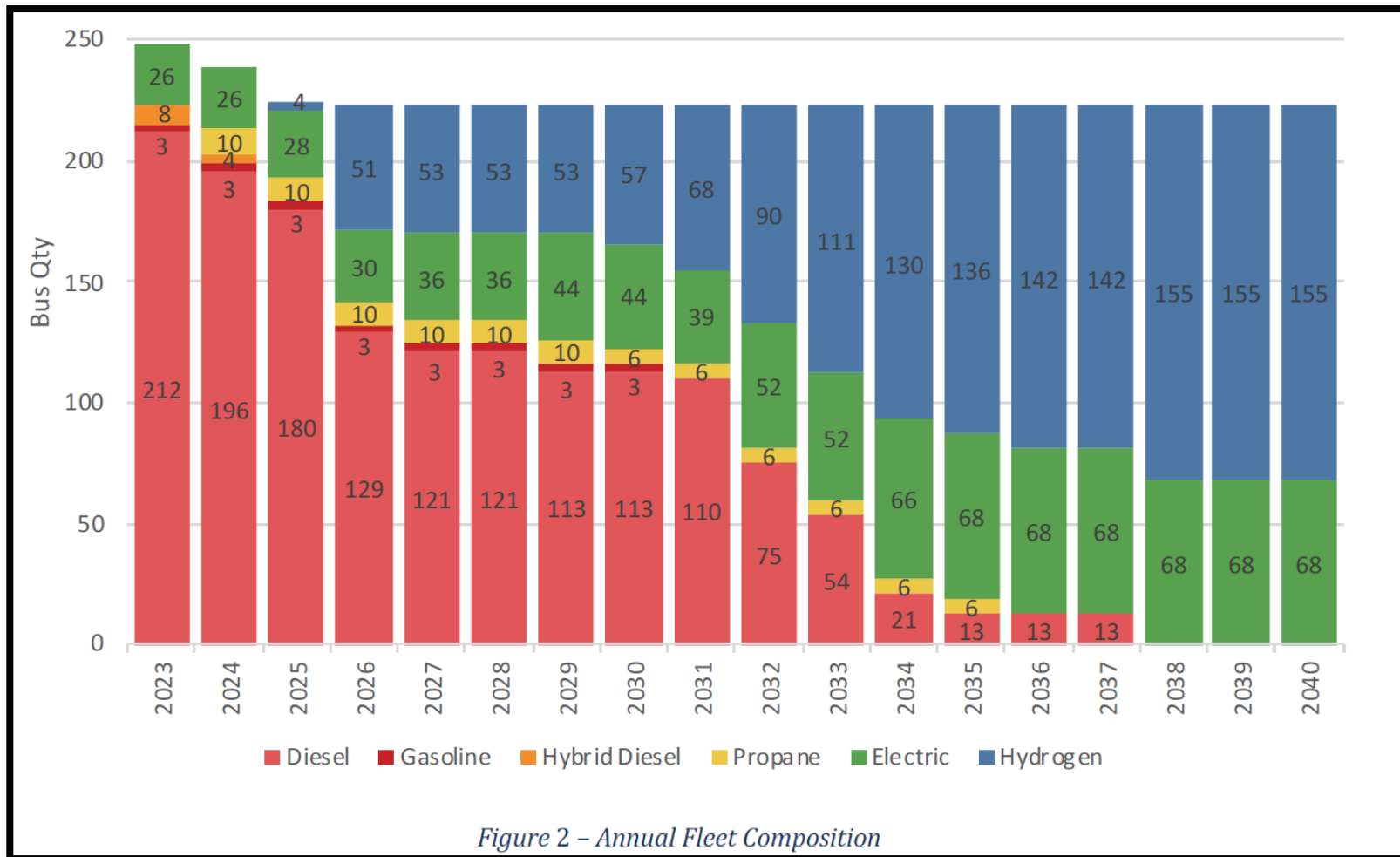


Figure 2 – Annual Fleet Composition

STRUCTURE OF STATE MANDATES – CONTINGENCIES

“(1) the unavailability of zero-emission buses from a manufacturer or funding to purchase zero-emission buses; (2) the lack of necessary charging, fueling, or storage facilities or funding to procure charging, fueling, or storage facilities; or (3) the inability of a third party to enter into a contractual or commercial relationship with a Service Board that is necessary to carry out the purposes of the provisions.”

-Regional Transportation Authority (CTA/PACE)

STATE MANDATES – ATU LANGUAGE

MD SB 61 (2021)

- (d) (1) the administration shall provide safety and workforce development training for its:
 - (i) operations training workforce; and
 - (ii) maintenance workforce in a manner that enables the maintenance workforce to safely repair and maintain:
 - 1. The administration's zero-emission buses and all their components; and
 - 2. The charging infrastructure for the zero-emission buses.
- (2) the training required under paragraph (1) of this subsection shall include registered apprenticeships and other labor-management training programs to address the impact of the transition to zero-emission buses on the administration's workforce.

STATE MANDATES – ATU LANGUAGE

MD SB 61 (2021) cont.

1. Transitioning any state employees adversely affected by the conversion from a diesel-powered State transit bus fleet to a zero-emission State transit bus fleet to similar or other employment within the Administration or Department that has commensurate seniority, pay, and benefits;
 2. Ensuring that no duties or functions of state employees are transferred to a contracting entity as a result of the conversion from a diesel-powered state transit bus fleet to a zero-emission state transit bus fleet; and
 3. Ensuring that any entity other than the administration that operates or maintains zero-emission buses on behalf of the administration provides employee protections equivalent to the protections required by the plan;
- (IV) A certification that the administration is adhering to the plan required under item (iii) of this paragraph;

STATE MANDATES – EXAMPLES OF ENACTED MANDATES

Jurisdiction	Type	Date	Percentage	Exceptions
Maryland	Procurement	2027	25%	Y
Illinois (CTA/Pace)	Procurement	2026	100%	Y
California	Procurement / Fleet	2029 / 2040	100%	N
Massachusetts / MBTA	Procurement / Fleet	2030 / 2040	100%	N
NJTransit	Procurement	2032	100%	N
Metro Transit (MN)	Procurement	2035	100%	N

ZEB FLEET TRANSITION GOALS – EXAMPLES OF AGENCY ADOPTED

Agency	Type	Date	Percentage
LA Metro	Fleet	2030	100%
King County	Fleet	2035	100%
NYCT	Fleet / Procurement	2040 / 2029	100%
MBTA	Fleet / Procurement	2040 / 2029	100%
MTS	Fleet	2040	100%
Phoenix Public Transit	Fleet	2040	100%
AC Transit	Fleet	2040	100%
WMATA	Fleet	2042	100%
RTD	Fleet	2050	100%

STATE MANDATES (2023-2024) - PROPOSED

State	Type	Date	Percentage	Exceptions
Massachusetts (RTAs)	Procurement	2029	100%	N
Minnesota (Metro Transit)	Procurement	2030	100%	N

Metro staff are regularly working with local electric utilities, Dominion and Pepco, on Metro's energy needs. Consequently, Pepco recently submitted a Climate Solutions

program to install additional charging stations for electric buses. These are important first steps toward a long-term solution that will benefit Metro as well as other regional transit providers.

Figure 2. Electric Buses Have a Large Power Demand

A high-capacity connection estimated at **9MW** is required to charge 150 electric buses, equivalent to the capacity needed for 6,000 homes



Courseware
on and PPE/High Voltage
Storage System
er Train Technology
Fuel Cell
5-Week Technical Training Proc



FEDERAL COMPETITIVE GRANTS

FEDERAL GRANTS – IIJA

Infrastructure Investment and Jobs Act (IIJA) (BIL)

- \$7.7 billion over five years for fleet and facility modernization awarded through two competitive FTA grant programs:
 - Low or No Emissions USC 5339(c) – 25% reserved for Low Emission Vehicles (e.g., CNG,)
 - Buses and Bus Facilities USC 5339(b)
- ATU and other unions negotiated for funding and standards for awarded zero-emission projects

FEDERAL GRANTS – IIJA REQUIREMENTS

49 U.S. Code § 5339(c)(D)(vi) – Fleet Transition Plan

“In awarding grants under this subsection or under subsection (b) for projects related to zero emission vehicles, the Secretary shall require the applicant to submit a zero emission transition plan, which, at a minimum—

examines the impact of the transition on the applicant’s current workforce by identifying skill gaps, training needs, and retraining needs of the existing workers of the applicant to operate and maintain zero emission vehicles and related infrastructure and avoids the displacement of the existing workforce.”

FEDERAL GRANTS – IIJA REQUIREMENTS

49 U.S. Code § 5339(d) – Workforce Development Training Activities

“5 percent of grants related to zero emissions vehicles (as defined in subsection (c)(1)) or related infrastructure under subsection (b) or (c) shall be used by recipients to fund workforce development training, as described in section 5314(b)(2) (including registered apprenticeships and other labor-management training programs) under the recipient’s plan to address the impact of the transition to zero emission vehicles on the applicant’s current workforce under subsection (c)(3)(D), unless the recipient certifies a smaller percentage is necessary to carry out that plan.”

FEDERAL GRANTS – FTA REQUIREMENTS

FTA Priority Consideration

- Consultation with workforce representatives on all aspects of the workforce section of the fleet transition plan (49 U.S. Code § 5339(c)(D)(vi) – Fleet Transition Plan)
- Identify use of labor-management partnership or registered apprenticeship training
- Steps to provide or connect workers to supportive services (e.g., childcare)

FEDERAL GRANTS – IMPLEMENTATION

- Did awardees request the full amount for workforce development?
- Did awardees decline funding? Did they provide an explanation?
- How did the awardees spend the requested funds?

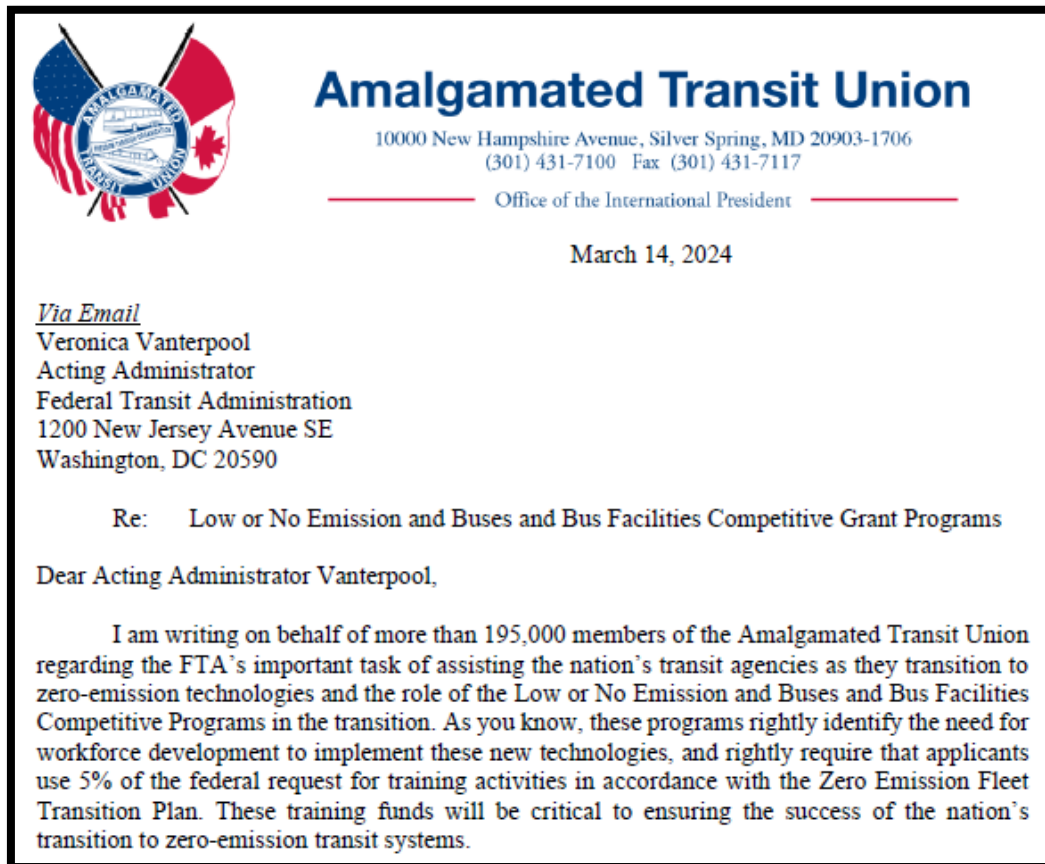
FEDERAL GRANTS – FY22 AND FY 23 AWARDS ANALYSIS

- 69 awards total to ATU systems for FY22 and FY23 award cycles
 - 61 applications reported requesting the full 5% (\$80 million in total)
 - 7 applications requested \$0 in workforce development funds (\$3-4 million in total)
 - 1 application requested less (1.5%) and provided justification
 - 5 applications with no data
- Only a handful of requests for Personal Protective Equipment (PPE)
- Some applications budgeted for activities not related to frontline workforce
- Confusion around the FTA Method of Calculating 5% of the Total Federal Award

FEDERAL GRANTS – OBJECTIVES FOR FY24 AWARD CYCLE


- Objectives for 2024 award cycle based on awards analysis
 - Ensure all applications from ATU systems include request for all or substantial portion of the 5%
 - Encourage applicants to include Personal Protective Equipment in Project Budget
 - Earn priority consideration by submitting letters of support from ATU LUs highlighting labor-management training partnerships

LETTER TO FEDERAL TRANSIT ADMINISTRATION (FTA)



- Zero-emission training beyond that provided by the general vendor has been shown to improve the performance of operators and maintenance workforce and reduce labor shortages
- Encourage FTA to award applications only to agencies that
 - Have credible training plans
 - Request all or substantial portion of the available 5% to fund training activities

LETTER TO ATU TRANSIT AGENCIES



Amalgamated Transit Union
10000 New Hampshire Avenue, Silver Spring, MD 20903-1706
(301) 431-7100 Fax (301) 431-7117
Office of the International President

March 14, 2024

Via Email

Re: Low or No Emission and Buses and Bus Facilities Competitive Grant Programs

Dear ATU Transit Agencies:

I am writing regarding the Low or No Emission and Buses and Bus Facilities Competitive Programs on behalf of more than 195,000 members of the Amalgamated Transit Union. For the 2024 award cycle, these programs make available a combined \$1.5 billion to upgrade bus fleets, improve bus facilities and support workforce development. Most of the funds are specifically dedicated to helping transit agencies transition their fleets to zero-emission buses and infrastructure.

Recognizing that training is essential to the successful and safe operation of zero-emission vehicles and infrastructure, [Congress statutorily requires](#) that 5% of the total federal award for zero-emission project components must be spent on workforce development activities. Affirming this goal, the Federal Transit Administration (FTA) offers [priority consideration to applications that can demonstrate](#) both the consultation with workforce representatives on the development of the Zero Emission Fleet Transition Plan (ZETP) and the use of registered-apprenticeship programs or labor-management partnerships.

- Restate requirement to use 5% of workforce development funds in accordance Zero Emission Fleet Transition Plan
- Reviews FTA method for calculating the workforce development line item
- Notify that ATU asked FTA to approve only applications with credible training plans and use all or substantial portion of the 5%
- Request that applications include Personal Protective Equipment in Project Budget
- Inform about Priority Consideration for using labor-management partnerships to involve workforce in determining training needs

ATU LETTERS OF SUPPORT



April 25, 2024

Kirsten Wiard-Bauer
Office of Program Management
Federal Transit Administration
1200 New Jersey Avenue
Washington, DC 20590

RE: ATU Support for the
and Charging Infrastructure

Dear Ms. Kirsten Wiard-Bauer:

We write to express our strong support for the LACMTA application. LACMTA are developing training and classroom instruction program will also have a dedicated curriculum that our members can safely and efficiently operate the vehicles and associated infrastructure on arrival.

Given the high-level of investment involved, it is



April 17, 2024

Ms. Kirsten Wiard-Bauer
Federal Transit Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: ATU Support for Maryland

Dear Ms. Kirsten Wiard-Bauer:

We write to express strong support for the FTA Bus and Bus Division Reconstruction Project training that will prepare MTA

ATU Local 1300 and the MTA program that provides on-the-job training and career advancement opportunities for our members to join ATU Local 1300



April 22, 2024

Kirsten Wiard-Bauer
Office of Program Management
Federal Transit Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: ATU Support for Santa Clara Valley Transit Authority (VTA), Monterey-Salinas Transit (MST) and Santa Cruz Metropolitan Transit District's (METRO) Application for the Low or No Emission Bus Program

Dear Ms. Kirsten Wiard-Bauer:

We write to express our strong support for Santa Clara Valley Transit Authority (VTA), Monterey-Salinas Transit (MST) and Santa Cruz Metropolitan Transit District's (METRO) joint application for the FTA's FY 2024 Low or No Emission Grant Program. ATU Locals 265 and 1225 both have joint labor-management training programs with their respective agencies that this application proposes to utilize in training our members to operate hydrogen-based zero-emission technology safely and efficiently on arrival.

ATU Local 265 and VTA's joint labor-management registered apprenticeship and mentorship programs are standard bearers for the transit industry. Starting in 2016, the registered apprenticeship began training in



April 18, 2024

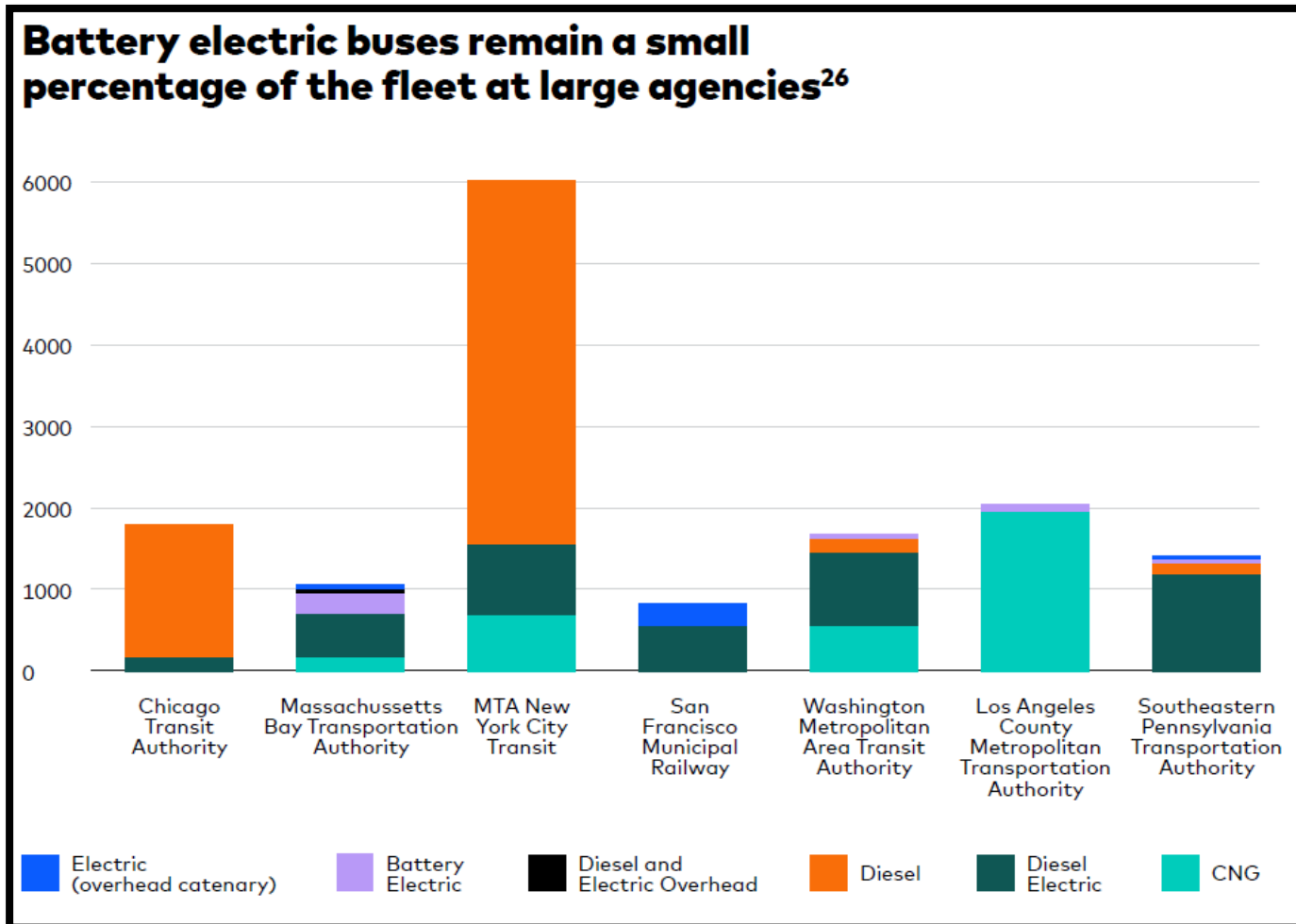
Kirsten Wiard-Bauer
Office of Program Management
Federal Transit Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: ATU Support for City of Phoenix and Valley Metro Application for the Low or No Emission Bus Program

Dear Ms. Kirsten Wiard-Bauer:

We write to express our strong support for the City of Phoenix and Valley Metro's application for the FTA's FY 2024 Low or No Emission Grant Program. ATU Local 1433 and Valley Metro's contractors have a joint labor-management registered apprenticeship and a joint labor-management mentorship program that provides on-the-job training and classroom instruction. This program will allow workers to upskill and advance in their careers. The program will also have a dedicated curriculum that addresses zero-emission technology, ensuring that our members can safely and efficiently operate the vehicles and associated infrastructure on arrival.

FINAL THOUGHTS





THANK YOU

STATE LEGISLATIVE CONFERENCE—JUNE 2024