



Bus Manufacturing Task Force Recommendations

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**American
Public Transportation
Association**

Executive Summary

The recent pandemic adversely impacted the financial viability and competitiveness of the United States bus manufacturing market. Labor market tumult, hyperinflation in material and component prices, commodity shortages, hardships by many parts suppliers, and the significant increase in the cost of capital, have undermined the financial health of the bus Original Equipment Manufacturers (OEMs). This, and other factors, recently led Nova Bus to announce plans to close its US manufacturing facility in 2025 and for Proterra to file for relief under Chapter 11. The US now finds itself with just three major OEMs for its entire market.

Preserving, protecting, and nurturing a highly competitive US bus manufacturing market and the capacity to transition to zero-emission buses are essential. In October 2023, APTA created a Bus Manufacturing Task Force to recommend immediate actions that can support a more competitive and stable bus manufacturing capacity in the US.

The Task Force is led by former APTA Chair and President of the Chicago Transit Authority, Dorval R. Carter, Jr., along with the Task Force vice chair, Richard A. Davey, President, New York City Transit. Other appointed Task Force members represent a diverse constituency of the public transportation industry. Members met three times in 2023 and approved a set of recommendations on December 18, 2023.



APTA TASK FORCE MEMBERS

Strengthening US Bus Manufacturing

POSITION	NAME	ORGANIZATION
Task Force Chair	Dorval Carter	CTA
Task Force Vice Chair	Rich Davey	NYC Transit
Transit Agency CEOs/Officials	Michelle Allison	King County Metro
	Jamison Auten	Lane Transit
	Carrie Butler	TARC
	Randy Clarke	WMATA
	Dawn Distler	Akron Metro
	Nathaniel Ford	JTA
	Jeffrey Gonneville	MBTA
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	Debra Johnson	Denver RTD
	Erin Rogers	Omnitrans Public Transit
	India Birdsong Terry	Cleveland RTA
	Dottie Watkins	Capital Metro
	Frank White	KCATA
Stephanie Wiggins	LA Metro	
Transit Agency Board Members	Michele Wong Krause	APTA Chair, DART
	Beth Holbrook	UTA
	Joel Young	AC Transit
OEMs	Ralph Acs	NOVA Bus
	Mike Ammann	El Dorado (ENC)
	Bill Fay	Gillig
	Lauren Scoville	Proterra
	Paul Soubry	NFI
Bus Parts Suppliers on the BMBG	Buddy Coleman	Clever Devices
	Ray Melleady	USSC
Strategic Partners	Scott Bogren	CTAA
	Jim Tymon	AASHTO
Ex Officio	Matt Welbes	FTA
	James Harper	FTA
	Dana Nifosi	FTA



Key Recommendations

While transit agencies and OEMs must be able to freely negotiate contract terms, the Task Force recommends that transit agencies incorporate three changes in bus contracts to help address immediate cash-flow shortages.

1.

Price Adjustments

Transit agencies should consider price adjustments to existing bus procurement contracts executed between 2020-2023, including appropriate relief from liquidated damages for delays outside their control, and as negotiated with the grantee.

2.

Progress Payments

Transit agencies should incorporate advance payments and progress/milestone payments when appropriately collateralized in future contracts and consider modification of existing contracts to add progress payments in exchange for negotiated value to the grantee.

3.

Pricing of Vehicles

For future contracts, transit agencies should include a vehicle price adjustment mechanism (increase or decrease) by using indices to reflect price inflation/deflation in the cost of materials and components at the time vehicles enter the production cycle.

The Task Force also recommends that the industry develop and commit to use a set of Bus Procurement Best Practices consistent with FTA procurement directives, based on the Bus Procurement Guidelines (White Book). These will be developed by relevant APTA committees over the next several months.

It also urges transit CEOs to review the recommendations with their procurement and legal staff and to encourage adoption of the recommendations to help support a competitive and financially healthy bus manufacturing market. In addition, it urges APTA to continue to work with the FTA to encourage transit agencies to support these and other best practices aimed at preserving and growing competition.



Task Force Recommendations Background

Transit agencies procure an average of 4,500 heavy duty buses annually. These vary in length (30', 35', 40', and 45') and propulsion system (diesel, electric, hydrogen, CNG and hybrid), and can be highly customized to address climate, market, and branding issues. Traditionally, transit agencies paid for the buses upon delivery, which typically took 12-18 months from Notice to Proceed.

The Task Force is working with APTA committees to develop a set of bus procurement best practices that would result in a more competitive and financially stable bus manufacturing capacity.

Over the past decade, the number of bus manufacturers has declined as a result of consolidation and congressional action (prohibiting companies that are state-owned). In June 2023, Nova Bus announced plans to close its US manufacturing facility in 2025. In August 2023, Proterra filed for Chapter 11 protection and has sold its bus manufacturing business. A decade ago, there were 10 bus manufacturers producing more than 100 buses annually; today there remain only three.

The 2020-2023 pandemic severely undermined the financial stability of the bus OEMs. Labor market tumult,

hyperinflation in material and component prices, commodity and chip shortages, hardships encountered by parts suppliers, and the significant increase in the cost of capital, combined to reduce cash flow, impose lengthy delays, and leave many procurements under water.

The result is an industry at risk, with reduced competition and increasing bus acquisition costs. This is occurring at the very time that significant federal funding has become available through the Infrastructure Investment and Jobs Act (IIJA) to support the transition of public transportation to zero emission fleets. Zero emission buses (ZEBs) are more expensive than diesel buses and require a significant capital outlay to support manufacturing.

Since its creation, the Task Force has focused on immediate recommendations regarding payment terms and related issues. It is also pursuing approaches to develop a set of bus procurement best practices. Lastly, the task force is exploring approaches that could reduce the amount of customization typical of many bus designs.

Task Force members heard from the FTA on permissible procurement practices, from OEMs and suppliers on specific challenges, and from transit agency procurement staff. Key FTA senior staff serve as ex officio members on the Task Force.

On December 17, 2024, the Task Force unanimously adopted several immediate recommendations, detailed below. It will continue its efforts in 2024, working with APTA committees to develop bus procurement best practices, and with the FTA on broader issues relating to long-term industry competitiveness and some of the specific challenges associated with transitioning to zero emission fleets.

Task Force Recommendations

Transit agencies and OEMs must be able to freely negotiate contract terms. However, the Task Force recommends that transit agencies incorporate three immediate changes in bus contracts to help address immediate cash-flow shortages.

Specific Payment Terms

1. Price Adjustments in Existing Contracts.

Many equipment procurement contracts executed between 2021 and 2023, during this period of high inflation, have resulted in losses for the OEMs. No one could have projected increases in commodity and component prices of 30-to-90 percent during this period. FTA has made clear that, based on its long-standing guidance, transit agencies can modify federally assisted contracts to address price escalation, subject to FTA concurrence (2 CFR § 200.318(k)). Furthermore, FTA recipients are allowed to use FTA formula and certain other federal funds (e.g., flexible Federal Highway funds) to cover contract price increases. Federal credit assistance under TIFIA is also an option. In all cases, transit agencies — often in partnership with their states — must weigh how to best utilize limited federal funding.

RECOMMENDATION: *While agencies are not required to consider such adjustments or to modify existing contracts to permit adjustments to contract prices, the repercussions from building buses without some kind of progress payment have become apparent in the reorganization of Proterra and the cash shortage of other OEMs. The task force believes that negotiated price adjustments serve the long-term best interests of the industry and recognizes the resulting need for financial trade-offs.*

2. Progress/Milestone Payments in Future Contracts.

Progress payments already are recognized by the FTA as a best practice for equipment procurements and are standard in railcar contracts. While some transit agencies already utilize progress payments, the vast majority do not. Their use would help address the immediate cash challenges of the OEMs.

RECOMMENDATION: *Transit agencies should adopt the use of advance payments and progress/*

milestone payments to ease the cash flow challenges of OEMs. It is important that the use of such payments benefit the transit agencies as well. The APTA White Book includes model language for progress payments. It will be important to build consensus around appropriate payment milestones for different types of equipment procurements (e.g., diesel buses, zero-emission buses, trolleys, streetcars).

FTA requires that transit agencies safeguard the use of federal dollars used for progress payments with “adequate security” to ensure the transit agency is protected should the OEM be unable to complete the manufacture of vehicles. Current FTA guidance states that this typically can be a performance bond or letter of credit in the amount of the payment but may also be receipt of title to vehicles at an appropriate point in the manufacturing process. It will be important to work with the FTA to identify all acceptable options for providing security to best meet the needs of any specific procurement.

3. Use of Price Indexes to Adjust Vehicle Pricing in Future Contracts.

FTA has clarified that transit agencies can adopt equipment pricing adjustment mechanisms based on cost indexes. This can be particularly important during high inflationary periods with large swings (up or down) in commodity and component parts prices. Currently, OEMs must estimate the price of commodities and parts many years into the future, which can lead to significantly higher pricing for vehicles as OEMs protect against the risk of price escalation. With price indexes, the OEMs submit a base price for the vehicles, but the actual price will be recalculated — up or down — depending on a set of indexes that track the price of individual commodities and materials at the point of time when each new vehicle goes into production.

RECOMMENDATION: *Transit agencies should incorporate indexed pricing on long-term contracts. This approach removes much of the guesswork in pricing and results in far greater transparency. Negotiated terms would include a.) when in the process prices are set and/or subsequently adjusted; b.) which index/indices to use; c.) which vehicles the adjustments apply to; and d.) which portion of the vehicle price the adjustments apply to.*

Development of Bus Procurement Best Practices

The APTA White Book, developed over many years, includes model language used by transit agency procurement staff to develop RFPs and the terms and conditions for bus procurements. In some provisions the White Book offers multiple options for some contract terms to suit each procurement; it does not identify a single set of “best practices.”

The Task Force recommends a review of White Book provisions to select a set of best practices for future procurements. These would include, as described above, provisions for progress payments and price adjustments, but should also identify other reasonable best practices related to payments, penalties for delays, liquidated damages, and other contract issues.

RECOMMENDATION: *Three APTA committees — the Standard Bus Procurement Guidelines Working, the APTA Business Members Procurement Committee and the APTA Procurement and Supply Chain Committee — should focus on development of a set of bus procurement best practices for review by the Task Force. This work will take place over the next three months.*

Approaches for Limiting Customization

There is no “standard” bus in the United States. Customization reflects different climatic conditions across the country, unique needs of customers, the desire to maintain consistent inventory and employee training, and agency branding. However, customization, particularly for smaller bus orders, can come with costs. It requires specialized engineering, procurement of tens of thousands of individual parts and components, and a unique and highly specialized supply chain. These factors may increase the price of each bus and lengthen the procurement cycle.

While some customization is necessary, the industry might benefit from the development of a limited set of options and floor plans for some major bus systems. This might include floor and seating layouts, axles and drivetrains, the operator’s “cockpit,” door and window systems, and HVAC systems. Over time, this could strengthen the supply chain, reduce bus production schedules, reduce costs, and simplify bus procurements. Some “standardization” is already in use on new zero emission buses given the weight and technology limitations inherent in their design.



The Task Force recommended that the Bus Procurement Guidelines Working Group create a subgroup representing transit agencies, OEMs and bus parts suppliers to explore whether and how transit agencies could reduce customization and to consider the impacts on suppliers by buses becoming more standardized.

Commitment To Outreach and Training

The Task Force recognizes the imperative of providing training to transit agency and procurement officials regarding best practices that can enhance competition in procurements. It recommends that APTA, in partnership with the FTA and the National Transit Institute, implement a comprehensive education program targeting transit agency CEOs, board members, procurement staff and legal counsel. These efforts could include:

- **Webinars** offering training with the opportunity to pose unique situations and questions.
- **Conference Sessions and Workshops** providing similar training and Q&A opportunities.
- **Engagement With FTA** to consolidate procurement requirements in a single location and to identify issues requiring additional clarification, including answers to key questions and specific situations posed by agencies through a frequently updated online FAQ and regularly scheduled meetings.

Longer-Term Issues

The recommendations outlined above are steps that can be taken quickly. The Task Force also discussed several longer-term approaches to enhancing competition and to funding the transition to zero emission fleets. It did not seek to achieve consensus on these issues as they will be considered in depth by other committees at APTA. The issues include the following:

1. Funding the Transition to Zero Emission

Converting to zero-emission buses and constructing/maintaining the significant charging/fueling infrastructure required for electric and hydrogen, will be extremely expensive. These expenses come at a time when agencies continue to struggle with reduced farebox revenues and budget shortfalls. APTA should develop reauthorization recommendations on how to fund the incremental cost of zero emission buses in a reliable fashion.

2. Implementing Zero Emission Technology

Transitioning to zero emission fleets involves more than the bus — it includes charging/fueling infrastructure, coordination with utilities and cities, and employee training. These areas require specific focus and coordination, including the following:

- **Utility support.** The Administration and USDOT should engage with state regulators to incentivize demand charging (e.g., waive/decrease fees for off-peak hours).
- **Certification of buses and chargers to ensure compatibility.** USDOT should establish a process and central facility (like the current Altoona center) for bus and charger/pantograph OEMs to be tested and “FTA certified” for compatibility. A standard process for ensuring interoperability for buses and charging infrastructure will give transit agencies more options since multiple buses would be interoperable with multiple chargers.
- **Regional Zero Emission “workforce training centers of excellence.”** Modelled on the federal program for regional hydrogen hubs, federal funding should be made available to establish centers that could develop training, certification, refresher, and hands-on courses for maintaining, operating and managing zero emission bus fleets and associated infrastructure.



3. Growing Domestic Manufacturing Capacity

There are numerous international bus manufacturers, but most are not able to sell to the US market. One major challenge is complying with the domestic content requirements of the Buy America Act.

No consensus was reached among Task Force members on approaches to encourage more companies to build buses in America. Some members encouraged APTA to engage with FTA to explore ways to do so, including approval of a “bridge” to Buy America compliance through limited phase-in of Buy America requirements. Other members cautioned that this could put existing manufacturers, who fully comply with Buy America, at a severe financial and competitive disadvantage.

This issue will be explored by several relevant APTA committees and as APTA begins work on its reauthorization program.

Conclusion

The Task Force recommendations provide immediate actions that can benefit the OEMs, boost competition, and constrain prices. Over the next several months, work by APTA committees and working groups will provide additional recommendations to assist in promoting a robust bus manufacturing capacity in the US and help to advance the industry to zero emissions.



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