

Arlington Transit Advisory Committee
Meeting Notes
November 15, 2022
7:00 PM
Microsoft Teams Meeting

TAC Members Present:

John Carten
James Davenport
Ronald Decker
Alexa Mavroidis
Richard Price
Frank Krol
Alex Cumana
Erika Chiang
Andrew McAllister
Patrick
Kate Garman
Harvey Berlin

Attendees Present:

Greg Emanuel (staff)
Lynn Rivers (staff)
Pierre Holloman (staff)
Robin McElhenny (staff)
Kirk Dand (staff)
Paul Mounier (staff)
Diana Isaza (staff)
Ryan Jones (staff)
Lauren Breyer (staff)
Edwin Montano (staff)
Carly Macias
Mike Shindledecker
Paul Elman
Andre Stafford
William Jones
Al Himes
Sue Gutierrez
Steven Waters

Call to Order

- James Davenport opened the meeting at 7:03 pm.

Introductions

- James Davenport led roll call of TAC members present, Arlington staff, and others present.

Public Comment

- There were no public comments

Approval of Minutes from the September 13, 2022 Meeting

- The amended meeting notes were approved unanimously.

Approval of TAC 2023 Meeting Schedule

- Pierre Holloman noted that the next TAC meeting is scheduled to take place on January 17, 2023 to avoid conflicts with the Transportation Research Board (TRB) annual meeting and conference. The TAC 2023 meeting schedule was approved unanimously.

Arlington Transit Zero Emission Bus (ZEB) Study Update

- Paul Elman kicked off the presentation by introducing the consultant team working on this study which included himself and Mike Shindledecker with Kimley Horn and Carly Macias with HDR. Carly Macias provided an overview of the ZEB scope and timeline as well as noted Arlington Transit ZEB demonstrations with Gillig and Proterra.
- The study includes a comparison of various vehicle propulsions from Compressed Natural Gas (CNG) which is the current fuel source for Arlington Transit buses as well as Battery Electric Buses (BEB) and Hydrogen Fuel Cell Electric Buses (FCEB). It was noted that FCEB becomes more effective with more vehicles but do have an initial higher capital cost compared to BEB but the infrastructure cost per bus decrease as more buses are added. BEB cost scale with the deployment size as chargers need to be procured and installed for every new bus added and electric utility infrastructure may need to be expanded. The benefits and challenges for BEB and FCEB were provided. Some benefits noted for BEB included zero tailpipe emissions, quiet operations, and potential for lower maintenance cost due to the absence of an engine. Some challenges with BEB include high capital cost, range limitations and replacement ratios which would require additional bus parking areas, battery degradation leading to lower range over time, and significant power upgrades for full fleet conversion. Some of the benefits noted for FCEB include zero tailpipe emissions, quiet operations, potential for lower maintenance costs, no range limitations, and operations and fueling similar to CNG. Some challenges with FCEB include high upfront capital cost, FCEBs are more expensive than a base BEB, and difficulty to find affordable green hydrogen. It was stated that there are several regional clean hydrogen initiatives which may lower costs and provide a green hydrogen fuel source for public transit buses.
- An overview of Arlington Transit's history with CNG was provided and it was stated that CNG emissions include less particulate matter than diesel. Renewable Natural Gas (RNG) would be another opportunity for Arlington Transit as RNG has a negative carbon intensity rating, meaning it takes more carbon out of the environment than it produces.
- Based on route modeling, it was noted that most BEB scenarios will require fleet expansion for Arlington Transit due to operations and range limitations. FCEB would allow for a 1:1 replacement of Arlington Transit's current CNG fleet. Larger batteries for BEB would increase range but the cost of such vehicles is more expensive and weigh more. Diesel heaters on BEBs would increase range in colder weather months but such would result in emissions. On-route charging would also increase range for BEB but such would be a challenge to install due to land ownership and increase the rate of battery degradation.
- As Arlington Transit has constrained sites, adding BEB or FCEB infrastructure would reduce parking spaces. The current Arlington Transit Operations and Maintenance Facility which is under construction was designed and being constructed to accommodate BEB infrastructure.
- The ZEB study is expected to be completed in early 2023 and will include a final fleet transition recommendation. It was also noted that Arlington Transit will need to replace 15 aging CNG buses in 2023
- The TAC and members of the public had various questions outlined below:

- Question from the TAC: What is involved in reducing the cost of hydrogen?
 - Response from Carly Macias: Strategic investments for hydrogen providers would help reduce cost and there is some optimism in the industry that cost will come down as subsidies/funding are being provided to start regional hydrogen hubs.
- Question from the TAC: What is the cost of electric for charging the fleet?
 - Response from Carly Macias: It depends on how the transition plan is implemented as such impacts the cost of utility upgrades as well as coordination with Dominion Energy.
- Question from the TAC: For the emissions by vehicle type, what is the output for a FCEB that is not powered by clean hydrogen?
 - Response from Carly Macias: The output equates to the assumption that hydrogen would be delivered by a truck which results in unavoidable emission from breaking and etc.
- Question from the TAC: Is the new Arlington Transit facility being equipped and accommodate power for BEB?
 - Response from Pierre Holloman: Yes, the County Board authorized a base contract amount which includes underground infrastructure to support BEB. A future request by a change order will be required to include the above ground infrastructure which is currently in the 60% design phase. The 100% design is expected in early 2023.
- Question from the TAC: Is the County planning to seek funds from IJJA to potentially pay for this conversion for the fleet?
 - Response from Lynn Rivers: The County is considering IJJA funding and look at all potential funding opportunities.
- Question from the TAC: With all the constraints, wouldn't RNG make more sense and is there the availability to convert CNG to Hydrogen tanks?
 - Response from Greg Emanuel: RNG is being looked into and considered as part of the equation. Response from Carly Macias: CNG tanks cannot be retrofitted to accommodate hydrogen.
- Question from the TAC: As batteries degrade, can you replace them?
 - Response from Carly Macias: Yes, batteries can be replaced via battery packs but it would be important to run a Cost Benefit Analysis first based on fleet size and operational needs.
- Question from the TAC: Is there an opportunity to lease batteries?
 - Response from Carly Macias: Yes
- Question from the TAC: Will there be an opportunity to ride the Proterra BEB demonstration and will there be a schedule to note which days the bus will be in operation?
 - Response from Pierre Holloman: Yes, there will be such opportunity and the schedule will be shared with the TAC via email prior to the days such bus will be in operation. It was noted that schedule will also be posted to the ZEB demonstration page.
- Question from the public: If other transit providers are starting to move away from BEBs, why is Arlington Transit going forward with such?
 - Response from Carly Macias: Technology is still emerging, and every fleet and operational need is different. There are different reasons why some transit providers in California are moving away from BEB and to FCEB, range is one of the biggest factors.

WMATA Better Bus Initiative and Network Redesign Update

- William Jones with WMATA provided an overview of the WMATA Better Bus Initiative and Network Redesign study. The guiding principles include ensure a customer-focused and regional perspective; engage and communicate authentically, inclusively, and transparently; ensure equity is a value throughout the project; allow customers' input, region's needs, data, and service guidelines to drive decisions; attract customers with frequent, reliable, connective service; and make cost-effective and data-driven business decisions. Slated outcomes from this study include FY2025 network recommendations as well as future recommendations which may include

increasing mode share and ridership; expanding frequency at different times of the day/week and reducing impacts of climate change; Metrobus' role and relationship with other transit providers; and how Metrobus service is funded. It is expected that by the start of 2024, the new bus network will be implemented.

- As part of the study, WMATA is partnering with local bus providers including Arlington Transit to collaboratively work to design a network which can enhance effectiveness of bus service throughout the region. There is an extensive public outreach component which includes stakeholder engagement to get input on priorities and an online survey. It was noted the survey was shared with the TAC in October 2022. Additional online and in-person public engagement opportunities are expected to occur in the spring and summer 2023. To date there have been over 10,000+ in-person interactions at public events and 4,813 online surveys and 43 video testimonials completed as of 11/8/2022. Regarding next steps, WMATA is expected to complete and public existing conditions and market assessment findings as well as provide and update to the WMATA Board. Phase II of the study is expected to start in late November – early December 2022.
- Question from the TAC: Who are the principal consultants working on this study?
 - Response from William Jones: Kimley Horn is the lead but also Cambridge Systematics and Foursquare are working on this study as well.
- Question from the public: Will this study look at renaming routes as well as identify new connections?
 - Response from William Jones: This is something which is being looked into.

Arlington Transit Strategic Plan Update

- Paul Mounier provided an overview on the importance of the Transit Strategic Plan as it is a requirement by the Commonwealth of Virginia, but this plan also helps Arlington Transit understanding community needs and provides an opportunity to look at service and maximizing investments in transit. The Strategic Plan is a living document for the planning, management, and policy processes for Arlington Transit and STAR. In terms of service strategy, this plan will look to identify gaps and needs which are currently not being addressed and will look to delivery service which addresses needs and equity. The Arlington Transit Vision statement and mission were shared. The vision statement notes, “A safe, equitable, accessible, reliable, and convenient transportation system that effectively and efficiently sustains the environment, economy, and quality of life in Arlington.” The mission statement notes, “Move Arlington forward by working together to plan, build, operate and maintain the transit network.” An overview of the goals and objectives were provided, and a request was made to obtain the TAC’s input on such via an online survey. It was noted that there were various in-person pop-up public engagement events were ongoing to solicit input on the goals and objectives as well as some questions related to existing service in terms of reliability and safety. It was noted that there will be a second round of in-person and online public engagement which will focus on fleet and facility analysis, draft service improvements, and capital and operational funding which will all lead to final recommendations and an implementable service plan. It is anticipated that the County Board will take action on the proposed Strategic Plan in June 2023.
- Comment from the public: Please consider a fare equality analysis for the bus as it is \$2 to ride the bus and \$2 to ride Metrorail on weekends and late in the evenings.
- Comment from the public: Arlington Transit needs to provide more and better service during the day and on Saturdays (rider noted they use ART for shopping and taking kids to the park).

Floating Bus Stop Island Update

- Paul Mounier noted that work is still ongoing to develop guidelines at the Arlington and regional level for floating bus stops. A draft of the guidelines are currently being reviewed internally among

staff from different areas in the Division of Transportation. Additional information will be shared with the TAC in 2023.

- Comment from the TAC: The big issue which has to be addressed is persons with visual and mobility impairments accessing the floating bus stop and crossing the bike lane. This has to be considered for safety and accessibility.
- Question from the TAC: Is there a list of floating bus stop proposals to show where they will be implemented?
 - Response from Paul Mounier: Yes, there is a current list and such can be included in the future update to the TAC on this initiative.

Report from Accessibility Subcommittee

- Alexa Mavroidis stated there was not anything to report at the Accessibility Subcommittee meeting was canceled. It was noted that there are still lingering questions related to the STAR policy updates. Lynn Rivers noted that the STAR policy updates are currently being tabled until 2023 and there will be more engagement opportunity to obtain feedback in 2023.

Additional Items from Committee Members and Staff

- Pierre Holloman noted the draft TAC Charter Changes presented at the September 13, 2022, TAC meeting are currently on-hold as there are still a few coordination items with the Pedestrian Advisory Committee and Bicycle Advisor Committee charters which are being discussed among staff liaisons. It was noted that this will be an item which may move forward either at the January 2023, March 2023, or May 2023 TAC meeting.

Adjournment

- The meeting was adjourned at 8:39 pm.

Next Meeting

- The next meeting will be Tuesday, January 17, 2023.