

**MEETING SUMMARY
NVTC PROGRAM ADVISORY COMMITTEE
NVTC Suite #230 Conference Room
2300 Wilson Blvd., Arlington, Virginia
Public Streaming via YouTube
September 21, 2023**

NVTC Program Advisory Committee Members Present:

Sarah Bagley, Chair
Libby Garvey
David Snyder
Mike Turner

NVTC Program Advisory Committee Members Absent:

John Foust

Other Commissioners Present:

Takis Karantonis

Staff and Others Present:

Kate Mattice, Executive Director
Mathew Friedman
Allan Fye
Rhonda Gilchrest
Adam Hager
Ann McGrane
Ben Owen
Sophie Spiliotopoulos
Melissa Walker
Ronneta Zack-Williams

Program Advisory Committee Chair Bagley called the meeting to order at 4:07 p.m. She noted that the meeting is being streamed live via NVTC's YouTube page. She explained that a quorum is not present, but that won't be an issue as no action will be required during the meeting. (Both Mr. Snyder and Mr. Turner arrived shortly thereafter and quorum was reached.)

Chair Bagley asked for any changes to the summary of the July 26, 2023 Program Advisory Committee meeting. Committee members accepted the summary with no changes. Chair Bagley then asked Ms. McGrane and Ms. Zack-Williams for an update on NVTC's Zero-Emission Bus Regional Strategic Plan.

Transit Technology – Zero-Emission Bus Strategic Plan

Ms. McGrane reintroduced NVTC's work to develop a zero-emission bus (ZEB) strategic plan for Northern Virginia and she shared that the purpose of this plan is to set regional recommendations to help with transition of ZEBs regional as jurisdictions work towards their individual ZEB transition. She noted that the plan will be presented to the Commission for acceptance in January 2024. Ms. Zack-Williams provided a status update on the increase in ZEBs both nationally and locally, along with the recent Federal Transit Administration (FTA) Low-No Emission Grants awarded to the City of Alexandria, Loudoun County and WMATA to assist with their low- to zero-emission transition.

Ms. Garvey asked about renewable natural gas (RNG) to which Ms. McGrane stated that she is aware of Arlington's RNG goals and noted that Montgomery County is similarly looking to use wastewater to power their microgrid. Ms. Garvey also mentioned that RNG is a great transition for Arlington Transit because they already operate with natural gas. She mentioned that the operations of RNG should be socialized more with elected officials. In response to a question from Mr. Turner, Ms. McGrane responded that CNG is referring to compressed natural gas and Ms. Garvey added that RNG can be produced at wastewater treatment plants and can take some emissions out of the atmosphere. Mr. Karantonis added that RNG is produced from solid waste landfills and there are companies that specialize in absorbing the emissions. He also discussed the distinction with choosing RNG, which is a carbon neutral effect on the atmosphere as opposed to zero-emissions which would be zero tailpipe emissions and how that aligns with the strategic plan. Ms. McGrane added that in this context zero-emission refers to battery-electric buses (BEB) and fuel cell electric bus (FCEB). She also stated that the balance sheets of local jurisdictions ZEB transition will be independent of the strategic plan where NVTC is looking at where to help the region come together to ease the transition, such as shared charging infrastructure, grants or procurement.

Mr. Karantonis inquired about the range of BEBs to which Ms. McGrane responded that many BEBs currently on the road cannot fulfill the blocks they are scheduled for in a day and while technology is advancing, this is still an issue. She also added that many factors can affect the battery life of a BEB, which is where on-route charging becomes valuable. Mr. Turner asked about the capacity of the grid to which Ms. McGrane responded that agencies across the country are looking at microgrids and solar as ways to provide resiliency or capacity.

Mr. Garvey noted the importance of education to the public and elected officials on ZEBs, while Mr. Turner noted that global goals for climate change are not nearly being met and that going nuclear may be the solution to going zero-carbon in the short term. Mr. Turner noted that small modular reactors are the next step as the power needed for ZEBs cannot fully be provided on the grid. Mr. Snyder noted that nuclear may be a component of the ZEB transition but may not be an attractive option. Mr. Snyder also observed that these discussions are important, and a lot of this work will happen at the local level. Chair Bagley noted there is a diversity of methodologies being used across the country that will be helpful and inform the work NVTC is doing.

Ms. McGrane discussed NVTC's draft regional strategies and actions to support ZEBs across Northern Virginia in further detail. She shared that the draft strategies are the culmination of six months of discussion and analysis among NVTC, its consultants and its regional partners. The draft strategies for NVTC are:

- Serve as Regional ZEB Forum
- Advocate for Consistent and Supportive ZEB Standards and Policies
- Coordinate Among Regional Partners on Funding and Procurement Opportunities
- Support Development of Shared Charging Infrastructure in Northern Virginia
- Evaluate Opportunities for Private Sector Partnerships
- Support ZEB-Related Workforce Training Programs

Mr. Snyder asked if it was possible for NVTC to request and manage funding that would be available for jurisdictions to experiment or conduct pilots on ZEBs. Ms. Mattice responded there may be opportunities to work with the state on innovative ways to do that. Chair Bagley noted that this region does have experience with regional coordination particularly through Metro and asked if there would be a new entity to handle shared charging infrastructure. Ms. McGrane responded that the feasibility study will look to understand the dynamics of how shared charging infrastructure could work among jurisdictions.

Mr. Karantonis asked about the advantages of distributed charging to which Ms. McGrane added that the shared charging infrastructure would be for on-route charging and the idea would be to understand how agencies can coordinate their schedules with this shared infrastructure.

Ms. Garvey asked if it was possible to switch out a battery instead of charging a battery. Ms. McGrane responded she is aware of this with scooters, not necessarily transit buses, but the buses can be charged through plug-in charging, pantograph charging, and inductive charging. Chair Bagley asked if there is potential to educate the public within this strategic plan on the importance of riding transit regardless of whether it is a ZEB, CNG or hybrid bus. Ms. McGrane noted staff would discuss this with the communications team and utilize the website as a tool. Mr. Fye added that staff is working on a research project looking at the environmental benefits of different fuel types.

Mr. Karantonis asked how Bus Rapid Transit (BRT) and transit signal priority plays into the ZEB transition and Ms. McGrane responded that most agencies are looking at ZEBs for fleet expansion and many jurisdictions don't support the procurement of diesel buses anymore. She also noted that the Cinder Bed Road bus facility will have the capability to charge electric buses in the future and Fairfax Connector would be running the BRT service along US Route One from there.

Ms. Garvey asked how the ZEB work is coordinated with Northern Virginia agencies compared to the greater Washington region with Maryland and the District of Columbia. Ms. McGrane responded that the work is mostly focused on Northern Virginia for funding and procurement while the greater Washington region comes into play when having discussions on lessons learned.

Mr. Turner noted that Electrify America has moved their headquarters to Loudoun County.

Other Business

Chair Bagley asked for any other topics for discussion from committee members and they had none.

Future Meetings

Chair Bagley asked staff for an update on future meetings to which Mr. Fye shared that the next Program Advisory Meeting is expected to be held in February 2024 to discuss NVTC's Regional Bus Analysis, Research Strategic Plan and Envision Route 7, followed by a April 2024 meeting to discuss the Commuter Choice program.

Chair Bagley adjourned the meeting at 5:14 p.m.