



# COMMONWEALTH of VIRGINIA

## *Commonwealth Transportation Board*

Shannon Valentine  
Chairperson

1401 East Broad Street  
Richmond, Virginia 23219

(804) 786-2701  
Fax: (804) 786-2940

### **MINUTES MEETING OF THE COMMONWEALTH TRANSPORTATION BOARD WORKSHOP MEETING**

March 17, 2021

9:00 am

Governor Ralph Northam declared a state of emergency in Virginia on Thursday, March 12, 2020 in response to COVID-19. In light of this action, the Workshop Meeting of the March 17, 2021 Commonwealth Transportation Board (CTB) was conducted using electronic communications in accord with Item 4-0.01.g. of Chapter 1289 (2020 Acts of Assembly), as the COVID-19 emergency makes it impracticable or unsafe to assemble in a single location. The purpose of the meeting was to discuss or transact the business statutorily required or necessary to continue operation of the CTB and the discharge of its lawful purposes, duties, and responsibilities.

All board members participated remotely using a Webex platform. Members of the public were able to witness the meeting online via live-streaming at the following internet link: [http://www.ctb.virginia.gov/public\\_meetings/live\\_stream/default.asp](http://www.ctb.virginia.gov/public_meetings/live_stream/default.asp) and were provided the opportunity to provide public comment telephonically at the outset of the meeting using a dial in number provided in the online meeting public notice.

The online internet public notice for the meeting noted that this meeting would be conducted using an electronic process due to the COVID-19 state of emergency and as a precaution to reduce the risk and spread of the novel coronavirus. The online meeting public notice also furnished the Agenda and Board materials as well as information regarding the availability of online live-streaming of the meeting at the noted link.

Online viewers were furnished a telephone number to call to notify staff of any interruption of the live streaming of the meeting in accordance with Item 4-0.01.g. of Chapter 1289 and Section 2.2-3708.2 of the Code of Virginia; and no interruption of the live streaming was noted during the meeting.

The Chair, Shannon Valentine, presided and called the meeting to order at 9:04 a.m. on March 17, 2021

Present: Messrs. Brown, Dodson, Johnsen, Kasprovicz, Malbon, Miller, Smoot, Stinson, Yates, and, Ms. DeTuncq, Ms. Hynes; Mr. Brich, ex officio, Commissioner of Highways and Ms. Mitchell, ex officio, Director of the Department of Rail and Public Transportation.

Absent: Messrs. Merrill, Rucker and Williams

Prior to taking up any agenda items Ms. DeTuncq made the following motion:  
*In light of the continuing state of emergency declared by Governor Northam, where it is impracticable or unsafe to assemble a quorum in a single location, I move that we adopt this agenda to take action to discuss or transact the business statutorily required or necessary to continue operation of the Commonwealth Transportation Board. This motion was seconded by*

Ms. Hynes, a roll call vote was taken with all present voting aye, the motion passed unanimously.

1. Electric Vehicle Readiness Study  
*Brad Shelton, Michael Baker International*  
*Referenced by attachment of presentation.*
2. Transportation Authorities in Virginia  
*Julie Whitlock, Office of the Attorney General*  
*Referenced by attachment of presentation.*
3. Tolling Policy Material Adverse Effect Evaluation  
Traffic Operations & Safety Analysis  
*Stephen Brich, Virginia Department of Transportation*  
*Referenced by attachment of presentation.*
4. Interstate Operations and Enhancement Program  
*Nick Donohue, Deputy Secretary of Transportation*  
*This item was removed from the agenda with a note that it would be presented at a later date.*
5. 2021 Transportation Initiative  
*Nick Donohue, Deputy Secretary of Transportation*  
*Referenced by attachment of presentation.*
6. Director's Items  
*Jennifer Mitchell, Virginia Department of Rail and Public Transportation*
7. Commissioner's Items  
*Stephen Brich, Virginia Department of Transportation*
8. Secretary's Items  
*Shannon Valentine, Secretary of Transportation*

**ADJOURNMENT:**

**Meeting adjourned at 11:34 a.m. on March 17, 2021**

Minutes  
Meeting of the Commonwealth Transportation Board  
Workshop Session  
March 17, 2021  
Page 3  
Respectfully Submitted:

Carol Mathis,  
Assistant Secretary to the Board

###

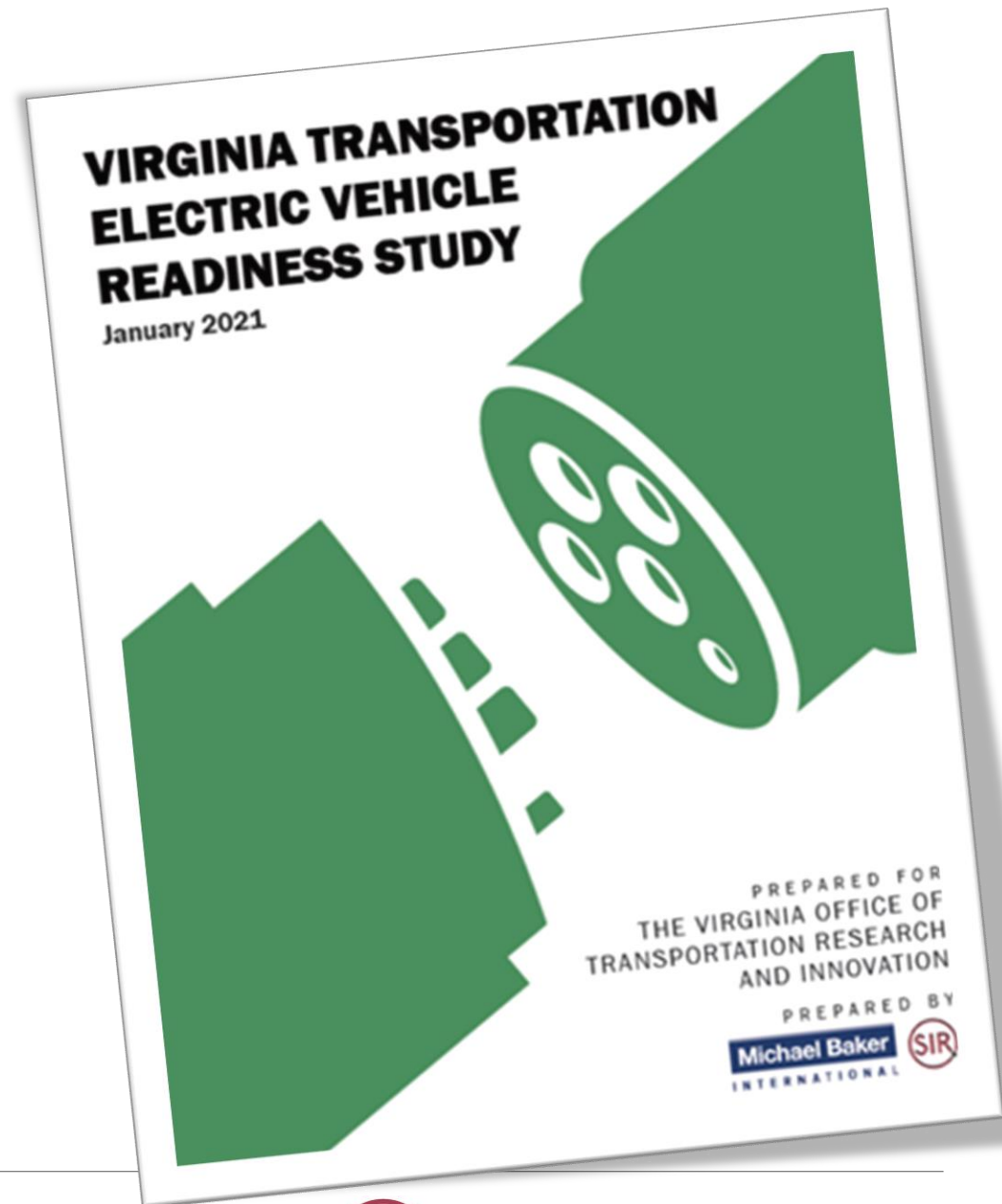
# Electric Vehicle Readiness Study

Commonwealth Transportation  
Board Meeting

March 17, 2021

Brad Shelton, AICP | Michael Baker International

[Brad.Shelton@mbakerintl.com](mailto:Brad.Shelton@mbakerintl.com)





# Virginia Transportation Electric Vehicle Readiness Study

---

- Purpose: To evaluate and identify considerations Virginia could take to improve EV readiness from a transportation infrastructure perspective
  - **Focus on infrastructure readiness**
  - **Builds on the work completed for the 2019 Transportation Funding Sustainability Study**
- Leverage input from the Stakeholder Group
- Understand Virginia's current level of EV readiness
- Identify best practices to improve readiness
  - **Review of state practices**

# Plug Types

**LEVEL 1  
CHARGING**  
120 VOLTS



**+1 DAYS**  
TO FULL CHARGE

**LEVEL 2  
CHARGING**  
240 VOLTS



**HALF DAY**  
TO FULL CHARGE

**DC FAST  
CHARGING**  
480 VOLTS



**ONE HOUR**  
TO FULL CHARGE



Tesla Destination



SAE J1772

Level 2 Charging

DC Fast Charging



SAE CCS

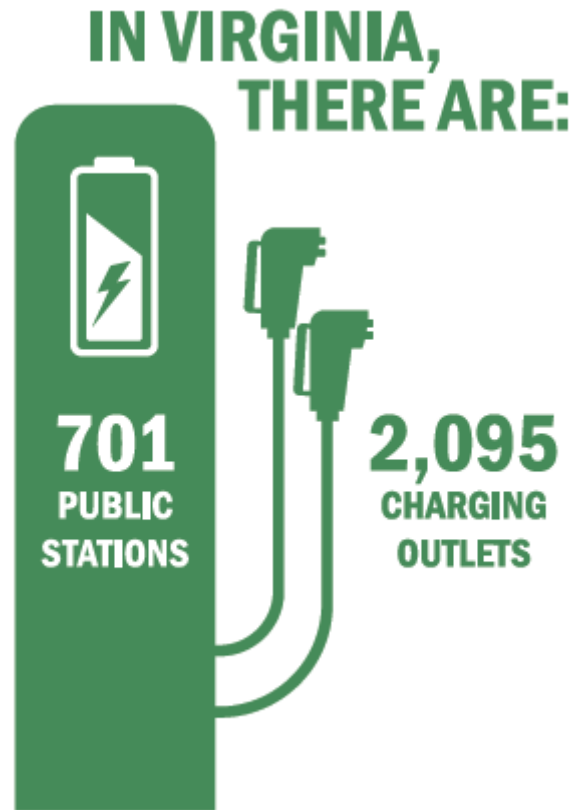


CHAdeMO



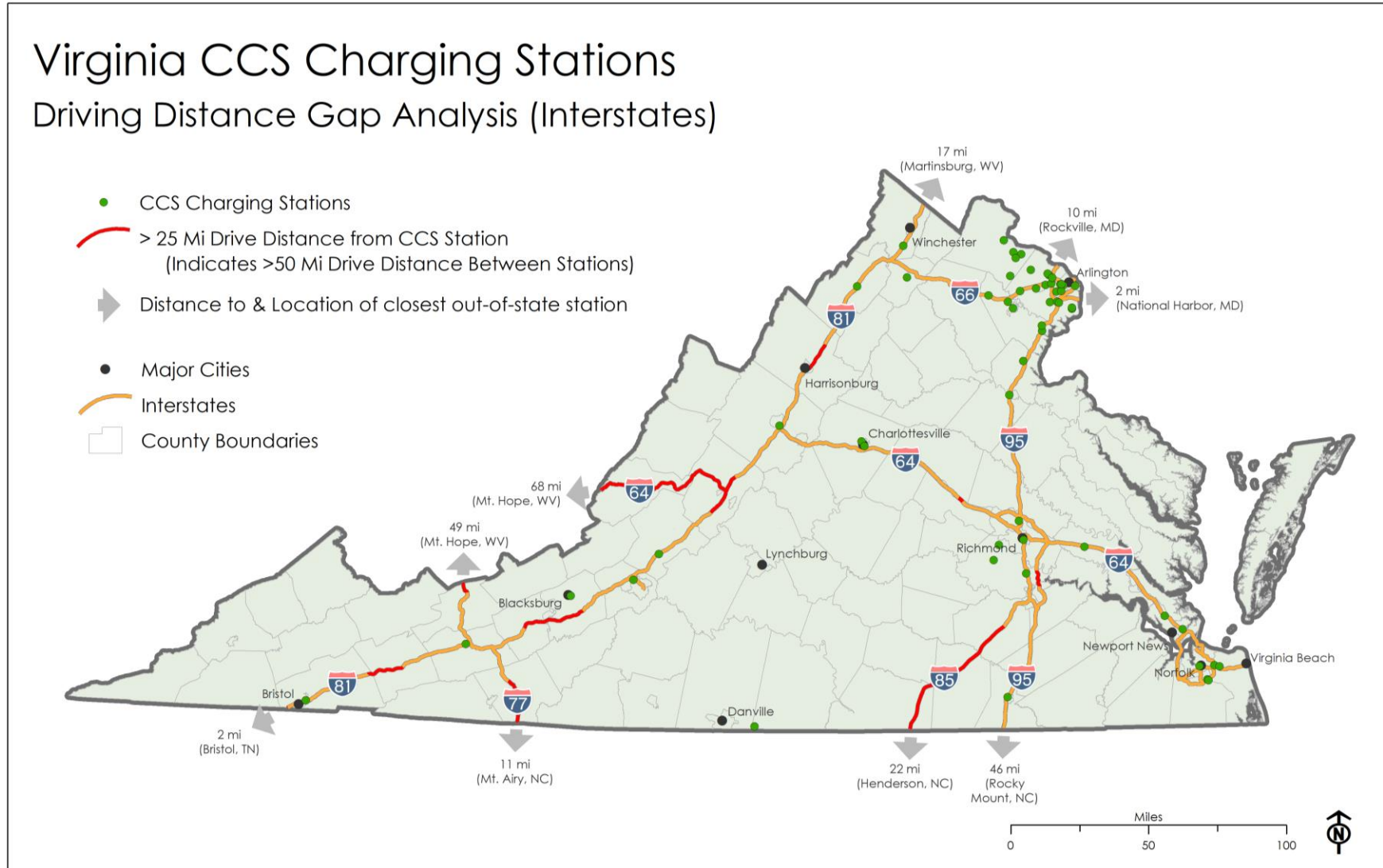
Tesla Supercharger

# The State of Electric Vehicles in Virginia



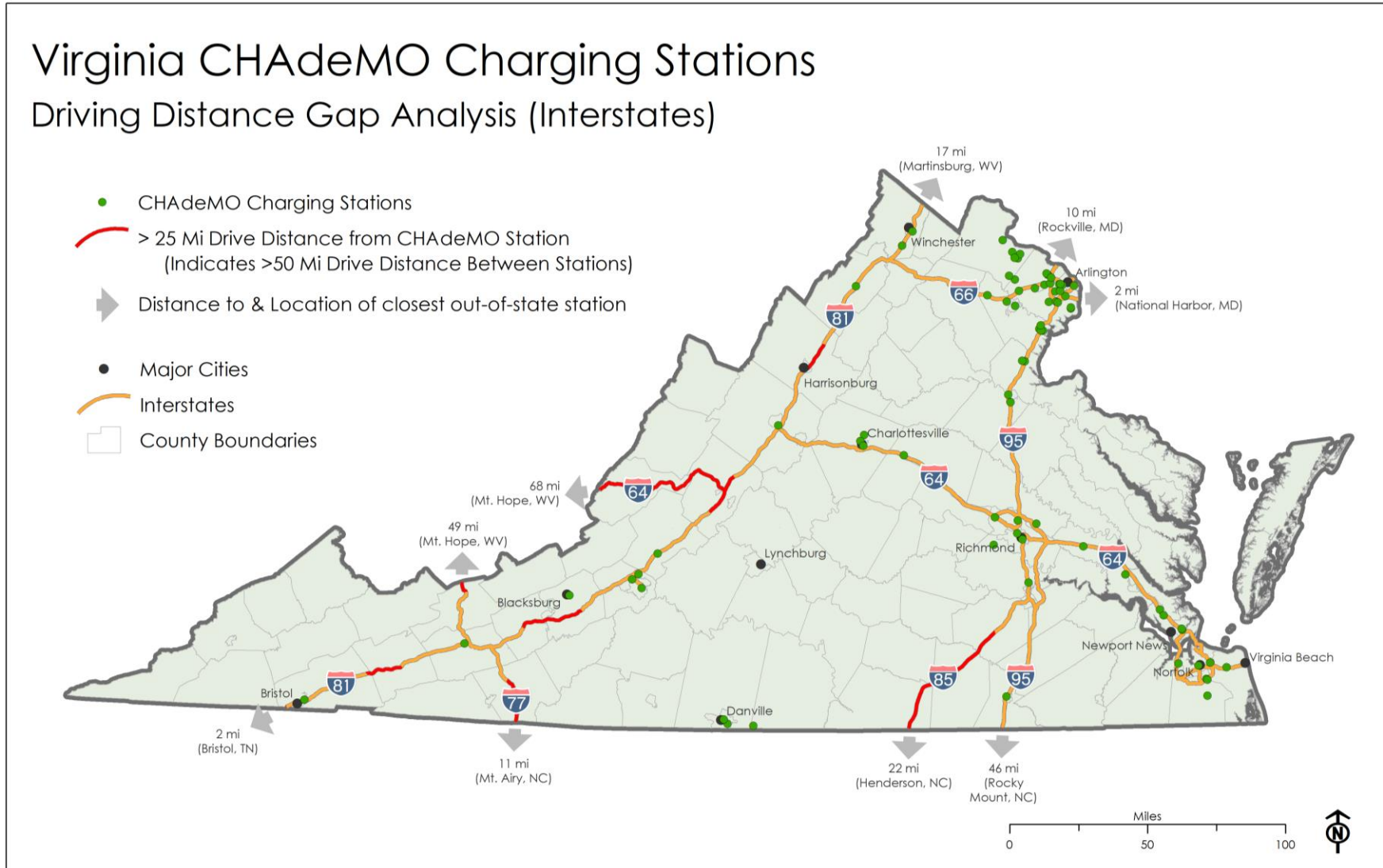
- Virginia ranks 13<sup>th</sup> in the US for the total number of EV registrations
- Virginia ranks 11<sup>th</sup> in the US for number of EV Charging Stations, or Electric Vehicle Supply Equipment (EVSE)

# DC Fast Charging Gap Analysis





# DC Fast Charging Gap Analysis



# Perceived Barriers vs. Infrastructure Deployment

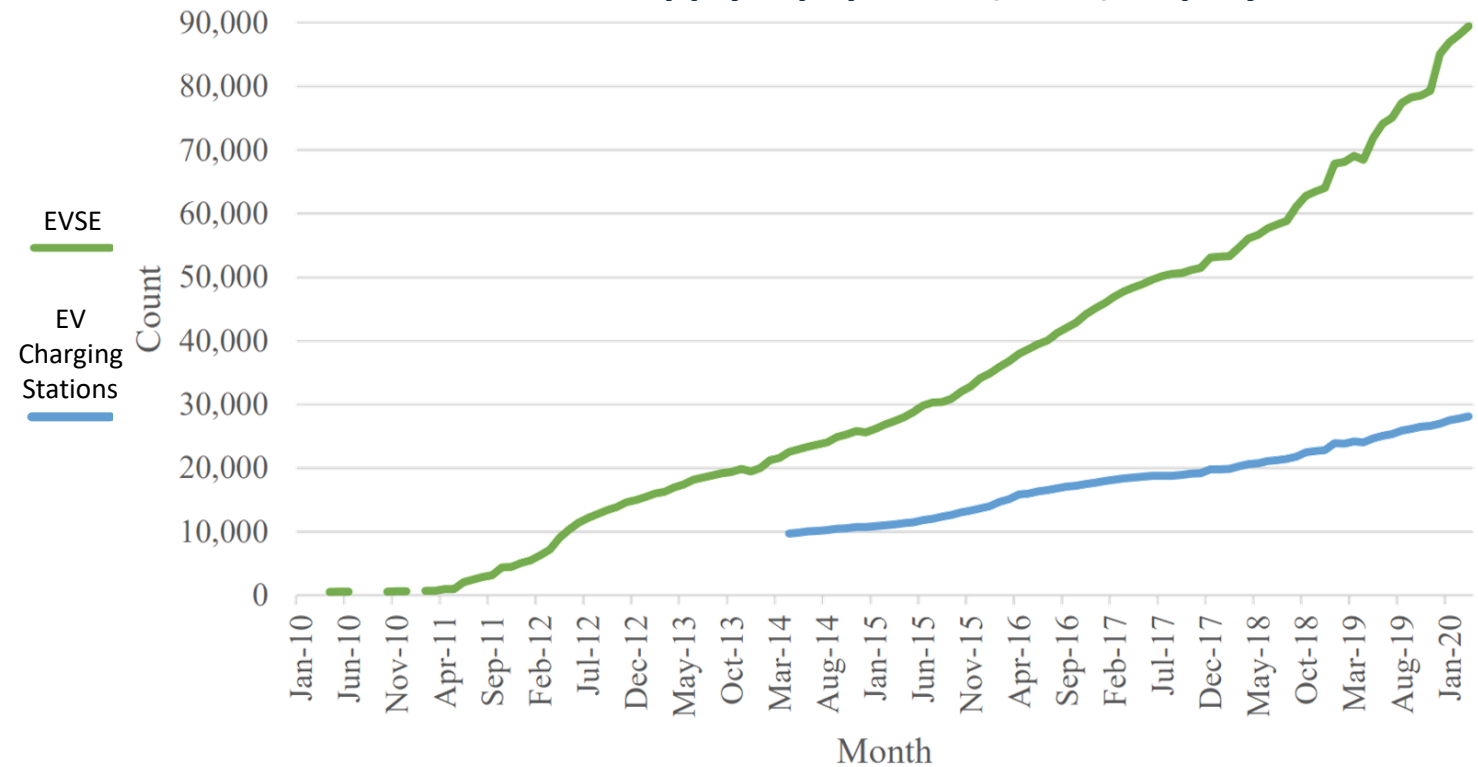
## 2012 Federal Highway Administration Report<sup>2</sup>

1. Upfront Vehicle Cost
2. Range Anxiety
3. Availability of Charging Infrastructure

## 2019 Autolist poll of US vehicle shoppers<sup>3</sup>

1. Range Anxiety
2. Upfront Vehicle Cost
3. Availability of charging Infrastructure
4. Speed of Charging

## Electric Vehicle Supply Equipment (EVSE) Deployment<sup>4</sup>



2. FHWA-HRT-13-001, 2012

3. <https://www.autolist.com/news-and-analysis/survey-electric-vehicles>

4. *EV Charging Infrastructure Trends*, National Renewable Energy Lab, 2020



# **Opportunities for Improving Transportation EV Readiness**

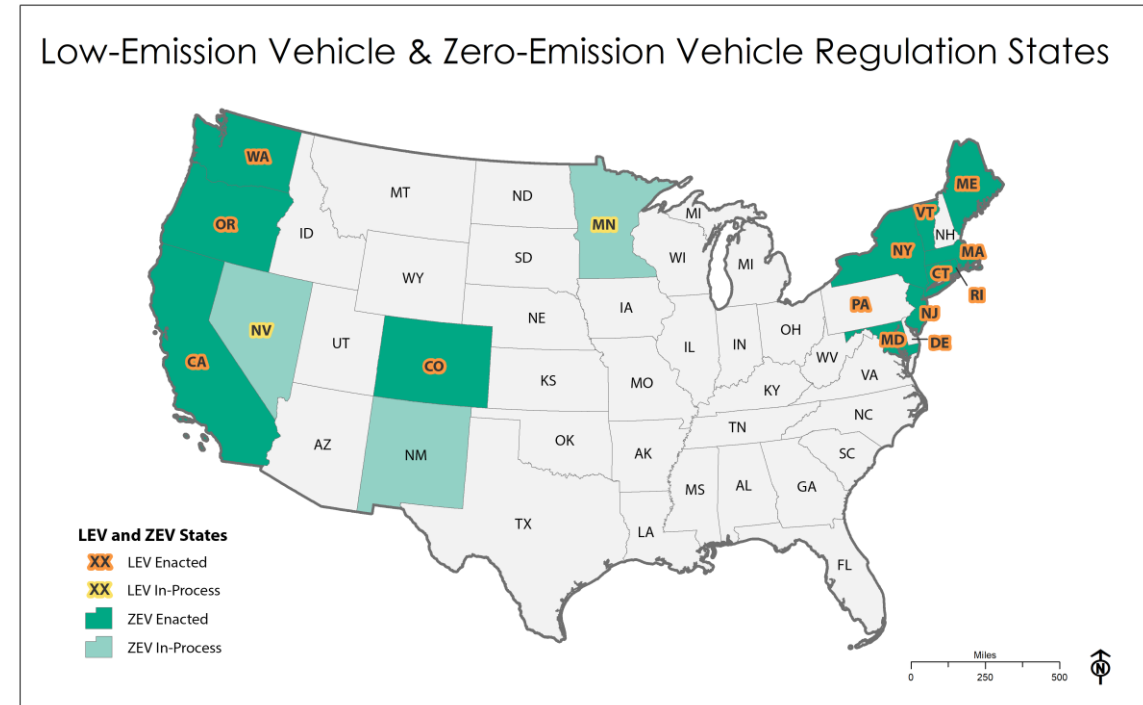
# Coordinate with the Secretary of Natural Resources to Convene an Interagency Working Group

- Coordinate with the Secretary of Natural Resources to establish an EV interagency working group in collaboration with the Governor's Conservation Cabinet
- Link various statewide efforts into a unified approach
- Leverage resources from multiple agencies
- Maximize the Commonwealth's readiness



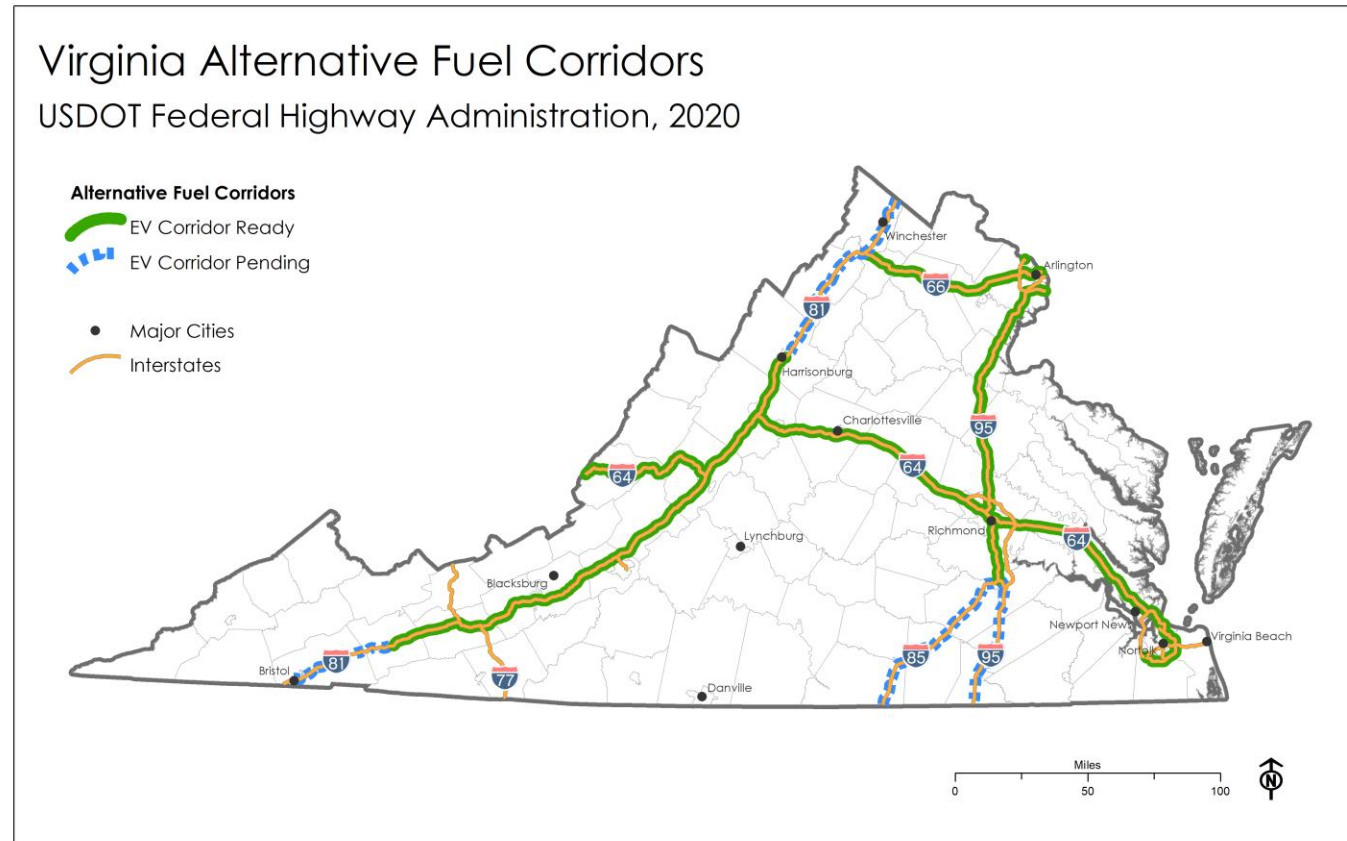
# Support Low and Zero Emission Vehicle Regulations in Virginia – HB 1965

- HB 1965 State Air Pollution Control Board; low-emissions and zero-emissions vehicle program
- Under Section 177 of the US Clean Air Act, Virginia is poised to adopt California's LEV and ZEV standards
- Continue Virginia's Environmental and EV Initiatives
- Expand Virginia's EV marketplace
  - OEMs prioritize EV deliveries to ZEV states



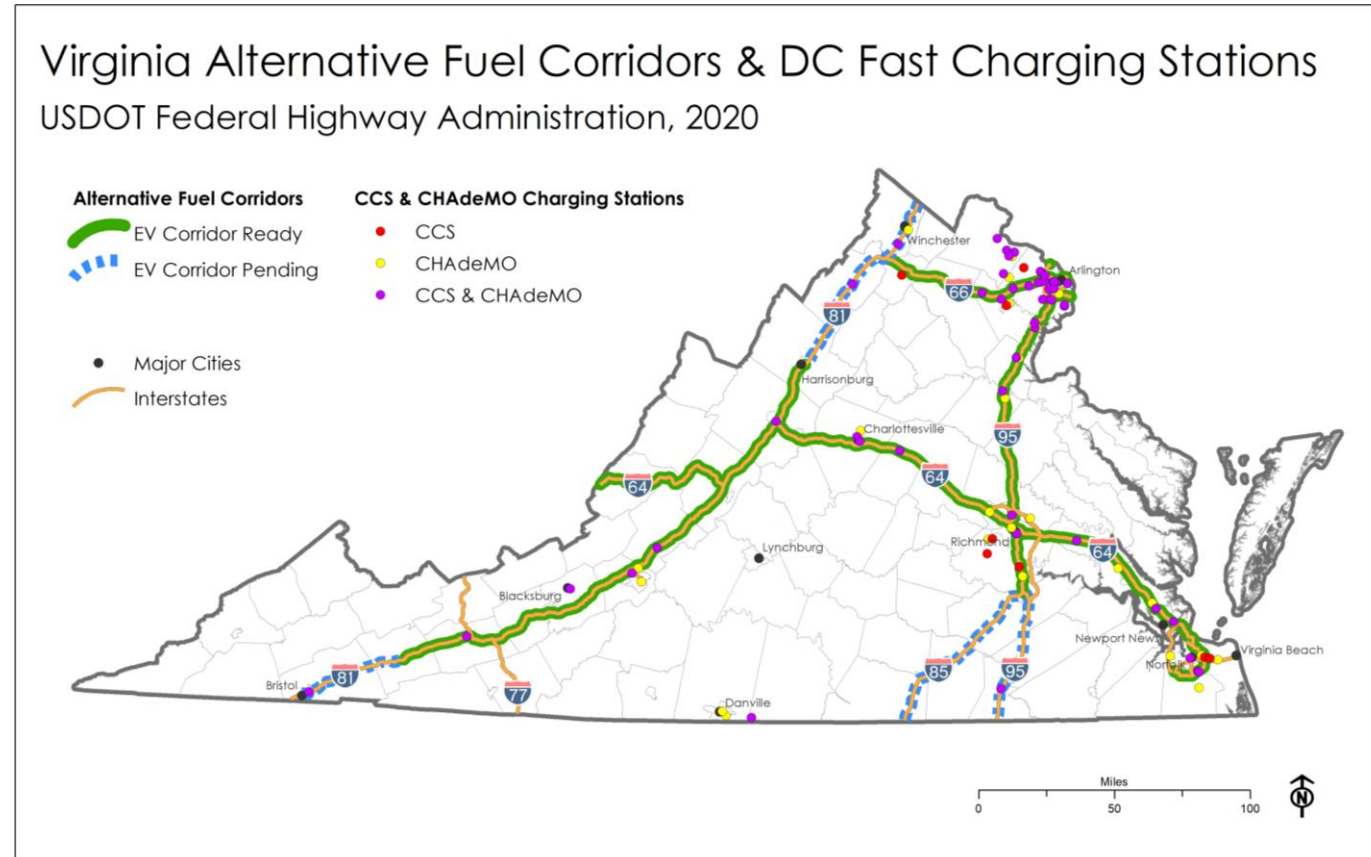
# Expand the Existing Program of Alternative Fuels Corridors to Close Gaps in Virginia's Charging Network

- Build on existing efforts in VA
- Prepare for upcoming requests for nominations
- Identify gaps and opportunities for installations to extend existing corridors
- Evaluate alternative methods and technology to designate corridors



# Develop Partnerships to Enhance the Inventory of Existing Charging Locations

- Evaluate gaps in the state's charging network
  - Leverage data capabilities of multiple agencies
- Recommend where charging should be provided
- Employ combination of public/private approaches



# Explore a Pilot Program for Charging at Commonwealth Facilities

- Evaluate suitability of Commonwealth properties for charging installation
- Identify opportunities for private investment to fill network gaps
- Evaluate participation in grant programs for EVSE installation





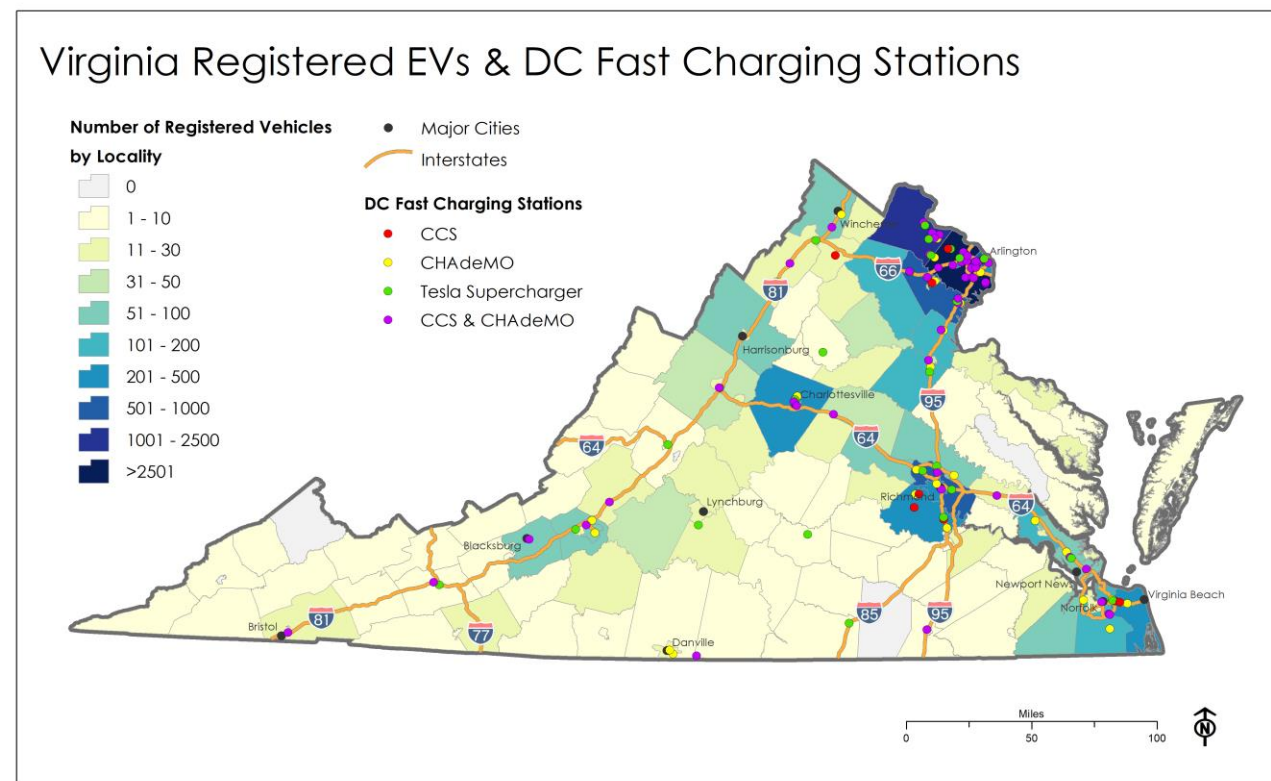
# Evaluate the Feasibility to Deploy Fleet EVs

- Coordinate with DGS and other state agencies to:
  - Identify appropriate uses for EVs within state fleets
  - Identify costs, charging, and grants to deploy
  - Provide central procurement that others can utilize to deploy fleet vehicles and/or charging



# Create a Clearinghouse for Information and Education

- EV education can aid in removing perceived barriers
- Provide benefits and challenges of EVs
- Share data to create public awareness of registrations and charging station locations
  - Drive private investment in infrastructure



# Evaluate the Ability to Provide Roadside Charging

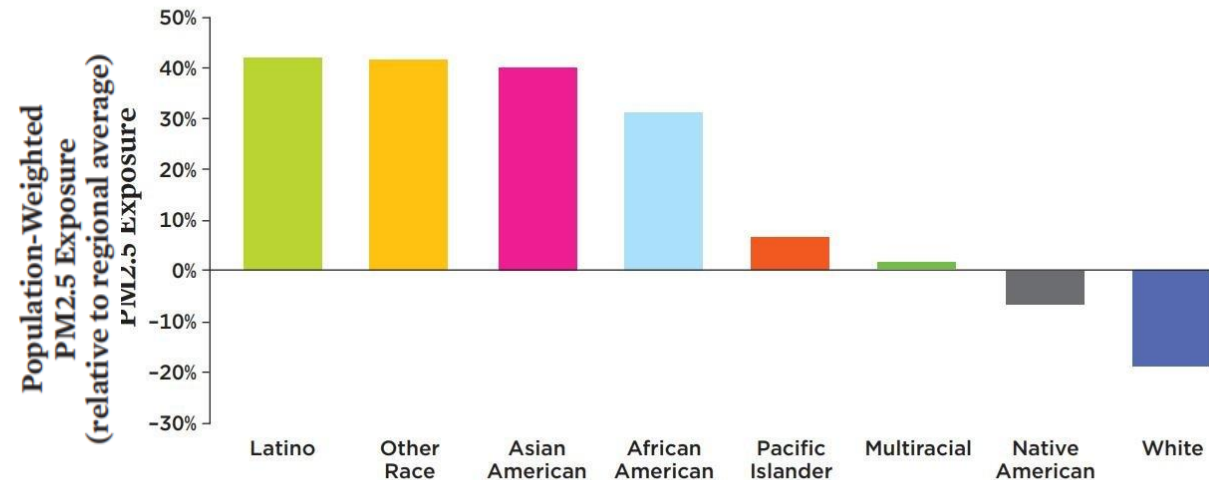
- Currently no out-of-charge service provided similar to out-of-fuel for conventional vehicles
- Monitor EV out-of-charge incidents to determine roadside charging needs
- Determine challenges and opportunities considering operational environment and safety
- Consider a pilot to determine effectiveness and facilitation of quick clearance
- Provide overview of available options to use mobile charging



# Encourage and Support EVs in Disadvantaged Communities

- Disadvantaged communities are disproportionately exposed to exhaust pollution
- Support EV bus deployments in transit-dependent neighborhoods
- Continue to assess EV school bus conversion or deployment
- Facilitate EV fleet usage in environmental justice communities
- Support placement of public chargers in disadvantaged communities

Disproportionately High Exposure for People of Color in the Northeast and Mid-Atlantic



# Expand Support for Bus Electrification

- In FY20, the first 17 electric buses were funded in three locations: Alexandria, Hampton Roads, and Blacksburg
- Continue to support EV transit investments
- Determine need for additional charging locations away from depot and evaluate grants to install
- Identification of routes well-suited for electric vehicle bus deployment
- Assure inclusivity of transit-dependent and rural communities



# Opportunities for Improving Transportation EV Readiness

---



- ⚡ Coordinate with the Secretary of Natural Resources to Convene an Interagency Working Group
- ⚡ Support Low and Zero Emission Vehicle Regulations in Virginia
- ⚡ Expand the Existing Program of Alternative Fuels Corridors to Close Gaps in Virginia's Charging Network
- ⚡ Develop Partnerships to Enhance the Inventory of Existing Charging Locations
- ⚡ Develop a Pilot Program for Charging at Commonwealth Facilities
- ⚡ Evaluate the Feasibility to Deploy EV Fleets
- ⚡ Create Clearinghouse for Information and Education
- ⚡ Evaluate Ability to Provide Roadside Charging
- ⚡ Identify Opportunity for EVs in Disadvantaged Communities
- ⚡ Expand Opportunities for Bus Electrification

# Commonwealth of Virginia Transportation Electric Vehicle Readiness Study



## Questions?



COMMONWEALTH TRANSPORTATION BOARD



# REGIONAL TRANSPORTATION AUTHORITIES

## Presented to the Commonwealth Transportation Board

Office of the Attorney General



Julie M. Whitlock, Section Chief/SAAG

S. Michael Westermann, SAAG

L. Daniel Bidwell, AAG

March 17, 2021

# EVOLUTION OF AUTHORITIES

- **Washington Metropolitan Area Transit Authority (1966)**
- **Northern Virginia Transportation Authority (2002)**
- **Williamsburg Area Transit Authority (2006)**
- **Charlottesville-Albemarle Regional Transit Authority (2009)**
- **Richmond Metropolitan Transportation Authority (2009)**
- **Hampton Road Transportation Accountability Commission (2014)**
- **Central Virginia Transportation Authority (2020)**

# SCOPE OF TODAY'S PRESENTATION

- **Northern Virginia Transportation Authority (2002)**  
**Va. Code § 33.2-2500, et seq.**
- **Hampton Roads Transportation Accountability Commission (2014)**  
**Va. Code § 33.2-2600, et seq.**
- **Central Virginia Transportation Authority (2020)**  
**Va. Code § 33.2-3700, et seq.**

# COMMON ATTRIBUTES

- Regional focus
- Regional revenue
- Some tolling authority and the ability to issue debt
- Membership includes elected representatives from several localities, as well as Commissioner of Highways and Director of DRPT
- Authorized to employ chief executive officer and staff
  - VDOT and DRPT to make staff available upon request

# NVTA - COMPOSITION

-Counties of Arlington, Fairfax, Loudoun, and Prince William; Cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park

-17 members:

- **chief elected officer from each of the nine counties/cities (or designee)**
- **two members of House of Delegates (appointed by Speaker)**
- **one member of the Senate (appointed by Committee on Rules)**
- **one non-legislative citizen member who has “significant experience in transportation planning, finance, engineering, construction, or management” (appointed by Governor)**
- **one CTB member (appointed by Governor)**
- **three nonvoting *ex officio* members:**
  - Commissioner of Highways (or designee)
  - Director of DRPT (or designee)
  - Chief elected officer of one town (currently the Mayor of Leesburg)

# NVTA - REVENUE SOURCES

## I. Northern Virginia Transportation Authority Fund - Dedicated regional sales tax revenues and:

- \$20 million per year from Northern Virginia Transportation District Fund (Va. Code § 33.2-2400(E))
- Interstate Operations and Enhancement Program (Va. Code § 33.2-372(F))
- Regional Congestion Relief Fee (Va. Code § 58.1-802.4)

## II. Distribution

- **70% to fund regional transportation projects selected by NVTA**
  - Projects ranked and selected based primarily on congestion relief (similar process to Smart Scale)
- **30% distributed *pro rata* to localities**
  - Additional highway construction, capital improvements that reduce congestion, projects approved by the most recent LRTP, or for public transportation purposes

# NVTA - KEY FUNCTIONS AND POWERS

- **Evaluate all significant transportation projects in Planning District 8 (Va. Code § 33.2-2500 (2))**
- **Prepare regional transportation plan (Va. Code § 33.2-2500 (1))**
  - Long-range transportation planning (Va. Code § 33.2-2508)
  - Develop regional priorities and allocate funds to priority regional transportation projects (Va. Code § 33.2-2512)
  - Recommend regional transportation priorities to federal, state, and regional agencies (Va. Code § 33.2-2512)
  - Provide general oversight of regional programs and provide long-range regional planning (Va. Code § 33.2-2512)
- **Issue bonds (Va. Code § 33.2-2511)**
- **Limited authority to impose and collect tolls for new construction/reconstruction with solely NVTA revenues or NVTA-controlled revenues (Va. Code § 33.2-2512)**

# NVTA - KEY INTERACTIONS WITH CTB

- **Overlapping membership between CTB/NVTA**
- **Must consult with CTB and VDOT to avoid duplication of efforts or to combine efforts (Va. Code § 33.2-2510(C)(3), 33.2-1928(A))**
- **Annual joint public meeting (Va. Code § 33.2-214.3)**
  - **Includes NVTA, CTB, NVTC, and VRE**
- **Seek CTB-controlled state or federal funding for priority regional transportation projects (Va. Code § 33.2-2512)**
- **I-66 Outside the Beltway Concession Payment Account Projects (under 2018 MOA with CTB)**
- **VDOT and DRPT**
  - **VDOT can provide planning, engineering, ROW acquisition, and construction services (Va. Code § 33.2-2510(D))**
  - **May combine efforts with VDOT and CTB to complete specific projects (Va. Code § 33.2-2510(C)(3))**



# HRTAC - COMPOSITION

**-Counties of Isle of Wight, James City, Southampton, and York; Cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg**

**-23 members:**

- **chief elected officer from each of the 10 cities**
- **elected official from governing board of each of the 4 counties (appointed by resolution)**
- **three members of the House of Delegates (appointed by the Speaker)**
- **two members of the Senate (appointed by the Committee on Rules)**
- **one CTB member (appointed by Governor)**
- **three *ex officio* nonvoting members:**
  - Commissioner of Highways (or designee)
  - Director of DRPT (or designee)
  - Executive Director of Virginia Port Authority (or designee)

# HRTAC - REVENUE SOURCES

- I. **Hampton Roads Transportation Fund (HRTF) (Va. Code § 33.2-2600) - Dedicated regional sales and fuels tax revenues**
  - used to support new construction projects on new or existing highways, bridges, and tunnels
  
- II. **As of 2020, HRATC also manages the Hampton Roads Regional Transit Fund (Va. Code § 33.2-2600.1)**
  - dedicated transient occupancy tax revenues for development, maintenance, improvement, and operation of network of transit routes and related infrastructure (Va. Code § 58.1-1743)
  
- III. **Future Tolling of Hampton Road Express Lanes Network**
  - Legislation in 2020 (Va. Code § 33.2-2612) expands HRTAC's limited tolling authority to include segment of I-64
  - *Master Tolling Agreement* among HRTAC, VDOT, and CTB in August of 2020

In all cases, revenues to be used solely for benefit of localities embraced by HRTAC (Va. Code § 33.2-2611)

# HRTAC - KEY FUNCTIONS AND POWERS

- **Approve projects using Hampton Roads Transportation Fund (Va. Code § 33.2-2600)**
- **Approve disbursements of the Hampton Roads Regional Transit Fund (Va. Code § 33.2-2600.1(C))**
- **Issue bonds (Va. Code § 33.2-2606)**
- **Tolling**
  - Tolling authority (impose and collect tolls for certain new or improved highway, bridge, or tunnel under Va. Code § 33.2-2607)
  - HRTAC may impose and collect tolls on HOT Lanes on I-64 after entering into agreement with CTB and VDOT (Va. Code § 33.2-2612)
  - Primary responsibility for HRELN tolling policies, operations, and maintenance under *Master Tolling Agreement*

# HRTAC - KEY INTERACTIONS WITH CTB

- **Overlapping membership**
- **HTRAC must consult with CTB on projects (33.2-2608(A)(8))**
  - HRTAC may seek CTB-controlled sources of funding in addition to HRTF to support HRTAC projects
- **Initial and Future Tolling Policy for HRELN**
  - Ensures safe and efficient operations of the network
- **Key HRTAC/VDOT project agreements authorized by CTB**
  - Standard Project Agreement for projects administered by VDOT
  - Custom Project Agreement for Funding and Administration for HRBT Expansion Project

# CVTA - COMPOSITION

- **Counties of Henrico, Chesterfield, Goochland, Hanover, New Kent, Powhatan, and Charles City; City of Richmond; Town of Ashland**
- **16 members:**
  - **chief elected officer of Richmond and Ashland (or designee)**
  - **chief elected officer of each of 7 counties (or designee)**
  - **one member of House of Delegates (appointed by Speaker)**
  - **one member of Senate (appointed by Committee on Rules)**
  - **one CTB member (appointed by Governor)**
  - **four *ex officio* nonvoting members:**
    - Commissioner of Highways (or designee)
    - Director of DRPT (or designee)
    - Chief Executive Officer of Greater Richmond Transit Company
    - Chief Executive Officer of the Richmond Metropolitan Transportation Authority

# CVTA - REVENUE SOURCES

- I. Central Virginia Transportation Fund (CVTF) - Dedicated regional sales and fuels tax revenues**
- **35% retained by CVTA and used for regional projects**
  - **15% distributed to GRTC**
  - **50% returned to localities to be used to improve local mobility, which may include construction, maintenance, or expansion of roads, sidewalks, trails, mobility services, or transit located in the locality**

In all cases, revenues to be used solely for benefit of localities embraced by CVTA (Va. Code § 33.2-3701)

# CVTA - KEY FUNCTIONS AND POWERS

- **Develop prioritization process for, and approve, projects using the 35% of the CVTF retained for regional projects (Va. Code § 33.2-3701(F) and (H))**
- **Localities and GRTC must demonstrate to CVTA annually the proper use of the allocated funds (Va. Code § 33.2-3701(E) and (G))**
- **Issue bonds (Va. Code § 33.2-3707)**
- **Limited tolling authority (impose and collect tolls for certain new or improved highway, bridge, or tunnel under Va. Code § 33.2-3709)**

# CVTA - KEY INTERACTIONS WITH CTB

- **Overlapping membership**
- **Must consult with CTB for projects that encompass a state highway (Va. Code § 33.2-3708(8))**
- **2020 Programmatic MOA between CVTA and VDOT**
  - **Establishes basic roles and responsibilities between CVTA and VDOT**
  - **Establishes *Standard Project Agreement* as form agreement under which VDOT may administer CVTA projects**



# HOW ARE NVTA, HRTAC, AND CVTA SIMILAR?

- **Serve similar purpose generally**
- **Each manages a fund with dedicated regional tax revenues**
- **Each approves uses of the corresponding fund for regional transportation projects**
- **Each has similar powers that include limited tolling authority and the ability to issue debt**
- **Have similar membership structures, overlapping with CTB**

# HOW ARE NVTA, HRTAC, AND CVTA UNIQUE?

| NVTA  | HRTAC   | CVTA   |
|---|---|--|
| <ul style="list-style-type: none"> <li>• 17 members</li> <li>• Long-range transportation planning function</li> <li>• Annual joint public meeting with CTB, NVTC, VRE</li> <li>• 70/30 split of revenues (regional/local)</li> <li>• Selects projects funded through I-66 OTB Concession Payment Account</li> </ul> | <ul style="list-style-type: none"> <li>• 23 members</li> <li>• Focus on “new construction”</li> <li>• No mandatory redistribution of funds to localities</li> <li>• Oversees two funds (HRTF and HR Regional Transit Fund)</li> <li>• Has targeted statutory tolling authority for HRELN</li> <li>• Will receive toll revenues generated from HRELN in future; responsible for tolling O&amp;M</li> </ul> | <ul style="list-style-type: none"> <li>• 16 members</li> <li>• No mandate to prioritize congestion relief</li> <li>• 35/15/50 split of revenues (regional/transit/local)</li> <li>• Actions require affirmative vote representing at least 4/5 of the population embraced by CVTA</li> </ul> |

# Questions?

**HREL**

**HAMPTON  
ROADS  
EXPRESS  
LANES**

N E T W O R K





# Commonwealth Transportation Board Briefing

## Tolling Policy Material Adverse Effect Evaluation Traffic Operations & Safety Analysis

Stephen C. Brich, P.E. – Commissioner VDOT

March 17, 2021

# **HRTAC Tolling Policy**

## **PURSUANT to HRTAC RESOLUTION 2021-02: Resolution Authorizing Initial Tolling Policies of The Hampton Roads Express Lanes Network**

- **Covered Lanes: HOT Lanes in the Initial Network created under the Master Tolling Agreement (MTA)**
- **Hours of Operation 24/7/365**
- **Automated Toll Collection**
- **Single Trip Transactions**
- **Dynamic Toll pricing based managed lane network traffic density**
- **Truck Traffic Restricted**

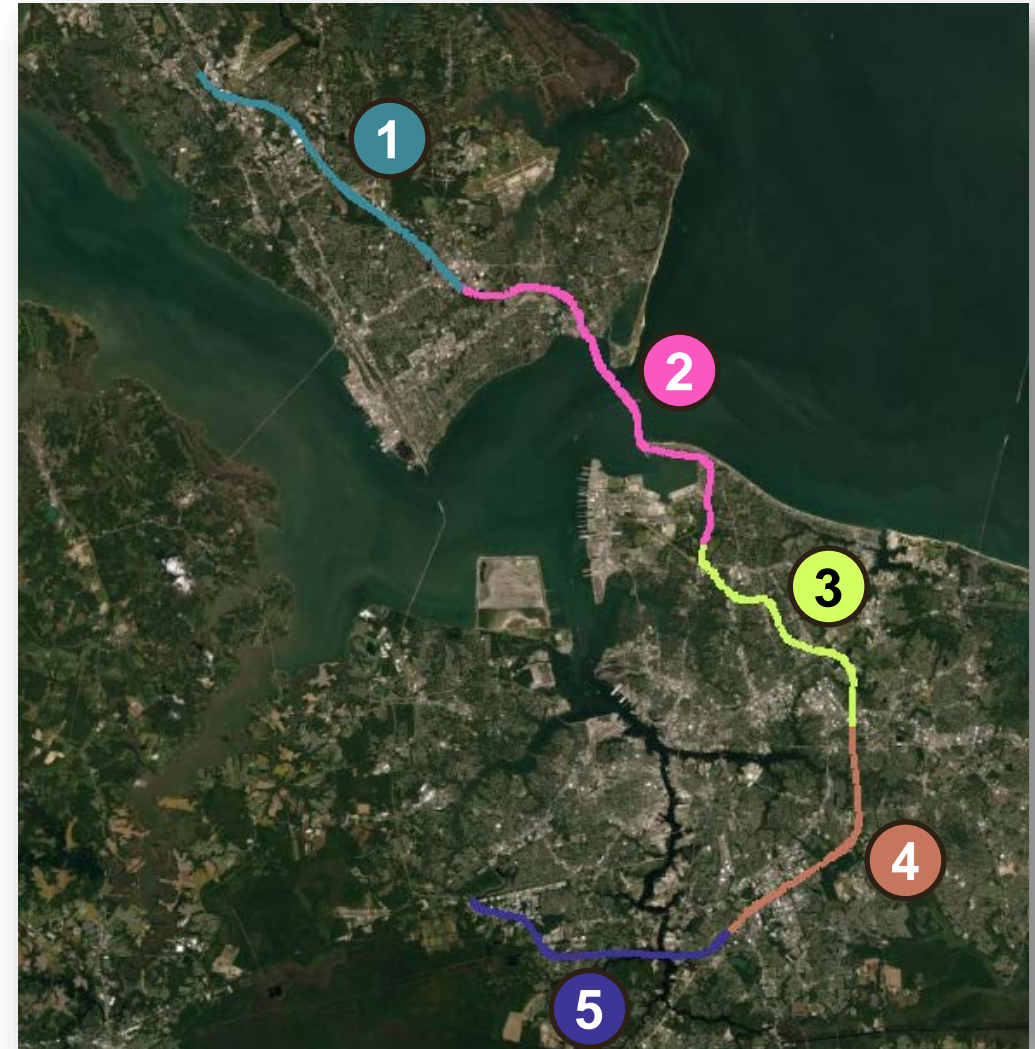
# Tolling Policy Evaluation

- Evaluate proposed HRTAC tolling policy impacts to HREL system person throughput and safety against adverse impact criteria identified in Master Tolling Agreement
  - Operations – Person throughput < 5% in 2 or more segments and or < 10% in any one segment.
  - Safety - Crash Rate > 5% for any segment
- Compare existing network geometry (No Build) vs. future HREL geometry (HREL Build)
- Evaluate affects of tolling policy (applied to HREL Build)
  - High Occupancy Toll 2 (HOT-2)
  - 24/7 tolling operations
  - Dynamic pricing based on traffic density per 23 U.S.C. Section 166 to maintain no less than 45 mph within the managed lane network
  - No Truck traffic

# Material Adverse Effect Analysis – Segmentation

- 1) Jefferson Ave to I-664
- 2) I-664 to I-564
- 3) I-564 to I-264
- 4) I-264 to I-464
- 5) I-464 to Bowers Hill

Segmentation as defined in Master Tolling Agreement





# HREL - Material Adverse Effect Analysis

## Outcome Summary

- Operations Outcome

Overall Network person throughput increase (average 22%)

- Safety Outcome

Overall Network projected crash rate reduced (~ 2.3%)

- Increased trip reliability

Travel times end to end reduced (~ 40min)

**Moving more people, safer, and with a more reliable trip**



# Traffic Operations Analysis

Virginia Department of Transportation

# Traffic Operations Analysis – Methodology

- Used 2025 VISSIM microsimulation for analysis
- Forecasts and Vehicle Occupancy Factor developed using HRTPO's regional travel forecast model
- AM and PM peak periods analyzed
- Master Tolling Agreement Criteria for Material Adverse Affect
  - A) Person Throughput < 5% in 2 or more system segments
  - B) Person Throughput < 10% in any one system segment

Network-wide Person Throughput Increase:  
Eastbound: AM = 18% ; PM = 17%  
Westbound: AM = 30% ; PM = 22%

# Traffic Operations Analysis – Results (I-64 Eastbound)

| System Segments<br>I-64 Eastbound | Person Throughput                            |            | Material Adverse Effect? |
|-----------------------------------|--|------------|--------------------------|
|                                   | 2025 No-Build                                | 2025 Build |                          |
| 1) From Jefferson Ave to I-664    | AM: 8240                                     | AM: 8335   | No                       |
|                                   | PM: 8320                                     | PM: 7980*  |                          |
| 2) From I-664 to I-564            | AM: 3345                                     | AM: 4880   | No                       |
|                                   | PM: 3535                                     | PM: 5435   |                          |
| 3) From I-564 to I-264            | AM: 6065                                     | AM: 7545   | No                       |
|                                   | PM: 9135                                     | PM: 10595  |                          |
| 4) From I-264 to I-464            | AM: 5785                                     | AM: 6605   | No                       |
|                                   | PM: 6320                                     | PM: 8410   |                          |
| 5) From I-464 to Bowers Hill      | AM: 4710                                     | AM: 5390   | No                       |
|                                   | PM: 5310                                     | PM: 5670   |                          |
| <b>Total</b>                      | <b>AM: 18% Increase<br/>PM: 17% Increase</b> |            |                          |

\* Vehicle throughput increased by 265 vehicles (4)%



# Traffic Operations Analysis – Results (I-64 Westbound)

| System Segments<br>I-64 Westbound | Person Throughput                            |            | Material Adverse Effect? |
|-----------------------------------|--|------------|--------------------------|
|                                   | 2025 No-Build                                | 2025 Build |                          |
| 5) From Bowers Hill to I-464      | AM: 3570                                     | AM: 5295   | No                       |
|                                   | PM: 3860                                     | PM: 5030   |                          |
| 4) From I-464 to I-264            | AM: 5630                                     | AM: 8570   | No                       |
|                                   | PM: 4630                                     | PM: 6290   |                          |
| 3) From I-264 to I-564            | AM: 8600                                     | AM: 10885  | No                       |
|                                   | PM: 5920                                     | PM: 6545   |                          |
| 2) From I-564 to I-664            | AM: 4055                                     | AM: 5770   | No                       |
|                                   | PM: 3895                                     | PM: 5705   |                          |
| 1) From I-664 to Jefferson Ave    | AM: 6685                                     | AM: 7255   | No                       |
|                                   | PM: 8190                                     | PM: 9040   |                          |
| <b>Total</b>                      | <b>AM: 30% Increase<br/>PM: 22% Increase</b> |            |                          |



# Safety Analysis

Virginia Department of Transportation

# Safety Analysis – Methodology

- 2025 Average Daily Traffic (ADT) volume forecasts developed using HRTPO's regional travel forecast model similar to the traffic analysis
- Crash prediction governing factors
  - ADTs
  - Presence of on- and off-ramps
  - Shoulder widths
  - Roadside and median barrier
  - Horizontal curvature
- Master Tolling Agreement Criteria
  - Crash Rate > 5% for any segment

# Material Adverse Effect Safety Analysis – Summary

| System Segment            | No-Build Crash Rate<br>(crashes/100M VMT) | Build Crash Rate<br>(crashes/100M VMT) | Percent<br>Change | Adverse Safety<br>Effect |
|---------------------------|---|--|-------------------|--------------------------|
| 1) Jefferson Ave to I-664 | 85.56                                     | 89.24                                  | 4.3%              | No                       |
| 2) I-664 to I-564         | 87.08                                     | 90.18                                  | 3.6%              | No                       |
| 3) I-564 to I-264         | 95.82                                     | 85.56                                  | -10.7%            | No                       |
| 4) I-264 to I-464         | 72.77                                     | 79.99                                  | 9.9%              | Yes                      |
| 5) I-464 to Bowers Hill   | 86.84                                     | 70.38                                  | -19.0%            | No                       |
| <b>All</b>                | <b>85.84</b>                              | <b>83.85</b>                           | <b>-2.3%</b>      | <b>No</b>                |

- System Segment 4 crash rate increase a function of I-464 interchange and ADT increase.
- Overall decrease in crash rate across the network by 2.3%.



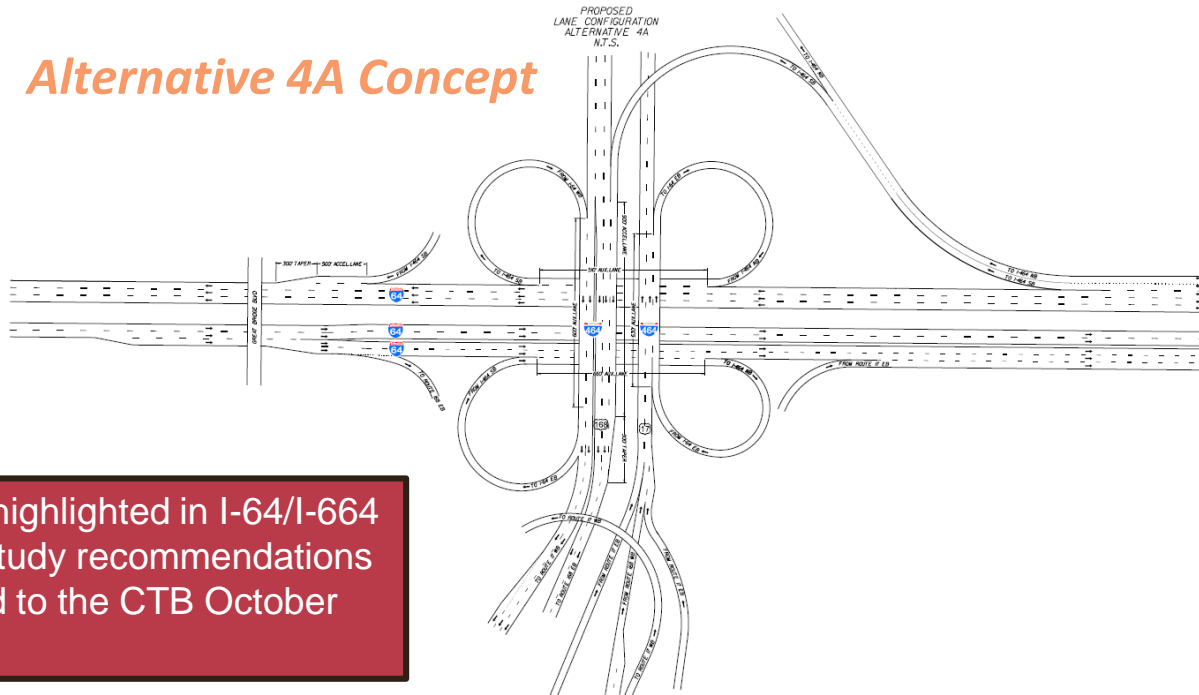
# System Segment I-264 to I-464

- **9.9% increase in crash rate attributed to increase in average daily traffic (ADT)**
  - **Projected ADT to increase by more than 30k based on the HRTPO's Travel Demand Model due to increased capacity upstream and downstream of this segment.**
  - **I-464 interchange identified as remaining congestion hot spot in operational analysis**
- **I-464 interchange alternatives evaluated to address safety and congestion with funding programed in HRTPO 2045 CLRTP**

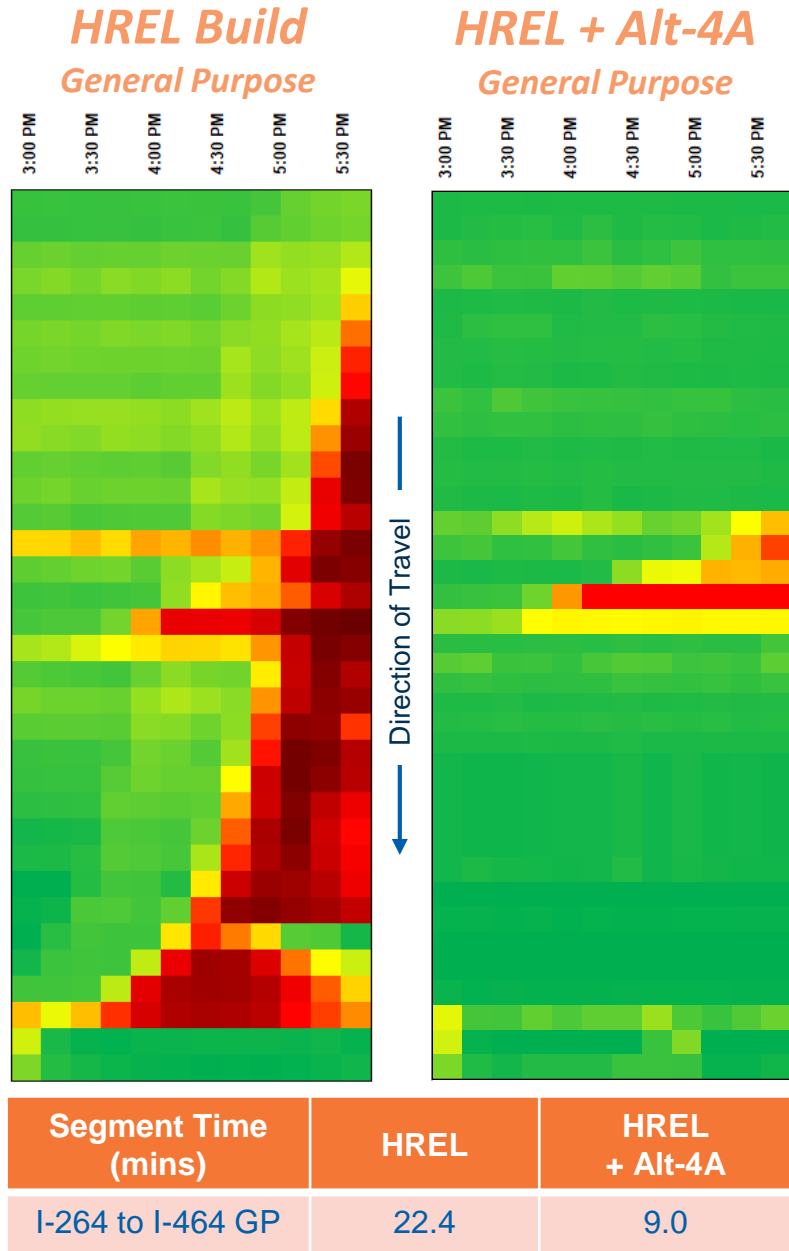
# HREL – I-464 Interchange Improvement

- VDOT evaluated four (4) Alternatives
- Alternative 4A provides maximum benefit (13+ minutes of travel time savings)

Alternative 4A Concept



Concept highlighted in I-64/I-664 corridor study recommendations presented to the CTB October 2020



# HREL - Material Adverse Effect Analysis

## Outcome Summary

- Operations Outcome

Overall Network person throughput increase (average 22%)

- Safety Outcome

Overall Network projected crash rate reduced (~ 2.3%)

- Increased trip reliability

Travel times end to end reduced (~ 40min)

**Moving more people, safer, and with a more reliable trip**

# **HREL - Material Adverse Effect Analysis Commissioner's Recommendation**

**The CTB approve a finding of no Material Adverse Effect caused by the proposed HRTAC Tolling Policy**

- **System Segment 4 (I-264 – I-464) crash rate increase due to network capacity increase, not a Tolling Policy decision**
- **I-464 improvements to programmed in HRTPO CL RTP**

**HREL**

**HAMPTON  
ROADS  
EXPRESS  
LANES**

N E T W O R K



## **HRTAC RESOLUTION 2021-02**

### **RESOLUTION AUTHORIZING INITIAL TOLLING POLICIES OF THE HAMPTON ROADS EXPRESS LANES NETWORK**

**WHEREAS**, the Hampton Roads Transportation Accountability Commission (the “Commission”), has been empowered under the Code of Virginia of 1950, as amended (the “Virginia Code”), pursuant to Virginia Code § 33.2-2607 and as set forth in Chapter 26, Title 33.2 of the Virginia Code (the “HRTAC Act”), to impose and collect tolls in amounts established by the Commission for the use of any new or improved highway, bridge or tunnel, to increase capacity on such facility or to address congestion within Planning District 23 as long as such facilities are constructed by the Commission (i) with federal, state, or local funds, (ii) solely with revenues of the Commission, or (iii) with revenues under the control of the Commission;

**WHEREAS**, the Commission has been further empowered under Virginia Code § 33.2-2612 to impose and collect tolls on high-occupancy toll lanes on Interstate 64 in the “facility”, being the vicinity of the interchange of Interstate 64 and Jefferson Avenue in Newport News to the Bowers Hill interchange of Interstate 64, Interstate 264, and Interstate 664 in Chesapeake (the “Initial Interstate 64 Express Lanes Network” or “Initial Network” as further described and defined in the Master Tolling Agreement, as later defined herein), provided that such tolls shall be collected by an electronic toll system that, to the extent possible, shall not impede the traffic flow of the Initial Network and may only be imposed on a portion of the Initial Network that has been designated as high-occupancy toll lanes by the Commonwealth Transportation Board (the “CTB”) pursuant to Virginia Code § 33.2-502, with the amount of the tolls to be varied by congestion level;

**WHEREAS**, the CTB has designated certain segments of the Initial Network as high-occupancy toll lanes pursuant to resolutions duly adopted on October 19, 2016, September 20, 2017, and on January 10, 2018;

**WHEREAS**, the Hampton Roads Transportation Planning Organization (the “HRTPO”), in its Resolution No. 2020-04, identified and adopted the Initial Network as a component of the Regional Priority Projects (added to its current version dated January 2020) identified by the HRTPO in its 2040 Long-Range Transportation Plan to collectively provide the greatest impact on reducing congestion for the greatest number of citizens residing in Hampton Roads and requested that the Commission pursue development of a funding, development, and implementation plan for the Initial Network to be advanced by the Commission based on project readiness;

**WHEREAS**, prior to the imposition of tolls under Virginia Code § 33.2-2612, the Commission is required to enter into an agreement with the CTB and the Virginia Department of Transportation (“VDOT” or the “Department”), an agency of the Commonwealth of Virginia, that addresses certain matters described in such Code section;

**WHEREAS**, the Commission, the CTB and the Department have entered into a Master Agreement for Development and Tolling of Hampton Roads Express Lanes Network Tolling Agreement dated August 18, 2020 (the “Master Tolling Agreement” or “MTA”), which serves as the agreement required under Virginia Code § 33.2-2612;

**WHEREAS**, under the Master Tolling Agreement, prior to imposing tolls, the Commission is required to set the initial tolling policies for the Initial Network (referred to hereinafter and in the MTA as the “Initial Tolling Policies”) in accordance with the terms and procedures of the MTA;

**WHEREAS**, CDM Smith has been engaged to produce an investment grade traffic and revenue (“T&R”) study relating to the Initial Network (the “T&R Study”), which will provide traffic and revenue information that will be essential for developing and implementing a financing plan for the construction and implementation of the Initial Network;

**WHEREAS**, in furtherance of the finalization of the initial T&R Study and the Commission’s financing efforts, the Commission now desires to approve, adopt and set the Initial Tolling Policies;

**WHEREAS**, in connection with the foregoing, the Commission has reviewed the parameters and procedures that the Commission is required to observe under the Master Tolling Agreement and, at its December 10, 2020 meeting, the Commission was briefed by CDM Smith on the tolling and operations assumptions that CDM Smith is using in connection with the T&R Study;

**NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE HAMPTON ROADS TRANSPORTATION ACCOUNTABILITY COMMISSION:**

**1. Approval, Adoption and Setting of Initial Tolling Policies.** The Commission hereby approves, adopts and sets the policies set forth on Exhibit A attached hereto as the Commission’s Initial Tolling Policies, which, subject to the issuance or deemed issuance of a No Exception Notice (described below), will be effective and implemented in accordance with Section 5.2(a)(vii) of the Master Tolling Agreement, which reads as follows: “The Initial Tolling Policies will be effective and implemented on the first day that the first new segment (*i.e.*, a segment other than the Reversible HOT Lanes Segment) is opened (the “Initial Tolling Policies Effective Date”)”.

**2. Additional Actions and Findings.** The Commission hereby authorizes each officer and authorized representative of the Commission, including the Executive Director, to (i) present the Initial Tolling Policies to the Commissioner of Highways and request, in accordance with Section 5.02(a)(iii) of the Master Tolling Agreement, that the Commissioner review such policies as required under the MTA and present them to the CTB with the Commissioner’s analysis and findings as to whether he or she intends to issue an Exception Notice or a No Exception Notice (as each is defined in the MTA), (ii) execute and deliver on the Commission’s behalf such other instruments, documents or certificates, and to do and perform such things and acts, as he or she shall deem necessary or appropriate to cause the issuance or deemed issuance of a No Exception Notice with respect to the Initial Tolling Policies, and (iii) report to the Commission at such time as a No Exception Notice has been issued or has been deemed to have been issued with respect to the Initial Tolling Policies in accordance with the terms of the MTA.

**3. Effective Date.** This Resolution shall take effect immediately.

\*

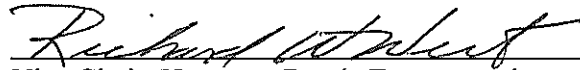
\*

\*

The undersigned hereby certify that this is a true and correct copy of a resolution duly adopted at a meeting of the Hampton Roads Transportation Accountability Commission held on January 21, 2021.



Chair, Hampton Roads Transportation  
Accountability Commission



Vice Chair, Hampton Roads Transportation  
Accountability Commission



## EXHIBIT A to HRTAC RESOLUTION 2021-02

### Initial Tolling Policies

1. Covered Lanes: HOT lanes in the Initial Network created under MTA.
2. Hours of Operation: HOT lane tolling will be in effect 24 hours daily (24/7/365) (excluding traffic reversal periods in Segment 1).
3. Tolling Points: Tolling points within the Initial Network, generally expected to be not more than one per segment (as delineated in the MTA), will be established in accordance with the concept of operations plan developed collaboratively between HRTAC and VDOT team.
4. Toll Collection Methods: Toll collection will employ open road (nonstop) tolling technology (no toll booths); electronic only; enforcement consistent with Virginia Code Section 33.2-503; E-ZPass or E-ZPass Flex transponder required (does not preclude the use of pre-arranged payment accounts approved by the Commission, such as mobile apps).
5. Reporting/Billing: User tolls will be assessed by combining contiguous gantry records into a single trip transaction (trip-building), with rounding up to the nearest penny.
6. Rates/Pricing: HOT lane usage (tolls) will be priced using Congestion Pricing, applying dynamic toll setting in relation to traffic density with amounts charged not less than the applicable minimums. The applicable minimums will be \$0.06 per mile or \$0.25 per gantry, whichever is greater, which amounts will be increased annually, effective July 1 of every year, beginning July 1, 2021, based on the greater of (i) the year-over-year change in the United States Average Consumer Price Index (All Cities, All Urban Consumers, All Items, 1982-1984=100) (CPI-U) or its successor Consumer Price Index, as published by the Bureau of Labor Statistics for the U.S. Department of Labor for the most recently available preceding twelve month period, or (ii) 2.5%. Such dynamic toll setting shall be administered in a manner that ensures compliance with 23 U.S.C. Section 166.
7. Permitted Vehicles/Toll Exemptions: All eligible vehicles may use the HOT lanes, and each vehicle using the HOT lanes will be tolled unless an exemption below applies:
  - Vehicles meeting the applicable high occupancy requirement set by the Commission; initially HOV2+ (self-declared via E-ZPass “Flex” transponder; HOV drivers will need E-ZPass Flex switched to HOV mode to use the lanes for free).
  - Motorcycles
  - Buses
  - Emergency vehicles - firefighting vehicles and emergency medical services vehicles (on duty)
  - Law enforcement vehicles (on duty)

- Contractors providing services directly for the facility

8. Vehicles Prohibited from Using HOT Lanes: Trucks, as defined in accordance with the MTA



COMMONWEALTH of VIRGINIA

Office of the

SECRETARY of TRANSPORTATION

# 2021 Transportation Initiative

Nick Donohue

Deputy Secretary of Transportation

March 2021



# Appropriations Act Provisions

---

- **Conference Report for the Budget includes several new provisions related to transportation**
- **New item directs spending of \$323.4M in one-time funds**
- **Policy statement of General Assembly that ‘normal’ transportation dollars should be allocated by the Board pursuant to establish program**

# Intent of the General Assembly

## Subsection Q of Item 430 (Secretary of Transportation)

“It is the intent of the General Assembly that state funds in the Commonwealth Transportation Fund and federal funds provided on a recurring, non-one-time basis, for surface transportation *be distributed and allocated at the discretion of the entities responsible for such funds* based on the policy direction and requirements set forth in the Code of Virginia.”

# 2021 Transportation Initiative

- **Directs allocation of \$323.4M in one-time federal funds, one-time general funds and previous year funding in economic development transportation funds**
- **Amount based on the following:**
  - **\$233.4M in COVID Relief/Appropriations Funds**
  - **\$55.0M in General Funds**
  - **\$20M in previous year funds from the Transportation Partnership Opportunity Fund**
  - **\$15M in previous year funds from the Access Programs**

# 2021 Transportation Initiative

---

- **Allocations directed to:**
  - **Western Rail Initiative**
  - **VRE Manassas Line**
  - **Interstate 64 Corridor**
  - **WMATA Funding**
  - **Regional Trails**
  - **Transit Equity Funding**
  - **Connected Infrastructure Demonstration Program**

# Western Rail Initiative

- **Up to \$83.5M to extend passenger rail service from Roanoke to New River Valley and increase the frequency of service along the I-81/US 29 Corridor**
- **Provide an assessment to General Assembly by November 1, 2021 of total costs and incremental costs for—**
  - **Providing rail service to Bedford, VA**
  - **Extension of rail service to Bristol, VA**



# VRE Manassas Line

---

- **Up to \$83.5M to improve commuter rail service on the Virginia Railway Express Manassas Line**
- **DPRT will engage Norfolk-Southern about potential actions to help improve service**
- **Potential outcomes include—**
  - **Additional peak period trains**
  - **Bi-directional service**
  - **Weekend service**

# Interstate 64 Corridor

---

- **Up to \$93.1M for improvements to the Interstate 64 Corridor**
- **First, to cover any funding shortfall for the Hampton Roads Express Lanes Network (HRELN)**
- **Any remaining funds to improve Interstate 64 between Bottoms Bridge (Exit 205) and Lightfoot (Exit 234)**

# Interstate 64 Corridor

- **Prior to the distribution of any funds to the HRELN, HRTAC must complete traffic and revenue modeling related to weekend travel, and update the financial plan to determine size of any funding shortfall**
  - **Work to be done in coordination with the Board**
- **If funds remain for remaining 64 Corridor Improvements, the Board is required to coordinate with the Central Virginia Transportation Authority on opportunities to partner to complete such work**

# WMATA Funding

- **Up to \$32.4M is available for WMATA funding**
- **Funds to be used first to ensure Virginia meets its commitments to the \$500M in dedicated regional funding in Fiscal Year 2022**
  - **Virginia's share is \$154.5M and anticipated shortfall is \$22.4M**
- **Any remaining funds will be transferred to the Northern Virginia Transportation Commission to reduce the local contribution necessary to support WAMTA helping to address reduced regional gas tax revenues**

# Regional Trails

- **Up to \$10M for planning, development and construction of regional trails**
  - **Priority to be given to new regional trails, improved connectivity of existing trail networks, and geographic diversity in the use of funds**
- **Requires the Office of Intermodal Planning and Investment to establish a work group on regional trails and report to General Assembly by October 2021**
  - **Focus on prioritization for identifying new trails, master planning process and a funding needs assessment**

# Transit Equity Funding

- **Up to \$10.9M to establish pilot programs for fare-free transit with urban and rural transit providers**
- **Up to \$0.9M of this amount may be used a transit equity and modernization study as required by HJ542 (McQuinn)**
  - **DRPT to lead study and complete a needs assessment focusing on equitable delivery and modernization of transit services**
  - **Key areas to be considered – transit accessibility, adequacy of infrastructure, electrification, emerging technologies, safety and system engagement**
  - **Interim report due December 2021 and final report due August 2022**

# Connected Infrastructure Demonstration Program

---

- **Up to \$10M for a connected vehicle and infrastructure demonstration project in the City of Falls Church in partnership with Virginia Tech**
  - **Conduct research on connected and autonomous vehicles**
- **Board shall not distribute any funds until the implementing entity enters into an agreement with VDOT to facilitate information sharing and knowledge exchange**

# General Funds and Future COVID Packages

- Budget language includes provision governing availability of \$55M in General Fund dollars
- Funds must be returned to the General Fund in the event the following takes place by June 30, 2021
  - Additional one-time, supplemental federal funds of at least \$55M are provided to Virginia by FHWA, and
  - Eligibility of the additional funds is similar to that of the December COVID Relief package transportation funds



# Next Steps

---

- **Review actions, if any, from the reconvened session on April 7<sup>th</sup>**
- **Coordinate with entities as required by Budget language**
- **Provide additional detail on each item at April Board meeting**