



**Clean Cities and
Communities**



Virginia Clean Cities

2026 - Program Update





Clean Cities and
Communities



Meet the Staff

Learn more about VCC and
Upcoming Events



Gregory Brennan



Russ Presnell



Jorden Mclean



Matthew Wade



Tarah Kesterson



Alleyn Harned



Graham Sheriden



Virginia Clean Cities Coalition

Virginia Clean Cities at JMU



Environment

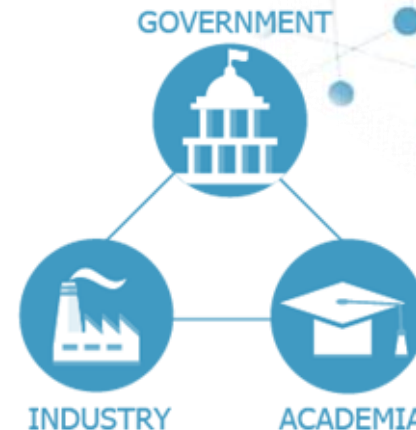
Energy Economy

People Places



Vehicles

Interconnected
Network



Fuels



What We Do

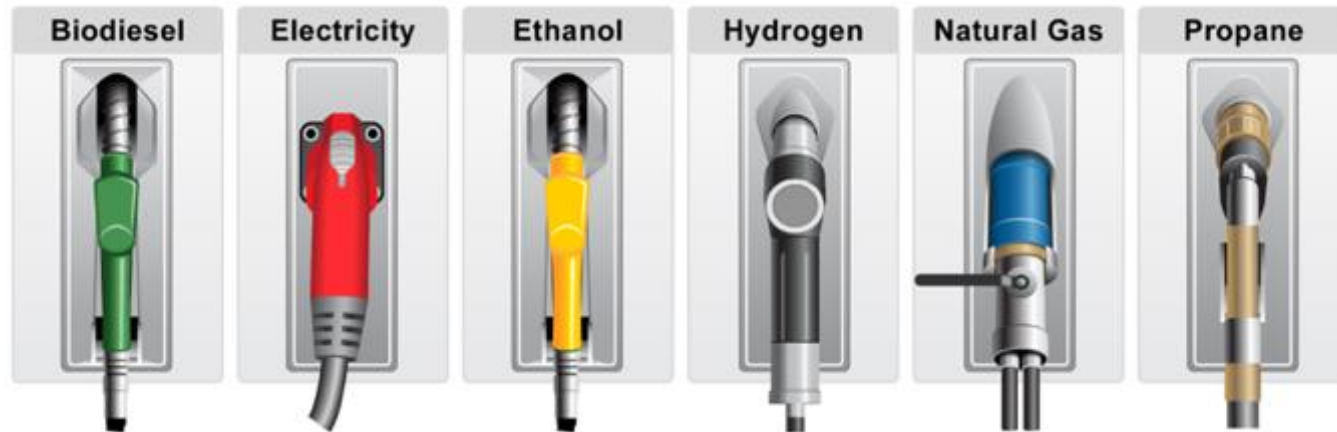
- Clean Cities and Communities is a U.S. Department of Energy (DOE) partnership to advance clean transportation nationwide.
- More than 75 DOE-designated Clean Cities and Communities coalitions work locally in urban, suburban, and rural communities to strengthen the nation's environment, energy security, and economic prosperity.
- Virginia Clean Cities Coalition statewide technology integration – plan, connect, inform, deploy





Virginia Clean Cities at JMU - since 1996

- Full time staff of state employees, university partnership, nonprofit backed
- Vehicles and Driver Choices that Increase Fuel Economy
 - Right-size, Idle Reduction – Bikes, Land Use, Transit
- Advanced (e.g., HEVs, PHEVs) Alternative Fuels & Vehicles



- | | |
|-----------------------------|-------------------------------------|
| • Lower fuel use | Incentives for Change |
| • Lower cost fuels at scale | \$3.50 Gasoline to \$1 NetZero Fuel |
| • Fuel our economy | Alternative Fuel Data Center |
| • 1888 AFV Station Location | 150 green fleet |

Virginia Clean Fuels Programs



- DOE Clean Cities and Communities Statewide Partnership
- Clean Cities EJ and Lynchburg Area Charging Program
- Charging Smart Community program
- Clean Ports Academy, Fleet Training
- Heavy Duty Charging Pilot and shared Transit Charging Pilot
- Corridor planning and Charger testing projects
- Rural Vehicle Demonstrations and Charging Deployment
- 2nd life battery and mobile battery shred project

- Mid Atlantic Clean Cities Expansion – and Conference
- Stakeholder Memberships
- Mid Atlantic Nitrogen Reduction
- Logistics Decarbonization Pilot
- Virginia Energy Clean Transportation, Permitting, EVCAP, CMAQ
- Electric School Bus Workshop
- Fee for Service work and new support programs



**Clean Cities and
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GUMBO

EVSE Workforce Development



Gregory Brennan
Sustainable Transportation
and Infrastructure
Manager

EVSE Technician Curriculum Implementation Guide

Overview

This curriculum prepares students for careers in the electric vehicle supply equipment (EVSE) industry through a 160 hour, 4- 16 week intensive program. It combines classroom instruction, lab activities, and industry-aligned certifications.

Curriculum Components

Core Training Modules

- Module 1: Electrical Principles and Safety
- Module 2: Understanding Power Supply
- Module 3: Roles, Repair Orders, and Communication Standards
- Module 4: Field Practices and Documentation

Supporting Documents

- EVSE Technician Course Outcomes by Module – Full syllabus with weekly breakdowns, learning outcomes, and quizzes.
- Intro to the New Energy Workforce – Contextual overview of clean energy careers and Louisiana's workforce transition.
- EVSE Broadband-Software Lecture – Supplemental technical content that covers network connectivity, diagnostics, and software troubleshooting.
- GW Ch11 Presentation – Supplemental technical content on charging levels, hydrogen refueling, and smart infrastructure.



Course Schedule

The original course structure includes morning lectures, afternoon labs or guest speakers, weekly quizzes, and a final exam. This content can be adapted to last anywhere from 4 -16 weeks depending on instructor availability, lab availability, type of student targeted, and college guidelines. Possible schedules below.

Possible Course Timelines					
Course Length (Weeks)	Hours/ Day	Days/ week	Hours/ Week	Total Hours	Comments
4	8	5	40	160	<u>1 month</u> Shortest Course Timeline Available Probably best for High School Students/ Unemployed Adults
7	5	5	25	175	<u>A little less than 2 months</u> The full 7 weeks would give 3 extra days to play around with within the total timeline of the course
8	4	5	20	160	<u>2 months/Half Semester</u> Probably best compromise between length of course and hours/day Manageable for professionals who have FT jobs
8	5	4	20	160	<u>2 months/Half Semester</u> Probably best compromise between length of course and hours/day Manageable for professionals who have FT jobs
16	2	5	10	160	<u>4 months/Full Semester</u> Best to line up with partnering universities Probably best option for professionals



Providing technical assistance, curricula resources, and essential connections for EVSE training across the USA.



GUMBO
EV CHARGER TRAINING and
WORKFORCE DEVELOPMENT

 [REQUEST CURRICULUM](#)

[HOME](#)

[RESOURCES](#) ▾

[CONTACT](#)

EV Charger Workforce Training Resources And Technical Assistance

— • • • —
Innovative project funded by the U.S. Department of Energy Efficiency and Renewable Energy. Develops and supports EV infrastructure installation, maintenance, and repair curriculum in community colleges and

WWW.CHARGERTRAINING.COM



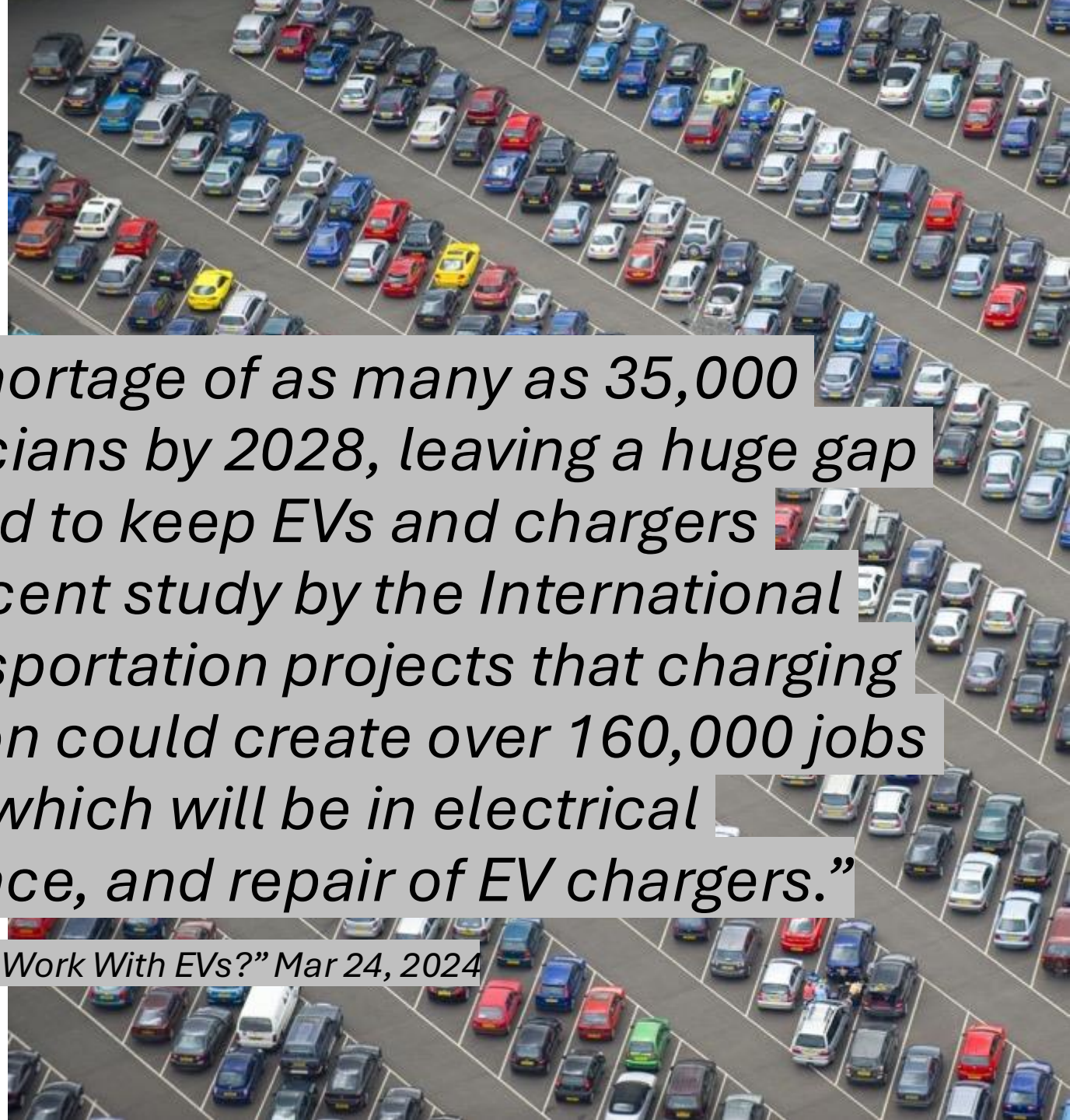


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"The U.S. could face a shortage of as many as 35,000 electric vehicle technicians by 2028, leaving a huge gap in the workforce needed to keep EVs and chargers running smoothly. A recent study by the International Council on Clean Transportation projects that charging infrastructure expansion could create over 160,000 jobs by 2032, nearly half of which will be in electrical installation, maintenance, and repair of EV chargers."

EE Power, Phillips, "So You Wanna Work With EVs?" Mar 24, 2024





**Clean Cities and
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Gregory Brennan
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Sustainable Transportation and Infrastructure Manager

www.chargertraining.com





**Clean Cities and
Communities**



Southwest Virginia Expansion Update

Tarah Kesterson
Clean Communities & Economic
Development Director SWVA
tkesterson@vacleancities.org
276-200-4237



Where did Tarah come from?

- Mid-Atlantic Clean Cities Coalition Expansion Project
- Virginia Clean Cities chose Southwest Virginia
- Hired in February 2025
- Formed Advisory Board
- Education and Outreach
- Support for all VCC Programs





**Clean Cities and
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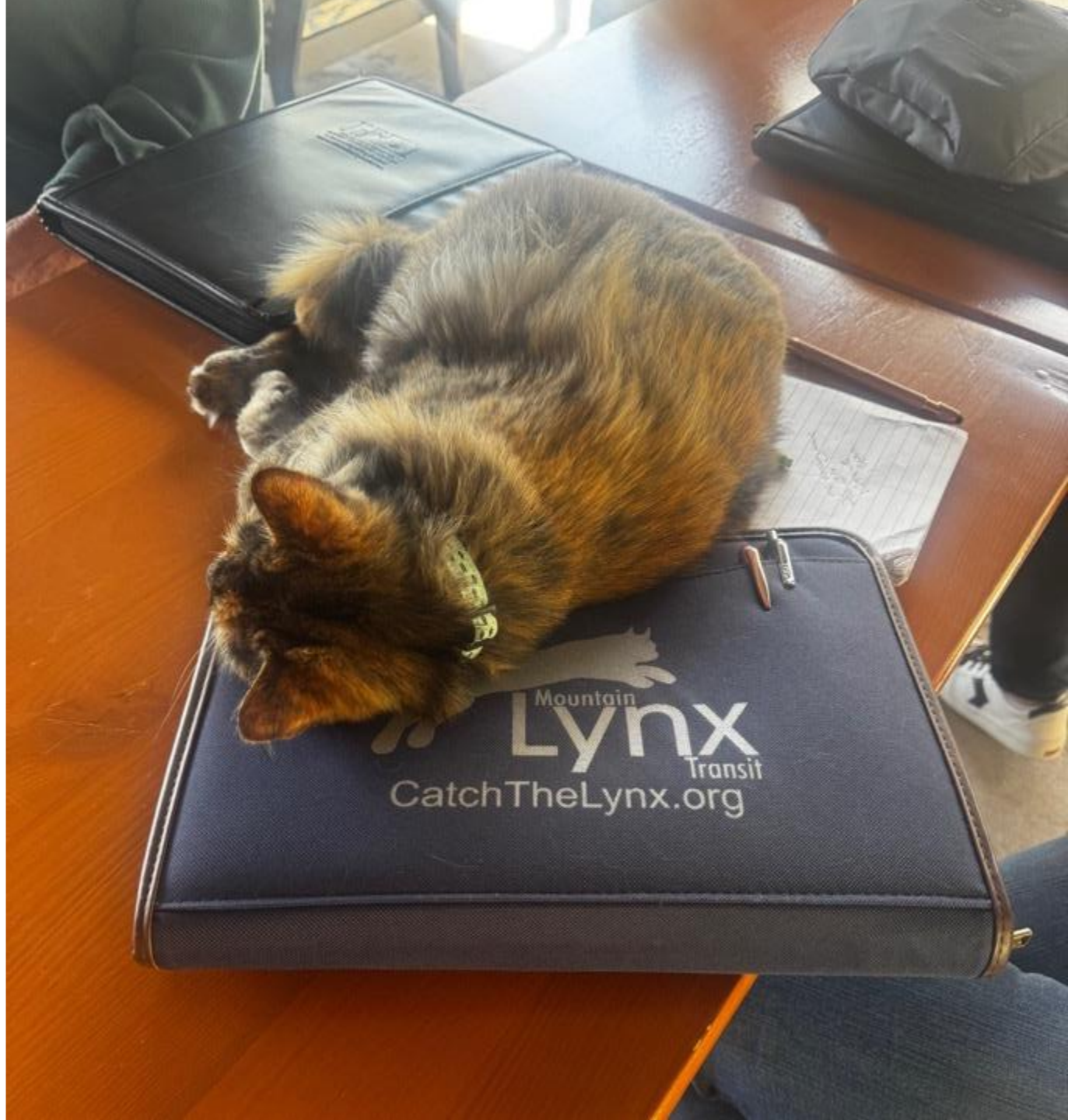
Crystal Bazyk- Southwest Higher Ed
Center
Michelle Earl-VDOT
Link Elmore- The Nature Conservancy
Melanie Fleenor- Bristol Public Transit

Tracy Garland- TRC
Daniel Kestner- Virginia Energy
Will Payne- Coalfield Strategies
Jason Smith- Appalachian Power

SWVA VCC Advisory Board



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SWVA Advisory Board Role

The role of the Virginia Clean Cities Southwest Virginia Advisory Board is to support Virginia Clean Cities' Clean Communities and Economic Development Director. Board members should share big ideas. They may provide good contacts in the pursuit of advancing clean fuels. They may also set goals, both easily attainable and that may seem impossible at the moment.

Most importantly, this Advisory Board should consider ways to boost our beloved Southwest in terms of economic development, business growth, cost savings to fleets and localities and improvements in air quality.

Synopsis: This board is what YOU want to make it.

Since February....



Since May....



Since September....



Since September....



Benefits of Natural Gas as a
Transportation Fuel
CNG-RNG Workshop
September 18, 2025 8 a.m. - 3:30 p.m.



1 PARTNERSHIP CIRCLE
ABINGDON, VA 24210



SOUTHWEST CENTER
VIRGINIA TECH



DIVERSIFIED
energy



Learn More:



Since September.

**Emory & Henry
EV Ride & Drive**
Test Drive an EV. Learn. Enjoy!

**SUN. October 26, 2025
FROM 3:00 PM - 6:00 PM**

EMORY & HENRY UNIVERSITY

Discover Incentives
and resources!

Test out EV
ownership!

REGISTER: vacleancities.org/rideswva



Since September....



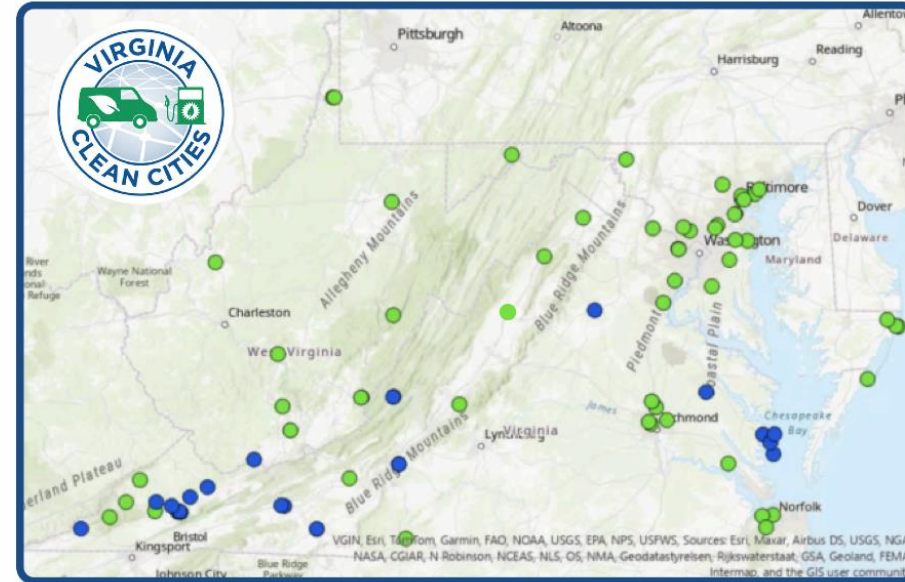


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Mid-Atlantic Electrification Partnership

Mid-Atlantic Electrification Partnership (MAEP)



This map shows the locations of EV charging stations located across Maryland, Virginia, and West Virginia; all of which were installed as part of VCC's Mid-Atlantic Electrification Partnership program.

TOTAL: 160 Chargers & 284 Ports ● Installed Stations ● Station in Progress
An additional: 38 Chargers & 46 Ports



Adding stations at Emory & Henry, SWVA Higher Education Center, Lebanon, Cleveland, Dante , Honaker, Richlands, Hillsville, Pocahontas, and Wytheville through this program.

**Stay tuned for ribbon cutting events in 2026!*



Clean Cities and
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Marion Community Assessment Completed September 30th

HELP SHAPE MARION'S TRANSPORTATION FUTURE!

**VIRGINIA CLEAN CITIES WANTS TO HEAR FROM YOU ABOUT CLEAN
TRANSPORTATION OPPORTUNITIES IN YOUR TOWN.**

We are hosting a listening session to gather your input on clean transportation opportunities in Marion, Virginia. This information will be used in a Community Transportation Assessment presented to the town.

Community Transportation Listening Session

Thursday, September 25, 2025

5:00 p.m.- 7:00 p.m.

Marion Town Hall



Scan to take assessment:



Have you taken our transportation
needs feedback survey? This covers
many of the topics we'll discuss at the
in-person session.



vacleancities.org

- Community interested in Alternative Fuels
- Emphasis on EV Charging Infrastructure
- Lack of Knowledge on Public Transportation Opportunities
- Submitted to Town Council and Included in 2025 Plan



**Clean Cities and
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Tarah Kesterson

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tkesterson@vacleancities.org

276-200-4237

www.vacleancities.org

Logistics Decarbonization in Strategic Areas Project Update



Principal Investigators: Matthew Wade

Presenter: Matthew Wade

Organization: Virginia Department of Energy

Presentation Date: January 29, 2026

Project ID: TI173 (DE-EE0009225)



Matthew Wade

This presentation does not contain any proprietary, confidential, or otherwise restricted information.



Overview

Timeline

Project Start Date: October 1, 2023

Project End Date: June 30, 2026

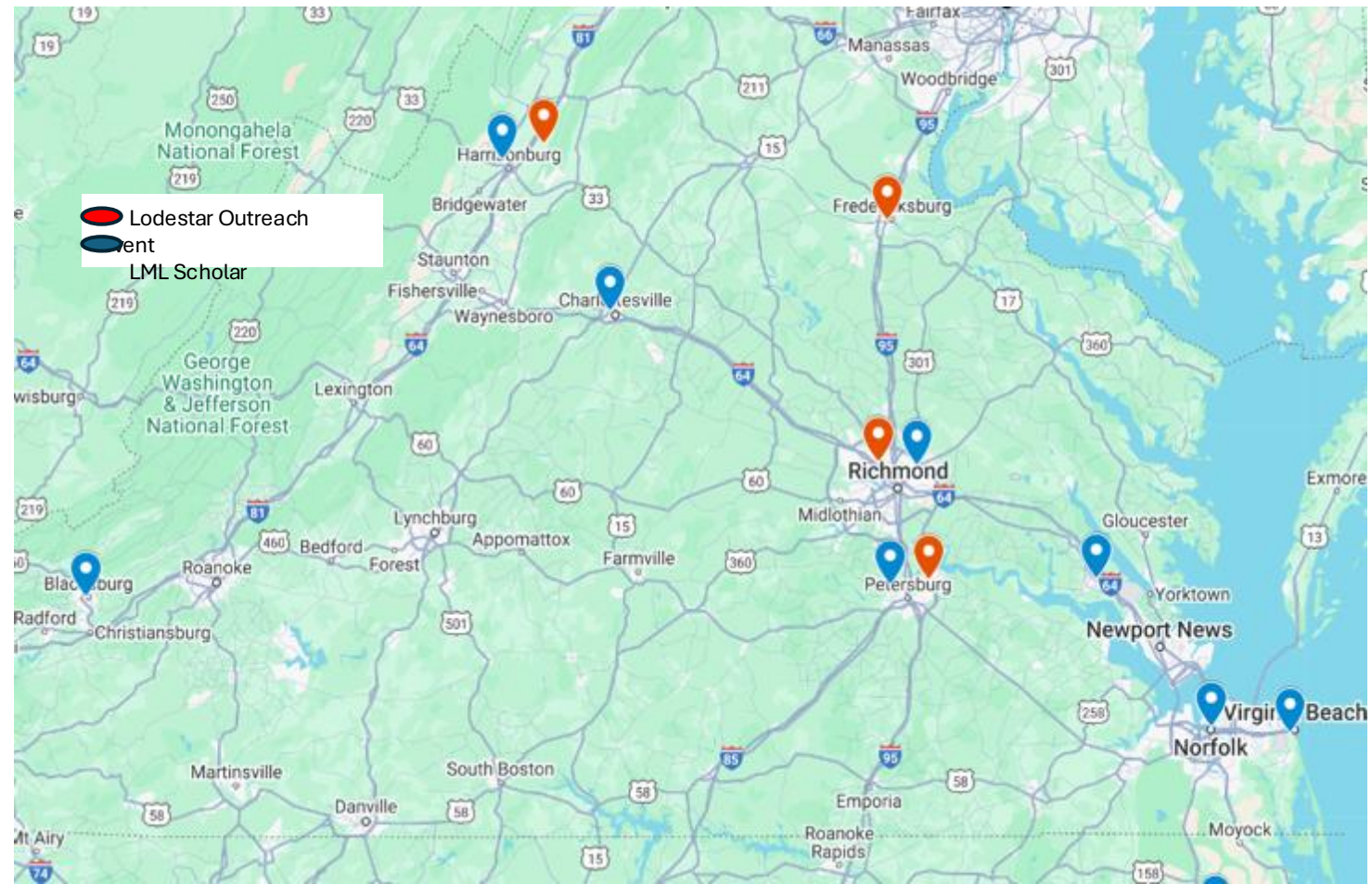
Percent Complete: 75%

Budget

- Total Project Funding: \$1,205,483
 - DOE Share: \$602,483
 - Cost Share: \$603,000
- Total Project Expended: \$1,071,449
 - DOE Share: \$529,859
 - Cost Share: \$541,590

Virginia Energy and Partners

- Virginia Clean Cities (leader)
- Advanced Logistics System (vehicle and infrastructure lead)
- Dominion Energy (infrastructure assistance)



Barriers and Targets

1. Gaps in knowledge (pilot demonstration, technology analysis and education)
2. Limited awareness and access of class 5/6 electric step-vans and infrastructure
3. Educational Experience with students

Project Objectives



Objectives:

1. Vehicle, infrastructure and Equipment Analysis
2. Vehicle, Infrastructure and Equipment Deployment
3. Last Mile Leadership Program

VTO TI Goals:

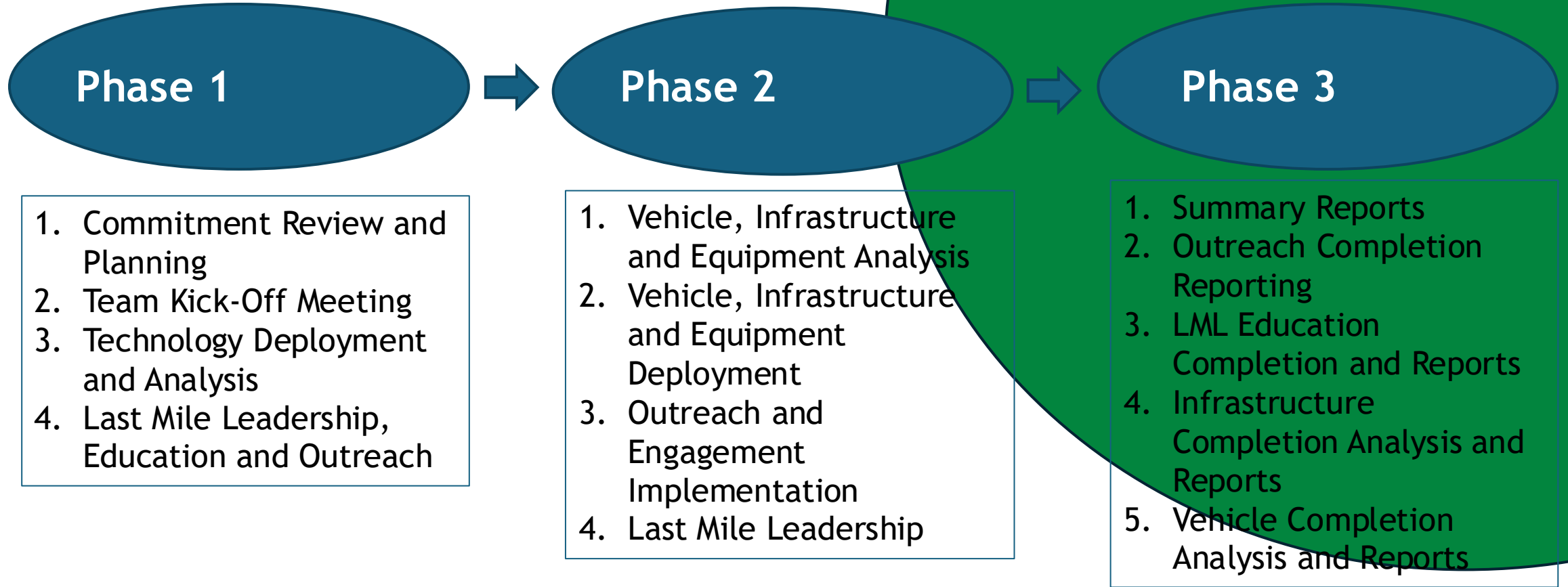
- Improving fuel diversity in last mile delivery
- Demonstrating cost feasibility of electric last mile delivery
- Reducing greenhouse gas emissions (through increasing alternative fuel use and transportation efficiency)

Impact:

- This project will introduce 5 EV charging stations and 20 EVs
- This project is piloting last mile delivery using electric vehicles
- The increasing use of EVs reduces greenhouse gas emissions

Any proposed future work is subject to change based on funding levels.

Approach



Milestones

Milestone	Type	Description	Status
Infrastructure and Vehicles are Operational	Technical	Infrastructure projects completed and majority of project vehicles are operational	In Progress
Last Mile Leadership Program is in place	Technical	15-20 Last Mile Leaders selected for educational or entrepreneurial stipend	Complete
Consumer Education	Technical	Logistical companies and end-user consumers from/or servicing DACs are informed of costs and environmental benefits of various electric powertrains at 4 events and/or ride and drives	Complete
Last Mile Leadership findings and package disseminated	Technical	A final package containing all information necessary for replication of LML and recommendations have been disseminated across the Clean Cities network and at least 1-professional logistical company and/or association	In Progress

Milestones, continued

Milestone	Type	Description	Status
EJ Community and EV Fleet Analysis Report	Technical	A white paper summarizing 1) the actions conducted to increase engagement and education in DACs, 2) impacts from that engagement, 3) an assessment of environmental benefits including estimated costs and emissions attributable to EVSE and associated EV deployment and 4) replicable and/or scalable recommendations for future deployments of MDEV and EVSE is submitted for publication	Not yet started
Tools Promotion	Technical	An overview of the analysis and live demo of how to use the electric delivery van transition model will be presented in a series of webinars, and recordings will be made available for later viewing	Not yet started
Presentation to Logistical Transportation Industry	Technical	At least 2 of presentations to the logistical transportation industry are completed. Content must include 1) the actions conducted to increase engagement and education in DACs, 2) impacts from that engagement, 3) an assessment of environmental benefits including estimated costs and emissions attributable to EVSE and associated EV deployment 4) how to use tools utilized by the project for their fleets and 5) replicable and/or scalable recommendations for their own deployments of MDEV and EVSE	Not yet started



- Last Mile Leadership Program created with 20 college students from around Virginia
- 7 LML cohort meetings with subject matter experts in transportation electrification
- 6 in-person outreach events to engage consumers on fleet electrification and career opportunities
- Electric step-van make and model identified for deployment by ALS
- 12 Brightdrop EV600 electric vans acquired
- Unable to get approval from Fed Ex to install EVSE at their Fredericksburg distribution terminal.
 - Installation delayed by Fed Ex Sustainability Alternative location has been identified at a Quarles Fueling facility in Fredericksburg, VA.
 - Working with the property owner and Dominion Energy to install 2 DCFC and 2 level 2 chargers for fleet use.
 - ALS acquired Mullen Three electric vans, expanding the program while testing confirmed vans' delivery suitability.
 - ALS evaluating Charging-as-a-Service agreements to ensure sustainable fleet charging solutions.

Project Accomplishments and Progress



Soli Organic electric truck demonstration,
10/1/2024



VCC, Dominion Energy and Fed Ex
conducting a site analysis for EV
chargers, summer 2024



VCC team at InCharge Energy with a
XOS SV electric step-van for
demonstration and testing, summer
2024

Collaboration & Coordination

- VCC led monthly project meetings as well as monthly vehicle and infrastructure planning meetings with ALS and Dominion Energy
- VCC worked with InCharge to conduct testing on the battery and charging computer on the 2022 XOS SV electric step-van
- ALS has acquired 12 Brightdrop EV600 stepvans and is upfitting and deploying them in the Fredericksburg metro area.
- VCC developed alternative opportunities for EV charging at the Stafford Regional Airport and a Quarles Fueling facility near the Fredericksburg Fed Ex terminal
 - Stafford Regional Airport Authority did not approve moving forward with the project
 - Moving forward with Quarles partnership with RedECharge
 - Utilizing Dominion Energy Fleet EVSE incentive program
 - VCC led meetings and site evaluations with Dominion Energy, Current EV, RedECharge

Fleet Expansion and Data Analysis

- **Electric Fleet Deployment**
- LODESTAR is acquiring BrightDrop EV600 vans and Mullen electric trucks to expand its zero-emission fleet by 2026.
- **Performance Data Analysis**
- Data comparing EVs to traditional vehicles supports ROI modeling and informs last-mile delivery strategies.
- **Battery and Charging Systems Testing**
- Partnership with InCharge Energy improves battery and charging system reliability through extensive testing.
- **Comprehensive Future Modeling**
- Future modeling includes diverse metro areas to evaluate EV performance across climates and topographies.



Infrastructure Planning

Utility Collaboration

- Dominion Energy partnered on rate analysis, tariff reviews, and infrastructure upgrades to support the EV charging program.

Stakeholder Engagement

- Multiple stakeholder meetings ensured alignment and cost-effective deployment of EV charging stations in Fredericksburg.

Strategic Site Deployment

- Focus on Quarles Fueling Facility as a key location for DC fast chargers and Level 2 chargers deployment.

Problem Solving and Adaptation

- Overcame setbacks by pivoting to alternative sites like FedEx terminals to optimize charging accessibility.





Clean Cities and
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A stylized illustration of a cityscape and transportation modes. It includes houses, trees, a bus, a train, a car, a boat, and a bicycle, all set against a green hill background.

Last Mile Leadership Session 2 Federal and State Clean Transportation Policy

Date: 10/21/24
Location - virtual
Presenter name: Matt Wade

2024-10-21 19:06:51

Last Mile Leadership Cohort

Screenshot of LML
Cohort meeting #2

LML Student Profiles



Marquis Rodgers is an Information Logistics Technology major at Virginia State University, with a background in supply chain operations, IT, and leadership through my experiences in both collegiate sports and professional internships. Working in supply chain operations has given me a hands-on understanding of logistical challenges and the importance of sustainable, equitable solutions—especially for disadvantaged communities.

Receiving the Last Mile Leadership scholarship is **an invaluable opportunity for me to contribute to what I see as a new industrial revolution, one driven by clean transportation. This transformation goes beyond technology; it's about creating access, resilience, and environmental responsibility in logistics for all communities.** With the support of this scholarship, I'm excited to deepen my knowledge and take actionable steps toward decarbonizing transportation networks, helping build a future where sustainability and industry go hand in hand.



Ahmed Aredah is a versatile and driven engineer-researcher whose expertise spans transportation systems, civil engineering, and computer science. Currently pursuing a Ph.D. in Civil Engineering alongside a Master's in Computer Science at Virginia Tech, Ahmed is deeply committed to addressing urgent national and environmental challenges. His research focuses on optimizing freight logistics and modeling energy-efficient transportation systems, and his work has already achieved substantial outcomes, including a 20% reduction in energy consumption and carbon emissions across U.S. freight networks. As the developer of [NeTrainSim](#) and [ShipNetSim](#), advanced simulators for analyzing train and vessel dynamics, energy consumption, and carbon emissions, Ahmed is dedicated to building tools that drive sustainable progress in the transportation and freight sectors. **The Last Mile Leadership (LML) Scholarship will enable me to dedicate significant resources toward my Ph.D. studies, enriching his research in sustainable transportation. The scholarship will also connect him to a robust network of leaders in clean transportation fostering collaborations that can drive impactful policies and community-focused solutions. The program's engagement will provide him with hands-on experience in implementing equitable and inclusive transportation practices. Ahmed is committed to leveraging these opportunities to advance his career and contribute to the next generation of sustainable transportation systems and efficient freight networks.**



Alisa Chandler is a sophomore at Elizabeth City State University pursuing a degree in Education. Alisa became more interested in sustainability options after an environmental science class left an indelible mark on her life, as it helped her realize how her footprint affects generations to come. This realization has forever changed her daily actions, thoughts and future endeavors. **Her goal is to become an educator so that she can transfer this knowledge to the next generation.**

Summary Slide

Relevance:

- Addressing Last Mile EV delivery charging gaps suburban and rural Virginia
- Developing tools and resources for replication

Approach:

- Education through LML program and outreach events
- Infrastructure study and development, releasing tools
- Vehicle and EVSE planning; Fleet EV charging station deployment

Collaborations:

- Multiple collaborations in EV charging station vendors and utilities
- New collaborations with external site hosts (airport, fuel provider, FedEx)

Accomplishments:

- 20 LML scholarships awarded, 7 webinars completed
- 6 in person outreach and engagement events
- Collaboration with Fed Ex on 5 fast L2 charging ports at two locations
- 12 BrightDrops deployed. 32 Mullen Three EVs ordered
- 2 DCFC and 2 level 2 EVSE in process of installation



**Clean Cities and
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CMAQ

Congestion Mitigation Air Quality



Russ Presnell
Clean Fleet Engagement
Manager



SCAN FOR MORE INFO



ENERGY PROGRAMS

GOVERNMENT FLEET VEHICLE INCENTIVE

State agencies and local governments in air quality non-attainment and maintenance areas may be reimbursed for incremental costs of transition to alternative fuels such as electricity, natural gas or propane autogas through the Commonwealth Alternative Fuels Program. State agencies are encouraged to apply. Reimbursements are up to an average of \$10,000 for the incremental cost of reasonable aftermarket conversions.





REQUIREMENTS

- Completed Agency-Reimbursement Form
- Agency or locality agrees to report after one year on an Agency Reporting form.
- Agency or locality must complete a return a W9 Form
- Vehicles garaged in areas of Air Quality Non-Attainment, Ozone Attainment, or Maintenance as recognized by the Federal CMAQ program (see map)

FUNDING AVAILABLE

\$1M in funding per year

\$10,000 avg. reimbursement

The Program reimbursement is for the incremental cost of a new vehicle or aftermarket conversion.

Incremental costs are defined as:

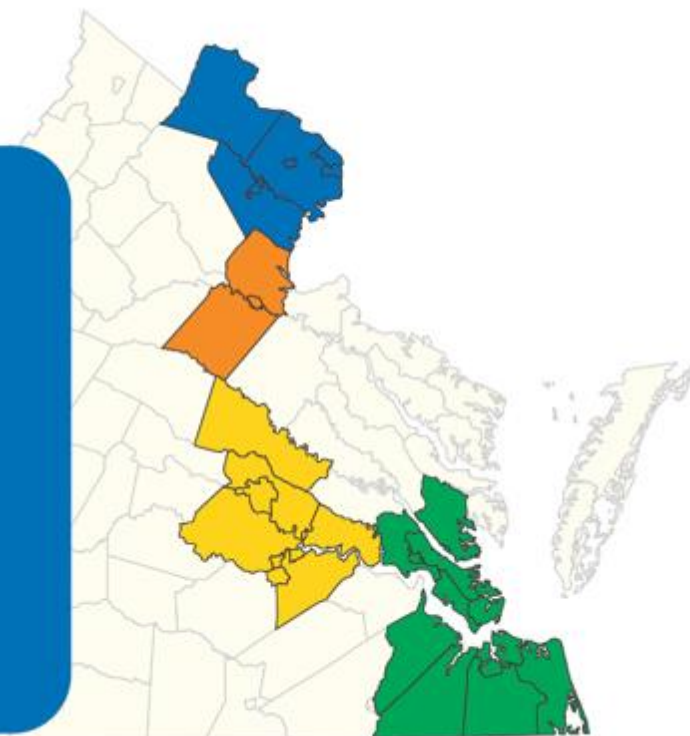
- the entire cost of a certified conversion of an existing vehicle to use at least one alternative fuel
- The cost differential between an electric vehicle and an equivalent internal combustion engine model vehicle
- A cooperative agreement or vehicle quote is needed for the vehicle preapproval step





ELIGIBLE AIR QUALITY PLANNING AREAS IN VIRGINIA

- ☐ Northern VA/DC/MD Ozone Nonattainment Area & PM2.5 Attainment/Maintenance Area
- ☐ Fredericksburg Ozone Attainment/Maintenance Area
- ☐ Richmond-Petersburg Ozone Attainment/Maintenance Area
- ☐ Hampton Roads Ozone Attainment/Maintenance Area





1

VERIFICATION

VA Energy verifies purchase and nonattainment area details and certifies that the applicant Agency has complied with the program requirements.

2

PROCESSING

VA Energy forwards the Agency request for reimbursement to VDOT. VDOT will process the request within 30 days.

3

REIMBURSEMENT

VA Energy, on receipt of these funds, forwards this reimbursement to the Agency.

SCAN FOR MORE INFO



CONTACT VIRGINIA ENERGY

Ed Cronin

Transportation Lead and GIS Analyst

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energy.virginia.gov



**Clean Cities and
Communities**



Events Update

What's coming in 2026



Graham Sheridan
*Clean Communities &
Economic Development
Director*

Upcoming Events



Virginia Electric School Bus Workshop, March 10, 2026

IBEW Hall Richmond, VA 10-3pm

1400 E Nine Mile Rd, Highland Springs



- ****Lunch Provided****
- Featuring guest speakers from Sonny Merryman, Dominion Energy, and Virginia Clean Cities
- Workshop includes Electric School Bus (ESB) Demo, ESB Basics, and how to implement an ESB in your fleet.



CLEAN TRANSPORTATION



RALLY IN RICHMOND

April 2, 2026 - 1:30pm – 6pm

- Food and Drinks
- Informational Presentations
- Vendors
- Awards Ceremony
- State and Local Partners
- Free for Fleets
- Prize Raffle



At Historic
Main Street
Station



MAATSE

**Mid-Atlantic Advanced Transportation Expo
July 21-23 @ James Madison University**

- **First-of-its-kind Advanced Transportation Summit in the Shenandoah Valley** bringing together industry, research, policy, and innovation
- Expo Hall & Key Note Speaker in James Madison Universities basketball arena
- Sponsorship Opportunities
- Networking Nights Out
- Free for Fleets





**Clean Cities and
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Q & A

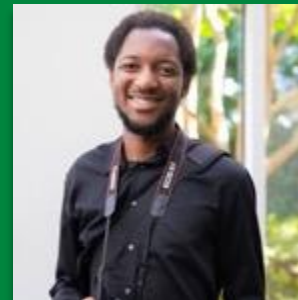
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