

THE EASTERN TRANSPORTATION COALITION





June 30, 2021

We are pleased to share the Fiscal Year 2022 (FY22)
Workplan for The Eastern
Transportation Coalition (TETC).
This Workplan defines the
Coalition's core activities in its
three nationally recoanized

programs—Transportation System Management and Operations (TSMO), Freight, and Innovation.

It identifies unique projects that would not be accomplished without the Coalition's leadership in addressing transportation challenges, ranging from mileage-based user fees to freight resiliency. It demonstrates how the Coalition can be a testbed for new solutions like lane striping requirements for automated vehicles and can be an implementor of innovations like our soon-to-launch Transportation Data Marketplace. Most importantly, the Workplan emphasizes the essential role of the Coalition in strengthening multi-state relationships that create a foundation for action. Ultimately, we are about connecting for solutions.

The FY22 Workplan is grounded in the strategic guidance by our Executive Board and direct engagement of our members across all three programs. This plan will bring benefits to the Eastern seaboard and beyond through the commitment of the Coalition team and our members. The past year has shown that we are agile and can quickly adjust to keep our focus on Improving the transportation system in our corridor. We are proud of the collaboration with our member agencies to ensure efficient operations during the unprecedented disruption of COVID—one more example of how we are stronger together.

We look forward to working with all of you to deliver this Workplan, and to continue to achieve our collective mission to enhance mobility of people and goods throughout the Eastern United States, across all aspects of the multimodal transportation system.

EXECUTIVE DIRECTOR



Patricia Hendren

EXECUTIVE BOARD LEADERSHIP



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Fiscal Year 2022 Workplan Overview

This document summarizes the proposed Workplan for The Eastern Transportation Coalition (TETC) for Fiscal Year 2022 (covering the period July 1, 2021 to June 30, 2022).

Priorities

The Coalition's proposed Fiscal Year 2022 (FY22) Workplan supports priorities identified by the Executive Board during its February 2021 strategic planning session:

- Continue the core programs focusing on Transportation Systems Management and Operations (TSMO), Freight, and Innovation.
- Expand emphasis on truck movement; disruption management; connected, automated, and electric vehicles; traveler information; and mileagebased user fees.
- Focus on implementable solutions that leverage Coalition membership and expertise.
- "The Coalition has a track record of sound, data-driven analytics, reasoned and practical products, demonstrated partnerships and shared practices, and cost-effective shared procurements of data and services. A core value is that the Coalition is a safe place to explore new and emerging ideas and develop shared strategies for implementing initiatives across the entire corridor."
- Greg Slater, Secretary, Maryland Department of Transportation, and Chair, TETC Executive Board
- Demonstrate value to member agencies by sharing effective practices, collaborating on common issues and opportunities, and providing training, data, and other technical support.
- Identify opportunities to provide national leadership on emerging transportation issues including sustainable transportation funding.

Context

The Eastern Transportation Coalition has a mission to enhance mobility of people and freight throughout the Eastern United States, across all aspects of the multimodal transportation system. This Workplan identifies priorities for the Coalition during FY22.

The Eastern States and the United States as a whole have been experiencing a convergence of demographic, economic, and technology changes during the past several years, as well as growing risks related to extreme weather, climate change, and public health. The Coalition will continue its track record of providing leadership for the Eastern States—and the Nation as

a whole—on topics including TSMO, freight, connected and automated vehicles, and sustainable transportation funding. On some topics, like mileage-based user fees, the Coalition is a testbed for new ideas; for others, like TSMO, truck parking, and connected and automated vehicles, we are a convener and collaborator across jurisdictional boundaries; for others, like our Transportation Data Marketplace, we are an implementor of innovations that benefit all Eastern States. The Coalition also will initiate new activities in FY22 to explore emerging trends including electric vehicles.

The onset of the coronavirus in 2020 had unprecedented impacts on the Nation's public health, economy, and society, fundamentally changing how we work, learn, shop, do business, and interact with one another. The Coalition demonstrated its agility and value to members in FY21 by shifting many of its events to virtual formats and conducting timely research on the impacts of COVID on travel behavior, system operations, and freight. The long-term impacts of these changes are not yet certain. The Coalition will continue to help members understand changing issues and opportunities relating to e-commerce, connectivity, and other emerging technologies. In FY22, the Coalition will launch a new initiative to enhance freight resiliency during disruptions, drawing on the lessons learned from this past year.

Finally, this Workplan is developed as we continue a robust national dialogue about the vision for transportation and the role of individual states and multi-state partnerships in moving us toward this vision. A new Administration and Congress are discussing the potential for a major infrastructure bill as well as reauthorization of the Federal surface transportation programs. The Coalition will participate actively in these discussions and explore opportunities for multi-state funding that will push innovation in the region and across the Nation.

Workplan Development Process

The proposed FY22 Workplan was developed through an inclusive, member-driven process.

- The Executive Board provided overall strategic direction for the Workplan at its February 2021 meeting.
- Members participating in each of the three Coalition programs identified potential activities consistent with Executive direction and met within their existing committee structures in April and May 2021 to recommend and prioritize activities and initiatives.
- The three program committees met jointly in June 2021 to review the proposed Workplan and coordinate on potential cross-cutting activities across programs.
- Coalition staff compiled the input from the Executive Board and program committees to develop a draft Workplan.
- The Executive Board approved the final FY22 Workplan and Budget at its June 23, 2021, meeting.

Programs

The Workplan includes three programs, each guided by one or more committees of active members and focused on multi-state collaboration and exchange of ideas, practices, and technologies.

Each program defined emphasis areas for the year, reflecting Executive guidance and member needs. A key focus will be on cross-cutting initiatives across programs.

Each program includes **core activities** primarily supported through member dues. These include Coalition-wide or regional coordination; regularly scheduled events and programming, including webinars, meetings, peer exchanges, and workshops; training; and communications

"The overall program being proposed is fantastic. If there were ever any doubt about the role the Coalition serves, it's clearly in the work that's being proposed for the coming fiscal year. There's so much going on and so much thought put into it. It's very exciting."

Mary Ameen, Executive Director, North Jersey Transportation Authority

activities. Specific delivery methods will be determined over the course of the year, using a variety of approaches ranging from virtual to in-person depending on the topic and safety recommendations for in-person meetings.

Each program also defined targeted projects in response to member needs, ranging from ongoing efforts such as a multistate Transportation Data Marketplace to small, quick-response development of data, white papers, scans, and other documents. Some of these projects are



intended as multi-year efforts that would begin with exploratory work in FY22 and expand in FY23 and beyond; the potential future year efforts, which will be more fully considered in future work planning efforts, are identified in the Workplan with this symbol.

Some programs also include **special projects** funded through grants from Federal or other sources. These special projects allow for in-depth research, development, and delivery of multi-state solutions to address specific member needs.

This year's Workplan also specifically calls out communications as an emphasis area for each program, to recognize the importance of engaging members, communicating the results of Coalition projects, and highlighting the groundbreaking work of the Coalition and its members in national forums.

The three FY22 programs are:



Transportation System Management and **Operations**



Freight



Innovation

Transportation Systems Management and Operations on transportation issues that (TSMO) focus on operational improvements to maximize the safety, mobility, and reliability of the transportation system. The TSMO program includes incident management, traveler information, emergency operations, and congestion management.

The Freight program focuses will improve the safety, mobility, and efficiency of the movement of goods across jurisdictions and modes throughout the Eastern States. The program addresses data, planning, operations, and technology applications related to freight.

The Innovation program supports members as they address new and emerging opportunities related to technologies, policies, and partnerships. The program addresses testing and interoperability of new technologies and sustainable transportation funding approaches.

Support for Executive Priorities

The FY22 Workplan supports the identified priorities of the Executive Board, as shown below.

Executive Board Priority	Workplan Content
Continue core programs focusing on TSMO, Freight, and Innovation.	 Continue TSMO program to advance successful operational strategies for safety and mobility.
	Strengthen Freight program activities related to truck parking, planning, and training, while expanding work in freight data, operations, and emerging technologies.
	Strengthen the Innovation program through targeted projects, an exploratory initiative on electric vehicles, and expansion of sustainable funding work.

Workplan Content Executive Board Priority Expand emphasis on Expand Freight program activities related to data, operations, and truck movement; technology. disruption Refresh Highway Operations Groups as forums for addressing management; everyday operations as well as disruptions; create initiative for connected, enhancing freight resiliency during disruptions. automated, and Continue regional connected and automated vehicle working electric vehicles: groups and deliver targeted connected and automated vehicle traveler information; projects. and mileage-based Explore implications of electric vehicles on Coalition states. user fees. Partner with Waze and other commercial providers on advanced notification systems to enhance safety and mobility; explore future of 511. Continue to explore implementation barriers and solutions for mileage-based user fees. Focus on Expand Vehicle Probe Project into a broad-based Transportation implementable Data Marketplace comprising multiple data sources. solutions that leverage Advance best practices related to freight data, planning, and Coalition membership truck parking. and expertise. ■ Help infrastructure owner-operators assess infrastructure needs for connected and automated vehicles through research on lane striping. Demonstrate value to Deliver meetings, webinars, workshops, peer exchanges, and training programs focused on agency-defined needs, including member agencies. new TMC Operators Academy. Produce a range of deliverables (white papers, technical memoranda, briefing documents, and matrices) to provide members ready to use resources. ■ Enhance communication materials to engage members and share the results of Coalition activities. Identify opportunities to Continue to explore sustainable funding approaches through provide national mileage-based user fee pilots. leadership. Continue to provide a forum for enhancing tolling reciprocity and exploring impacts of new technologies on tolling. Continue effort to develop accurate data on the transportation impacts of system disruptions. Identify potential opportunities for pilot projects related to truck parking, automated freight, connected and automated vehicles, and electric vehicles.

Value of the Workplan

The FY22 Workplan is anticipated to offer the following benefits to the Coalition and member states:

- Ongoing nationally recognized activities in TSMO, Freight, and Innovation, including continued collaborative activities that are estimated to provide a high return of investment on member dues.
- Unique projects providing targeted benefits to Coalition members that generally would not be accomplished without the leadership and collaboration provided by the Coalition:
 - > Testing of mileage-based user fees to demonstrate these systems in a diverse demographic, economic, and regional environment.
 - > Advancing multi-state solutions in areas like toll reciprocity that require collaboration across multiple jurisdictions and stakeholders.
 - Expanding multi-state relationships that create a foundation for action to ensure safety and mobility for people and freight during emergencies, including pandemics and natural disasters, so the Coalition states are prepared when their residents need them most.
 - > Sharing lessons learned and innovative practices, such as testing and deployment of operational strategies, across states.
 - **Developing, refining, and sharing data** on congestion, freight, disruptions, and other topics to enhance decision-making and coordination.
 - > Building the workforce capacity for the future, with emphasis on emerging fields such as operations, freight, and connected and automated vehicles.

What's Next

- Provide periodic progress reports to board members during Board calls throughout the year.
- Work with the Board to refresh the Coalition's mission and vision and identify key differentiators to communicate the value of the Coalition's programs.
- Kickoff FY23 Workplan development at the February 2022 Board meeting.

Transportation System Management and Operations



Transportation Systems Management and Operations (TSMO) is the Coalition's largest and most established program. TSMO is an integrated set of strategies focused on operational improvements to maximize the safety, mobility, and reliability of the transportation system. The Coalition states account for more than 35 percent of all vehicle miles traveled (VMT) in the Nation, ranging from congested urban and intercity corridors to rural and

emerging areas. Travel of both people and freight regularly crosses state lines. Incidents, special events, construction, and other disruptions often have broader systemwide impacts, highlighting the need for regional coordination and information sharing.

Emphasis Areas

The TSMO program will focus in five areas:

- Data, expanding the Coalition's highly successful initiatives for sharing traffic and related data among states and focusing resources to improve data quality, standards, and management practices.
- Traveler information, supporting best practices and coordinating with Waze and other crowdsourcing systems/app developers to provide integrated traveler information across the Coalition states.
- Highway operations, refreshing regional forums for coordination across state lines on both everyday and special event operations.

FY2022 EMPHASIS AREAS

- Data
- **■** Traveler Information
- Highway Operations
- Training
- Communications

TSMO DIRECTOR



Denise Markow

- **Training**, offering Coalition member agency staff immersive education opportunities through renowned programs and scholarships.
- Communications, strengthening member engagement and sharing about Coalition activities.

"Thinking of all the excellent and innovative work coming out of the Coalition over the years makes me proud to have been a partner. The Coalition has been such a resilient organization, adapting and excelling through many growing pains and challenges."

John Ward, Deputy Executive Director (Retired), Delaware Valley Regional Planning Commission

Executive Guidance

The TETC Executive Board seeks to build on the foundation from prior Workplans. The following table summarizes executive guidance for TSMO program in FY22, and how this guidance is reflected in the Workplan.

Executive Board Priority	Workplan Content
Improve data access and build up data partnerships.	 Implement new Transportation Data Marketplace. Continue to support Regional Integrated Transportation Information Systems (RITIS) user group. Continue the Data Tools webinar series focused on data standardization and performance measures. Coordinate with Waze and other commercial providers on data partnerships. Continue Transportation Disruption and Disaster Statistics project to
	analyze and visualize causes of congestion.
Promote data standardization	 Explore how to integrate and standardize data feeds from Waze, RITIS, and WorkZoneDx. Develop potential webinar on data standardization best practices.
Evaluate future of 511	Explore the future of 511 through a workshop or other event.
Enhance safety programs	Address Safety Service Patrols, cameras, and other safety topics through Highway Operations Groups.

Program Activities

Data

Recognizing data's paramount role in operations, the TSMO program in FY22 will expand its Vehicle Probe Project for sharing real-time data among jurisdictions into a broader Transportation Data Marketplace; continue to support data fusion and dissemination activities through the Regional

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Stan Young

CHIEF DATA OFFICER

Integrated Transportation Information Systems (RITIS) user group; and continue to share best practices in data collection, analysis, and exchange across states.

Transportation Data Marketplace. Since 2009 the Coalition has negotiated on behalf of its members cost savings on vehicle probe data and products through the Vehicle Probe Project (VPP) data "marketplace." In 2019, the Coalition successfully negotiated additional savings, including zero overhead fees charged on the procurement of probe data and ancillary products provided by HERE, INRIX, and TomTom. Coalition staff provide contract management and data validation to ensure members are receiving quality data as the basis for operational strategies and capital investments. Real-time data, regardless of vendor, is available to each of the participating agencies. Representatives from member agencies purchasing data meet twice a year to discuss the validation and status of the program.

In FY21, the Coalition developed and issued a request for proposals (RFP) to continue this initiative for a third cycle and expand into a broader Transportation Data Marketplace. This process will continue the existing core data related to travel time, speed, and volume and expand into new data sets related to conflation, waypoints, origin/destination, and freight. The Coalition will select and negotiate with multiple vendors in FY22, with a goal of launching the new marketplace during the fiscal year. This extended marketplace will provide enhanced service to member states and expand the success of the VPP project into newer topics like freight data, in coordination with the Freight and Innovation programs.

Regional Integrated Transportation Information
Systems (RITIS). The Coalition will continue its
partnership with RITIS, a big data aggregation and
platform for transportation. Participating agencies
can view transportation and emergency
management information through innovative
visualizations and use these data to improve
safety, operations, and emergency preparedness.
This partnership facilitates sharing knowledge on
incident response, regional operations,
performance management, emergency
evacuation and response, and data. The
Workplan includes four RITIS User Group meetings,
two RITIS Products Enhancement Working

RITIS USER GROUP LEADERSHIP



Matt Glasser
Georgia Department
of Transportation



Jesse Buerk
Delaware Valley Regional
Planning Commission

Group meetings, and two RITIS Performance Measures Working Group meetings.

Data Webinars. The Workplan includes two data webinars to share best practices among member states. Potential webinar topics include data standardization, data sharing, and data dashboards for reporting performance measures. The Coalition will explore how to offer professional development hour (PDH) or continuing education unit (CEU) credit hours for the data webinar series to support member agency staff.

Special Project: Transportation Disruption and Disaster Statistics (TDADS)

TDADS is an ongoing effort to develop data and tools to monitor and evaluate transportation network disruptions. This project was initiated in 2019 and is led by the Coalition in partnership with the university of Maryland Center for Advanced Transportation Technology (CATT) using grant funding from the U.S. Bureau of Transportation Statistics. A national TDADS Steering Committee leads this effort. Phase I of the project Identified where disruptions occur on the transportation network, analyzed and Integrated national-level data sources, and developed a proof of concept for a digital tool that uses real-world data to understand and visualize causes of congestion. Phase II, which will be completed in FY22, will build graphic visualizations in the form of state-specific congestion pie charts.



As a potential future activity, the Coalition is exploring research on the ability to determine traffic volumes in real time. This effort would build on prior research led by the Volume and Turning Movement (VTM) Steering Committee on how probe data can be used to estimate volumes and turning movement throughout a

highway network.

Traveler Information Services

The Travel Information Services Committee

supports the development of Coalition-wide, multimodal traveler information systems. This committee will meet twice in FY22 for roundtables and/or topic-specific summits. The Coalition is exploring a combination of virtual and in-person formats for these meetings. Potential topics include the future of 511, mapping companies and sharing data for travelers, and integrating transit traveler information.

This committee also supports a **Waze Technical Working Group** to provide a multi-state forum for coordination with Waze and other commercial

TRAVELER INFORMATION SERVICES COMMITTEE LEADERSHIP

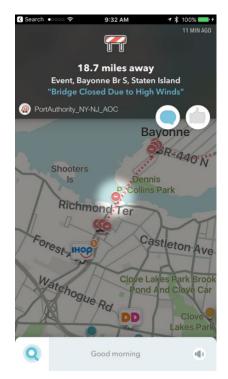


Mary Ameen North Jersey Transportation Planning Authority



Kelly Wells North Carolina Department of Transportation

providers to improve the quality of information. This group will meet twice in FY22. A primary initiative will be to develop a dynamic "speakable" hazards notification system to alert drivers about lane shifts, workzones, special events, and other disruptions while mitigating distraction.







As a potential future activity, the Coalition is exploring how to integrate and standardize data feeds from Waze, RITIS and WorkZoneDx, including the potential for retaining a Coalition-wide Waze consultant.

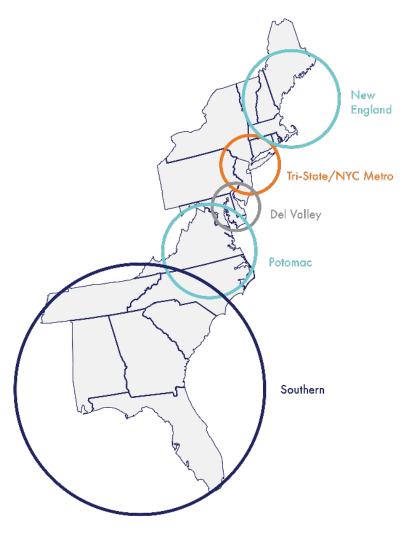
"Thanks so much for the invite to today's call with Waze! Very interesting and exciting call. Lots of exciting initiatives ahead. The Coalition is obviously critical to making this happen. No state can do it alone. The Coalition can be a tremendous clearing house and filter for these initiatives and can amplify the voice of the states most effectively."

Rob Cary, Chief Deputy Commissioner, Virginia Department of Transportation

Highway Operations Groups

The TSMO program will restart Highway Operations Groups (HOG) for five regions: New England, Tri-State/New York City Metro, Delaware Valley, Potomac, and Southern. HOGs provide a forum for member agencies to discuss challenges and operational strategies across jurisdictional boundaries. HOGs are unique in that they are multidisciplinary, bringing together policy, planning, operations, maintenance, and first responder staff for discussions on how to improve TSMO programs with emphasis on safety and mobility.

Relationships established through the HOGs supported collaborative action among members state throughout the pandemic. The Coalition will engage the HOGs as we continue to meet the needs of members, including an option to connect in a hybrid platform of virtual and in-person meetings. In addition, the Coalition will bring



together HOGs with representatives from the Freight Committee to identify strategies in operations and travel information to address freight resiliency during disruptions.

The Coalition will hold HOG events in each region in FY22:

One event each in the New England, Delaware Valley, and Southern regions.

- A collaborative event between the Tri-State HOG and the Transportation Operations Coordinating Committee (TRANSCOM) in the New York City metropolitan area.
- A collaborative event between the Potomac HOG and the Metropolitan Area Transportation Operations Coordination (MATOC) in the Washington, DC area.

TETC member states expressed interest in discussing the following topics through HOGs in FY22:

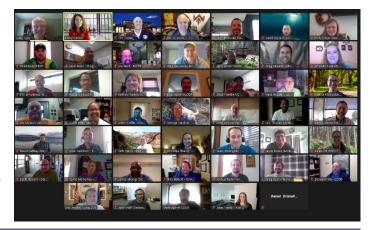
- Queue warning systems.
- Camera sharing and video enterprise distribution systems.
- Hard shoulder running.
- Public-private partnerships and fiber deployments used for dedicated short-range communications (DSRC)/Mesh network placements to improve communications for Intelligent Transportation System (ITS) networks or connected vehicles.
- Adaptive signal control technology.
- Integrated corridor management and actively managed lanes.
- Tools to track and manage traffic, including data dashboards.
- Construction and work zone traffic management.
- Use of variable speed limits in real time.

In addition, the Coalition will create a secure login and document repository as a member resource. One key feature will be secure access to emergency contact information for agency leaders to facilitate communication during extreme weather and other emergencies.

Training

The Coalition will continue its nationally recognized **Operations Academy**. The Operations Academy is a two-week immersive program designed to strengthen agency workforce skills

related to TSMO. The program uses a mix of classroom instruction, team workshops, analysis of existing systems through field studies, and presentations by nationally recognized guest speakers. It provides opportunities to practice and internalize the principles learned that are not possible in traditional classes and short courses. Acceptance to the program is competitive, and requires the nomination of a local,



State, or Federal transportation agency. The development of the Operations Academy was funded by the Eastern Transportation Coalition and the Center for Advanced Transportation Technology (CATT) at the University of Maryland. Due to the amount of hands-on activity that is required by the program, class sizes are limited to 25 participants per session. A total of 41 students participated in the program in FY21, and capacity for FY22 has increased to 50 participants. For the second year, the academy will be offered in a virtual format. The reduced cost of a virtual program enabled the Coalition to expand the number of scholarships from 18 to 27.

The Coalition also will continue a pooled fund to enable the member state DOTs to access and to pay for **Consortium for Innovative Transportation Education (CITE)** classes. This fund will sponsor instructor-led and/or independent (self-paced) courses. Eleven agencies participated in CITE courses in FY21. The amount of funding will be reduced to \$15,000 in FY22.

Other training priorities include a **Traffic Management Center (TMC)** Operators Academy to be held every two years. The first academy will occur in August 2021. The aim of this program is to provide training for "boots on the ground" operations staff. The Coalition is developing incident management and service patrol curriculum for the member states. The Coalition will hold a 1.5-day virtual training session geared toward operators and supervisors.

Communications

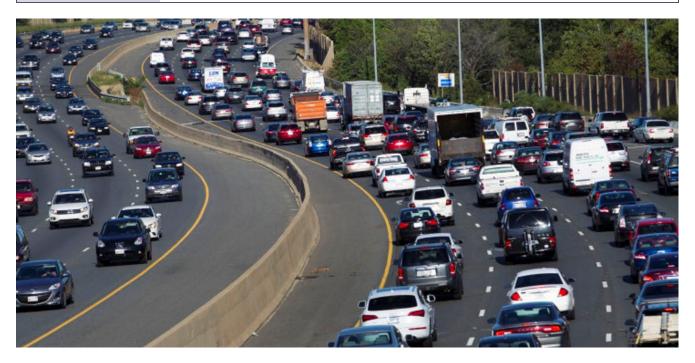
Communications has been a mainstay of the Coalition's TSMO work through its engagement with member states. Building from the re-branding of the I-95 Corridor Coalition into the TETC and the upgraded website, the Coalition is working to share how it supports its members through concise program briefs on its three core areas, as well as state-focused newsletter articles.





TSMO Workplan Summary

Emphasis Area	Projects/Deliverables
Data	 Launch of Transportation Data Marketplace. Four RITIS User Group meetings, two RITIS Products Enhancement Working Group meetings, and two RITIS Performance Measures Working Group meetings (agenda, presentation materials, summaries, and action items). Two data webinars (agenda, presentation materials, summaries, and action items). Completion of data visualizations as part of Phase 2 of the Transportation Disruptions and Disaster Statistics project.
Traveler Information	 Two Traveler Information Services Committee meetings (agenda, presentation materials, summaries, and action items). Coordination with Waze and other commercial providers on a dynamic "speakable" hazards notification system.
Highway Operations Groups	 One Highway Operations Group meeting in each of five regions (agenda, presentation materials, summaries, and action items).
Training	 Virtual Operations Academy with up to 27 scholarships. Pooled fund for TETC member participation in CITE training course. Inaugural TMC Operators Academy.
Communications	TSMO program brief.State newsletter articles on Coalition TSMO activities.



Freight



The Freight program focuses on improving the safety, mobility, and efficiency of freight and goods moving to, from, through, and within the Eastern States. The program covers all modes of goods movement, including trucking, rail, water, and aviation. The Coalition states account for nearly 40 percent of U.S. gross domestic product and move more than 4 billion tons of freight valued at almost \$3 trillion each year, with many of

these trips crossing jurisdictional boundaries.

The Freight program will focus in FY22 on expanding its range of activities, products, and events to advance seamless multimodal freight mobility, enhance freight and supply chain resiliency, improve freight safety, and support economic development. The program emphasizes multi-state issues and opportunities that reflect the scale at which freight moves in the Eastern States, considering the wide range of urban, rural, coastal, and inland communities and the complex web of major highways, railways, seaports, and air cargo hubs in the member states.

Emphasis Areas

Emphasis areas include:

- Data, working with states to promote innovative and cost-effective practices for acquiring, collecting, applying, and sharing freight data and to advance sharing real-time travel information with motor carriers.
- Planning, sharing best practices in statewide freight plan development and implementation, as well as facilitating multi-state coordination on freight planning and investment.
- Operations, helping enhance freight resiliency during disruptions, as well as advancing innovative approaches to address the challenges of truck parking.

FY2022 EMPHASIS AREAS

- Data
- Planning
- Operations
- Technology
- Training
- Communications

FREIGHT DIRECTOR



Marygrace Parker

- **Technology**, researching and supporting deployment of emerging technologies such as connected, automated, and electric freight vehicles.
- **Training**, helping member agencies equip staff to help plan and manage freight systems.
- Communications, engaging more freight partners and expanding awareness of the Coalition's freight programs.

Executive Guidance

The Executive Board seeks to revitalize and expand the Freight program in FY22. The following table summarizes executive guidance for the Freight program in FY22, and how this guidance is reflected in the Workplan.

Executive Board Priority	Workplan Content
Support a Coalition intermodal freight strategy (all modes).	 Enhance collaboration on freight data, planning, operations, and technology; work toward more regional or Coalition-wide solutions. Develop and maintain a Freight Plan Status Matrix; support statewide freight planning activities through disaggregation and visualization of Freight Analysis Framework data. Deliver the 8th Freight Academy.
Advance joint procurement of freight data and information.	 Expand freight data matrix. Incorporate freight data into new Transportation Data Marketplace.
Assess impacts of e-commerce on freight transportation.	 Assist states in addressing e-commerce trends in freight plans and freight operations strategies. Facilitate sharing of e-commerce data.
Facilitate projects of regional or corridor significance.	Initiate work to identify freight projects of corridor or regional significance, including an inventory of projects in state freight plans.
Provide leadership in automation and electrification for trucks.	 Support states in assessing readiness for deployment of connected and automated trucks. Document existing state laws, rules, and activities related to electric trucks; participate in Coalition-wide electric vehicle workshop. Develop white paper on emerging freight technology.
Improve coordination and information sharing to support freight operations and resilience during disruptions.	 Document existing protocols for multi-state coordination on truck restrictions, diversions, and other responses to ensure safety and resilience during disruptions; identify potential Coalition activities. Continue Truck Parking Working Group and matrix of successful strategies for improving safety and operations.

Program Activities

Freight Committee

The Freight program is managed by a Coalition-wide Freight Committee. Committee members include state DOTs, metropolitan planning organizations (MPO), port authorities, Federal agencies, and industry partners such as trucking, rail, and other industry associations. The program has a long history of facilitating regional coordination at both a Coalition-wide level and, where applicable, around key regional "freight sheds."

Data

The Coalition will expand its **Freight Data Matrix** to include additional public and private freight data sources. The Coalition will update this information on a

to" resource for TETC members on freight data and applications.

The Coalition will formalize a **Freight Data Working Group** to advance freight data initiatives. This working group will provide oversight and coordination for the Freight Data Matrix; provide input to the Transportation Data Marketplace on freight data, including opportunities to advance or leverage freight data sources; and identify freight data gaps and opportunities, including a potential multi-state expanded freight data procurement. The working group also will help plan at least one freight data webinar in support of the Freight Data Matrix.

COMMITTEE LEADERSHIP



David Rosenberg
New York State
Department of
Transportation



Tom McQueen Georgia Department of Transportation

"TETC's initiatives around freight data development have helped me better understand the range of available freight data and the strengths and weaknesses of each data source. This has proven to be of great value in my review of consultant proposals for projects such as the update of the Vermont State Freight Plan."

Dave Pelletier, Planning Coordinator, Vermont Agency of Transportation

Planning

The Coalition will convene a **State Freight Planning Roundtable** periodically during FY22. This roundtable will be an opportunity for member state DOTs, MPOs, and other agencies to share the status of statewide and regional freight plan development and implementation; discuss relevant freight planning issues and opportunities; and identify and share best practices on topics such as addressing impacts of e-commerce and shifting supply chains and advancing stakeholder engagement in freight planning. As an initial product, the roundtable will help develop and maintain a **Freight Plan Status Matrix** for quick reference by member DOTs and MPOs.

regular basis; maintain the spreadsheet in the TETC website repository; periodically survey

incorporate data sources they have developed internally as examples for best practices or possible application in other states. The intention is to turn the Freight Data Matrix into the "go

member states on their use of the matrix and potential gaps; and work with states to

To support the next round of state freight plan updates, TETC will facilitate **disaggregation and visualization of Freight Analysis Framework 5.0 data** for member states. This will involve convening a small working group to review the methodology for the disaggregation; producing and sharing the disaggregated data in timely manner to support state freight plan updates; and developing an initial set of visualization tools to help member agencies interpret and present the multimodal data.

In addition, TETC will initiate a multi-year effort to identify and advance **freight projects of corridor or regional significance**. The initial effort in FY22 will develop a process to inventory and map existing TETC state freight projects; begin to identify projects of corridor or regional significance such as multi-state opportunities or gaps; and conduct a webinar on the initial



results. A second phase of work in FY23 is anticipated to define and expand the list of projects and estimate the return on investment from these projects. Future phases could advance key projects, such as supporting grant applications and other Federal funding opportunities.

Operations

The Coalition will continue its **Truck Parking Working Group** comprising member agency staff from planning, operations, and maintenance who are working on activities related to truck parking. This working group will meet to share spotlight presentations on specific state initiatives, as well as roundtable information exchange



among states. The working group will create and maintain a **Truck Parking Matrix** to document member agency truck parking studies, research, demonstration projects, and contacts. The working group also will monitor and share Federal grant opportunities and explore member interest in applying for Federal grant funding for multi-state/regional truck parking projects.

"I've thoroughly enjoyed being a part of TETC and all that membership offers. This is the perfect group for synergistic freight ideas to flow. Plus, I've learned so much from the training and networking opportunities!"

Amy Kosanovic, Planning Supervisor, Tennessee DOT

The Coalition also will initiate a multi-year effort to enhance **Freight Resiliency during Disruptions**, working in partnership with the TSMO program. During FY22, the Coalition will document existing protocols for multi-state coordination on truck restrictions, diversions, and other responses during emergencies; examine and document

existing notification systems for reaching

multi-state carriers; assess existing information to identify gaps; and synthesize information and prepare a state of practice document This work will be advanced in collaboration with the HOGs and the TSMO program.

Technology

The Coalition will advance freight technology activities related to connected and automated vehicles (CAV), electric vehicles (EV), and other emerging technologies.

The Freight program will develop a **Truck CAV Readiness Report**, working in partnership with the Innovation program. This work will produce a status matrix or clearinghouse documenting topics such as existing law and rules, research studies, planning activities, and pilot projects related to connected and automated trucks. The Freight and Innovation programs will partner



to organize a webinar to share the results of this work and discuss potential opportunities for future research, collaboration, and capacity building. The two programs also will identify activities for FY23 and beyond, such as a potential multistate platooning pilot.

The Freight program also will initiate a **Truck EV Readiness Report**, also in partnership with the Innovation program. The inventory will begin building a status matrix or clearinghouse documenting topics such as existing law and rules, research studies, planning activities, and pilot projects related to electrification of trucks. The Freight, Innovation, and TSMO programs together will plan a "What Do DOTs Need to Do to Prepare for Electric Vehicles?" workshop or



in-person peer exchange. This initial work on the inventory and workshop is anticipated to identify future activities for the Coalition, which could include training or technical support; mapping of truck EV charging locations; and creating a TETC Truck EV Master Plan.

The Freight program also will develop a white paper on **emerging freight technologies** trends and implications for TETC members. Developed in partnership with the Innovation program,



this white paper will focus on topics beyond CAV and EV, such as unmanned aerial vehicles, robotics, artificial intelligence, machine learning, and additive manufacturing. A webinar will share findings and discuss potential future freight technology activities.

Training

The Coalition will convene its nationally recognized **Freight Academy in spring 2022. This Academy** helps build workforce capacity and develop mid- to senior-level staff in member agencies with understanding and leadership skills in freight. The Academy includes immersive training, field visits, and capstone group projects during a six-day immersive program. The Coalition provides one scholarship for each member state. Delivery of the academy was postponed from FY21 to FY22 due to travel restrictions related to the COVID-19 pandemic.

The Freight program also will begin to develop **web-based training materials** to complement other resources. These online materials will flow from webinars on freight data, planning, operations, and technology. Members have expressed interest in training materials related to best practices for use of Federal freight performance measures and benefit/cost analyses.

Communications

Building from the re-branding of the I-95 Coalition into the TETC and the upgraded website, the Coalition is working to market its programs through concise program briefs on its three core areas, as well as through state-focused newsletter articles.

Freight Workplan Summary

Emphasis Area	Projects/Deliverables
Data	 Expanded Freight Data Matrix. Freight Data Working Group meetings, including agenda, presentation materials, summary, and action items. Webinar on Freight Data Matrix and how members are using freight data. Freight elements of Transportation Data Marketplace.
Planning	 Freight Planning Roundtable meetings, including agenda, presentation materials, summary, and action items. Freight Plan Status Matrix for TETC member DOTs and MPOs. TETC FAF 5.0 disaggregated database and visualization tools, including documentation and training for members. Initial map of freight projects of regional or corridor significance, with supporting methodology; webinar on results; approach for next phase.
Operations	 Truck Parking Working Group meetings, including agenda, presentation materials, summary, and action items. Truck Parking Status Matrix. State of practice exchange on incorporating freight resiliency during disruptions.
Technology	 Truck CAV Readiness Report; webinar highlighting key findings; recommendations for future activities in FY23 and beyond. Truck EV Readiness Report; joint workshop on how DOTs prepare for EV; recommendations for future activities in FY23 and beyond. Emerging freight technologies white paper and webinar; recommendations for future activities in FY23 and beyond.
Training	FY22 Freight Academy.Web-based training materials.
Communications	Freight program briefs.State newsletter articles on Coalition Freight activities.

Innovation



Innovation is an expanding program focusing on new and emerging transportation technology, policies, and partnerships. The Innovation program provides a forum for members to prepare for deployment of connected and automated vehicle technologies; this emphasis will be expanded to include electric vehicles. The Innovation program also explores opportunities to use technology to advance new approaches to

sustainable transportation funding, such as tolling and mileage-based user fees.

Emphasis Areas

The Innovation program focuses in four areas, plus communications:

- Connected and automated vehicles (CAV), working through regional working groups on five topics:
 - Use and sharing of additional data available from CAV technologies.
 - Readiness of, and potential enhancements needed to, roadside and other public infrastructure to support CAV.
 - Existing legislation and regulation and potential changes needed to support CAV.
 - Automated freight vehicle applications.
 - Testing and deployment of new systems, sharing lessons learned, helping identify funding sources, and connecting members to explore potential pilot projects.

FY2021 EMPHASIS AREAS

Connected & Automated Vehicles

- Data
- Infrastructure
- Legislation and Regulation
- Automated Freight Vehicles
- Testing/Deployment

Electric Vehicles (exploratory)

Tolling Reciprocity

Mileage-Based User Fees

INNOVATION DIRECTOR



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- Electric vehicle (EV) trends, implications, and opportunities for Coalition states (a new exploratory Initiative in FY22).
- **Tolling**, helping member agencies increase revenue by improving toll collection methods including reciprocity among states.
- Mileage-based user fees, helping states explore, test, and evaluate new revenue approaches and partnerships enabled by technology.

Executive Guidance

The Executive Board seeks to strengthen and expand the Innovation program in FY22. The following table summarizes executive guidance for the Innovation program in FY22, and how this guidance is reflected in the Workplan.

Executive Board Priority	Workplan Content
Build on existing regional groups.	Continued regional CAV Working Groups for New England, Mid- Atlantic, and Southern regions; partner on specific projects in each region.
Continue knowledge sharing and clearinghouse functions.	 Continue to conduct CAV webinars, workshops, and peer exchanges on topics of interest identified by members. Monitor Federal grant opportunities related to CAV. Complete Automated Vehicles and Lane Striping research project.
Identify opportunities for greater consistency across states.	 Support prototype regional CAV legal and regulatory assessment for New England region; use as a model for other regions. Work with Mid-Atlantic region to produce an automated vehicle readiness assessment for a multi-state metropolitan region. Share state-specific CAV laws, regulations, and testing and deployment guidelines as a resource for member agencies.
Explore role for TETC in supporting members during transition to electric vehicles.	 Explore opportunities through ongoing working groups, research projects, and events. Monitor Federal grant opportunities related to EV. Initiate cross-cutting initiative to explore implications of EV for TETC states and the need for corridor coordination and strategies; conduct joint workshop.
Expand emphasis on freight/trucking applications.	 Partner with Freight program to assess state readiness for deployment of connected and automated trucks and the potential for a multi-state platooning pilot. Partner with Freight program to develop a white paper and webinar on emerging freight technologies beyond CAV and EV.
Provide national leadership on sustainable transportation funding	 Identify successful strategies to expand toll violation enforcement reciprocity. Explore implementation barriers and solutions to a transition from the fuel tax to mileage-based user fee.

Program Activities

Connected and Automated Vehicles

The Coalition supports three regional CAV Working Groups, covering the New England, Mid Atlantic, and Southeast regions. Each working group provides opportunities for collaboration and peer exchange. The working groups also monitor and report on member state activities, help identify and set priorities among potential Coalition activities, and monitor potential Federal and nonprofit grant opportunities.

Each working group will pursue targeted projects. For example, the New England CAV group was awarded funding through the New England Transportation Consortium to conduct a CAV legal and regulatory assessment.



Each working group typically meets three times per year. These meetings provide opportunities to spotlight innovative practices and discuss opportunities and issues of interest to members. Most meetings are anticipated to be virtual, though some may be combined with other in-person events.

In addition, the three working groups will meet for an annual joint meeting, if able to be scheduled in person, this meeting will include a workshop on a priority topic, a peer exchange to document CAV-related efforts in the Coalition states, and a strategic planning session.



"Compared with some of the larger working groups and committees focused on connected and automated vehicles, the small size of our TETC New England CAV regional group has given us the chance to work together closely with our neighbors, learn from each other, and get a lot done."

Joe Segale, P.E., PTP, Policy, Planning & Research Bureau Director, Vermont Agency of Transportation

Data

The Coalition will sponsor one webinar or forum on a CAV data topic. Possible topics include:

- CAV Data: What Is Out There and How Can State Agencies Use It? This event would be designed to bring state transportation agencies together with data vendors and CAV technology providers to provide member agencies with an overview of what data are available and how they can be used and communicate to industry partners the use cases agencies would like to address.
- Best practices in CAV data for transportation agencies. This event would showcase leading efforts to use, store, access, and share CAV-related data acquired through vendors or generated through DOT infrastructure. The Coalition will work with the member states and working groups to generate a scan of existing data resources in advance of this event.

Infrastructure

The Coalition will conduct a research project in partnership with Connecticut Department of



Transportation, the University of Connecticut, and Consumer Reports to better understand **lane striping requirements for automated vehicles**. This research project is anticipated to develop an approach and conclusions that can be adapted by other states or replicated in the future.

The Coalition also will conduct one webinar or workshop related to CAV infrastructure. Possible topics include:

- Communications infrastructure roles for DOTs, focusing on strategies, considerations, and partnerships around use of state DOT right-of-way for fiber, broadband, and other communications technology deployment.
- Connected vehicle signals and maintenance practices and agreements, focusing on sharing strategies and agreements for managing and maintaining new signal technologies. This event would be in partnership with the TSMO program.

Legislation and Regulation

In FY21, the Coalition worked with New England CAV Working Group to win grant funding through the New England Transportation Consortium to complete a **Legal**, **Regulatory**, **and**



Policy Assessment for the New England Region. Phase I of this project will be complete by the end of calendar year 2021; a possible Phase II may extend into calendar year 2022. The Coalition will support rollout of results of this assessment and explore opportunities to build off the approach and results for other regions.

Automated Freight Vehicles

The Innovation program will partner with the Freight program on initiatives related to connected and automated vehicle and other technology applications for trucking and freight mobility, including:

Truck CAV Readiness Report. This effort will produce a status matrix or clearinghouse documenting topics such as existing laws and rules, research studies, planning activities, and pilot projects related to connected and automated trucks. A joint webinar will share



the results of this work and discuss potential opportunities for future research, collaboration, and capacity building. The two programs also will identify activities for FY23 and beyond, such as a potential multistate platooning pilot.

White paper on emerging freight technology trends and implications for TETC members.



This paper will focus on topics beyond CAV and EV, such as unmanned aerial vehicles, robotics, artificial intelligence, machine learning, and additive manufacturing. A webinar will share findings and discuss potential future Freight or Innovation program activities.

Testing and Deployment

The Innovation program will continue to monitor the status of state-specific **automated vehicle testing and deployment guidelines** and post these guidelines on the TETC website as a member resource.

The Mid-Atlantic CAV working group will explore readiness for automated vehicle deployment in multi-state metropolitan regions. The New York-Philadelphia-Baltimore-Washington corridor



provides a test bed to explore the unique implications of automated vehicle travel for freight, transit, and smaller passenger vehicles in metropolitan areas that cross multiple state boundaries. The working group will conduct a table-top initiative in FY22 focused on transit initially, potentially followed by a larger pilot project in FY23.

Electric Vehicles

The Innovation program, in partnership with TSMO and Freight, will initiate an exploratory initiative in FY22 to understand the implications of electric vehicles for Coalition states, addressing automobile, freight, and transit applications. The initial emphasis will be on documenting trends and implications and defining roles for individual DOTs and the Coalition regarding EV deployment. The Freight, Innovation, and TSMO



programs together will plan a workshop or peer exchange on "What Do DOTs Need to Do to Prepare for Electric Vehicles?," tentatively in spring 2022. Modeled after a similar workshop



that helped launch the Coalition's CAV initiatives, this workshop is anticipated to identify future activities for the Coalition, such as training or technical support activities; mapping of EV charging locations; or creating a TETC EV Master Plan.

Tolling

The **Toll Violation Enforcement Reciprocity (TVER) Working Group** includes tolling authorities, state DOTs, and departments of motor vehicles throughout the Coalition region. Initially convened to advance tolling reciprocity agreements among Coalition states to support collection of out-of-state tolls, the group's focus has expanded with the mission of helping member agencies increase revenue by improving toll collection methods.

TVER LEADERSHIP



Diane Gutierrez-Scaccetti
Co-Chair
Commissioner
New Jersey Department
of Transportation



Merryl Mandus
Co-Chair
General Counsel
Georgia State Road and Tollway
Authority

The TVER Working Group is focusing in four areas:

- Exploring opportunities for regional smart payment options.
- Collaborating with departments of motor vehicles and the American Association of Motor Vehicle Administrators.
- Advancing toll violation enforcement reciprocity agreements.
- Increasing awareness of toll payment options and reduction of toll violations for motor carriers.

The TVER Working Group convenes two to three times per year to focus on relevant topics. For each meeting, staff prepare a white paper to provide context, and member agencies share insights, discuss lessons learned, and identify opportunities for collaboration. In FY21 the TVER Working Group also organized two vendor forums featuring a total of 11 mobile payment solution providers.

"As the group's mission has morphed a bit since we first met, the high attendance levels at meetings that this group has put on is a very positive sign that this group has been producing and responding to what members have been asking for."

Merryl Mandus, General Counsel, Georgia State Road and Tollway Authority, TVER Working Group Co-Chair In FY22 the TVER Working Group will:

- Update and revisit the status of toll violation enforcement reciprocity agreements.
- Explore ways to effectively engage and partner with motor vehicle administrations on toll collection policies.
- Identify strategies to reduce toll violations by motor carriers.

Communications

Building from the re-branding of the I-95 Coalition into the TETC and the upgraded website, the Coalition is working to market its programs through concise program briefs on its three core areas, as well as through state-focused newsletter articles.



Special Project: Mileage-Based User Fees

The Coalition is expanding its efforts to bring the unique interests of Eastern States and stakeholders into the ongoing national assessment of replacing the fuel tax with a mileage-based user fee (MBUF).

Starting in FY18, the Coalition conducted the first passenger vehicle pilot on the East Coast; led the first multi-state commercial vehicle truck pilot in the Nation; expanded the passenger vehicle pilots to include the public; began specialized passenger vehicle pilots in five states; and delivered the first national commercial vehicle pilot. This work identified implementation barriers and potential solutions relating to out-of-state mileage, tolling, administrative costs, privacy, and equity.

In FY22, the Coalition will complete reports on the five passenger vehicle pilots and the national truck pilot completed in FY21. The Coalition also will conduct a pilot in northern Virginia residents in partnership with Transurban, one of the world's largest toll-road operators, to explore potential cost savings and synergies between toll providers and MBUF and the potential of MBUF for congestion pricing.

Also in FY22, the Coalition will launch Phase 4 of the MBUF initiative, including:

- Explore the implementation requirements for an MBUF approach for passenger vehicles and the motor carrier industry, including solutions to known barriers related to privacy, equity, and administrative costs. This will include research on how to operationalize, manage, and govern a voluntary MBUF program as well as a regional MBUF approach.
- Conduct MBUF passenger vehicle pilots in Delaware, New Jersey, North Carolina, Pennsylvania, and, for the first time, Maine, with an estimated 1,000 participants including residents from other Coalition states. These pilots will emphasize outreach and education, compliance and enforcement, rate setting, administrative costs, and impacts on different communities such as rural and urban areas. The pilots will include new participants from the public as well as state legislators, minority groups, privacy advocates, and rural communities.
- Conduct a second national truck pilot with 250 vehicles from a variety of truck classes. This pilot will include a fleet based in Canada to explore how MBUF would work on an international scale. The Coalition also will continue work with Motor Carrier Working Group to determine what factors should be included in rate setting.

As the complexity of MBUF pilots increases, the Coalition is equipping policy-makers with data-driven analysis to make informed decisions on the viability of mileage-based user fees and how the various issues may be addressed.

Innovation Workplan Summary

Emphasis Area	Projects/Deliverables
Connected and Auto	mated Vehicles
Working Groups	 Three meetings each of regional CAV working groups for New England, MidAtlantic, and Southeast regions, including agenda, presentation materials, meeting summary, and action items. One joint workshop and strategic planning session for all three groups.
Data	One data webinar or forum including agenda, presentation materials, summary, and action items. Potential topics include: CAV Data- What Is Out There and How Can State Agencies Use It? and Best Practices for CAV Data for Transportation Agencies.
Infrastructure	 Completion of Automated Vehicles and Lane Striping research project, including data, findings, and analyses. One webinar or workshop on CAV infrastructure, including agenda, presentation materials, summary, and action items. Potential topics include Communications Infrastructure Roles for DOTs, and Connected Vehicle Signal and Maintenance Practices and Agreements.
Legislation/ Regulation	 Completion of regional CAV legal and regulatory assessment for New England region; model for expansion to other regions.
Automated Freight Vehicles	 Truck CAV Readiness Report; webinar highlighting key findings; recommendations for future activities in FY23 and beyond. Emerging freight technologies white paper and webinar; recommendations for future activities in FY23 and beyond.
Testing/Deployment	 Website with updated posts of state specific automated vehicle testing and deployment guidelines. Table-top exercise to explore readiness for multi-state automated vehicle deployment in Mid-Atlantic region; plan for expanded initiative in FY23.
Electric Vehicles	
Electric Vehicles	Joint workshop or peer exchange on how DOTs prepare for EV; recommendations for future activities in FY23 and beyond.
Tolling	
Tolling Reciprocity	Two Tolling Violation Enforcement Working Group meetings, at least one in-person; white paper and summary for each meeting.
	Strategies for updating tolling reciprocity agreements, partnering with departments of motor vehicles, and reducing toll violations by motor carriers.

Emphasis Area

Projects/Deliverables

Mileage-Based User Fees

Mileage-Based User Fees

- Reports on five passenger vehicle pilots and national truck pilot completed in FY21.
- Northern Virginia pilot in partnership with Transurban, focusing on synergies with toll operators and use of MBUF for congestion and cordon pricing.
- Launch of next round of pilots in five states (DE, ME, NJ, NC, PA).
- Launch of second national truck pilot.

Communications

Communications

- Innovation program briefs.
- State newsletter articles on Coalition Innovation activities.







Coalition Support

The Coalition gratefully acknowledges the support of our entire staff team. In addition to the program staff highlighted earlier in the Workplan, our staff team are invaluable for supporting Board meetings, Coalition communications, member support, financial management, contract oversight, data use agreements, meeting logistics, travel support, and the many other details that are needed to successfully carry out our Workplan and operations.

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