

Memorandum

TO: Leslie Fordjour, NYMTC

FROM: Chris Lamm, Cambridge Systematics, Inc.; Karina Vangani, Arch Street Communications

DATE: October 22, 2021 (revised November 1, 2021)

RE: Deliverable 5B, Summary of Clean Freight Corridors Workshop

INTRODUCTION

NYMTC has initiated a Clean Freight Corridors Planning Study to facilitate increased adoption of high-efficiency, low-emission alternative technologies for freight transportation in the New York metropolitan region. As a component of the Regional Freight Plan contained in NYMTC's *Plan 2045* Regional Transportation Plan, this study will support deployment of alternative fuel medium- and heavy-duty (M/HD) vehicles for goods movement by identifying roadway corridors best suited for designation as Clean Freight Corridors to guide future investment in alternative fueling/electric charging infrastructure.

Implementing clean freight charging and fueling infrastructure in the region will require partnerships and/or coordination with a broad range of stakeholders in the public and private sectors. Gathering input from representatives of these stakeholder groups is an important input to the study, as it helps the team to affirm the preliminary findings of the study, identify other issues and needs that the study may not have uncovered thus far, and enhance the list of preliminary recommendations for implementing clean freight corridors.

To collect this input, the team prepared and implemented a virtual workshop, called the Clean Freight Corridors Study Planning Workshop. This technical memorandum summarizes the objectives, preparation steps, format, and outcomes of the virtual workshop. The workshop outcomes will be used to enhance the study's

recommendations.

This memorandum is organized as follows:

- Workshop Objectives, lists the objectives of the Clean Freight Corridors Study Planning Workshop;
- Participants and Recruiting, describes the approach and outcomes of the process used to identify and recruit participants for the workshop;
- Agenda and Implementation, provides an overview of the approach, format, and implementation of the virtual workshop; and
- Outcomes summarizing the key findings and recommendations gathered from workshop participants.

WORKSHOP OBJECTIVES

The objectives of the Clean Freight Corridors Study Planning Workshop, also shown in Figure 1, were to:

- Convene, in a virtual forum, a diverse group of public- and private-sector stakeholders with interests in alternative fueling for trucks;
- Review the goals and preliminary findings of the Regional Clean Freight Corridors Study with the virtual workshop participants;
- Gather input from participants, through facilitated discussion, on the corridor evaluation results and potential recommendations of the Regional Clean Freight Corridors Study; and
- Promote interest among participants in implementing clean freight technologies in the multi-state Metropolitan Area Planning (MAP) Forum region.

Figure 1: Clean Freight Corridors Study Planning Workshop Objectives



PARTICIPANTS AND RECRUITING

As mentioned in the previous section, the first objective of the workshop was to convene a diverse group of stakeholders from both the public and private sectors. In particular, the team intended to reach stakeholder groups who had not been reached through other means, including NYMTC's PFAC Freight Subcommittee or the study's Technical Advisory Committee. Private sector companies in the fueling, truck stop operations, equipment manufacturing, and utilities sectors, for example, will play critical roles in the implementation of clean freight charging and fueling infrastructure in the region. Their perspectives are necessary inputs into the Regional Clean Freight Corridors Study's recommendations. Also, community and advocacy organizations have important perspectives regarding the potential effects of clean freight corridor implementation, including emissions reductions, local area land use, and other issues of importance to their respective missions.

In an effort to achieve the participation of organizations across this broad spectrum of stakeholders, the team developed a long list of organizations, organized by stakeholder types. The list included organizations familiar to team members, organizations identified through internet searches, and suggestions received from members of the PFAC Freight Subcommittee and Technical Advisory Committee.

The full list of workshop invitees, including as Appendix A, includes organizations representing the following stakeholder groups:

- Motor carriers;
- Utility companies;
- Fuel infrastructure manufacturers/suppliers;
- Fuel suppliers;
- Truck stop operators;
- Industrial real estate companies; and
- Community and advocacy organizations.

Invitees were contacted via email and invited to participate in the workshop. The invitation included relevant information about the study's objectives, and the objectives of the workshop. Arch Street Communications sent the initial invitation email and followed up with e-mails and phone calls to remind participants to register and to forward the invite to others in their organization that might be interested in attending.

On the eve of the workshop, which was held on October 7, 2021, 46 individuals had registered to participate in the workshop. Twenty-one of those individuals logged in and participated. Table 1 lists the individuals who participated in the workshop on October 7.

Table 1: Clean Freight Corridors Study Planning Workshop Participants

Participant Name	Organization Represented
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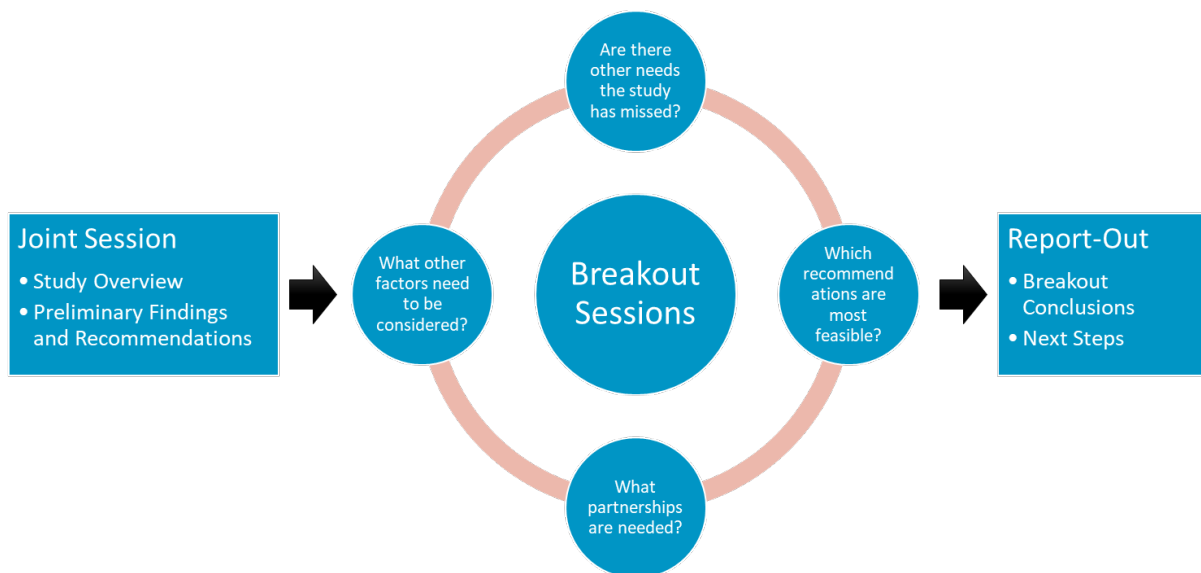
19176541793	
Brett Barry	Clean Energy Fuels
Joy Gardner	Empire Clean Cities
Sacha-Rose Phillips	Environmental Defense Fund
Kevin Force	Hudson County, NJ
Tiffany Wlazlowski	NATSO
Mark Nielsen	Naugatuck Valley Council of Governments
Richard Donovan	Naugatuck Valley Council of Governments
Eddy Nupoort	Nel Hydrogen
Susan McSherry	New York City Department of Transportation
Lori Clark	North Central Texas Council of Governments
Soria Adibi	North Central Texas Council of Governments
Jennifer Fogliano	North Jersey Transportation Planning Authority
Julie Richmond	Orange County
Tanja Grzeskowitz	Port Authority of New York and New Jersey
Charles Liou	Port Authority of New York and New Jersey
Bethann Rooney	Port Authority of New York and New Jersey
Nikolas Mirando	Stevens University
Rene Luciano	Trucking Association of New York
Kendra Hems	Trucking Association of New York
Michael Scarpino	U.S. DOT Volpe National Transportation Systems Center
David Greenfader	Wave

AGENDA AND IMPLEMENTATION

The workshop was held virtually using Microsoft Teams. In order to encourage discussion and knowledge transfer, and to acquire the input desired, the workshop was organized in a manner that promoted engaged participation.

As Figure 2 shows, the workshop began with an interactive presentation of the Regional Clean Freight Corridors Study's goals, objectives, technical analysis, and findings to date. The presentation included three interactive polling questions, using Slido,¹ that aimed to gather input from participants on the material being presented, and to engage the participants with the presentation.

Figure 2: Clean Freight Corridors Study Planning Workshop Agenda



After the presentation portion of the workshop concluded, participants were separated into facilitated “breakout sessions.” The breakout sessions allowed participants, in small groups, to discuss the study’s findings and recommendations, and to offer additional input, recommendations, or identify other key issues the study may have not yet addressed. The facilitated discussion was held in Microsoft Teams breakout rooms, and Miro² was used as a whiteboard to collect

¹ <https://sli.do>

² <https://miro.com>

comments and to write or mark suggestions on maps of the recommended regional clean freight corridors.

Each breakout session included up to 8 participants, and 3 members of the study team. Each of the three members of the study team in each breakout session had one of the following roles:

1. One member of the ASC staff served as the “Meeting Organizer,” who provided the technical support and control the breakout rooms. The Meeting Organizer also shared chat notifications indicating when it is nearly time to move to the next question.
2. One facilitator, the “Discussion Leader,” was responsible for guiding the group through the questions identified in the facilitation guide (provided as Appendix B). The facilitator was also responsible for starting the meeting recording under the settings of their individual breakout room
3. The other facilitator, the “Note Taker,” updated their group’s Miro frame to reflect the answers provided to the activities.

A PDF copy of the Miro board for this workshop is available upon request.

There were four breakout groups and the breakout sessions lasted 40 minutes. Once the participants were re-convened in the large group meeting room in Microsoft Teams, a representative from each group reported on portions of their respective findings and conclusions. The participants were then thanked for their interest and participation in the workshop and dismissed.

After the workshop had concluded, the workshop slides and a recording of the workshop were transmitted to participants and to NYMTC for distribution to other interested parties.

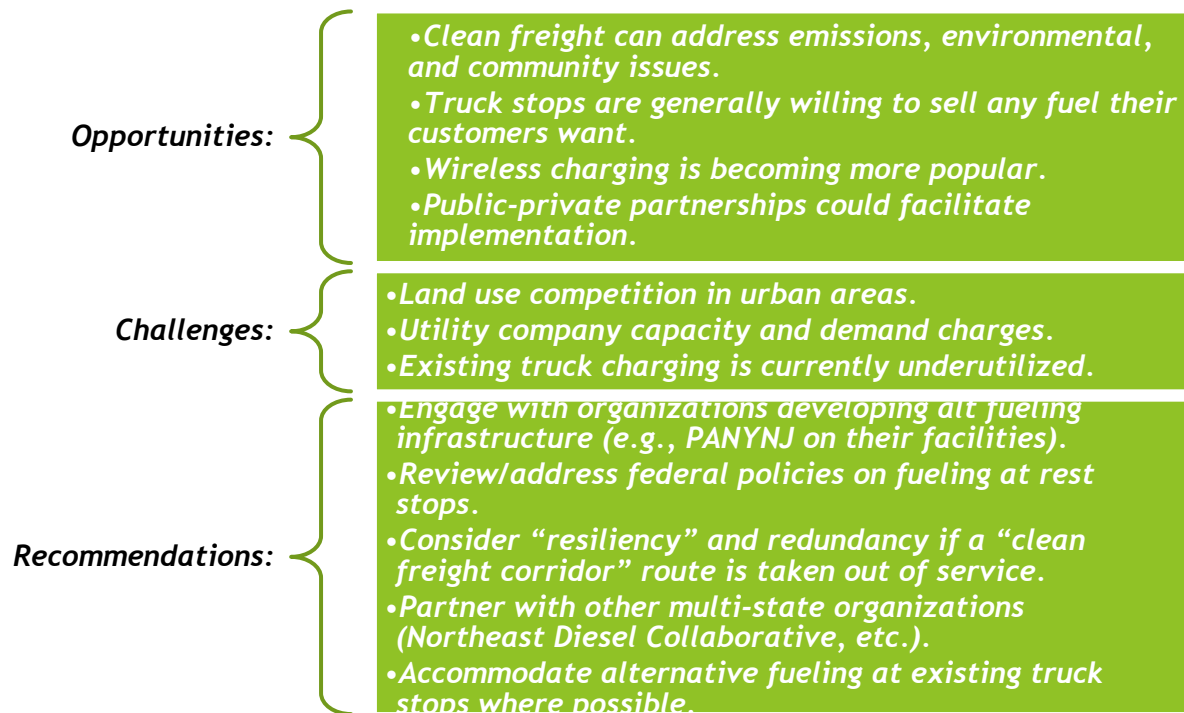
OUTCOMES

The breakout sessions included conversations regarding the perceived or desired meaning of a “clean freight corridor” designation, thoughts, or suggestions on the

preliminary list of recommended corridors for each fuel type, the policies and other factors needed to implement clean freight infrastructure in the region, and next steps and other stakeholders that ought to be engaged.

Figure 3 includes highlights of the feedback received. A full list of comments gathered in each of the three breakout sessions is provided as Appendix C.

Figure 3: Highlights of the Comments Gathered During the Breakout Sessions



The Clean Freight Corridors Planning Study virtual workshop provided the study team with valuable information from the perspectives of stakeholder groups that had not been engaged over the course of the study prior. The input and recommendations gathered will be incorporated into the final recommendations of the Clean Freight Corridors Planning Study.

Appendix A. Workshop Invitees

Category	Organization	Name	Title
Motor Carrier	Trucking Association of New York	Mark Giuffre	Vice Chair
Motor Carrier	Trucking Association of New York	Kendra Hems	President
Motor Carrier	New Jersey Motor Truck Association	Gail Toth	Executive Director
Motor Carrier	Motor Transport Association of Connecticut	Joseph Sculley	President
Motor Carrier	Bi State Motor Carriers Association	Dick Jones	Executive Director
Motor Carrier	XPO Logistics	William Ryan	Vice President of Operations, Last Mile
Motor Carrier	XPO Logistics	Mohamed (Mike) Rashwan	Freight Operations Supervisor
Motor Carrier	Quality Transportation	Hugh Thomas Cumby	Senior Account Executive
Motor Carrier	Tforce Logistics	Matt Camarda	Regional Operations Director (Franklin Square, NY)
Motor Carrier	Old Dominion	Eily Cummings	Director of Communications
Motor Carrier	Fedex	Peggy Hon	Operations Manager
Motor Carrier	Fedex	William Roche	Senior Manager Air Ground and Freight Services
Truck OEM	Volvo	Dawn Fenton	VP, Government Relations and Public Affairs
Truck OEM	Daimler	Nathan Hill	Head of Charging Infrastructure
Truck OEM	BYD	Vincent Pellecchia	Strategic Account Manager
Truck OEM	Navistar	Ian Honauer	Regional Truck Sales Manager
Utility	New Jersey Utilities Association	Christina Sweeney	Manager of Administrative and Member Services

Utility	Energy Association of Pennsylvania	Donna M.J Clark	Vice President & General Counsel
Utility	IPPNY	Emily Shover	Director, Operations and Membership
Utility	PSE&G	Richard T. Thigpen	Senior Vice President, Corporate Citizenship
Utility	PSEG Long Island	Michelle Somers	Program Support Manager – Electric Vehicles
Utility	Con Edison	Britt Reichborn-Kjennerud	Section Manager - Electric Vehicles
Utility	Jersey Central Power and Light	James V. Fakult	President, Jersey Central Power & Light Company
Utility	Orange and Rockland	MD Sakib	Section Manager - Utility Of the Future
Utility	Eversource (CT)	Steven Conte	Associate Energy Efficiency Consultant - Electric Vehicle Project Coordinator
Utility	United Illuminating (CT)	John Mitchell	Director, Electric Operations
Utility	PPL (Allentown, PA)	Kevin Amerman	Corporate Communications Specialist
Utility	UGI Utilities, Inc. (Bethlehem, PA)	Christopher Brown	Vice President and General Manager - Rates and Supply
Utility	National Grid (NYC gas)	Timothy Ferguson	Senior Program Manager - Electric Vehicles
Utility	Central Hudson Gas & Electric Co.	T.J. Rizzo	Senior Program Manager - Electric Vehicle Portfolio
Fuel Infrastructure Providers	ChargePoint	David Peterson	Director, Fleet
Fuel Infrastructure Providers	Greenlots	Scott Fisher	Vice President, Fleets and OEMs

Fuel Infrastructure Providers	EVgo	Colin Murchie	Senior Director, Business Development
Fuel Infrastructure Providers	Marubeni	Kanji Tsuchida	Development Manager
Fuel Infrastructure Providers	eCAMION	Himanshu Sudan	Co-Founder
Fuel Infrastructure Providers	Ideanomics	Bryan Rubio	Director of EV Solutions
Fuel Infrastructure Providers	Freewire	Peter Olmsted	Director of Regulatory Affairs
Fuel Infrastructure Providers	Freewire	John Erdman	
Fuel Infrastructure Providers	Mitsui	Daisuke Yanagisawa	General Manager
Fuel Infrastructure Providers	Clean Energy Fuels	Brett Barry	Policy and Regulatory Advisor
Fuel Infrastructure Providers	Air Liquide	David Edwards	Director of Technology Partnerships
Fuel Infrastructure Providers	Electreon	Stefan Tongur	Managing Director
Fuel Infrastructure Providers	WAVE	Tom McDonald	Sr. Director of Marketing and Business Development
Fuel Infrastructure Providers	WAVE	David Greenfader	Director of Sales

Fuel Infrastructure Providers	Trillium CNG	Kimberly Okafor	Strategic Business Development Manager
Fuel Infrastructure Providers	Black and Veatch	Paul Stith	Director, Global Transportation Initiatives
Fuel Suppliers	Linde	Wladimir Sarmiento-Darkin	Business Development Leader, US West
Fuel Suppliers	BayoTech	Scott Dyer	Vice President of Business Development
Fuel Suppliers	Nel Hydrogen Inc.	Eddy Nupoort	Director, Sales and Business Development
Fuel Suppliers	Plug Power	Tim Cortes	Chief Technology Officer
Fuel Suppliers	TA/Petro	Ray De La Luz	Regional Construction Manager
Port Operators	PANYNJ	Charles Liou	Manager, Environmental Initiatives
Port Operators	PANYNJ	Tanja Grzeskowitz	Environmental Programs Principal & Specialist
Port Operators	PANYNJ	Andrew Lo	Principal Environmental Programs Specialist
Port Operators	PANYNJ Port Department	Beth Rooney	Deputy Port Director
Port Operators	CT Port Authority	John Henshaw	Executive Director
Truck Stop Operators	Pilot-Flying J (multiple locations in region)		

Truck Stop Operators	Loves	Rick Shuffield	Vice President, Real Estate
Truck Stop Operators	Loves	Gavin Gretter	General Manager - Renewable Natural Gas (Trillium CNG)
Truck Stop Operators	Travel Centers of America (multiple locations in region)		
Truck Stop Operators	New Jersey Turnpike Authority		
Truck Stop Operators	New York State Thruway Authority		
Truck Stop Operators	Johnny's Truck Stop (Clinton, NJ)		
Truck Stop Operators	Penn Jersey Truck Stop (Phillipsburg, NJ)	Joseph Santini	
Truck Stop Operators	Tullo Truck Stop (Kearny, NJ)	Mr. Tullo	
Truck Stop Operators	Wheels Truck Stop (formerly Secondi Brothers), Milford, CT		
Truck Stop Operators	NATSO	Tiffany Wlazlowski Neuman	Vice President, Public Affairs
Industrial Real Estate	CBRE	Matthew Van Buren	President, New York Tri-State Division
Industrial Real Estate	CenterPoint Properties	David Nenner	Senior Vice President, Regional Manager
Industrial Real Estate	Colliers	Noah Balanoff	Executive Managing Director, Logistics and Transportation Solutions Group
Industrial Real Estate	Colliers	Michael Markey	Executive Managing Director, Logistics and Transportation Solutions Group
Industrial Real Estate	Cushman & Wakefield	Toby Dodd	President, Tri-State Region

Industrial Real Estate	Heller Industrial Parks	David Paster	Vice President
Industrial Real Estate	Majestic Realty Co.	Ed Konjoyan	Senior Vice President
Industrial Real Estate	ProLogis	Nick Kittredge	President, U.S. East Region
Industrial Real Estate	NAIOP	Michael McGuinness	Chief Executive Officer
Industrial Real Estate	CSCMP Lehigh Valley Roundtable	Fred Koeck	President
Industrial Real Estate	CSCMP New England Roundtable	Tom McConnell	President
Industrial Real Estate	CSCMP NY/NJ Roundtable	Erik Holck	President
Community Organizations	The Point CDC (Hunts Point, Bronx)	Maria Torres	President/Chief Operating Officer
Community Organizations	The Point CDC (Hunts Point, Bronx)	Sharon De La Cruz	Director of Sustainability
Community Organizations	Civics United for Railroad Environmental Solutions (CURES)	Mary Parisen-Lavelle	Co-Founder
Community Organizations	Tri-State Transportation Campaign	Renae Reynolds	Executive Director
Organization	Tri-State Transportation Campaign	Darwin Keung	Policy Analyst
Community Organizations	Ironbound Community Corporation	Maria Lopez-Nuñez	Director of Environmental Justice and Community Development
Community Organizations	NYC Environmental Justice Alliance	Annel Hernandez	Associate Director
Community Organizations	Coalition for Healthy Ports	Amy Goldsmith	State Director, New Jersey, Clean Water Alliance
Community Organizations	WE ACT for Environmental Justice	Sonal Jessel	Director of Policy

Community Organizations	South Ward Environmental Alliance	Kim Gaddy	Founder and Director
Community Organizations	Connecticut Coalition for Environmental Justice	Sharon Lewis	Executive Director
Clean Cities Coalitions	Empire Clean Cities	Joy Gardner	Executive Director & Clean Cities Coordinator
Clean Cities Coalitions	Greater Long Island Clean Cities Coalition	Rita Ebert	Program Coordinator
Clean Cities Coalitions	New Jersey Clean Cities Coalition	Chuck Feinberg	Executive Director
Clean Cities Coalitions	Eastern Pennsylvania Alliance for Clean Transportation	Caroline McCallum	Program Director
Clean Cities Coalitions	Connecticut Southwestern Area Clean Cities	Daphne Dixon	Clean Cities Coalition Coordinator
Clean Cities Coalitions	Greater New Haven Clean Cities Coalition	Paul Wessel	Clean Cities Coordinator
Clean Cities Coalitions	Capitol Clean Cities of Connecticut	Craig Peters	Clean Cities Coordinator
Government Agencies	NYSERDA	Jason Zimbler	Project Manager
Government Agencies	NYPA	Fabio Mantovani	Vice President, e-Mobility
Government Agencies	Pennsylvania Energy Development Authority (PEDA)	Allen Landis	PEDA Executive Director
Organization	Eastern Transportation Coalition	Marygrace Parker	Director, Freight Program
Organization	RPA	Dale Bryk	Senior Fellow for Energy and Environment
Government Agencies	Maritime Administration	Jeffrey Flumignan	Director, North Atlantic Gateway Office

Appendix B. Facilitation Guide

NYMTC: Clean Freight Corridors

Draft Breakout Room Facilitation Guide for October 7 Workshop

Breakout Activities

Following a presentation about the Clean Freight Corridors Planning Study, participants will be divided into breakout rooms, each with 6-8 participants and 2 facilitators from the study team.

Facilitator Roles

One member of the ASC staff will serve as the “Meeting Organizer,” who will provide the technical support and control the breakout rooms. The Meeting Organizer will also share chat notifications indicating when it is nearly time to move to the next question. Before the groups go into their breakout rooms, the Meeting Organizer will remind the participants that they should not try to exit the breakout room by clicking “leave” - this will remove the participant from the entire workshop.

One facilitator, the “Discussion Leader,” will be responsible for guiding the group through the questions identified in this facilitation guide. The facilitator will also be responsible for starting the meeting recording under the settings of their individual breakout room

The other facilitator, the “Note Taker,” will update their group’s Miro frame to reflect the answers provided to the activities.

For reference, the project map is available at

<https://calstartorg.maps.arcgis.com/apps/View/index.html?appid=9ec633625d7a4cf9a39ae6c041b7cb58&extent=-78.7222,38.5742,-68.1753,42.4845>.

Group Staffing

Group 1:

- Facilitator: Gerry Bogacz
- Technical: Lisa Destro
- Note Taker: Caroline Ibarra

Group 2:

- Facilitator: Leslie Fordjour/Nora Madonick
- Technical: Al Beatty
- Note Taker: Shawn Wallbillich

Group 3:

- Facilitator: Michael Henrich
- Technical: Christopher Lamm
- Note Taker: Karina Vangani

Group 4:

- Facilitator: Marisol Gonzalez
- Technical: Ben Mandel
- Note Taker: Joseph Smith

Introduction (2-3 minutes)

Once participants have entered the breakout room, the Discussion Leader will welcome the participants to the breakout room and encourage participants to introduce themselves to the full breakout group by sharing:

- Their names
- The organization they are representing.

The Note Taker will then share their screen of the Miro activity board with the breakout group.

One person in the group should be assigned to report out to the full group after the breakout activity.

Part 1: What should a “regional clean freight corridor” designation mean? (15 minutes)

The Note Taker will focus in on the Part 1 area of the Miro board, and the Discussion Leader will ask the following prompts:

5 minutesQuestions/Prompts:

- During the presentation, we shared some of the characteristics that we used in our analysis— including major freight demand clusters, fueling stations by type and any identified gaps in the corridor. Are there other characteristics that our analysis should include?
- How about the weight that we gave each characteristic? How would you have weighed the different characteristics?

As participants respond to the question, the Note Taker will use sticky notes on the Miro board to jot down the responses. As needed, the Discussion Leader will ask follow-up questions to clarify the response or to gather additional information.

About 5 minutes into this 15-minute period, once participants have had the opportunity to respond to the first question, the Note Taker will focus in on the project map on the right side of the Miro frame.

Once the map is in focus, the Discussion Leader will ask the following prompts:

10 minutesQuestions:

- We also shared our draft recommendations for clean freight corridors based on this analysis, shown in these maps for each fuel type. How well do you feel these recommendations reflect corridor readiness for each fuel type? (Facilitator should share each map on-screen and give participants time to respond.)
- Are there any segments that should be added or removed? (Facilitator should share each map on-screen and give participants time to respond.)
- Do you have any suggestions regarding potential clean freight corridor designations? Why would you recommend designating that corridor?

The Note Taker will use Miro's pen, connector (arrow) and sticky note tools to mark up the map reflecting participant feedback.

Once participants have responded to the initial question, the Discussion Leader will ask the following question.

As the 10-minute period ends, the Discussion Leader will move to part 2.

Part 2: What kinds of policies will be needed to use these designations to implement clean freight infrastructure and build networks of corridors? (10 minutes)

The Note Taker will focus on the Part 2 area of the Miro board, and the Discussion Leader will ask the following question.

As participants respond to the question, the Note Taker will use sticky notes on the Miro board to jot down the responses. If needed, the Discussion Leader can ask the following follow-up questions to guide the discussion.

Questions/Prompts:

- What are the most significant factors that need to be considered when implementing alternative fuel infrastructure in these corridors?
- What trends, if any, have you noticed in alternative fuel infrastructure in the region? How might these trends impact clean freight corridors in the region?

As participants respond to the question, the Note Taker will use sticky notes on the Miro board to jot down the responses. As needed, the Discussion Leader will ask follow-up questions to clarify the response or to gather additional information.

As this 10-minute period ends, the Discussion Leader will move to the final activity, part 3

Part 3: What next steps should our team take? (10 minutes)

The Note Taker will focus in on the Part 3 area of the Miro board, and the Discussion Leader will ask the following question.

Questions/prompts:

- Which stakeholder groups need to be engaged in the implementation of the clean freight infrastructure recommendations?

- What would be the best way to engage the stakeholders that you have just mentioned? Is there anything we should keep in mind while meeting with these stakeholders?
- If you have any recommendations for a person or group we should be in touch with, please feel free to share in the chat of this breakout group.
- How can we make our final findings of the study most accessible to you and your peers?

As participants respond to the questions, the Note Taker will use sticky notes on the Miro board to jot down the responses. As needed, the Discussion Leader will ask follow-up questions to clarify the response or to gather additional information.

After the 10-minute period ends, the Discussion Leader will let the team know that they will close the breakout room and return to the main group.

Close out announcement for each group

Facilitator: Thank you for sharing your insights during this breakout room. In a few moments, this breakout room will close, and you will be brought back into the main presentation area. Please stay on for a few more moments for the close of today's workshop.

Reporting Out (15 mins)

Assign each group one section to report back on. The person assigned in the beginning from each group will share their group's responses to the questions in that section.

Appendix C. Comments Gathered During the Workshop

The tables below capture the feedback received from workshop participants on each of the three discussion parts, and on the maps shown during the breakout sessions.

Part 1 **What should a "regional clean freight corridor" designation mean? We also shared our draft recommendations for clean freight corridors based on this analysis, shown in the maps for each fuel type (maps were shown on the screen). How well do you feel these recommendations reflect corridor readiness for each fuel type?**

Group(s)	Comment
	The type of charging system is the most important, especially for charging in a very dense environment.
1	Wireless charging is now commercially ready. There are agencies running almost exclusively on wireless. Not needing to go to depots for charging.
1	The availability is a key factor -- Hunts Point is a current area where this is an issue
1	Would other businesses have the same environmental issues?
1	Citing all of the NYC locations in corridors that have already been flagged poses a challenge -- where does funding come from for locations that make most sense for the city? Don't want to be shut out of the game for infrastructure funding.
1	NYC DOT: We don't even have places to think about siting infrastructure -- land use issues pose issue in urban area, and other land uses seem like a priority.
1	California is also having similar issues -- there's a third-party group evaluating future fueling sites. CNG models and P3 as creative ways to look at the issues.
1	Making the clean freight corridor is an important first step -- PANYNJ has conducted its own study to evaluate infrastructure on/near group properties
1	There is a drayage area near port where truck charging is available -- but it's currently underutilized. Use will require significant changes.
1	Some tenants are starting to bring in alt. fuel trucks due to funding, but they will probably continue to use their own charging infrastructure rather than CFC infrastructure. Outside infrastructure is more for as-needed
1	Biggest things: Optionality, Electrification and other new opportunities
1	There are environmental issues and land use issues -- transit agencies and P3 are opportunities
1	Fueling as a Service
2	fuel station coverage, freight demand, truck volume
2	convenience of station itself
2	air quality ozone attainment
2	EJ areas and Minority populations
2	freight consolidation areas

2	high priority: Location/ Convenience of station
2	look at clusters and identify areas of overlap
3	Transfer freight
3	Origins and destinations of freight
3	Fuel that we would be able to provide. Amenities to the truck drivers (eat, shop)
3	Electrification: Working with utilities. Charging levels
4	Interest in learning more so that we can communicate with the DOT
4	Maybe focus on short-haul trucks first, easier to meet their needs more effectively
4	Concern about where fueling stations would be. Existing service areas makes sense. New facilities could take 10 years to realize
4	Prioritize corridors using truck volumes as primary metric for need.
4	Trucks move probably 95% of freight in CT. Important to accommodate that mode
4	In general, the presented methodology accounted for important issues and policy changes that may be necessary
4	Need to include fueling at rest stops, but there aren't enough rest stops
4	High cost of land can be a challenge for acquiring new land for truck stops. Are there more possibilities in the ROW?
4	Working with trucking companies and distribution centers could be an option
4	Need to identify funding
4	Land use is the biggest problem to overcome. People don't want these facilities in their neighborhoods.

Part 2

What kinds of policies will be needed to use these designations to implement clean freight infrastructure and build networks of corridors?

What are the most significant factors that need to be considered when implementing alternative fuel infrastructure in these corridors?

What trends, if any, have you noticed in alternative fuel infrastructure in the region? How might these trends impact clean freight corridors in the region?

Group	Comment
2	Incentives
2	Requirements of stations
2	Meet new and different standards
2	Accommodating drivers' needs
2	Resiliency factor: building resiliency into the locations
2	EV charging to attract people to cities
2	Federal policy: change the ability to sell fuel or anything at rest stops (interstate rest stop regulations)
2	Trend: A move toward electrification
2	Encourage more people to buy cleaner-fuel vehicles

3	Truck driver perspective - have a seamless and transparent transition to alt. fuel vehicles
3	Established network of fueling locations with policies to ensure that the fuels they need are available
3	No demand charges from utility companies!
3	Needs to be a competitive marketplace and driven by private sector, not just grant money
3	Regulations are needed, but with guardrails to ensure fairness
3	Should look at emergency response and diversion route tactics - if a clean freight corridor route is taken out of service there need to be alternatives fueling locations on the detour route(s)
3	Utilities can sometimes step in and skew the competition.
4	Recently learned that within the past few months, the state legislature in NJ passed a law that will apply to residential developments in all municipalities. Developments of a certain size (based on units) when they build parking spaces they have to include a certain percentage of those spaces as EV charging stations. Additional higher percentage they have to make ready for future EV charging stations. Takes effect immediately.
4	As a policy recommendation, similar requirements for commercial facilities or warehouse facilities and distribution center. If you build one, should there be a requirements that a certain number of EV charging stations or hydrogen fuel stations would have to be installed as part of the requirement for approval.
4	<i>Trucks are not cars. This will be a big issue to overcome. Some towns in CT have approved zoning regulations that would prevent EV charging in certain areas. There is a different attitude for an 18 wheeler compared to a passenger car. Promotion of EV charging stations is intended to get people to buy EVs. Policymakers may not offer those same incentives for commercial truckers</i>
4	Require warehouses or freight intensive facilities to require EV charging stations, however the incentives for policymakers may not be there. Might have to come from the private side
4	<i>EV Charging is viewed as benign, some people are nervous about Hydrogen. That is another hurdle to overcome. Perceived safety problems will effect permitting.</i>

Part 3 What next steps should our team take?

Which stakeholder groups need to be engaged in the implementation of the clean freight infrastructure recommendations?

How can we make our final findings of the study most accessible to you and your peers?

Group	Comment
2	Other clean cities coalitions in the Northeast and Mid-Atlantic
2	Volpe Center
2	Coordinating with surrounding states to ensure connectivity
2	Share the planning study with the Northeast Diesel Collaborative

2	Utilities that would prepare the grid or building-out the infrastructure in these corridors
2	Rural chambers of commerce
2	Communities in fueling center locations
3	Affected communities that the transportation corridors go through - get their input and buy-in
3	Start with a list of stakeholders
3	Disadvantaged/under-represented communities
3	Fleet owner-operators and small fleets
3	Fleet drivers vs. independent drivers have different patterns and needs
4	Trucking industry, transportation/freight companies
4	More private sector. Reaching out to them is difficult unless companies see the benefit
4	Engaging the Port Authority may be helpful in connecting with private companies
4	Asking private sector “from your perspective what are some of the technical, financial barriers?”
4	Reach out to companies that run distribution centers or other trucking facilities
4	Engage labor unions comprised of truckers to hear their experiences
4	Get more connected through other plans/studies (CT, Hudson County’s upcoming study, etc.)

Map Comments

Map	Comment
CNG Readiness	Where does CNG stand now? CLCPA and renewable fuel standards pose a major factor.
CNG Need	Environmental groups are suspicious of CNG. Price is a benefit, though.
CNG Need	Real push for CNG historically - battery technology has moved much faster than anticipated
CNG Need	Industry needs to shift toward being RNG sellers.
Electric Readiness	Wholesale shift to electric is going to cost a lot of time and effort
Electric Readiness	Where are the transmission lines located?
Electric Need	Define threshold need level
Electric Need	All highways should be highlighted
Hydrogen Need	CFC offers option for owner-operators to opt into alt. fuels. Union issue. 70% of the workforce can't afford as owner-operator.
Hydrogen Need	Ex. \$2 million in infrastructure isn't realistic for many.

Hydrogen Need	Many are splitting their fuel types. There are savings this way.
Hydrogen Need	Battery storage needs to be addressed, especially for battery operations.