CLEAN CORRIDOR COALITION

A PROPOSAL FOR ZE-MHDV INFRASTRUCTURE ALONG THE I-95 CORRIDOR



SUBMITTED TO ENVIRONMENTAL PROTECTION AGENCY

SUBMITTED BY NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION: 401 EAST STATE STREET TRENTON, NEW JERSEY 08625









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(C3)

Table of Contents

1)	Overall Project Summary and Approach	1
	1a) Description of GHG Reduction Measure	2
	Program Design & Management	2
	Advancing CPRG Goals and Climate Action Priorities for Coalition Members	4
	Leveraging Federal ZEV Freight Corridor Planning Studies for Successful Implementation	5
	Potential Risks and Mitigation Strategies	5
	1b) Demonstration of Funding Need	7
	1c) Transformative Impact	9
2)	Impact of GHG Reduction Measures	11
	2a) & 2b) Magnitude of GHG Reductions: 2025-2030 and 2025-2050	11
	2c) Cost Effectiveness of GHG Reductions	12
	2d) Documentation of GHG Reduction Assumptions	13
3)	Environmental Results: Outputs, Outcomes, and Performance Measures	13
	3a) Expected Outputs and Outcomes	13
	3b) Performance Measures and Plan	14
	3c) Authorities, Implementation Timeline, and Milestones	15
4)	Low-Income and Disadvantaged Communities (LIDAC)	17
	4a) Community Benefits	17
	LIDAC Communities Benefitting from GHG Reduction Measure	17
	Assessment of Expected Benefits and Avoided Disbenefits	18
	Reduced Air Pollution	18
	Workforce Development and Job Creation	18
	Strategies to Mitigate Potential Disbenefits	19
	Assessing, Quantifying, and Reporting Benefits	19
	4b) Community Engagement	20
	Community Engagement to Inform Proposal Development	20
	Ongoing Community Engagement for Measure Implementation	20
	Community engagement on air quality monitoring will inform measure implementation.	21

5)	Job Quality	21
6)	Programmatic Capability and Past Performance	22
	6a) Past Performance	22
	6b) Reporting Requirements	24
	6c) Staff Expertise	24
7)	Budget	25
	7a) Budget Detail	25
	Indirect Costs	25
	7b) Expenditure of Awarded Funds	25
	7c) Reasonableness of Costs	25

List of Tables

Table 1 Coalition Roles and Responsibilities	3
Table 2 Risks and Mitigation Strategies	5
Table 3 Funding Sources Explored for Proposed Measures	8
Table 4 Cumulative GHG Emission Reductions Anticipated from Implementation of Proposed Measures	11
Table 5 Cumulative Reduction of Other Mobile Source Air Pollutants by 2030	12
Table 6 Activities, Outputs, and Outcomes of the Project	13
Table 7 Tasks and Milestones	16
Table 8 LIDAC Assessment by State	18
Table 9 NJ DEP Federal & Non-Federal in Previous 3 Years	23
Table 10 NJ DEP Reporting Requirements by Grant Program	24

List of Figures

Figure 1 Project Location Map	2
Figure 2 Coalition Activities Supported by the Administrator, Contracted by NJ DEP	3
Figure 3 LIDACs within the Project Area	17

1) Overall Project Summary and Approach

The Clean Corridor Coalition (C3) proposal will initiate strategic planning and accelerate transformative investments in zero-emission medium- and heavy-duty vehicle (ZE-MHDV) charging infrastructure along the I-95 corridor and adjacent roadways from Connecticut to Maryland. This initial investment of funding for truck charging infrastructure would be a critical down payment for zero-emission freight movement in the participating states— Connecticut, New Jersey, Delaware, and Maryland—and catalyze the deployment of zero-emission freight trucks in the Northeast and Mid-Atlantic region and beyond. This corridor contains large population centers, major ports and freight facilities, and was identified as a 'Phase 1' priority in the federal government National Zero-Emission Freight (ZEF) Corridor Strategy.

THIS PROPOSAL WILL ACHIEVE THE ZE-MHDV CHARGING INFRASTRUCTURE DEPLOYMENT MEASURE THROUGH:

- 1. \$227 million in funding for public freight truck charging infrastructure sites;
- 2. Technical assistance to host sites to support cost-effective and successful project development;
- 3. Workforce training to support local workforce development and job creation;
- 4. Community engagement to provide input to site selection and workforce development programs ensuring maximum community benefits; and
- 5. Planning and coordination by states along the corridor for a public freight truck charging network to support expansion of project impacts throughout the broader Northeast and Mid-Atlantic region.

While early deployment of ZE-MHDVs will primarily rely on fleet-specific depot charging, those facilities are not publicly available. A network of publicly available freight truck charging stations will play a critical, complementary role in the near term by providing greater reliability and certainty for fleet operators. Trucks will be able to travel further from their dispatch centers confident that convenient charging sites will be available along their routes. By providing charging for local delivery and 'return to base' operators, publicly available charging stations for commercial ZE-MHDVs can provide near term emission reductions and market certainty (in line with the National ZEF Corridor Strategy) as fleet operators and other freight industry participants make investments in ZE-MHDVs. These charging stations will also accelerate deployment of zero-emission regional- and long-haul freight operations. The National ZEF Corridor Strategy anticipates increased regional-haul (and long-haul initiating) by 2030, and public charging stations will be needed to enable this growing number of zero-emission freight truck routes and applications.

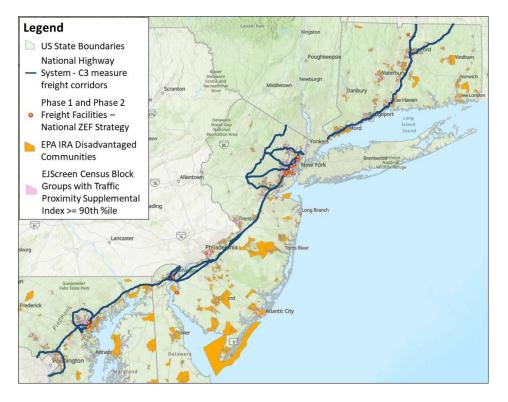
Multi-state planning and strategic site selection for early investments presents an unparalleled opportunity to unlock both near- and long-term emissions reductions in this difficult-to-decarbonize sector. This site selection and funding implementation process would be guided by two U.S. Department of Energy-funded analyses that will identify key sites for zero-emission freight charging infrastructure in the region: the Northeast Freight Corridors Charging Plan and the East Coast Commercial ZEV Corridor (collectively "DOE studies"), along with community and stakeholder engagement.

This proposal is an opportunity to leverage CPRG funding to accelerate the deployment of commercial ZE-MHDVs in one of the nation's most active freight corridors. The corridor identified in the proposal includes 22 facilities identified as Phase 1 and 2 Zero Emission Freight Hubs in the National ZEF Corridor Strategy. This coalition region includes communities overburdened by air pollution who have called for reducing freight truck emissions to address increased rates of childhood asthma, lung cancer, cardiovascular disease, and other <u>health impacts</u> exacerbated by diesel fuel combustion. The coalition measure proposes an effective strategy to rapidly reduce diesel fuel consumption—and resulting air pollution—in and around overburdened communities. Figure 1 illustrates the project location including the corridor's proximity to impacted Low-Income and Disadvantaged Communities (LIDACs) and Phase 1 and 2 Zero-Emission Freight Hub facilities from the National ZEF Corridor Strategy.

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The coalition member states are national leaders on transportation electrification and are implementing policies such as ZE-MHDV sales requirements, financial incentives to reduce ZE-MHDV purchase costs, community and industry outreach and engagement, and multi-state infrastructure development planning. These complementary state policies and the potential for catalyzing zero-emission freight in this leading national corridor make this a high-impact region for investment of CPRG funding. By strategically developing an initial corridor of ZE-MHDV charging stations, this proposal can drive transformative emissions reductions in a difficult-to-decarbonize sector and provide a model of success that can be replicated across the country.

Figure 1 | Project Location Map



1a) Description of GHG Reduction Measure

This proposal will enable adoption of commercial ZE-MHDVs, thus reducing GHG emissions, by providing funding for the development of approximately 24 freight truck charging infrastructure sites, technical assistance to site hosts, community engagement, and broader regional planning and coordination of ZE-MHDVs infrastructure investments to enable market transformation. Figure 1 illustrates the freight corridor segments that would be the focus for infrastructure investments funded by this proposed measure.

The New Jersey Department of Environmental Protection (NJ DEP), Connecticut Department of Energy and Environmental Protection (CT DEEP), Delaware Department of Transportation (DelDOT), Maryland Department of the Environment (MDE), and Maryland Department of Transportation (MDOT), (hereafter "the coalition") propose to undertake the GHG reduction efforts described in this workplan if awarded CPRG implementation grant funding. Table 7 in Section 3c provides a detailed list of Tasks and Milestones.

Program Design & Management

As the coalition lead, NJ DEP would receive the grant award and each coalition member would receive sub-awards to implement the measure within their respective states, with support provided by a shared program administrator. Each coalition member would award funding for investments in electric charging sites for commercial freight trucks operating in their states.

In consultation with coalition members, NJ DEP would oversee a third-party program administrator ("Administrator"), which would directly – or through subcontracts with other organizations – provide administrative, technical, public engagement, facilitation, and other support for measure-related activities. Figure 2 illustrates the Administrator's role in assisting NJ DEP with measure implementation, which is structured to enable efficient implementation of grant funding through each participating state and to support coordination of complementary measures that would collectively achieve broader market transformation, consistent with the National ZEF Corridor Strategy.

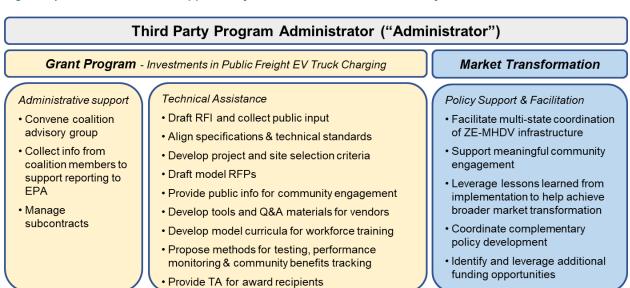


Figure 2 | Coalition Activities Supported by the Administrator, Contracted by NJ DEP

Table 1 outlines the coalition members' roles and responsibilities. NJ DEP affirmatively declares that it will submit an MOA signed by all of the coalition members by July 1, 2024.

Table 1 | Coalition Roles and Responsibilities

	New Jersey Department of Environmental Protection				
•	Issue subawards to coalition partners in accordance with federal guidelines.	•	Disburse funds to project sponsors and oversee projects in New Jersey. Track and report on project		
•	Submit a Memorandum of Agreement (MOA) to EPA signed by all coalition members by July 1, 2024.	•	progress, expenditures and purchases. Develop and issue RFPs for a workforce		
•	Coordinate with coalition members to select a program administrator, technical assistance		development program including training and participant support services.		
	providers and facilitators through a competitive procurement process.	•	Track, measure, and report accomplishments, proposed timelines, and milestones.		
•	Oversee subrecipients, and/or contractors and vendors.	•	Submit semi-annual progress reports on grant implementation and planned activities to EPA.		
•	Ensure that program administration and decisions are informed by meaningful input from coalition members.	•	Submit a detailed final report to EPA within 120 calendar days of the period of performance's		
•	Develop and issue RFPs for New Jersey charging sites guided by a model RFP.	•	completion. Oversee and coordinate community and stakeholder		
•	Review applications, select projects, and enter into agreements with project developers in New Jersey.		engagement, outreach, and education in New Jersey and coalition member jurisdictions, as appropriate.		

Co	Connecticut Department of Energy and Environmental Protection, Delaware Department of Transportation, Maryland Department of the Environment, and Maryland Department of Transportation				
•	Sign MOA for submission to EPA by July 1, 2024.	•	Disburse funds to project sponsors and oversee		
•	Comply with subrecipient requirements under EPA's		projects.		
	Subaward Policy.	•	Develop and issue RFPs for workforce development		
•	Provide information to NJ DEP to inform the selection process for a program administrator, technical assistance providers and facilitators.	programs (each coalition member within its respective state), including training and parti support services.			
•	Develop and issue RFPs for charging sites in Connecticut, Delaware, and Maryland guided by a model RFP.	•	Track and report to NJ DEP on project progress, expenditures, and purchases within Connecticut, Delaware, and Maryland.		
•	Review applications, select projects, and enter into agreements with project developers in Connecticut, Delaware, and Maryland (each coalition member within its respective state).	•	Track, measure, and report to NJ DEP on accomplishments, proposed timelines, and milestones within Connecticut, Delaware, and Maryland.		
		•	Conduct community and stakeholder engagement, outreach and education within Connecticut, Delaware, and Maryland.		

Advancing CPRG Goals and Climate Action Priorities for Coalition Members

This Clean Corridor Coalition (C3) proposal to invest in commercial ZE-MHDV charging infrastructure is an urgently needed measure that supports each of the EPA's CPRG goals. The following explains why it was chosen as a strategy.

- Ambitious GHG reductions: The C3 is an ambitious proposal that could cut an estimated 18.6 million metric tons in cumulative GHG emissions through 2050 from transportation, by far the <u>biggest source</u> of climate pollution in coalition states (e.g., 37% of GHG emissions in NJ and 46% in MD). It has the potential for transformative emissions reductions in the medium- and heavy-duty (MHD) truck sector in the coalition states and nationally by demonstrating an impactful emissions reduction strategy. MHD emissions have <u>increased for decades</u>, even as emissions from light-duty vehicles have declined.
- Substantial Community Benefits: Reducing diesel emissions along this corridor would cut hundreds of tons of mobile source criteria air pollution across the region, directly benefiting 456 LIDAC, 259 of which are classified by EPA as being at or above the 90th percentile for EJScreen's Traffic Proximity Supplemental Index (see Sections 3a and 4a). The Project would also support workforce development and job creation, prioritizing LIDAC residents.
- 3. Complement other funding sources: As detailed in Sections 1b and 1c, the coalition members are actively implementing impactful ZE-MHDV deployment efforts, including through investing hundreds of millions of dollars of state funds into ZE-MHDV incentive programs to support truck deployment, and are seeking additional federal funding. This coalition proposal would fund charging infrastructure, a critical missing piece to accelerate truck electrification, and would complement additional federal funding for zero-emission freight, including port electrification (Clean Ports Program) and ZE-MHDV deployment (Clean Heavy-Duty Program).
- 4. **Ability to scale**: As detailed in Section 1c, the proposal is closely aligned with the National ZEF Corridor Strategy and, with complementary measures implemented in the coalition states, provides a model for leadership that is innovative and replicable, particularly along Phase 1 and 2 corridors nationwide. The corridor investments could also scale regionally in the heavily traveled Northeast and Mid-Atlantic region, building on a framework of multi-state, regional collaboration.

This proposal is very well aligned with GHG reduction measures in the coalition members' PCAPs. Each state in the coalition has a PCAP measure to deploy electric charging sites for MHD vehicles within their state:

- New Jersey PCAP (pp. 15-18): Expand charging infrastructure for zero-emission charging and fueling infrastructure for MHDVs to support zero-emission freight trucks along the I-95 corridor;
- Connecticut PCAP (pp. 48-54): Deploy electric vehicle chargers statewide to support light-duty and mediumheavy duty fueling needs;
- Delaware PCAP (pp. 55-58): Develop incentives and technical assistance to enable a network of alternative fuel infrastructure for medium- and heavy-duty vehicles with a focus on zero-emission technologies; and
- Maryland PCAP (pp. 45): Advanced Clean Trucks, including investments in deploying charging infrastructure for commercial medium- and heavy-duty ZEV at sites along major highways and freight corridors.

Leveraging Federal ZEV Freight Corridor Planning Studies for Successful Implementation

Efficient implementation of this measure would be supported by two comprehensive regional analyses of zero-emission freight charging and fueling infrastructure funded by the U.S. Department of Energy: the <u>Northeast Freight Corridors</u> <u>Charging Plan</u> and the <u>East Coast Commercial ZEV Corridor</u>, which will identify priority locations for ZE-MHDV charging stations. The <u>Northeast Freight Corridors Charging Plan</u>,¹ led by National Grid, will identify over 100 priority sites for truck charging in Connecticut, New Jersey, and other northeastern states based on modelling of future truck charging demand, utility-led analyses of electric system capacity, and in consultation with utilities, state governments, industry, and other stakeholders. The <u>East Coast Commercial ZEV Corridor</u> analysis, led by CALSTART, will identify sites and key selection criteria for ZE-MHDV charging and fueling infrastructure to support zero-emission freight movement along the I-95 corridor in New Jersey, Delaware, Maryland, and other states. By leveraging the DOE studies to inform site selection criteria, the project coalition will quicken the pace of urgently needed infrastructure deployment and maximize pollution reductions, transformative industry impact, and benefits to communities. The DOE studies will provide unprecedented analytical support to help overcome challenges to ZEV truck charging corridor development (see Table 2) and will increase the likelihood of success for the coalition measure.

Potential Risks and Mitigation Strategies

The coalition members have extensive experience managing federal grant awards and complex, large-scale projects (see Section 6), including EV charging programs, and are well positioned to navigate and overcome challenges.

Risk	Effect on GHG emission reductions	Probability of Risk	Mitigation Strategy
Delays in setting up a third-party program administrator.	Delays may diminish cumulative GHG emission reductions in the near-term.	Low	NJ DEP is planning to issue a Purchase Order to a qualified consultant that is expected to be selected through a competitive process by January 2025.
Electric grid upgrades greater than those	f grant funding for charging sites is required to pay for 100% of grid upgrades (vs.	Medium	The project team will leverage the DOE studies' evaluation of grid capacity and other considerations to inform
estimated in the project budget are required to energize charging sites.	the 50% assumed), this would reduce the emissions benefits of this proposal by roughly 20 percent.		site selection criteria in the model RFP. Two rounds of funding solicitations will enable opportunities for adjustments if needed.

Table 2 | Risks and Mitigation Strategies

¹ National Grid. (2023). Readying the Northeastern U.S. for electric trucks: National Grid to build DOE-funded roadmap. <u>https://www.nationalgridus.com/News/2023/10/Readying-the-Northeastern-U-S-for-Electric-Trucks-National-Grid-to-Build-DOE-Funded-Roadmap/</u>

Risk	Effect on GHG emission reductions	Probability of Risk	Mitigation Strategy
Higher than expected costs for charging station equipment.	Cost effectiveness of emissions reductions may decrease.	Medium	The coalition members will coordinate to develop clearly scoped RFPs based on rigorous value engineering and will share their experience with reputable, high- performing vendors.
Lower than anticipated market penetration of ZEV trucks reduces station utilization.	Reduction of cumulative GHG emission reductions in the near-term (2025 – 2030) or long term (2025- 2050).	Medium	NJ and MD have adopted the Advanced Clean Truck (ACT) regulation, requiring minimum sales of ZEV trucks. Coalition members are implementing critical complementary policies, such as ZE-MHDV purchase incentives. High-utilization locations will be prioritized in RFP.
Technology or market uncertainty around high- capacity MHD EV chargers.	Uncertainty may cause delays, reducing near-term cumulative GHG emission reductions.	Medium	RFP will incorporate all technical standards developed by federal agencies and national labs, such as the megawatt charging system. ²
Difficulty obtaining local permits may delay timeline for charging station construction and operation.	Delays may diminish cumulative GHG emission reductions in the near-term.	Low	Coalition states are engaging local governments and collaborating through the Multi-State ZEV Task Force to identify best practices to streamline local zoning and permitting for charging infrastructure. NJ DEP law requires consistent, streamlined permitting of charging stations in all municipalities. Coalition members committed to early and ongoing engagement with local stakeholders and regulatory authorities.
Difficulty with charging site funding implementation (e.g. selecting vendors).	Delays may diminish cumulative GHG emission reductions in the near-term (2025 – 2030).	Medium	The Third Party Administrator will support the coalition, including developing a model RFP and evaluation criteria and outreach to increase awareness by potential vendors. Coalition members will release RFPs using their own state processes to improve efficiency.
Lack of sufficient workforce for charging station installation, operation, and maintenance.	Delays may diminish cumulative GHG emission reductions in the near-term (2025 – 2030).	Medium	Each member has expansive workforce development programs (see Section 5). Coalition members will apply funding to support workforce training and development in partnership with local communities and institutions.

 ² National Renewable Energy Laboratory, High-Power Medium- and Heavy-Duty Electric Vehicle Charging, <u>https://www.nrel.gov/transportation/medium-heavy-duty-vehicle-charging.html</u>

Risk	Effect on GHG emission reductions	Probability of Risk	Mitigation Strategy
Community opposition to site development.	Delays may diminish cumulative GHG emission reductions in the near-term (2025 – 2030).	Low	Coalition members have significant experience engaging the public (including LIDACs) for large-scale projects and will work with community groups and equity advisory bodies to support meaningful engagement regarding community priorities and support community benefits.

1b) Demonstration of Funding Need

Investment of federal funding in commercial ZE-MHDV public charging infrastructure is essential to unlocking zeroemission truck adoption, and this need is currently not being met by other federal funding sources, state funding, or private sector investment. While the coalition partners have sought other federal funding for this measure, those applications have not been successful or leave major funding gaps. Additionally, the federal funding programs have been significantly oversubscribed.

Fully building out charging infrastructure in the project region and throughout the Northeast and Mid-Atlantic region will require significant funding. Infrastructure needs analysis estimates that \$100-166 billion in investment must be committed nationally before 2030, with \$65-135 billion for on-road MHD EV charging alone, to support the pathway towards 100 percent electric MHDV new sales by 2040.³ Given current trucking volumes and projected demand for charging along I-95, much of this funding will need to be committed to the coalition region. High demand is projected for MHDV charging infrastructure along the I-95 corridor between Connecticut and Maryland; of the 30 U.S. counties with the highest projected charging demand per unit area, five are along the I-95 corridor in New Jersey, indicating the critical need to deploy charging infrastructure along this corridor.⁴

Funding directed to ZE-MHDV charging infrastructure under current federal programs is not sufficient to meet the scale of infrastructure investment needed to achieve state and federal GHG emission reduction targets and regulations, including the EPA Proposed Phase 3 GHG Emissions regulation and state Advanced Clean Truck regulations. Several industry commenters to the EPA Proposed Phase 3 rule explicitly point to the need for robust public truck charging infrastructure, with several noting that federal funding to date has been insufficient. For example, the American Trucking Association notes "that a small number of heavy-duty accessible public charging stations are available nationwide. EPA cites the federal funds available to states to support the construction of charging networks under the [IIJA] and IRA, but the programs included in the legislation do not robustly support commercial vehicle electrification."⁵

Commenters to the EPA Phase 3 rule also call out the importance of regional scale charging infrastructure deployment. The Truck Renting and Leasing Association commented "Since trucks by nature are not bound to local, state, or international borders, ZEV vehicle travel – aside from hub-and-spoke operations – will be limited to the reach of the nation's fueling infrastructure."⁶ The Truck & Engine Manufacturers Association (EMA) states that [one of the three key policies for] "any successful regulatory program to accelerate the manufacture and sale of ZEV trucks... [is] (ii) a comprehensive coordinated program at the federal and state level to ensure the build-out, on-time and at scale, of the necessary battery recharging and hydrogen-refueling infrastructures to operate ZEV trucks in a commercially viable

(Footnote continued on next page...)

³ Investment differentials account for different scenarios based on utilization rates, utility cost share of upgrades required, and charging location mix. <u>https://atlaspolicy.com/wp-content/uploads/2021/11/2021-11-12_Atlas_US_Electrification_Infrastructure_Assessment_MDHD-trucks_ExecSummary.pdf</u>

⁴ https://theicct.org/wp-content/uploads/2023/05/infrastructure-deployment-mhdv-may23.pdf

⁵ American Trucking Associations, Comment Letter on Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles—Phase 3, EPA-HQ-OAR-2022-0985-1535 (Jun. 20, 2023), https://www.regulations.gov/comment/EPA-HQ-OAR-2022-0985-1535.

⁶ Truck Renting and Leasing Association, Comment Letter on Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles—Phase 3, EPA-HQ-OAR-2022-0985-1577 (Jun. 16, 2023), <u>https://www.regulations.gov/comment/EPA-HQ-OAR-2022-0985-1577</u>.

manner."⁷ The EMA letter summarizes the challenge: "which entities will actually plan for, install and pay out-of-pocket for the hundreds of thousands of necessary HDOH [heavy-duty on-highway] charging stations... that will be required by 2032" [?]. This coalition proposal is one opportunity for critically needed charging infrastructure to serve one of the major freight centers of the country, and a powerful market signal to the freight industry that charging infrastructure will be available to fuel ZEV trucks.

While other federal funding is available for investments in EV charging infrastructure—including for freight trucks—the funding is both insufficient to meet investment needs and highly competitive. For example, the Charging and Fueling Infrastructure (CFI) program awarded by FHWA was significantly oversubscribed and will likely continue to be (\$1.25 billion in total funding for light-duty and ZE-MHDV charging over 5 years).⁸ Additionally, while state National EV Infrastructure (NEVI) Program funding can be used to provide charging for ZE-MHDVs in certain circumstances, states are addressing many competing needs, such as fully building out passenger vehicle corridors. NEVI program funding is limited to charging stations within one mile of alternative fuel corridors, and certain high-priority public truck charging stations may not fit this criterion (e.g., a charging station at a freight facility near the I-95 highway).

Coalition members have applied – and will continue to apply – for related federal grant funding. While helpful and complementary in many ways, available funding from other grant programs is insufficient to fully implement the proposed measure. Table 3 lists federal and non-federal funding sources that coalition members have been awarded, applied for, or explored related to the proposed measure.

Funding Source	Funding Status by Coalition Member	Need for CPRG funding
FHWA Charging and Fueling Infrastructure grant program	MDOT applied for, but was not awarded, a CFI grant for feasibility work for up to two MHD vehicle alternative fueling sites.	One proposed site was adjacent to the Port of Baltimore and the other proposed site was in Cecil County, an I-95 corridor freight nexus, at the Maryland Transportation Authority's Chesapeake House rest stop.
Clean Heavy- Duty Program, U.S. EPA	CT DEEP and NJ DEP are interested in applying, but a NOFO is not yet available.	The funding available from the Clean Heavy-Duty Program is insufficient to meet near-term <u>charging infrastructure</u> <u>needs</u> nationally or in the project region.
Diesel Emission Reduction Act, U.S. EPA	CT DEEP was awarded \$528,261 in 2022 to replace heavy-duty diesel trucks with electric vehicles.	The DERA grant did not provide funding for zero emission truck charging/fueling infrastructure.
Clean Ports Program, U.S. EPA	CT DEEP, MDOT Maryland Port Administration, and NJ DEP are considering applying for funding.	The Clean Ports Program will fund complementary electrification efforts and emissions reductions from port- related off-road equipment and limited on-road vehicles operating in and around port facilities. CPRG funds are needed for additional ZEV truck charging to enable a broader range of ZEV truck applications.
Utility ratepayer funded program - NJ	NJ Bureau of Public Utilities (NJ BPU) proposed a framework for electric utility investment in make-ready	Funding will not be sufficient to cover all MHD charging needed. The investments modeled in this proposal assume 50% of utility infrastructure investment costs (across the

Table 3 | Funding Sources Explored for Proposed Measures

⁷ Truck & Engine Manufacturers Association, Comment Letter on Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles—Phase 3, EPA-HQ-OAR-2022-0985-2668 (Jun. 16, 2023), <u>https://www.regulations.gov/comment/EPA-HQ-OAR-2022-0985-2668</u>

⁸ For example CT DEEP and NJ DEP were awarded FHWA CFI funds, but only for light-duty charging infrastructure.

Funding Source	Funding Status by Coalition Member	Need for CPRG funding
	charging infrastructure for MHDVs and is expected to finalize it this year.	corridor investments) will be met by other sources, such as utility make-ready programs.
Regional Greenhouse Gas Initiative – NJ	NJ BPU launched a MHD EV charging grant program in 2022 for fleet fast chargers.	Funding will support truck electrification, but is insufficient to meet demand. Publicly available corridor charging infrastructure can enable smaller fleets to electrify and provide critical supportive charging for larger fleets. NJ BPU received over 60 applications, but only 10% will be funded.
Grid Resilience and Innovation Partnerships	NJ BPU submitted a concept paper for Topic Area #3: Grid Innovation and was asked to submit a full application.	If awarded, the project would enable high powered EV charging depots in weak distribution areas. Funding would support truck electrification but would be insufficient to meet near-term demand for ZE-MHDVs.
NJ ZE Incentive Program	NJ Economic Development Authority provides funding for electric MHDV	Funding does not cover MHD charging

The funding requested through this CPRG implementation grant presents a unique opportunity to develop a "backbone" of charging infrastructure for ZE-MHDVs traveling through and around the densely populated I-95 corridor. This investment would be a catalyst for additional public and private investment to fully build out freight truck infrastructure in depots, port facilities, and along highway corridors.

1c) Transformative Impact

This project will be a powerful catalyst for reducing diesel pollution from **freight truck transportation – a challenging sector and rapidly growing source of air pollution**⁹ – in the project region and across the country. GHG emissions from MHD trucking have increased in recent years and, with freight shipment by truck expected to increase nearly 50 percent nationally by 2050,¹⁰ rapidly transitioning to ZE-MHDVs is critical to meeting state and federal climate targets. As discussed in Section 2c, converting diesel trucks to electric is a cost-effective strategy to reduce emissions. However, progress on freight truck electrification has lagged behind passenger vehicle electrification due to significant challenges, with the lack of publicly available charging infrastructure a leading barrier. This proposal is transformative in addressing this difficult-to-decarbonize sector because it:

1. Accelerates the transition to ZE-MHDVs in one of the most heavily used freight corridors in the nation.

- C3 addresses strategic freight corridor: The coalition proposal focuses on a primary freight corridor in the eastern United States, linking critical port facilities, freight depots, and major population centers. The entirety of this proposed corridor (Figure 1) is a "Phase 1" Zero Emission Freight Corridor in the National ZEF_Corridor Strategy, recommended as a focus area for initial deployment of ZE-MHDV charging infrastructure because of its characteristics as a "first success region." Due to the proximity to densely populated areas around New York City, Newark, Baltimore, Hartford, Washington D.C., and Wilmington, reduction in diesel emissions along this corridor would have significant public health benefits and GHG emissions reductions.
- Lack of infrastructure is limiting ZE-MHDV deployment: This proposal will address a key gap in ZE-MHDV infrastructure in this critical region. At the time of this proposal, despite the high volume of freight movement,

⁹ The U.S. EPA's most recent draft inventory report <u>estimates</u> that medium- and heavy-duty trucks accounted for 22.7 percent of GHG emissions from transportation in 2022 and that these emissions have increased since 2018, even as emissions from light-duty vehicles have declined.

¹⁰ U.S. DOT, Bureau of Transportation Statistics, Moving Goods in the United States, https://data.bts.gov/stories/s/Moving-Goods-in-the-United-States/bcytrqmu/

there are no public ZE-MHDV charging sites east of Ohio. In line with the National ZEF Corridor Strategy, these public charging stations can initially provide charging for local delivery and 'return to base' operators, and over time they will accelerate deployment of zero-emission regional- and long-haul freight operations.

2. Can overcome the major technical, logistical, and financial challenges to scaling up a ZE-MHDV charging corridor by leveraging DOE studies, state policy support, and a history of multi-state collaboration.

- Leveraging U.S. DOE-funded analyses for strategic deployment: The coalition partners are well positioned to leverage the DOE studies to support their work, as each partner is involved in and providing input to shape one or both of the studies. This unique advantage can enable successful and transformative charging infrastructure investments.¹¹ The DOE studies are prioritizing engagement with utilities that provide electric service within the project area to evaluate how best to site MHD truck charging infrastructure given the current capacity of transmission and distribution infrastructure a key strategy to mitigate the possibility of higher-than-expected infrastructure upgrade costs (See attached letters of support from Exelon and Eversource).
- Complementary state policies that enable market transformation: The four coalition states are implementing
 nationally leading policies and programs to accelerate market transformation of the MHD vehicle sector. This
 includes policies to increase the supply of vehicles (NJ and MD have adopted the ACT regulation requiring
 minimum sales of ZEV trucks) and policies to increase the demand for vehicles (NJ invested over \$200 million in
 ZEV truck incentives since 2019 through RGGI and Volkswagen funded programs). Three of the four states have
 signed the Multi-State Zero Emission Medium- and Heavy-Duty Vehicle Initiative Memorandum of Understanding
 (MOU), which committed signatories to strive to make at least 30 percent of new zero-emission MHD vehicle
 sales ZEVs by 2030, and 100 percent of sales ZEVs by 2050. They also participated in developing the MultiState ZEV Action Plan, which recommends more than 60 ZE-MHDV market enabling actions by states.
- Established history of multi-state and regional coordination: The coalition states have a demonstrated
 history of working together to plan for charging infrastructure and address barriers to zero-emission truck
 deployment and are thus well-positioned to work effectively together to ensure streamlined and efficient project
 implementation. The states are active participants in the Multi-State ZEV Task Force and have engaged for over
 a decade in cross-agency regional collaboration on policies to reduce all transportation sector emissions through
 the Transportation & Climate Initiative and Northeast EV Network, Northeast Corridor Regional Strategy for EV
 Charging Infrastructure, and the Eastern Transportation Coalition.

3. Will scale regionally and nationally as a successful model for ZE-MHDV corridor charging.

- Lead to additional investment in the corridor: The initial charging stations funded through this coalition
 proposal, along with the regional planning process, will have a significant early impact by providing a powerful
 signal to the market. The initial investments in a backbone of public charging infrastructure along I-95 and
 enhanced regional planning made possible by this grant would drive additional public and private investments in
 charging infrastructure in the region through positive network effects.¹² For example, separate investments in a
 charging station farther north along the corridor into Massachusetts or along an east-west corridor such as I-78
 or I-80 would have greater benefits because they would be connected to the I-95 corridor infrastructure funded
 by this proposal.
- Serve as a replicable national model: This coalition proposal can provide a model for freight truck corridor charging that can be expanded nationally.¹³ If this charging infrastructure grant funding (supported by other state

¹¹ The DOE studies are listed as one of the six criteria for identifying priority corridors in the National ZEF Corridor Strategy ("The Strategy analysis considered deployment factors including... (6) On-the-ground" planning for ZE-MHDVs through DOE's commercial ZEV corridor planning grants.") National Zero Emission Freight Corridor Strategy, p4.

¹² The "phase-in" approach to ZEV infrastructure deployment concentrates early investment in key hubs and corridors, before adding connections to form a complete network. This approach supports rapid adoption scenarios by enabling targeted investments, accelerated deployment to priority areas, cost-effective implementation, and grid modernization planning that makes way for private investment. CALSTART, *Phasing in U.S. Charging Infrastructure: An Assessment of Zero-Emission Commercial Vehicle Energy Needs and Deployment Scenarios* (August 2023).

¹³ The proposal's focus on deploying infrastructure to support identified priority regional freight activity aligns with the phased approach to nation-wide freight corridor development outlined in the National Zero-Emission Freight Corridor Strategy.

policies) accelerates zero-emission truck deployment as anticipated, it will provide a visible and replicable solution. A successful award will enable the coalition to accelerate the Administration's vision for a globally leading zero-emission freight transportation network by 2040 and make progress towards reaching the targets established in the U.S. National Blueprint for Transportation Decarbonization and the Global Memorandum of Understanding for Zero Emission Medium- and Heavy-Duty Vehicles.

2) Impact of GHG Reduction Measures

This project will reduce GHG emissions by providing charging infrastructure to support commercial ZE MHDVs along the I-95 corridor. The project will result in two types of benefits quantified for emissions reductions and other results: 'On-Corridor Benefits' and 'Off-Corridor Benefits', described below and in the Technical Appendix, as well as significant anticipated benefits from the transformative impacts of the measure that are not quantified.

On-Corridor Benefits: Emission reductions from the fossil fuel (mainly diesel) displaced for the truck vehicle-miles traveled (VMT) powered by electricity dispensed by the charging stations supported by CPRG funding. This accounts for the energy dispensed directly by the charging stations funded by the proposed measure.

Off-Corridor Benefits: Emission reductions from the additional fossil fuel displaced for the remaining VMT of the trucks served by the charging stations supported by CPRG funding but also powered by other charging sites (such as private depot charging, or off-corridor charging). Based on modeling and analysis by government agencies and non-governmental researchers, industry statements, and industry comments (such as those discussed in Section 1), this analysis assumes that the deployment of publicly available ZE-MHDV charging stations from this measure is necessary to enable the deployment of ZE-MHDVs.

The transformative nature of the proposal is expected to result in significant additional benefits that are not quantified here. For example, as discussed in Section 1, the initial investments from this measure could enable a faster rate of additional infrastructure investments (and associated ZE-MHDV deployment) in the project region and in neighboring states and jurisdictions. This will be particularly likely due to the proposed supporting strategies that are integral to this measure, such as workforce development, multi-state planning and coordination of infrastructure investments. Additionally, by serving as a replicable national model, this measure could catalyze additional emissions reductions in other regions of the country.

2a) & 2b) Magnitude of GHG Reductions: 2025-2030 and 2025-2050

Table 4 provides a summary of the estimated cumulative GHG reductions generated by this project¹⁴. The figures reported in this section, and throughout the application, assume that the charging infrastructure proposed will be fully constructed and operational by 2030, with half the chargers operational in 2029.

	2025 – 2030	2025 – 2050
On-Corridor Benefits (metric tons)	115,000	4,643,000
Off-Corridor Benefits (metric tons)	344,000	13,930,000
Total Benefits (metric tons)	459,000	18,574,000

Table 4 | Cumulative GHG Emission Reductions Anticipated from Implementation of Proposed Measure

The project is also expected to reduce mobile source criteria air pollutants and ozone precursors due to reduced gasoline and diesel fuel consumption. The estimated air pollutant emission reductions for oxides of nitrogen (NOx), fine particulate matter (PM2.5), and volatile organic compounds (VOC) in 2030, as shown in Table 5, are a result of approximately 82 million truck VMT being converted from gasoline and diesel fuel to electric power. A large share of

¹⁴ The GHG emissions reduction analysis is based on tailpipe greenhouse gas emissions including carbon dioxide, methane, and nitrous oxide.

emissions reductions is expected to occur directly along the I-95 corridor, with other benefits on other roads in the general vicinity of the corridor, near refueling stations, and elsewhere the trucks travel.

	NOx	PM2.5	VOC
On-Corridor Benefits (tons)	111.6	1.5	13.5
Off-Corridor Benefits (tons)	334.2	4.4	40.4
Total Benefits (tons)	446.4	5.8	53.9

Table 5 | Cumulative Reduction of Other Mobile Source Air Pollutants by 2030

The emissions benefits estimated above assume that 24 discrete electric freight charging sites are operational by 2030 in the C3 states, including 148 ports suitable for overnight use (150 kW capacity), 164 fast charging ports (350 kW capacity) and 138 ultra-fast charging ports (1 MW capacity). It is also assumed that:

- Sites would continue to be active and provide benefits through 2050, including replacement of equipment through market investment as components reach the end of their useful lives.
- Average charge power for vehicles using the charging ports will be approximately 85 percent of the theoretical maximum power. This is consistent with assumptions in ICCT (2021).
- Average utilization level (percent of time a port is in use) will reach a maximum of 30 percent in 2035 and beyond. This is consistent with assumptions in the National Grid *Electric Highways* study (2022).

Apart from the assumptions above, the durability of the estimated benefits quantified here will be a function of this project's implementation and adoption timeline. For example, a successful build out of charging stations by 2030 will require all procurement processes, material needs, site requirements, and connectivity needs to be successfully met without major delays. Additionally, the emissions modeling assumes ZE-MHDV adoption rates in the project region are in line with the commitments in the Multi-State MHD ZEV MOU and compliance projections from the California ACT regulations adopted by NJ and MD. Lower than expected ZE-MHDV adoption rates could reduce utilization of the charging stations deployed under this measure, which would diminish emissions reductions attributed to the measure (see Table 2 Risks and Mitigation Strategies).

2c) Cost Effectiveness of GHG Reductions

Implementation of the proposal is highly cost-effective when considered over a long-term analysis period. The cost-effectiveness of the proposal measure in this application is \$542 of CPRG funding requested per metric ton of CO_2e reduced between 2025 and 2030. Note, however, that this includes only 1.5 years of emissions reductions due to anticipated project administration, design, and construction timelines that would mean sites are operable beginning in 2029 and 2030. Looking at the 2030 – 2035 time horizon, the cost effectiveness would improve to \$61 per metric ton.

Considered over the entire 2025 – 2050 time horizon, the cost-effectiveness is \$13 of CPRG funding requested per metric ton of CO₂e reduced.

As shown in the previous section, the projected benefits of this project are based on certain assumptions about the number of chargers constructed. The proposal included in the budget section has generally made conservative assumptions to account for potential costs associated with inflation and input cost escalation. However, the projected GHG reductions presented here are expected to be reasonably permanent relative to a no-build scenario in which none of the member states secure funding to construct ZE-MHDV charging equipment. In addition, the likely scale of the GHG reduction projected for this project is buoyed by an additional consideration not quantified here: the likely long-term benefits of establishing a reliable, regional, corridor-length network of ZE-MHDV charging infrastructure. USDOT identified "limited infrastructure availability and geographic distribution" as a key implementation challenge for EV adoption in both rural and urban communities. This proposal is designed to anticipate and mitigate that challenge by

installing ZE-MHDV chargers across four states, using common standards, technical specifications, and site selection criteria, to help improve the efficiency of EV infrastructure buildout.

Finally, C3 states aim to cover 50 percent of the costs of grid upgrades (aggregate across all sites) with CPRG grant funding, while the remaining costs of necessary grid upgrades would be paid for by utilities (e.g., through make-ready programs) or site hosts. The DOE studies engage with utilities who can help to inform site selection, increasing the chances of identifying site locations with relatively more available grid capacity. For any new charging facilities installed on state owned land, however, up to 100 percent of the grid upgrades may need to be covered by grant funding. Costs associated with this measure are detailed in the attached Budget Narrative and Spreadsheet.

2d) Documentation of GHG Reduction Assumptions

Further details on quantification methods, relevant assumptions, annual emission reduction estimates, and uncertainties associated with the estimates are provided in the Technical Appendix. The Technical Appendix also provides results for an alternative, more conservative scenario in which costs per site are assumed to be higher (100 percent of grid upgrades are covered) and therefore fewer ports are built with the requested funds. The Technical Appendix and attached "GHGcalcs" spreadsheet demonstrate the quality, thoroughness, reasonableness, and comprehensiveness of the methodology, assumptions, and calculations described throughout this application.

3) Environmental Results: Outputs, Outcomes, and Performance Measures

3a) Expected Outputs and Outcomes

The project will directly implement strategies outlined in the coalition states' respective PCAPs, while also supporting <u>EPA Strategic Plan</u> Goal 1, "Tackle the Climate Crisis"; Objective 1.1 "Reduce Emissions that cause Climate Change" by substantially reducing GHG emissions throughout the corridor. Simultaneously, by reducing CAP and HAP emissions, this project will work towards EPA Strategic Plan Goal 4, "Ensure Clean and Healthy Air for All Communities" by furthering Objective 4.1 to "Improve Air Quality and Reduce Localized Pollution and Health Impacts." The outcomes of this project are detailed in Table 6 below.

Table 6 | Activities, Outputs, and Outcomes of the Project

ACTIVITIES	OUTPUTS	OUTCOMES
Public MHD electric charging infrastructure	arging the construction of charging sites for zero-emission freight pment trucks ZE MHDV vehicles installed along I-95 corridor. This would include the following number of charging ports: • 148 150 kW ports	GHG emissions reductions: $459,000$ metric tons of CO ₂ e through 2030 and 18.6 million metric tons of CO ₂ e reductions through 2050.
site development		CAP emissions reductions: reduction of 447 tons NOx, 54 tons VOC, and 5.8 tons PM2.5 in 2030.
		Air quality improvements for the communities adjacent to the corridor, including 456 identified LIDACs, resulting in reduced asthma rates and reduced premature deaths.
• 138 1 MW ports	Investments in these projects create the equivalent of over 423 job-years as a direct and indirect result of the proposed C3 measure (assuming impact factors from NJ PCAP, pg. 265).	

ACTIVITIES	OUTPUTS	OUTCOMES
Workforce Development	,	A skilled workforce is capable of safely and efficiently building the MHD electric vehicle charging infrastructure needed to meet vehicle electrification goals in CT, DE, MD & NJ through the year 2030.
charging infrastructure for	Strengthened partnerships between community members, organize labor and state agencies help to ensure ensuring prioritization of community needs and benefits.	

3b) Performance Measures and Plan

As is outlined in Section 1.1, NJ DEP will submit semi-annual progress reports summarizing technical progress, accomplishments, and milestones achieved including a description of outputs and outcomes, planned activities for the next six months, and a summary of expenditures to date are required, as well as a detailed final report to the EPA. Reporting will include detailed quantified benefits to LIDACs, provide updates on ongoing and planned community engagement, and provide reporting related to implementation of the Justice40 Initiative.

NJ DEP, with support from the Administrator, will collect data from coalition partners at regular intervals to track measure implementation and complete semi-annual progress reports to EPA. Coalition members will collect required data from the appropriate contractor or partner and input that into standardized spreadsheets which will be shared with NJ DEP. The Administrator will provide technical assistance and support to ensure uniform, consistent, and accurate reporting from coalition partners to NJ DEP.

Data will be collected on project development progress on a quarterly or semi-annual basis for the following performance measures to track progress concerning successful processes and output and outcome strategies:

• Expenditures and purchases

- All information needed to comply with financial and programmatic reports and subaward reporting requirements.
- Public MHD electric charging infrastructure site development:
 - ZE-MHDV Charging Infrastructure Installed: Total number of stations, and number and capacity of ports, location of charging stations
 - Timeline for installation, cost, CPRG cost share, and site and technical details.
- Utilization of ZE-MHDV Charging Infrastructure:
 - total energy dispensed (kWh) at charging sites (by location), and other metrics on station utilization.
- Workforce Development:
 - Training programs established and number of individuals who apply to, participate in, and graduate from each program; location of training programs.
- Community engagement:
 - Number of community benefits agreements and/or other collaborative problem-solving tools used during project development; number of community meetings held and participation rates.
- Benefits of project implementation:
 - ZE-MHDVs Added to Fleet: New ZE-MHDV registrations in coalition states
 - Air Pollution Reduction: Reductions of CO2e, NOX, VOC, and PM2.5 attributable to project, based on modeled assumptions.
 - Economic Benefits: Jobs created directly by project activities, based on data collection and assumptions.

• **Justice40 Implementation:** Quantified benefits (e.g., air quality improvements, jobs creation) to identified "Disadvantaged Communities" from CPRG funding

Coalition partners will track progress for installation of charging ports by recording and compiling information about port installation throughout the Project.

Coalition partners will track and report estimated GHG, CAP, and HAP emissions reductions attributable to the project based on the energy dispensed (Utilization of ZE-MHDV Charging Infrastructure), and identify benefits to LIDACs based on location of the charging stations. Progress will be included in semi-annual reports. See Technical Appendix for a detailed description of modeling methodology for calculating GHG and CAP emissions reductions based on utilization of ZE-MHDV charging infrastructure.

Coalition partners will identify opportunities to share project performance with state agency, local government, and community members. For example, in New Jersey and Connecticut, the deployment of charging stations is also tracked via public dashboards: <u>EValuateNJ</u> and <u>EValuateCT</u>, respectively.

3c) Authorities, Implementation Timeline, and Milestones

The relevant agencies within each coalition partner state each have authority to carry out the measures described in this workplan, and specifically the installation of ZE MHDV charging infrastructure.

- The New Jersey Department of Environmental Protection "has broad authority to implement policies and programs to prevent, control, and prohibit air pollution throughout the State, including air contaminants from motor vehicles pursuant to N.J.S.A. 13:1D-9, 26:2C-1 et seq. Further, NJ DEP has existing authority to conduct Statewide programs of education pursuant to N.J.S.A. 13:1D-9... Incentive programs for the electrification of medium- and heavy-duty vehicles and/or charging infrastructure could be implemented under the existing authority of NJ DEP, NJ BPU, and NJ EDA." (NJ PCAP, p. 18)
- In terms of the Connecticut Department of Energy and Environmental Protection, the "Connecticut General Statutes (CGS) 22a-201e authorizes CT DEEP to award vouchers to "support the deployment" of certain types of zero-emission trucks (ranging from 2-axle, single-unit trucks to multi-axle, multi-trailer trucks) and school buses (ranging from pick-ups and vans to 4-axle, single-trailer trucks) and 'installation of electric vehicle charging infrastructure.' (CT PCAP, p. 51)
- The Delaware Department of Transportation "has broad authority for transportation planning, transportation infrastructure, and establishing fees. Delaware Code (29 Del. C. §§8401-8422) establishes Delaware's Department of Transportation and authorizes it to create regulations, collect revenues, comprehensively plan for transportation, and build and maintain transportation infrastructure." (DE PCAP, p. 62) Further, Delaware Code (7 Del. C. §§1006) directs all state agencies to consider the state's GHG targets in planning, design and operation of state infrastructure.
- The Maryland Department of the Environment has broad authority to regulate air pollution, including GHG emissions. Maryland Code, Environment Article, § 2-1205 requires MDE to develop plans, adopt regulations, and implement programs that reduce statewide GHG emissions to achieve the emissions reduction requirements of the state (MD PCAP, p. 84). The Maryland Department of Transportation is authorized, consistent with the budget of the State of Maryland and the State Finance and Procurement Article, to contract with any person to provide services, supplies, construction and maintenance for any transportation related purpose (MD Code, Transportation, § 2-103(h)) and may apply for and receive from the federal government any grants-in-aid or gifts for any transportation related purpose (2-103(i)). MDE and MDOT will "use existing statutory authority to implement...the Zero-Emission Vehicles Infrastructure Plan." (MD PCAP, p. 86)

The overarching roles and responsibilities of each coalition member are detailed in Section 1 of this proposal.

Table 7 details tasks and milestones for implementation of the proposed project. The period of performance is December 2024 through December 2029. Table 3 in Section 1 details anticipated risks associated with measure implementation and mitigation strategies for each risk.

Table 7 | Tasks and Milestones

Task #	Task Description	Anticipated Milestone Dates	Assumptions
1	NJ DEP issues a purchase order to onboard a Third-Party Administrator.	January 2025	A qualified consultant will be selected by NJ DEP by January 2025 through a competitive process.
2	Community engagement around program details, including site selection and project design criteria.	January 2025 – October 2025	States will continue ongoing public engagement within their respective states, with support from the Administrator, when available. States will build from existing EJ advisory bodies and engagement processes.
3	Administrator seeks targeted public input from potential site hosts and truck owners regarding site selection and project design criteria.	January 2025- October 2025	This information is needed to ensure robust RFIs and RFPs that maximum EVSE utilization rates.
4	Administrator will develop and release, with approval of the coalition, an RFI to inform program design.	June 2025 – August 2025	Administrator will take 2-3 months to establish, enabling RFI drafting to begin in April.
5	Administrator will develop a model RFP, using information collected through the RFI and findings from the DOE studies.	August 2025 – October 2025	DOE studies on MHD ZEV charging needs will be completed by September 2025.
6	Administrator develops workforce development shared materials for use by coalition states.	October 2025- December 2026	
7	States publish separate RFPs for charging stations located within their respective states.	January 2026 – March 2026	States develop RFPs that are guided by the model RFP.
8	States roll-out workforce development programs.	2026-2029	
9	States review applications, select projects, and enter into agreements with project developers.	April 2026 – December 2026	Each state will take 2-3 months to evaluate and select successful applications, and 2-3 months to enter into agreements with project sponsors.
10	Administrator provides technical assistance to project developers for duration of the project.	2027-2029	Project developers may encounter barriers to implementation.
11	States conduct ongoing community engagement during and following project implementation.	2027-2029	Agreements with project developers encourage or require certain community benefits.
12	States disburse funds to project developers.	2027-2029	As established in the agreements with project developers.

Task #	Task Description	Anticipated Milestone Dates	Assumptions
13	States revise RFPs and promotional materials, as needed in response to participant and community feedback.	October 2026 – March 2027	
14	Repeat steps 5 – 9 for a second round of RFPs and grant funding.	January 2027 – December 2029	
15	Semi-annual progress reports on grant implementation and planned activities	June 2025- project end	Every 6 months
16	Detailed final report to EPA		Within 120 calendar days of the period of performance's completion.

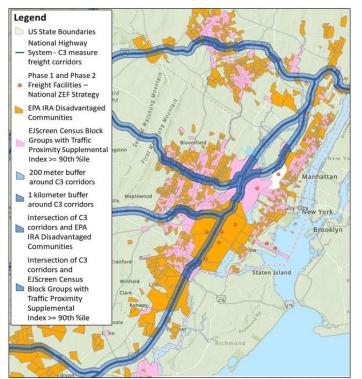
4) Low-Income and Disadvantaged Communities (LIDAC)

The medium and heavy-duty trucking industry has undeniable impacts on frontline communities, including air quality impacts that have led community <u>advocates to call for zero-emission freight</u> in overburdened communities and across the sector. The freight transportation industry <u>employs millions of workers</u> throughout the country, but has had devastating <u>health impacts to communities</u> near major trucking corridors – many of which are <u>overburdened with air</u> <u>pollution</u> from ports and other nearby freight facilities. This C3 proposal is a response to these calls for meaningful action to reduce air pollution from freight travel.

4a) Community Benefits

LIDAC Communities Benefitting from GHG Reduction Measure

Figure 3 | LIDACs within the Project Area



Attached is the complete list of over 450 LIDAC areas identified at the census block level that will benefit from this C3 proposal. An estimated 351 Disadvantaged communities (i.e., EPA IRA Disadvantaged Communities Census Block Groups) are located within 100 meters on either side of the C3 freight corridor, illustrated in Figure 3. Additionally, an estimated 259 Census block groups with an EJScreen Traffic Proximity Supplemental Index of 90th percentile or above are within 500 meters on either side of the freight corridor. In total, over 1.7 million people are estimated to live in a Census block group adjacent to the project corridor and nearly 30 percent of those residents, or just over 500,000 people live in LIDAC areas. A more detailed description of the methodology used for identifying LIDAC areas is included in the Technical Appendix. Table 8 shows a summary of results from this LIDAC analysis, by state.

Newark, NJ

State	EPA IRA Disadvantaged Communities (Block Groups) within 100 meters of corridor	Communities (Block Groups) within 500 meters of corridor and with Traffic Proximity Index of 90th percentile or above	Totals (accounting for duplicates)
NJ	134	135	197
СТ	103	74	126
MD	82	39	98
DE	32	11	35
Totals	351	259	456

Table 8 | LIDAC Assessment by State

Assessment of Expected Benefits and Avoided Disbenefits

Reduced Air Pollution

The highway corridors, ports, and other freight facilities included in this proposal host some of the highest volumes of freight traffic in the country, and the impact of freight facilities on the health of frontline communities is <u>well documented</u>. <u>Researchers estimated</u> that transportation emissions in 2016 contributed to over 7,000 deaths in the Northeast and Mid-Atlantic regions of the United States, finding that a substantial portion of attributable mortalities occurred in states downwind from the emission sources. This underscores the importance of multi-state efforts to reduce transportation emissions in the C3 region and the value of federal support for action.

The harmful effects of air pollution on LIDACs will be exacerbated by the impacts of climate change, as the increased likelihood, frequency, and severity of extreme heat events (CT PCAP, p. 31) and wildfires (CT PCAP, p. 32 / MD PCAP, p. 82) will further contribute to poor air quality. The GHG reduction measures of this Project, namely installing ZE-MHDV charging infrastructure, address some of these existing and likely burdens directly.

Accelerating ZE MHDV deployment will reduce GHG emissions and other pollutants and will improve air quality and <u>public health</u> for all residents, particularly LIDAC communities. Maryland and Connecticut anticipate improved air quality will reduce mortalities and nonfatal heart attacks (MD PCAP. p. 82), asthma rates and hospital admissions (CT PCAP p. 34). Baltimore City, located along the project corridor and including many historically disadvantaged communities, is estimated to have the largest per capita reduction in asthma rates in Maryland from decreased particulate matter pollution. Decreases in adverse respiratory symptoms are expected to be significant in the communities south and west of Baltimore City as well (MD PCAP, p. 72 and 82). Similarly, LIDACs and urban areas near major highways in Connecticut are overburdened by air pollution and will stand to gain substantial benefits as air quality improves as a result of this Project (CT PCAP, p. 74).

Workforce Development and Job Creation

To facilitate the implementation of this measure and the additional investments in ZE-MHDV charging catalyzed by this measure, newly trained workers at a range of occupations and skill levels will be needed. Particularly given that ZE-MHDV charging equipment is a nascent market, this is an opportunity to create high-quality, local jobs in each coalition state. This project will implement a workforce development program to train 400 workers that will support MHD charging build out across the C3 region (see Budget Narrative, Attached). The proposed workforce development program would also support the goals of the National ZEF Corridor Strategy by creating a sustainable, long-term workforce across the region.

This project will offer opportunities for LIDAC members to receive specialized workforce training with a direct path towards high-quality employment. Workforce training programs will be specifically designed to include outreach to and recruit members of LIDAC areas, including those without college degrees. This will be a first step in opening economic mobility opportunities towards high-quality, sustainable jobs. To eliminate common barriers to LIDAC participation in

the training programs, support services -- such as transportation, childcare, housing, food, technology, and stipends -- will be available. Custom-developed curricula and training programs will allow participants to build the skills and knowledge needed to install, maintain, and repair MHD charging equipment, thereby preparing for jobs directly needed to implement this measure. This measure will facilitate on-the-job experience that will be applicable to MHD charging projects built outside of this project, thereby encouraging job retention and enabling long-term career pathways.

The workforce training will be paired with job opportunities in LIDACs and for LIDAC residents. Electrical installation, maintenance, repair, charger assembly, and various project implementation tasks are generally in fields that provide good-paying jobs. Charging infrastructure installation requires multiple person-days of labor from electrical, construction, and administration industries (CT PCAP, p. 50). Estimates indicate that for every million dollars spent on ZE MHDV charging infrastructure installation, 0.92 direct and 0.95 indirect job-years are created (NJ PCAP, p. 265).

Strategies to Mitigate Potential Disbenefits

One potential disbenefit of the project would be an increase in truck traffic if new ZE-MHDV charging sites are developed in or near LIDACs. Despite having zero tailpipe emission, ZE-MHDVs contribute non-exhaust particulate matter emissions, generated by brakes, tires, and resuspended road dust (however, ZE-MHDVs contribute significantly less particulate matter emissions than internal combustion engine vehicles, after accounting for primary and secondary particulate matter sources). The coalition will work to mitigate this potential disbenefit and construction-related impacts on local communities by conducting community engagement to inform the site selection criteria and encourage the use of community benefits agreements and other collaborative problem solving tools in the Model RFP and individual state RFPs and avoid routing additional truck traffic to already overburdened communities.

Another disbenefit is that ZE MHDVs, on average, weigh more than diesel-powered trucks, and may impact road infrastructure near the ZE-MHDV charging sites. Coalition partners will explore site design and policy options to mitigate these impacts, as part of broader efforts to plan for a less polluting MHD freight sector.

Assessing, Quantifying, and Reporting Benefits

The coalition partners will assess, quantify, and report benefits to LIDACs from the coalition measure based on actual data collected during implementation. The coalition partners will include results of these assessments in semi-annual reports to EPA and make the information publicly available. Metrics for assessing benefits will include:

- Air Pollution Reduction: Reductions of NO_X, VOC, and PM2.5 attributable to project, based on modeled assumptions.
- Workforce Development: Training programs established, number of individuals who apply to, participate in, and graduate from each program.
- Economic Benefits: Jobs created directly by project activities, based on data collection and assumptions.
- Community Engagement: Number of community benefits agreements and/or other collaborative problemsolving tools used during project development. Also, the number of community meetings held, ongoing and planned activities, and participation rates.

Coalition states will measure and report how this coalition measure will further the Justice40 Initiative (J40) goal of providing 40% of overall benefits to identified disadvantaged communities. Coalition members will identify J40 "benefits" for consideration (e.g., air quality improvements, jobs creation), develop a methodology for benefits quantification, identify Disadvantaged Communities (DACs), and measure and track the benefits to identified J40 DACs. The following are illustrative examples of potential J40 benefits and calculation methodologies:

• Reduce environmental exposures to transportation emissions: Coalition partners have experience from NEVI program implementation in estimating reductions in transportation emissions and improvements in air quality in DACs using state created models, vehicle registrations, traffic volume, charging station usage, and/or air quality monitoring databases. Maryland is also using National Ambient Air Quality Standards monitoring data and State Implementation Plan inventories for ozone and particulate matter.

 Increase the clean energy job pipeline, job training, and enterprise creation in disadvantaged communities: Coalition partners can use metrics such as: funds spent on job training and percent spent for training residents of J40 DACs and/or LIDACs; number of job training, apprenticeship, and education program participants; and percent of participants from J40 DACs and/or LIDACs. Coalition partners have experience from NEVI program implementation, where New Jersey will require EVSE contractors to provide a workforce development plan, emphasizing a continuing pipeline of skilled workers and opportunities to DACs.

4b) Community Engagement

Input by community members in the coalition states was influential in the selection and development of this coalition measure, and ongoing meaningful community engagement and input will be a core part of measure implementation if funded. This community input is essential to successfully ensure community benefits, particularly for LIDACs, are realized and that any potential disbenefits are avoided.

Community Engagement to Inform Proposal Development

Coalition members engaged communities though the development of PCAPs, long-standing state engagement forums,¹⁵ multi-state engagement on opportunities to reduce the impacts of diesel pollution, and more, to inform the selection of this measure. Throughout these engagement efforts, community members, including EJ groups, emphasized the need to prioritize port-adjacent and frontline community benefits and to prioritize measures such as ZE-MHDV deployment that would address frontline community concerns. Each coalition partner performed extensive community outreach, including to LIDACs, prior to and during development of this proposal as part of their PCAP development process. These engagement included CPRG LIDAC advisory bodies,¹⁶ <u>public meetings</u> and targeted engagement, public surveys,¹⁷ webinars, and providing materials in multiple languages. See coalition member PCAPs for additional details. These engagement efforts (NJ PCAP, beginning pp. 119) solidified medium- and heavy-duty electrification as key priorities for NJ communities. The CT CPRG LIDAC Advisory Group recommended prioritizing "getting medium and heavy-duty vehicles converted to ZEVs in urban areas" (CT PCAP, Appendix IV). In MDE's public meeting, community members identified measures targeting diesel fuel usage and freight emission reductions, such as supporting a transition away from diesel with new charging infrastructure (MD PCAP pp. 18-19).

The identification of a ZE-MHDV charging measure to reduce emissions from diesel freight trucks was also informed by years of multi-state engagement by coalition states on opportunities to address transportation and pollution challenges. From 2017 through 2020, each coalition state hosted <u>listening sessions</u>, <u>workshops</u>, <u>webinars</u>, and <u>other</u> <u>public forums</u> to engage with stakeholders and communities. A <u>consistent priority</u> expressed by EJ advocates and other stakeholders was for states to <u>urgently reduce</u> diesel emissions from MHD vehicles. In 2020, governors from CT, MD, & NJ signed the Multi-state MHD ZEV Memorandum of Understanding (MOU), committing to work collaboratively on MHD ZEV deployment and develop a Multi-State Medium- and Heavy-duty Zero-Emission Vehicle Action Plan (ZEV <u>Action Plan</u>). The ZEV Action Plan was developed via a robust stakeholder engagement process with equity and EJ organizations and members of the public. Informed by engagement with freight equity and EJ organizations, the ZEV Action Plan identified deploying a coordinated, interstate public EV charging network as a key priority.

Ongoing Community Engagement for Measure Implementation

Coalition members will continue robust community engagement to ensure that the benefits of this measure go to LIDAC residents. This ongoing engagement will build from coalition members' existing relationships and channels for communication with LIDAC residents and organizations in their respective states. For example, MDE and NJ DEP have

¹⁵ In 2019 and again in 2023, New Jersey released Regional Greenhouse Gas Initiative (RGGI) Strategic Funding Plans which were developed with stakeholder input. For the 2023 Plan, the public was asked to vote on which climate change <u>solutions</u> the State should prioritize and 6,000 New Jerseyans cast votes for over 100 different climate mitigation funding ideas including MHD ZEVs.

¹⁶ CT CPRG's LIDAC Advisory Group of environmental justice experts and practitioners was tasked with ensuring that CT's CPRG emissions reductions actions are beneficial, equitable, and responsive to the needs of LIDACs.

¹⁷ In CT's public comment survey, over half of LIDAC respondents identified improved health and cleaner air as extremely important.

regular listening sessions and/or meetings with representatives from EJ communities, and CT DEEP engages with an Equity and Environmental Justice Advisory Council.

Some tasks and strategies that coalition members will use to ensure LIDAC input in measure implementation include:

- Develop educational materials, guidance, and in-person events to share the details of the coalition efforts with identified LIDACs.
- Include representatives from impacted LIDACs, EJ groups, and/or relevant advisory councils, to work with the
 coalition states to develop site selection criteria that will inform the Model RFP. Coalition member RFPs will
 encourage venders to include community benefits agreements and/or other collaborative problem-solving tools
 in their proposals to mitigate potential disbenefits.
- Ensure community members, particularly residents of LIDACs, have the opportunity to provide feedback on site selection via public meetings or listening sessions, and that feedback is collected and shared publicly. Coalition members will work with LIDAC representatives, EJ groups, and/or advisory councils to ensure the methods for collecting this feedback account for various linguistic, cultural, institutional, geographic, and other perspectives.

As discussed in Table 7, coalition members will revise RFPs and promotional materials, as needed in response to participant and community feedback. The proposal also calls for two rounds of funding RFPs to allow for ongoing communication, engagement and process changes, as needed.

Community engagement on air quality monitoring will inform measure implementation

Even prior to the PCAP drafting process, coalition members had begun to develop partnerships with community groups on air pollution monitoring. MDE, for instance, has partnered with Cheverly, Turner Station, and Curtis Bay, three disadvantaged communities according to CEJST and MD EJScreen, to develop community led hyper-local air monitoring networks. NJ developed a community science air monitoring website and loan program for low cost air quality sensors in response to feedback from community members.¹⁸ CT has been investing in resources to support community-based monitoring and is developing a framework to guide existing and future community-led air quality monitoring projects. CT DEEP has installed PurpleAir sensors and provided technical assistance to community groups (<u>Connecticut 2023 Annual Air Monitoring Network Plan 2023</u>, p. 20). These efforts and community partnerships will inform ongoing engagement during the implementation of the CPRG measure.

5) Job Quality

The growth in demand for EVs and charging stations has driven demand for workers to manufacture, install, and repair them. As described in Section 4 and the Budget Narrative, the coalition partners are pursuing workforce development approaches to build a pipeline of trained workers and high-quality job opportunities in each coalition state. C3 will build from the below workforce development strategies already underway to enable robust job creation as part of this project. Additionally, each coalition jurisdiction has policies and legal requirements in place—including those described below-that will ensure CPRG funds lead to high-quality jobs, "high road" labor practices, and a diverse, skilled workforce.

New Jersey's EV charging projects, including those funded under this grant, will be developed in line with the New Jersey Council on the Green Economy's recommended approaches for developing well-paying jobs and supporting small and disadvantaged business enterprises. New Jersey will also leverage the results of the workforce planning analysis it performed as part of its PCAP (NJ PCAP, Appendix 7.5). The New Jersey Prevailing Wage Act (N.J.S.A. 34:11-56.25 et seq.) "establishes a prevailing wage level for workers engaged in public works" and requires payment of wage rates based on the collective bargaining agreements. New Jersey's Project Labor Agreement statutory requirements also include provisions to promote diverse workforce and business enterprises.¹⁹

Connecticut requires contractors and subcontractors to provide family sustaining benefits, including more expansive Family and Medical Leave protections through, at a minimum Connecticut's Paid Family and Medical Leave Act. CT DEEP will also ensure compliance with CGS § 31-104, which protects Connecticut employees' rights to join a union

¹⁸ (NJDEP | Air Quality, Energy and Sustainability (AQES) | Air Monitoring | Community Science Air Monitoring

¹⁹ New Jersey P.L.2002, c.44 (C.52:38-5).

freely and fairly and collectively bargain. Additionally, Connecticut will consider incorporating the use of Project Labor Agreements or Community Workforce Agreements on construction projects, and incorporate labor and job quality requirements into contracts associated with the measure, as appropriate. Connecticut has developed program training materials, including Connecticut Department of Transportation (CTDOT)'s partnership with the Connecticut State and Community Colleges to credibly show a pathway for trainees to graduate into EV careers. Existing union partnerships will also provide pathways to stable union jobs for trainees and apprentices. Moreover, CTDOT is working with the Office of Workforce Strategy (OWS) and the CT State Building Trades Council to develop new pre-apprenticeship training programs.

Delaware has established prevailing wage requirements on public works projects, and anti-discrimination/equal pay provisions,²⁰ as well as a statutory paid family and medical leave requirement for certain employers²¹. DelDOT has a <u>Disadvantaged Business Enterprise (DBE) Program</u>.

The Maryland Prevailing Wage Law applies to public works contracts for contractors and subcontractors who perform work on any state or political subdivision construction contracts over a certain threshold.²² Maryland's Minority Business Enterprise (MBE) law encourages "minority-owned firms to participate in the State procurement process" and "requires agencies to make every effort to achieve an overall minimum goal of 29% of the total dollar value of their procurement contracts directly or indirectly from certified MBE firms.⁴²³ MDOT and other public agencies in Maryland are actively pursuing several workforce development strategies that prioritize meeting the needs of LIDACs. Through the CFI Program, the Maryland Equitable Charging Infrastructure Partnership led by the Maryland Clean Energy Center will provide training and financing to support under-represented groups entering the industry, in addition to developing 600 EVITP certified electricians through International Brotherhood of Electrical Workers (IBEW) apprenticeship and retraining programs. MDOT will continue collaborating with the Maryland Department of Labor, other State agencies and local unions (such as the Amalgamated Transit Union – Local 1300 and the IBEW), NGOs, and community colleges related to EV workforce development needs and related training initiatives. MDOT and the Maryland Department of Labor are coordinating with non-profits to train young people in the Baltimore region to install and maintain EV charging stations.²⁴ MDOT is in conversation with Vets Fleet, which is an upcoming initiative based in the Baltimore area to train veterans in building and servicing both EVs and EV charging stations.

For this project, the coalition states will seek to employ workers certified through workforce development programs, such as EV infrastructure training programs (EVITP) or a registered apprenticeship program. Additionally, all coalition members are participating in the NEVI program, which is expanding the number of qualified electricians to serve the growing electric vehicle market. As a direct result, There are 23 EVITP-approved contractors in Connecticut, 17 in Delaware, 28 in Maryland, and 31 in New Jersey.

6) Programmatic Capability and Past Performance

6a) Past Performance

NJ DEP has decades of experience administering transportation projects and programs with federal and state funds and is well-positioned to ensure that projects launch and meet key milestones on schedule, and to obligate and expend awards before the deadlines. During that time, NJ DEP has been awarded \$35.5 million in federal funds from FHWA, USDOT and USEPA for projects involving the purchase, installation, and operation of electric vehicle charging stations, as well as projects that reduce emissions from non-road and on-road vehicles. NJ DEP is accustomed to incorporating federal funds requirements into grant agreements, and to following accounting, recordkeeping, and reporting

²⁰ Del. Code tit. 29 § 6960, https://delcode.delaware.gov/title29/c069/sc04/index.html

²¹ Del. Code tit. 29 § 6960, https://delcode.delaware.gov/title29/c069/sc04/index.html

²² Maryland Department of Labor, Compliance Frequently Asked Questions (FAQs) – Prevailing Wage.

²³ Maryland Department of Transportation, Minority Business Enterprise Frequently Asked Questions https://www.mdot.maryland.gov/tso/pages/index.aspx?pageid=96

²⁴ In partnership with The Corps Network (TCN) and Baltimore City-based Civic Works, which received a grant last year through the Joint Office's Ride and Drive Electric program,

procedures that allow staff and grantees to meet all federal requirements. Table 9 lists some of the awards NJ DEP has performed or is performing within the last three years to reduce air emissions:

Table 9 | NJ DEP Federal & Non-Federal in Previous 3 Years

Agency/ Funding Authority & Grant Program	Assistance Agreement # Assistance Listing #	Grant Amount	Project Description	Person of Contact
<u>EPA:</u> Diesel Emissions Reduction Act (DERA) State Program – Non-Road Equipment Modernization	DS96230121 USEPA- CFDA- 66.040	\$915,684	Non-road replacements to Tier 4 or electric	Michael Gordon – <u>Gordon.Michael@epa.</u> gov
<u>EPA:</u> DERA State Program - Marine Vessel Emission Reduction & Electric Transport Refrigeration Unit Project	DS96253401 USEPA- CFDA- 66.040	\$683,218	Marine repowers and on-road electrification of transport refrigerated units	Michael Gordon – <u>Gordon.Michael@epa.</u> gov
EPA: DERA State Program - Non-Road replacements and Marine Vessel Repowers	DS96267717 USEPA- CFDA- 66.040	\$536,130	Non-road modernization and marine repowers	Michael Gordon – <u>Gordon.Michael@epa.</u> gov
Federal Consent Decree: Volkswagen (VW) Mitigation Trust	N/A	\$75,000,000	Funded purchases of EV charging stations, ZE-MHDVs, electric ground support and cargo handling equipment, e- school and transit buses, and marine vessels	Michael Bochanski, Jr – <u>mbochanski@wilmingt</u> <u>ontrust.com</u>
RGGI Strategic Funding Plan: RGGI Investments - Catalyze Clean, Equitable Transportation Outcomes	N/A	\$138,000,000	Funded the transition to electric MHDV and non-road equipment, prioritizing projects located in overburdened communities	Helaine Barr – <u>Helaine.Barr@dep.nj.g</u> <u>ov</u>

In addition, NJ DEP has successfully administered \$246 million in federal and State funds to install Level 1, Level 2, and DC Fast Charging stations, and to modernize existing fleet equipment/vehicles, electrify medium- and heavy-duty vehicles, electrify marine port and airport equipment, and to repower marine vessels. The NJ DEP also uses RGGI funds to continue the strategies introduced under the Volkswagen Mitigation Trust, particularly the replacement of diesel-fueled medium- and heavy-duty vehicles and non-road equipment with electric-powered in environmental justice communities. Understanding that the mobility needs of environmental justice communities differ from residents in other communities, DEP continues to work to bring clean transportation options to underserved communities with successful electric ride sharing and ride hailing projects. For all of their programs, NJ DEP utilizes several proven grant management techniques to comply with federal recipient guidelines. These include the use of a dedicated program manager or team of staff who coordinate regularly with grantees to ensure that projects remain on-schedule, on-budget,

and compliant with federal reporting measures. The team also coordinates internally through biweekly meetings and stays consistent with reporting requirements.

6b) Reporting Requirements

NJ DEP has a cross-divisional team of finance, audit and project management experts that are highly experienced in grant compliance. The state has committed to transparency and maintains a robust <u>reporting framework</u> related to environmental programs. Further, the agency has never been the subject of a premature close-out due to an inability to fulfill grant agreements and has continued to receive funding to support emissions reduction activities. Table 10 details the agency's history of meeting reporting requirements for recent grant programs. These reports have been predominantly accurate, timely, and deemed acceptable by the grantors.

Table 10 | NJ DEP Reporting Requirements by Grant Program

Grant Program	History of Meeting Reporting Requirements
Diesel Emissions Reduction Act (DERA) State Program – Non-Road Equipment Modernization, Marine Vessel Emission Reduction & Electric Transport Refrigeration Unit Project, and Non-Road replacements and Marine Vessel Repowers	NJ DEP submits quarterly and/or final reports to the EPA Region 2 DERA Project Officer.
Volkswagen Mitigation Trust	NJ DEP submits semi-annual reports January 1 and July 1 of every year.
Regional Greenhouse Gas Initiative Investments	NJ DEP submits annual reports to RGGI Inc.

6c) Staff Expertise

NJ DEP and the coalition members have successfully implemented many projects that support this proposed GHG measure and are well-prepared to oversee the project's successful implementation. Subject matter experts and experienced program managers will be administering the grant including overseeing the sub-awards to the coalition members, guiding procurement, and leading the knowledge sharing network amongst the states. Below are the key staff members from NJ DEP that will work on this Project (resumes for all key Project staff are in Other Attachments):

Peg Hanna, Director of Division of Climate Change Mitigation and Monitoring. Peg has over thirty years of experience developing policies and programs to improve air quality, mitigate climate change, and protect health. In this and previous roles, she has led the development of climate planning documents including the Regional Greenhouse Gas Initiative Strategic Funding Plans, and has implemented programs such as the State Vehicle Inspection and Maintenance, Zero Emission Vehicles, and Mandatory Diesel Retrofits.

Melissa Evanego, Bureau Chief of Mobile Sources. Melissa has sixteen years of project management experience in reducing emissions from the transportation sector. In her current position, she manages multiple state programs including Anti-Idling Education and Enforcement, Enhanced Inspection and Maintenance, as well as over \$258 million in grant programs. Prior to this role, Melissa was a supervising and principal environmental scientist who earned multiple certifications in air regulation monitoring, analysis, and inspection.

While NJ DEP will lead grant management, the project is supported by highly-tenured staff in each state that will be responsible for implementing the measure. Each staff member and their agency has experience managing millions of dollars in federal and non-federal grants, without issue. They also administer complex, statewide sustainability programs including climate actions related to NEVI, DERA, and the VW Mitigation Settlement, and Regional Greenhouse Gas Initiative. The key staff in each state are highlighted below.

Tracy Babbidge, JD is CT DEEP's Bureau Chief of Air Management. She is leading the state's first incentive program for ZE-MHDVs, and has over thirty years of experience in environmental regulation.

Allison Tjaden is MDE's Special Projects Manager for the Climate Change Program. She has over a decade of experience leading GHG reduction programs. She is responsible for implementing programs related to the 2022 Maryland Climate Solutions Now Act.

Deron Lovaas is MDOT's Chief, Environment & Sustainable Transportation. He advises the Secretary, Deputy Secretary, and Assistant Secretaries at MDOT regarding environment and sustainability issues and policy.

Tricia Arndt, AICP is DelDOT's Deputy Director of the Division of Resiliency and Sustainability. She has over twenty years of experience in public service and is a certified Climate Change Professional. She leads the agency's EV infrastructure, GHG reduction, and related equity programs.

7) Budget

This application requests \$248.9 million from the CPRG program to support the development, administration, implementation, and evaluation of a ZE-MHDV Infrastructure Network distributed across the Coalition member states. The Coalition used a series of working budget meetings to propose, delineate, and finalize budget estimates for this project, which include costs associated with personnel, fringe benefits, travel, supplies, contractual, and other expenses. The attached Budget Narrative and Spreadsheet include specific details.

7a) Budget Detail

The largest expenses in the proposed budget are dedicated to Contractual spending, and "Other" spending, with the latter comprised primarily of subawards to coalition members that will be spent predominantly on site selection and procurement and installation of charging stations. The Coalition has envisioned the two largest expenditures will be:

- 1. Shared Third Party Administrator Expenses | The Coalition Members have agreed that if they secure the requested CPRG funding, they will leverage the lead agency's (NJDEP) resources to contract with a qualified administrator to provide administrative, technical, public engagement, facilitation and other support for measure-related activities.
- 2. Awards and Sub-Awards for Site Selection Design, and Construction | The coalition members have agreed that the lead, NJ DEP, will subaward funds to each state so that each state can independently procure vendors to select, design, and construct ZE-MHDV infrastructure. The subawards were calculated using the relative emissions of PM2.5 from on-road sources in the counties overlapping the corridor (see Budget Narrative attachment). This resulted in New Jersey receiving the largest sum at just over \$84 million, \$81.1 million for Maryland, \$56.4 million for Connecticut, and \$13.6 million for Delaware.

Indirect Costs

There are no indirect costs to be covered for the lead agency (NJDEP). However, some indirect costs would need to be covered for coalition member states and these are included in the subawardee budget lines, listed above.

7b) Expenditure of Awarded Funds

The Budget Spreadsheet attached and detailed in the Budget Narrative presumes that all requested funds will be expended by the end of 2029. While it is possible that delays in procurement, material sourcing, permitting, vendor selection, or other challenges may put a strain on this schedule, Coalition members will take every step necessary to expedite this process to ensure no funding is left unexpended.

7c) Reasonableness of Costs

This budget was developed with thoughtful input from each of the Coalition members with technical support from Atlas Public Policy and the Georgetown Climate Center. Variable input costs like personnel rates, fringe benefit calculations, indirect costs, and incidentals were localized in accordance with each member state's rules and policies. Global costs like Third Party Administration fees were estimated based on coalition members' experience with professional services firms hired to support similar functions, Contractual expenses and subaward amounts were estimated using recently available data from NEVI and CFI build-outs in Coalition member states, as well as California.