

Federal Funding Programs to Support Advanced Clean Trucks Implementation

A Guide for States

Background

An increasing¹ number of states are implementing or considering adopting the Advanced Clean Trucks rule (ACT) and complementary policies. At the same time, the Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA) provide historic levels of funding to advance clean energy and climate change solutions. States and stakeholders have access to billions of dollars in federal funding that can be used to implement the ACT rule. **This document is a resource for state legislatures, governors' offices, executive branch agencies, businesses, communities, advocates, and others to understand how IRA and IIJA funding can be used for efficient and cost-effective implementation of the ACT rule.**

The Clean Air Act authorizes states to adopt the ACT rule medium- and heavy-duty zero emissions vehicle (ZEV) standards. Those standards require manufacturers that sell medium- and heavy-duty vehicles (MHDV) to meet zero-emissions sales targets as an increasing percentage of their annual sales from 2024 to 2035. The rule covers vehicles of weight classes 2b through 8, essentially covering trucks and buses over 8,500 pounds. Adoption of the ACT rule can boost public health outcomes, lower greenhouse gas emissions, improve air quality, reduce operating costs for fleet operators, incentivize domestic manufacturing, and increase vehicle availability for public and private fleets.

¹ **Adopted:** California, Massachusetts, New Jersey, New York, Oregon, Vermont, Washington.

Considering: Colorado, Connecticut, Hawaii, Maine, Maryland, North Carolina, Pennsylvania, Rhode Island, Virginia, Washington, D.C.

Federal Funding to Support ACT Rule Implementation

States and stakeholders generally share a range of interests for implementing the ACT rule. Priorities include private and government fleet procurement, clear planning and buildout of charging and fueling infrastructure, reduced fuel costs, job training and creation, economic development, greenhouse gas reductions, air quality improvement, equitable health outcomes, and community benefits. While the ACT rule regulatory requirements focus on the sale of zero-emission buses and trucks, IRA and IIJA funding programs can help with a wide range of needs for successful implementation. States can use the breadth and flexibility of federal funding to advance their own ACT-related priorities. The following list highlights the range of ACT-related priorities for which significant federal funding is available.

- **Medium and Heavy-Duty Vehicle Manufacturing.** Billions of dollars in tax credits and financing support available to build battery components, ZEVs, advanced technology vehicles, and more, including conversion of existing facilities.
- **Procurement and Bus Programs.** Tens of billions of dollars available to help states, Tribes, local governments, and businesses directly offset the cost of replacing heavy-duty commercial vehicles and buses with ZEVs.
- **Charging and Fueling.** Tax credits to build charging networks in rural and underserved areas, as well as to deploy hydrogen vehicle fueling facilities. Billions of dollars available for states to plan and build out charging infrastructure.
- **Supply Chain and Workforce Development.** Battery and critical mineral components are integral to widespread electric vehicle (EV) adoption, as are the manufacturers, installers, and recyclers of the supply chain. Tax credits and grants offer the ability to research, develop, and reuse batteries and battery components. IRA and IIJA include many programs focused on clean energy workforce, Just Transition, and retraining.
- **Emissions Reductions and Monitoring.** Flexible funding and planning grants to help states and communities reduce carbon pollution emissions, capture air quality data, and track real-time air quality monitoring.
- **Community Impacts.** Multiple funding streams to help communities monitor air quality, increase capacity for engagement, and access technical assistance for climate related activities.
- **State Planning.** Over \$10 billion for states to analyze, design, and strategize their own approaches to tackling pollution. Funding can be used to implement the ACT rule and achieve other transportation decarbonization priorities.

The appendix highlights IRA and IIJA funding available for the categories bulleted above. States also can consider additional opportunities in longstanding federal programs to support ACT implementation (e.g., National Highway Performance and Surface Transportation Block Grant Programs). States can immediately begin the long-term thinking and planning required to compete for and access these funds. The appendix summarizes for state policymakers (and others) individual funding streams available to meet their own priorities for implementing the ACT rule.² Adoption of the ACT rule is not a prerequisite for seeking the federal funds identified, but federal funding can help states successfully implement the ACT rule. Some programs are listed under multiple sections, given their flexibility. While certain federal procurement³ and regulatory proceedings⁴ will impact implementation of the ACT rule, they are outside the scope of this document, which focuses on how states can use federal funding for implementation.

² Attention in this memo is given to electrification and hydrogen opportunities but does not incorporate a comprehensive view of IRA and IIJA programs that incentivize biofuels. Such programs include an extension of tax credits for biodiesel and renewable diesel at \$1.00 per gallon, a \$0.50 per gallon excise tax credit for alternative fuels, extension of second-generation biofuel incentives at \$1.10 per gallon, \$500 million to provide grants for ethanol and biodiesel through the Higher Blend Infrastructure Incentive Program, and \$15 million in competitive grants to develop tests and protocols regarding the Renewable Fuels Standard (RFS). Biofuels fall outside the scope of this resource, which focuses on ACT.

³ The U.S. Postal Services (USPS) intends to deploy over 6,000 electric vehicles by 2028, making it one of the largest electric vehicle fleets in the nation, using \$3 billion made available to purchase, design, and install infrastructure for such vehicles. States can learn from local USPS facilities on fleet best practices, potential areas for concern, and required changes to benefit from similar changes at the state or private level. These are the types of actions and investments occurring around states as they grapple with ACT adoption.

⁴ Federal rulemaking and standards are underway at EPA as part of the [Clean Trucks Plan](#) to reduce NOx emissions in heavy-duty vehicles starting with Model Year 2027. This would narrow the cost of ACT implementation in the long-run, and provide opportunities for first-mover ACT states in the short-term, given they likely will have a head start in meeting federal regulations.

Next Steps for States

To make the most of the wide range of federal funding opportunities useful for ACT rule implementation, states could take the following actions in three overlapping phases. Early organization and planning by states will enable a proactive, coordinated approach to applying for and implementing federal funds.

PHASE I

- A. **Establish Priorities.** Establish a state priority to maximize use of federal funding for ACT rule implementation. The legislature, governor, budget office director, infrastructure coordinator, or other senior state officials could establish this priority.
- B. **Identify State Principals.** Designate a single state official (perhaps in the Governor's office or relevant agency) to coordinate use of federal funds for ACT rule implementation. Identify principals to lead efforts from relevant parts of state government (e.g., agencies, budget office, and commissions) to secure and administer funding programs.
- C. **Coordinate State Principals.** Coordinate principals and tasks around federal ACT rule-related funding. Coordination and deliverables could include monthly internal coordination meetings, education about relevant programs (e.g., using this document), identification of priority ACT rule implementation topics/programs, determining a point person for each related funding program, and identifying areas for interagency coordination (e.g., data sharing).
- D. **Identify Priority Programs and Milestones.** The ACT rule principals can prioritize funding programs and establish a timeline of milestones for each program. This process will help avoid missing key opportunities and deadlines, plan strategic interactions among funding programs, and ensure accountability.
- E. **Identify Stakeholders.** Identify key stakeholders across sectors, including but not limited to private sector manufacturers and purchasers, electric utilities, labor, environmental justice leaders, transportation planning organizations, local governments, and schools.

PHASE II

- A. **Communicate with Stakeholders.** Communicate funding opportunities to stakeholders/businesses in a timely manner, including by holding early roundtables (e.g., fleet purchasing, job training, and state support of funding applications), hosting information sessions, and updating websites. Establish regular check-ins and standing opportunities to exchange information and updates among state and non-state stakeholders.
- B. **Communicate with Public.** Share priorities online and in public sessions and forums, including public meetings, press conferences, and other speaking engagements by public officials. Build community knowledge and awareness, especially among environmental justice and frontline communities.
- C. **Ongoing Internal Information Sharing.** Share updates on grant application progress, grants awarded, formula funds awarded, and cross-cutting issues at gatherings such as cabinet meetings, other interagency meetings, and ongoing ACT rule implementation meetings. Principals share lessons learned among themselves to avoid siloed agencies and reporting chains. This could include sharing best practices across states.
- D. **State Match.** States can identify and secure matching funds for federal grant applications as soon as possible to increase state competitiveness.

PHASE III

- A. **Track Updates.** Federal agencies will continue to release guidance and other information on federal funding programs. States can track federal implementation of funding streams to remain current.
- B. **Update Priorities.** States can update their priorities and needs list as funding is awarded. Similarly, new priorities or needs may become a higher priority depending on the circumstances in each state.
- C. **Keep Learning.** States can learn from and emulate one another, employing best practices from around the country. They also can learn from unsuccessful competitive grant applications to improve applications in subsequent funding rounds.
- D. **Win the Win.** States should publicly celebrate the benefits that federal funds bring to their residents and businesses, so the advantages of public and private investment in clean vehicle manufacturing, procurement, infrastructure, workforce, etc. are widely understood.

Appendix

This appendix includes summaries of individual federal funding programs, organized by ACT rule-relevant sectors. Inclusion in the list was based upon whether a program could, at its core, help with ACT rule implementation. Programs listed below are not exclusive to ACT rule implementation and could be used by states and others more broadly, including to achieve other transportation sector decarbonization goals.

An ‘*’ indicates competitive funding. In some cases, where program design is still in development, a ‘**’ designation is given to indicate that the funding is unlikely to be formulaic.

A ‘#’ indicates formula funding.

No designations are given for tax credits.

| Medium and Heavy-Duty Vehicle Manufacturing | | | | |
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| Program | Purpose | Federal Agency /Grant Type | Eligible Applicants | Amount Available |
| Loan Program Office – ATVM* | To support the cost of loans for Advanced Technology Vehicles Manufacturing (ATVM). | DOE | Large manufacturers. | \$40 billion in new DOE lending authority for qualifying projects. |
| 48C* | Tax credit for investments in advanced energy projects. | DOE; Treasury | Businesses, states, rural co-ops, Tribal governments, and many others. | \$10 billion total program (\$4 billion minimum in energy communities). |
| 45X | Provides a production tax credit (PTC) for domestic manufacturing of battery components and critical minerals. | Treasury | Businesses, states, rural co-ops, Tribal governments, and many others. | Variable; Congressional Research Service estimates up to \$31 billion. |
| Domestic Manufacturing Conversion Grants* | Provides a 50% cost share grant to recently closed or soon to be shuttered manufacturing facilities for domestic production of efficient clean vehicles and components. | DOE | Manufacturers are eligible, not states. | Up to \$2 billion, to remain available through September 30, 2031. |

Loan Program Office – ATVM

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| ACT Rule Context | Can be used to issue loans for manufacturing advanced technology vehicles, components, and new uses under IIJA including MHDVs. Specifically: manufacturing of battery cell components, battery cells, battery modules, and battery packs for EVs, or manufacturing EV charging infrastructure components. Unlocks approximately \$55 billion in DOE loan authority (\$40 billion of which is new), including lifting former cap of \$25 billion under EISA '07. Funding is available through September 30, 2028. |
| Match Requirement? | No. The loan cannot exceed 80% of the project's total costs. |
| Relationship with Other Programs | Can pair with 48C, 45X, domestic manufacturing conversion grants, and others. The loan is often one of many sources of funding for a project. This program in particular has been used by large automotive companies in the past. |
| Pre-Application | State DOTs, Departments of Commerce, and Governors' Offices make sure in-state ATVM companies are aware of the program and offer to support application. |
| Next Steps | State and/or manufacturer schedule a consultation with LPO staff (ATVMloan@hq.doe.gov). |

48C – Advanced Energy Project Credit

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| ACT Rule Context | Originally enacted under American Recovery and Reinvestment Act of 2009 (ARRA), advanced energy projects qualify for the credit if they manufacture MHD battery or fuel cell vehicles, as well as technologies, components, or materials for such vehicles, or refueling infrastructure. Manufacturers must apply to the IRS to qualify and have two years from IRS certification to prove that the project has been placed in service. |
| Match Requirement? | No; States are direct pay eligible. This means a state can receive direct payment from the federal government, through a transfer contract or another vehicle, on behalf of another tax paying entity. |
| Relationship with Other Programs | Cannot stack with 45X. Can pair with LPO ATVM loans, domestic manufacturing conversion grants, and other programs. |
| Pre-Application | States could hold a roundtable with potential manufacturers to discuss partnership opportunities for credit. Identify relevant coal communities, where 40% of 48C investments must occur. |
| Next Steps | Once final guidance from Treasury for prevailing wage and apprenticeship requirements for 48C is released, share information on qualifying areas identified in pre-application with manufacturers and supply chain companies outlining sites and federal tax benefits. |

45X – Advanced Manufacturing Production Credit

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| ACT Rule Context | This is a new tax credit for eligible components of clean energy development to be produced in the US and sold by a manufacturer. The credit applies beginning January 1, 2023, and phases out starting in 2030. Eligible components include battery cells, battery modules, certain critical materials, inverters, and other products. |
| Match Requirement? | No; States are direct pay eligible. Businesses may transfer eligible credits to other entities for cash, but states cannot do the same. |
| Relationship with Other Programs | Cannot stack with 48C. Could be combined with other workforce loans or additional tax credit programs. |
| Pre-Application | Identify relevant coal communities in state; overlay with potential manufacturing opportunities to maximize tax credit. |
| Next Steps | Like 48C, once the Treasury guidance is released, share information on qualifying areas identified pre-application with manufactures and supply chain companies outlining sites and federal tax benefits. |

Domestic Manufacturing Conversion Grants

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| ACT Rule Context | Provides cost-sharing grants for domestic production of differing types of vehicles, including battery EVs and fuel cell EVs. Priority is given to manufacturing facilities that are about to close their doors or have recently ceased operations. |
| Match Requirement? | Yes, 50%. This matching requirement is for manufacturers, not states. |
| Relationship with Other Programs | Can coordinate with state and local programs designed to accomplish similar goals. |
| Pre-Application | States can identify existing and potential new applicants to bolster in-state supply chain. Office of the Governor and Department of Commerce can compile a list of eligible entities to communicate with regarding this grant. |
| Next Steps | Gather potential recipients for meeting to determine how best to capture this grant, including consideration of cost share requirement. |

Procurement and Bus Programs

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|---|---|----------------|---|--|
| <u>45W - Clean Vehicle Credit</u> | Provides a credit of either \$7,500 or \$40,000 for commercial clean vehicle purchases. | Treasury | Direct pay eligible for states and other government vehicles. | Based on per unit purchase, without an overall cap. |
| <u>Clean Heavy-Duty Vehicles*</u> | Funding to help offset the cost of replacing heavy-duty Class 6 and 7 commercial vehicles with ZEVs. | EPA | States, municipalities, Tribes, nonprofit school transportation association. Contractors that sell, lease, license, or contract for service ZEVs are also eligible. | \$1 billion. |
| <u>CMAQ#</u> | Flexible formula funding to State and local governments to improve air quality for nonattainment areas. Legacy program since 1991. Updated to include purchase of MHD ZEVs and related charging stations. | DOT | States, local governments. | \$13.2 billion, with typical projects requiring 80% federal, 20% non-federal match. Waivers are available in some circumstances. |
| <u>Bus & Bus Facilities Formula Grants#</u> | Provides capital funding to replace, rehab, purchase, or lease buses and related equipment. | DOT | States, localities, Tribes. | \$3.1 billion. |
| <u>Bus & Bus Facilities Competitive Grants*</u> | Provides capital funding to replace, rehab, purchase, or lease buses and related equipment. | DOT | States, localities, Tribes. | \$1.966 billion. |
| <u>Low or No Emission (Bus) Grants*</u> | Capital funding to replace, rehab, or purchase buses and equipment with low or no emissions. | DOT | States, localities, Tribes. | \$5.624 billion. |
| <u>Clean School Bus Program*</u> | Fifty percent of funds to zero-emission buses, fifty percent to alternative fuels. | DOT | States, localities, nonprofits, Tribes. | \$5 billion, until expended. |
| <u>TIFIA*</u> | Loans for electrification of buses and other infrastructure. | DOT | States, localities, other public authorities. | \$1.25 billion to unlock \$75 billion in lending authority, with 80% federal, 20% non-federal. |

| Procurement and Bus Programs | | | | |
|--|--|----------------|--|--|
| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
| Diesel Emissions Reductions Act* | To identify and reduce diesel emissions from goods movement in low-income and disadvantaged communities. | EPA | States, among others, including nonprofits, port authorities, MPOs, Tribes, etc. | \$60 million. |
| Carbon Reduction Program# | Reduce transportation emissions, specifically CO ₂ , or the development of carbon reduction strategies. | DOT | States, in consultation with MPOs. | \$6.4 billion over 4 years, with 80% federal, 20% non-federal. |
| Reduction of Truck Emissions at Port Facilities* | Study and award competitive grants to reduce truck idling and emissions at ports through electrification. | DOT | States, ports, businesses, and others that can reduce emissions at ports. | \$400 million total over 4 years as a competitive grant. |
| National Highway Freight Program# | To reduce environmental impacts of freight movement on the National Highway Freight Network, including through class 8 diesel retrofits eligible under CMAQ (on or off the network) and charging and fueling infrastructure. | DOT | States. | \$7.15 billion in formula funding to states, with typical projects requiring 80% Federal, 20% non-Federal match. |

45W – Clean Vehicle Credit

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| ACT Rule Context | Provides a tax credit for purchasers of commercial clean vehicles to businesses and governments that acquire motor vehicles for use or lease. Broadly, credit covers the difference between gas and electric vehicle cost. The credit is variable but capped at \$7,500 for vehicles under 14,000 pounds and \$40,000 for all other clean vehicles. Vehicles placed in service after 1/1/2023 and before 1/1/2033 are eligible. |
| Match Requirement? | No. States are eligible for direct pay. |
| Relationship with Other Programs | Cannot claim both 30D and 45W. Could help provide orders of vehicles manufactured under 48C or 45X. |
| Pre-Application | Determine if the vehicle considered for purchase qualifies for the credit. |
| Next Steps | After purchasing the vehicle, entities will need to file a form to claim the credit, along with the vehicle's VIN and the amount of credit sought. The depreciable basis of the vehicle is reduced by the amount of the commercial clean vehicle credit received. |

Clean Heavy-Duty Vehicles

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| ACT Rule Context | Offsets the cost of replacing Class 6 and 7 commercial vehicles with ZEVs. Funding will be distributed to eligible applicants via grants, rebates, and/or contracts to purchase clean, heavy-duty vehicles to offset incremental cost of replacing Class 6 and 7 vehicles, charging infrastructure, workforce development, and planning. Funding is available through September 30, 2031, although funding likely awarded sooner. |
| Match Requirement? | TBD. |
| Relationship with Other Programs | Clean School Bus Program, Diesel Emissions Reductions Act (DERA), and others will work in conjunction with this program, although the specifics are still being developed. |
| Pre-Application | Determine whether state seeks funding to replace vehicles, provide workforce and development training, plan and conduct technical activities, or purchase and operate infrastructure. Particular attention should be paid to the 40% required to go to nonattainment areas. |
| Next Steps | Stay up to date on funding availability by emailing CleanHDVehicles@EPA.gov . |

Congestion Mitigation and Air Quality Improvement Program

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| ACT Rule Context | Formula funding grant to help states meet requirements of the Clean Air Act (CAA), including in nonattainment areas or maintenance areas (areas recently in compliance), by supporting projects that reduce congestion and mobile source emissions. Examples include replacing diesel vehicles with MHD ZEVs and associated infrastructure. Emphasis could be placed on diesel engine retrofits, including construction equipment, port-related equipment, and alternative fuel infrastructure in designated fuel corridors. \$2.5 billion for FY2022, nearly \$2.6 billion for FY 2023. |
| Match Requirement? | Yes. A non-federal match of 20% is typically required, although waivers are sometimes available. Match requirements also depend on whether the state is in attainment, if the project is for interstate projects, etc. |
| Relationship with Other Programs | CMAQ funds can be used to offset the cost of purchasing MHDVs, thereby stretching the funds needed for other procurement or purchasing programs. |
| Pre-Application | State DOT update existing CMAQ workplan and projects to prioritize projects that help with ACT implementation, even though CMAQ funding can be used for additional purposes. |
| Next Steps | State leaders can identify funding opportunities in CMAQ eligible communities by asking MPOs or local governments for a list of priority projects for CMAQ consideration that also achieve ACT implementation. A workplan could be developed to rank-order projects accordingly. |

Bus and Bus Facilities Formula Grants

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| ACT Rule Context | States will receive capital funding to be used to offset the cost of bus replacement, including ZEV buses under ACT. Funds are available for year of funding award and three years following. |
| Match Requirement? | Varies. |
| Relationship with Other Programs | Other bus programs . |
| Pre-Application | Identify priority list of clean school bus replacement, rehabilitation, purchase, or construction facilities. |
| Next Steps | Develop comprehensive clean school bus plan with near-term goals and priorities. Share grant information with school districts and bus fleet managers. |

Bus and Bus Facilities Competitive Grants

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| ACT Rule Context | Entities such as states that provide funding to fixed-route bus operators, or fixed-route bus operators that are local government authorities are the intended recipients of this grant. States can compete for capital funding to be used to offset the cost of bus replacement to comply with ACT. For FY22, \$550 million was available. |
| Match Requirement? | Varies. |
| Relationship with Other Programs | Other bus programs . |
| Pre-Application | Identify priority list of clean school bus replacement, rehabilitation, purchase, or construction facilities. Develop comprehensive school bus plan. Prioritize EJ and disadvantaged communities to increase likelihood of award. |
| Next Steps | Fixed-route bus operators can submit proposals for funding by Spring 2023. |

Low or No Emission (Bus) Grants

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| ACT Rule Context | Funding already awarded in FY22 totaling \$1.66 billion to help buy and maintain buses, supporting 150 projects and helping American workers to build more than 1,800 new buses. Nearly \$1.7 billion is available for FY23. |
| Match Requirement? | Varies. |
| Relationship with Other Programs | Other bus programs . |
| Pre-Application | FTA received 530 eligible projects totaling \$7.72 billion across all bus programs. Sharpen pencils and grants for next fiscal year. |
| Next Steps | Develop comprehensive school bus plan, with particular emphasis on disadvantaged communities. Identify gaps in funding and align with appropriate bus funding stream. |

Clean School Bus Program

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| ACT Rule Context | These funds help offset the cost of clean school buses, including ZEVs (50% of total) and alternative fuels (50% of total). The total of \$5 billion is available until expended through a rebate and contract grant mechanism. The first round in 2022 already closed , with 403 applicants receiving nearly \$1 billion in funding. After doubling funding in round one due to overwhelming demand from 2,000 applications totaling \$4 billion in requests for 2022, the waitlist shows the intense demand for this program moving forward. |
| Match Requirement? | No. |
| Relationship with Other Programs | No restrictions on combining with funding from other programs. Overlaps with other bus programs including Low or No Emission (Bus) Grants, Bus & Bus Facilities Competitive Grants, Bus & Bus Facilities Formula Grants, DERA, etc. |
| Pre-Application | School districts from frontline communities can prepare applications and needs for the next round of funding. New applications will be required for 2023. |
| Next Steps | Identify top-tier applicants and prepare application materials. |

TIFIA – Transportation Infrastructure Finance and Innovation Act

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| ACT Rule Context | TIFIA provides credit assistance for qualified projects of regional and national significance. Many large-scale projects are eligible. Electrification of buses and associated infrastructure also is eligible for low-interest loan assistance with an amortization period up to 35 years, and even 75 years for some projects. This fund is designed to fill market gaps and leverage private co-investment. Up to 49% of a project can be funded by TIFIA and can include “TIFIA Lite” for smaller, shovel-ready projects. Generally, TIFIA helps fund large public interest projects, and is one of many financing tools used for such projects. |
| Match Requirement? | Yes, 20% non-federal. |
| Relationship with Other Programs | Can be stacked with loans, grants, and/or private funding to help bring a large project to completion financially. |
| Pre-Application | Identify potential large MHD ZEV infrastructure and vehicle procurement needs through conversation with the state DOT, transportation authorities, MPOs/RPO. Determine which of those needs could benefit from TIFIA financing. |
| Next Steps | Gather potential questions or brainstorm opportunities by contacting BureauTA@dot.gov . |

Diesel Emissions Reductions Act

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| ACT Rule Context | Helps reduce diesel emissions in low-income and disadvantaged areas from facilities and vehicles. Improves health outcomes. Funding can be used to replace school buses and Class 5-8 heavy-duty highway vehicles, reduce idling by tractors and trailers, etc. The program is moving from an annual to a two-year competition cycle to reduce EPA's administrative burden. |
| Match Requirement? | No. |
| Relationship with Other Programs | Can be paired with port strategies, school bus purchases, fleet electrification, or other programs. The total amount of the funding for this program will not allow for massive fleet overhauls but will quickly assist in reducing diesel emissions from frontline communities. |
| Pre-Application | Most states have either received or applied for DERA funding in the past . States should help update applications with local entities and remind them of the new 2-year competitive funding cycle, likely by state environmental department. |
| Next Steps | Disseminate notice to all interested parties when EPA releases a Notice of Funding Opportunity. |

Carbon Reduction Program

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| ACT Rule Context | States can use formula funds flexibly, including to support reduction of transportation emissions. This specifically includes acquisition, installation, or operation of publicly accessible EV charging infrastructure or hydrogen fueling infrastructure. In consultation with MPOs, priority requests can include those that bolster ACT implementation to lower emissions. |
| Match Requirement? | 20% non-federal. |
| Relationship with Other Programs | Cross-cutting program gives maximum flexibility to states and must be updated every four years. CRP relationship to ACT implementation could evolve as time passes, filling critical gaps in early years and more discreet gaps in later years. Climate Pollution Reduction Grants could be used to help implement CRP goals and needs. |
| Pre-Application | Legislature and executive branch officials identify funding gaps not filled by other programs. |
| Next Steps | Each state must have a carbon reduction strategy not later than November 2023. Develop a process for establishing a carbon reduction strategy. Identify sources for non-federal match. |

Reduction of Truck Emissions at Port Facilities

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| ACT Rule Context | Program studies and awards competitive grants to reduce truck idling and emissions at ports, including through transition to ZEVs. |
| Match Requirement? | 20% non-federal. Awards are to be made no later than April 1 of each fiscal year for which funding is made available. |
| Relationship with Other Programs | Port Infrastructure Development Grants, Carbon Reduction Program, Environmental and Community Justice Block Grants could all co-benefit from this funding to help electrify ports and reduce emissions in nearby neighborhoods. |
| Pre-Application | Identify heavy-duty commercial vehicles at ports that feature in operations. Find relevant developers or partners that could electrify these fleets. Identify cost and additional sources of funding to implement. |
| Next Steps | Coordinate port leaders to identify top-tier targets for funding. If more than one facility is eligible to apply, attempt to prioritize in state ports so that they are not competing against one another. Legislative and executive branch officials could support grant application efforts with letters of support and funding. |

National Highway Freight Program (NHFP)

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| ACT Rule Context | Flexible formula funding to improve the condition and performance of the National Highway Freight Network. Provides funds to implement diesel retrofit or alternative fuel projects for class 8 vehicles that qualify under CMAQ. |
| Match Requirement? | 20% non-federal match required. |
| Relationship with Other Programs | Can coordinate with state and local programs designed to accomplish similar goals, including the CMAQ program. |
| Pre-Application | States could identify ways to bolster CMAQ workplan and prioritize projects that support ACT implementation. |
| Next Steps | State leaders can identify funding opportunities in CMAQ eligible communities by asking MPOs or local governments for a list of priority projects that also achieve ACT implementation. A workplan could be developed to rank-order projects accordingly. |

Charging and Fueling

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|--|---|----------------|--|--|
| National Electric Vehicle Infrastructure Formula Program (NEVI)# | Strategically deploy EV charging infrastructure along interstate highway system. | DOT | States. | \$5 billion. |
| 30C – Alternative Fuel Vehicle Refueling Property Credit | Provides a credit for refueling and charging in low-income and rural areas. | Treasury | Consumers and businesses. Direct pay eligible for states. | Limited to \$100,000 per property if subject to depreciation allowance, otherwise \$1,000. |
| 45V – Clean Hydrogen Production Credit | Provides a credit for qualified clean hydrogen produced after 2022. | Treasury | Any producer of hydrogen in the United States. Direct pay eligible for states. | Ranges from 20-100% of the facility, depending on lifecycle GHG emissions. |
| Charging and Fueling Infrastructure Grant Program* | To strategically deploy publicly accessible EV charging, hydrogen fueling, propane fueling, and natural gas fueling infrastructure along designated alternative fuel corridors and in local communities off designated corridors. | DOT | States, local governments, MPOs, Tribes, other public transportation entities. | \$2.5 billion in competitive grants, up to 80% federal share. |

National Electric Vehicle Infrastructure Formula Program (NEVI)

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| ACT Rule Context | Enables states to deploy EV charging and infrastructure along federal highway systems. The funds can be used to acquire and install EV charging infrastructure to catalyze development of more buildout. Data collection, access, reliability, maintenance, operation, data sharing, and other uses could bolster ACT implementation, especially if some of the chargers available are used for MHDVs. Ten percent of funding is set aside for grants to states that require additional assistance to strategically deploy this infrastructure. |
| Match Requirement? | Yes. 20% non-federal match required. No waivers. |
| Relationship with Other Programs | This funding can be used in conjunction with planning or procurement programs to help deploy actual charging infrastructure along federal highways. |
| Pre-Application | State by state fact sheets on actual and anticipated amounts are available here . 2022 funding has already been disbursed based on approved plans submitted by each state. |
| Next Steps | Identify priority need areas for deployment of 2023 funding when it is distributed. |

30C – Alternative Fuel Vehicle Refueling Property Credit

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| ACT Rule Context | Helps reduce the cost of refueling and charging infrastructure in low-income and rural areas, specifically for electrification and hydrogen, among other technologies. Additionally, with prevailing wage and apprenticeship requirements, increases benefits to states with applicants for the credit. The charging location must be in a Census tract that is either low-income or not an urban area. States eligible for direct pay; credit is transferable. |
| Match Requirement? | No. |
| Relationship with Other Programs | Can be used with other programs to help deploy clean energy charging stations in rural or low-income areas, such as 48C, 45X, etc. |
| Pre-Application | Help match key geographical areas that fit the definition with eligible recipients of the credit. A strategic plan that identifies key areas for state-owned charging stations to be deployed could be created. |
| Next Steps | States can convene a roundtable of potential businesses, fueling stations, and utilities that are eligible for the credit to help map which entities may apply with funding opportunities. |

45V – Clean Fuel Production Tax Credit

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| ACT Rule Context | Reducing the cost of hydrogen production will lower the cost of ACT implementation for vehicles using hydrogen. States are eligible for direct pay, and the credit is transferable. Providing a PTC can jumpstart the hydrogen fuel market, which may be a better fuel source for low-emission heavy-duty vehicles than EVs. |
| Match Requirement? | No. |
| Relationship with Other Programs | This PTC for hydrogen must be used in lieu of the ITC if 45Q (carbon capture) is not also claimed. Determining ITC or PTC is up to the taxpayer. This business incentive could be stacked with other manufacturing credits. |
| Pre-Application | Hold a roundtable meeting for potential hydrogen producers to assess viability and market opportunity if it aligns with state policy and plans. |
| Next Steps | Send invitations and work with existing hydrogen groups (if any) to prioritize in-state production. |

Charging and Fueling Infrastructure Grant Program for Corridor and Community Charging and Fueling

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|-------------------------|---|
| ACT Rule Context | Corridor Grants: Funding to strategically deploy publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure along designated corridors. Grants are used to contract with private entities for the acquisition and installation of publicly accessible facilities. To support ACT implementation, would require prioritizing charging/fueling stations that cater to MHDVs. |
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| ACT Rule Context | Community Grants: Funding to install EV charging and alternative fueling infrastructure in locations on public roads, schools, parks, and publicly accessible parking lots. Grants prioritize low-income, rural communities with low ratios of private parking and high ratios of multi-dwelling units. Would benefit ACT implementation if charging/fueling facilities enable MHDVs to utilize. |
| Match Requirement? | 20% non-federal match required. |
| Relationship with Other Programs | It could supplement other programs by filling charging/fueling gaps in otherwise hard to reach communities or areas of the state and alternative fuel corridors. |
| Pre-Application | Funding is available annually for four years starting in 2023. States could identify areas of need and gaps in charging/fueling infrastructure to prioritize those facilities that cater to MHDVs. |
| Next Steps | States work with MPOs and local government to identify priority areas to highlight in the grant application and determine who will apply. |

Supply Chain and Workforce Development

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|--|---|----------------|--|---|
| Battery and Critical Mineral Recycling* | To award grants for research, development, and demonstration to reuse and recycle batteries. | DOE | State research agencies, nonprofits, battery producers, and others. | \$125 million, through grants with more than 20% required in non-federal match. |
| 48C tax credit | Tax credit for investments in advanced energy projects. | DOE; Treasury | Businesses, states, rural co-ops, Tribal governments, and many others. | \$10 billion total program (\$4 billion minimum in energy for communities). |
| 45X tax credit | Provides a production tax credit (PTC) for domestic manufacturing of battery components and critical minerals. | Treasury | Businesses, states, rural co-ops, Tribal governments, and many others. | Variable; Congressional Research Service estimates up to \$31 billion. |
| Domestic Manufacturing Conversion Grants* | Provides a 50% cost share grant to recently closed or soon to be shuttered manufacturing facilities for domestic production of efficient clean vehicles and components. | DOE | Manufacturers are eligible, not states. | Up to \$2 billion, to remain available through September 30, 2031. |
| Public Transportation T.A. and Workforce Development* | Funding to support workforce development and transition, including zero-emission fleet conversion. | DOT | States, MPOs, and national nonprofit organizations. | \$62 million. |

Battery and Critical Mineral Recycling

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| ACT Rule Context | This program seeks to reduce the cost of batteries over their lifetime and bend down the cost-curve for beneficial electrification, reducing ACT implementation costs. Additionally, it will help with (i) extended battery lifecycles, (ii) recycling, (iii) more efficient lifecycle of batteries, (iv) consumer confidence in batteries, (v) critical minerals extraction, (vi) disposal, etc. |
| Match Requirement? | Yes. At least 20% of the total project must be non-federal. |
| Relationship with Other Programs | No statutory or direct relationship. Reducing cost of batteries and stretching life cycle of critical minerals brings down costs of ZEVs overall. |
| Pre-Application | State research agencies, universities, National Labs, and others are eligible and could determine who is best suited to pursue funding. States could prioritize one applicant for this competitive funding and create a consortium to stretch the funding as much as possible. |
| Next Steps | Appropriate state agency staff or higher education lead could email BIL-BatteryManufacturing@hq.doe.gov for more details once program opens for applicants. |

48C – Advanced Energy Project Credit

See page 5 for details.

45X – Advanced Manufacturing Production Credit

See page 6 for details.

Domestic Manufacturing Conversion Grants

See page 6 for details.

Public Transportation Technical Assistance and Workforce Development

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| ACT Rule Context | A workforce able to handle zero-emission fleet conversion will be required to rapidly scale with ACT implementation. This program helps support workforce development by providing technical assistance to address public transportation workforce needs through research, outreach, training, and implementation of a frontline workforce grant program, among other matters. States, MPOs, and national nonprofits are eligible for this funding. The main purpose of this program is for public transportation service technical assistance and workforce development, including transit. That could include vehicle operators at ports, for school districts, municipalities, or others to help train and professionalize those interacting with MHD ZEVs daily. |
| Match Requirement? | Yes. At least 20% of the total project must be non-federal. |
| Relationship with Other Programs | No clear statutory link. |
| Pre-Application | Identify priority public transport workforce needs, especially if an area already has ZEVs that need servicing, operating, maintaining, etc. |
| Next Steps | State DOT officials, workforce officials, and transit authorities could consider applying for funding to develop technical assistance. |

Emissions Reductions and Monitoring

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|---|--|----------------|---|--|
| <u>GHG Reduction Fund*</u> | To <u>finance</u> clean energy projects to reduce GHG emissions, including in low-income and disadvantaged communities. | EPA | States, Tribal governments, and nonprofits. | \$27 billion (\$15 billion minimum to low-income and EJ communities). |
| <u>Climate Pollution Reduction Grants#*</u> | Grants to develop strategies and implement projects for reducing GHGs. | EPA | States, Tribes, air pollution and control agencies, and local governments. | \$5 billion total, of which \$250 million is available for planning. Balance is for implementation. |
| <u>CMAQ#</u> | Flexible formula funding to State and local governments to improve air quality for nonattainment areas. Legacy program since 1991. <u>Updated</u> to include purchase of MHD ZEVs and related charging stations. | DOT | States, local governments. | \$13.2 billion, with typical projects requiring 80% federal, 20% non-federal match. Waivers are available in some circumstances. |
| Environmental and Climate Justice Block Grants* | To provide competitive grants and technical assistance to community-based organizations to reduce and monitor for pollution, building on existing EJ grants. | EPA | Community-based nonprofit organizations, including in partnership with Tribal or local governments. | Up to \$3 billion, through September 30, 2026. |
| <u>Diesel Emissions Reductions Act*</u> | To identify and reduce diesel emissions from goods movement in low-income and disadvantaged communities. | EPA | States, among others, including nonprofits, port authorities, MPOs, Tribes, etc. | \$60 million. |
| <u>Air Quality Sensors*</u> | Funding to make air quality sensor technology available to low-income and disadvantaged communities, helping screen for certain pollutants. | EPA | States, local governments, Tribes, nonprofits. | \$3 million. |

GHG Reduction Fund

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| ACT Rule Context | These competitive grants can be used to provide financial and technical assistance for zero-emission technologies and projects that reduce or avoid GHG emissions, in partnership with the private sector. Suggestions for how this program is utilized include a national green bank, municipal green banks, non-profits – or a combination of all three. Initial program guidance has been released. Final programmatic decisions are complex . This program is new and massive in scale, providing unprecedented opportunity for states to reduce GHG emissions and deploy technology. |
| Match Requirement? | No. |
| Relationship with Other Programs | Could provide a finance mechanism to manufacture, purchase, or deploy ZEVs across multiple sectors, especially when bundled or “stacked” with other programs. Guidance on the ability to use the fund in this manner is forthcoming. |
| Pre-Application | Two funds exist: \$20 billion for general and low-income assistance and \$7 billion for zero-emissions technology funds. States could identify priorities in each fund and coordinate among legislatures, Governor’s office staff, and agencies to (1) identify eligible recipients (nonprofits, etc.) for \$20 billion portion of funding; (2) list qualifying EJ and low-income priorities for state portion of \$7 billion, and; (3) prioritize applications to assist communities (especially low-income) in ACT implementation. Preapplication coordination is required. |
| Next Steps | Competition details likely will be announced by early Summer 2023. The deadline for submission and awards will be communicated in the notice of funding opportunity. Learn more about this new funding by engaging EPA . |

Climate Pollution Reduction Grants

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| ACT Rule Context | A state or locality can use planning and implementation funds to address ACT priorities and gaps. For example, a state may use a planning grant to identify the procurement gaps for ZEVs in municipal fleets, and then municipalities may use the implementation funding made available thereafter to procure such vehicles. |
| Match Requirement? | No. |
| Relationship with Other Programs | Broad new program, providing recipients maximum flexibility in planning and implementation, meaning this program could help fill gaps or amplify nearly any other GHG reduction program, manufacturing opportunity, procurement, etc. |
| Pre-Application | Gubernatorial staff, in consultation with agency staff, can identify agency planning and project needs for successful ACT implementation. Identify gaps in planning and implementation programs that could be addressed by CPRG. |
| Next Steps | Apply for the Notice of Intent to Participate by March 31, 2023. Complete the workplan application by April 28, 2023. Implementation funds likely distributed late summer 2023 by EPA to states. |

Congestion Mitigation and Air Quality Improvement Program

See page 9 for details.

Environmental and Climate Justice Block Grants

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| ACT Rule Context | Monitoring air pollution is critical for local communities to understand their air quality and identify the most impactful solutions. This funding could help build local technical capacity to understand these matters and help resolve air quality issues at the local level, especially in neighborhoods most impacted by current MHDVs. Funding could provide technical assistance to local experts to guide ACT implementation and prioritization. Additionally, funding could be used to build community-based support and knowledge for ACT implementation. |
| Match Requirement? | No. |
| Relationship with Other Programs | Provides data on air monitoring and emissions reductions from ACT implementation across multiple other programs. |
| Pre-Application | Funding is for community-based nonprofit organizations, not states. Gubernatorial EJ advisors, or other appropriate staff, could disseminate information on the grant opportunity to in-state EJ groups. |
| Next Steps | Distribute funding opportunity announcement to EJ groups and community leaders. Continue to engage those same communities at scale to educate, empower, and collaborate on ACT implementation, even before funding is awarded. |

Diesel Emissions Reductions Act

See page 12 for details.

Air Quality Sensors

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| ACT Rule Context | Increasing air quality sensor technology will help regulators, health officials, and communities quantify the benefits of transitioning to ZEVs by enabling recipients to purchase, deploy, integrate, and operate air quality sensors/monitors in low-income and disadvantaged communities and on Tribal lands. This funding could also show the need for ACT or similar measures because of the persistent level of pollution. |
| Match Requirement? | No. |
| Relationship with Other Programs | Supplemental to Environmental and Climate Justice block grants to help monitor real time air quality data. |
| Pre-Application | Identify key areas of low-income and disadvantaged communities that need more data and sensor technology to track air quality, especially in areas with persistent MHDV traffic. Reach out to regional contact on EPA website for questions. |
| Next Steps | States could partner with local groups to apply for this funding, in a similar manner to the Environmental and Climate Justice block grants. |

Community Impacts

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|---|--|----------------|---|---|
| Environmental and Climate Justice Block Grants* | To provide competitive grants and technical assistance to community-based organizations to reduce and monitor for pollution, building on existing EJ grants. | EPA | Community-based nonprofit organizations, including in partnership with Tribal or local governments. | Up to \$3 billion, through September 30, 2026. |
| <u>Diesel Emissions Reductions Act*</u> | To identify and reduce diesel emissions from goods movement in low-income and disadvantaged communities. | EPA | States, among others, including nonprofits, port authorities, MPOs, Tribes, etc. | \$60 million. |
| <u>Air Quality Sensors*</u> | Funding to make air quality sensor technology available to low-income and disadvantaged communities, helping screen for certain pollutants. | EPA | States, local governments, Tribes, nonprofits. | \$3 million. |
| <u>GHG Reduction Fund*</u> | To <u>finance</u> clean energy projects to reduce GHG emissions, including in low-income and disadvantaged communities. | EPA | States, Tribal governments, and nonprofits. | \$27 billion (\$15 billion minimum to low-income and EJ communities). |

Environmental and Climate Justice Block Grants

See page 20 for details.

Diesel Emissions Reductions Act

See page 12 for details.

Air Quality Sensors

See page 20 for details.

GHG Reduction Fund

See page 19 for details.

State Planning

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|---|---|----------------|--|--|
| Mobile Source Grants* | New program to provide states grants to adopt and implement Sec. 177 of the Clean Air Act for GHG and ZEV standards. | EPA | States. Others “TBD.” | \$5 million. |
| <u>Carbon Reduction Program#</u> | Reduce transportation emissions, specifically CO ₂ , or the development of carbon reduction strategies. | DOT | States, in consultation with MPOs. | \$6.4 billion over 4 years, with 80% federal, 20% non-federal. |
| <u>Metropolitan Planning#</u> | Creates a framework for making transportation investment decisions in metropolitan areas. | DOT | MPOs in urban areas. | \$2.28 billion in formula grant over 4 years, with 80% federal, 20% non-federal. |
| <u>Reduction of Truck Emissions at Port Facilities*</u> | Study and award competitive grants to reduce truck idling and emissions at ports through electrification. | DOT | States, ports, businesses, and others that can reduce emissions at ports. | \$400 million total over 4 years as a competitive grant. |
| <u>State Energy Program#</u> | Planning funds, including for transportation sector to help reduce carbon emissions. | DOE | States. | \$500 million, through formula grants. |
| <u>Climate Pollution Reduction Grants#*</u> | Planning grants to develop and implement strategies for reducing GHGs. | EPA | States, Tribes, air pollution and control agencies, and local governments. | \$5 billion total, of which \$250 million is available for planning. The remainder will be for implementation. |
| <u>National Highway Freight Program#</u> | To reduce environmental impacts of freight movement on the National Highway Freight Network, including through class 8 diesel retrofits eligible under CMAQ (on or off the network) and associated charging and fueling infrastructure. | DOT | States. | \$7.15 billion in formula funding to states, with typical projects requiring 80% Federal, 20% non-Federal match. |
| <u>National Electric Vehicle Infrastructure Formula Program (NEVI)#</u> | Strategically deploy EV charging infrastructure along interstate highway system. | DOT | States. | \$5 billion. |

Mobile Source Grants

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| ACT Rule Context | Perhaps the most direct connection to ACT of all funding, these grants are for states to adopt and implement section 177 of the CAA for GHG and ZEV standards. Still unclear whether funding will be formula based or competitive. States could identify small gaps in funding needs in developing other programs (technical assistance, modeling, etc.) and keep a running list to apply for this funding when available. |
| Match Requirement? | No. |
| Relationship with Other Programs | Potential gap filler for small expenses and needs related to ACT implementation. |
| Pre-Application | Identify greatest need in near-term for grant funding to cover, including technical assistance, modeling, etc. The Governor's office and agencies could have a running list of small dollar needs. |
| Next Steps | Staff in the environmental department could present funding and capacity needs to EPA staff to help in standing up and designing this new program. |

Carbon Reduction Program

See page 12 for details.

Metropolitan Planning

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| ACT Rule Context | This program focuses on safety, multimodal data, and regional transit. However, a portion of the funding could be allocated by the MPO to help identify and prioritize the planning process and decision-making options available for ACT implementation with the public, elected officials, and stakeholder groups, specifically as it relates to safety, improved health outcomes (especially near housing developments), intermodal transit, and other travel demand forecasts. |
| Match Requirement? | 20% non-federal. Formula grants distributed to states annually. |
| Relationship with Other Programs | This planning grant may provide foundational data required for the construction or renovation of existing facilities that seek to electrify, including through the manufacturing programs listed herein. |
| Pre-Application | Meet with MPO staff to prioritize ACT implementation and data gathering in administering these grant funds. |
| Next Steps | Seek ACT education and feedback from community leaders and stakeholders as MPO conducts other planning activities. |

Reduction of Truck Emissions at Port Facilities

See page 13 for details.

State Energy Program

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| ACT Rule Context | Planning funds have broad and wide-ranging use, depending on the state. Funds are normally used to achieve clean energy goals, however, they could fund technical assistance, studies, or initiatives to assist in implementing ACT. |
| Match Requirement? | No. |
| Relationship with Other Programs | Could be used to fill gaps, fund immediate analysis, technical assistance, or other needs to make grant or loan applications for other programs more competitive, in addition to bolstering state incentives for facilities that aid in ACT implementation. |
| Pre-Application | Formula grant – State Energy Office can consider using a portion of the funding outside normal activities that would be used for ACT planning and implementation. Coordinating those needs with the Office of the Governor and state departments of transportation and commerce is a possible next step. |
| Next Steps | Identify portion of SEP funding to set aside for ACT implementation, along with scope of spending and deliverables. |

Climate Pollution Reduction Grants

See page 19 for details.

National Highway Freight Program (NHFP)

See page 13 for details.

National Electric Vehicle Infrastructure Formula Program (NEVI)

See page 14 for details.

Tax/Other

| Program | Purpose | Federal Agency | Eligible Applicants | Amount Available |
|--|--|----------------|--|--|
| <u>Loan Program Office*</u> | To support the cost of loans for innovative clean energy technologies, including expanded IIJA support for critical minerals processing, manufacturing, and recycling. | DOE | Businesses, small businesses, states, counties, cities, nonprofits. | \$3.6 billion to unlock \$40 billion in lending authority. Sec 1703. |
| <u>Port Infrastructure Development Program Grants*</u> | Grants to modernize and expand ports, including electric vehicle charging or hydrogen refueling. | DOT | Public and private ports/authorities. | \$2.25 billion, with 80% federal, 20% non-federal. |
| <u>Loan Program Office – ATVM*</u> | To support the cost of loans for Advanced Technology Vehicles Manufacturing (ATVM). | DOE | Large manufacturers. | \$40 billion in new DOE lending authority for qualifying projects. |
| 48C tax credit | Tax credit for investments in advanced energy projects. | DOE; Treasury | Businesses, states, rural co-ops, Tribal governments, and many others. | \$10 billion total program (\$4 billion minimum in energy communities). |
| 45X tax credit | Provides a production tax credit (PTC) for domestic manufacturing of battery components and critical minerals. | Treasury | Businesses, states, rural co-ops, Tribal governments, and many others. | Variable; Congressional Research Service estimates up to \$31 billion. |
| <u>TIFIA*</u> | Loans for electrification of buses and other infrastructure. | DOT | States, localities, other public authorities. | \$1.25 billion to unlock \$75 billion in lending authority, with 80% federal, 20% non-federal. |
| <u>45V - Clean Fuel Production Tax Credit</u> | Provides a credit for qualified clean hydrogen produced after 2022. | Treasury | Any producer of hydrogen in the United States. Direct pay eligible for states. | Ranges from 20-100% of the facility, depending on lifecycle GHG emissions. |

Loan Program Office

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| ACT Rule Context | Previously, Title 17 could only fund “innovative technology” that was new or significantly improved compared to commercially available technologies. Now, projects that reduce GHG emissions without using an innovative technology, but DO receive state “green bank” funding, are eligible for LPO loans. This widens the list of eligible projects, including those in rural, small, and underserved communities. Some examples could include projects involving critical minerals processing, manufacturing, recycling, and hydrogen projects. More examples can be found here . Funding is available through September 30, 2026. |
| Match Requirement? | No. |
| Relationship with Other Programs | Could enhance already funded state projects, in addition to closing the finance gap for new projects funded through 48C, 45X, etc. |
| Pre-Application | State green bank staff should align with Office of the Governor, Commerce, Transportation, Environment, and other relevant staff to identify any projects that are currently funded or proposed that could benefit from LPO leverage. |
| Next Steps | Consult with LPO staff to help identify key projects at lpo@hq.doe.gov or 202-586-8336. |

Port Infrastructure Development Program Grants

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| ACT Rule Context | Projects that reduce or eliminate port-related criteria pollutant or GHG emissions, including port electrification or master planning, worker training, EV charging or hydrogen refueling for drayage, and medium- and heavy-duty trucks that service the port. These are all vehicles captured under ACT. |
| Match Requirement? | 20% non-federal match required, although waived in rural areas. |
| Relationship with Other Programs | Reduction of Emissions at Port Facilities and other EV infrastructure deployment grants could help stretch funding or create comprehensive plan at each port to help electrify over multi-year time period. |
| Pre-Application | Identify ports interested in electrification. DOT staff can identify and discuss funding opportunity with all port owners and operators in state (including small ports). |
| Next Steps | Apply for funding by April 28, 2023. |

Loan Program Office – ATVM

See page for 5 details.

48C – Advanced Energy Project Credit

See page 5 for details.

45X – Advanced Manufacturing Production Credit

See page for 6 details.

TIFIA – Transportation Infrastructure Finance and Innovation Act

See page for 11 details.

45V – Clean Fuel Production Tax Credit

See page for 15 details.