



Local Ordinances to Facilitate Medium- and Heavy-Duty Zero Emissions Vehicles

Potential for implementation in Maryland, New York, Connecticut, and Maine

The recommendations discussed in our analysis of this topic are generally appropriate and permissible for implementation by local governments in each of the four target states: Maryland, Connecticut, New York, and Maine. Although each of the four states allocates different powers to local jurisdictions, all four states grant local governments the ability to plan and regulate land use and permitting processes within their jurisdictions, so long as they do not conflict with state law.

Maryland

State laws, targets, and key policies related to ZEV freight truck adoption

Maryland has taken steps to support ZEV freight truck deployment and charging infrastructure installation, including through recent legislation and planning efforts. Maryland set ZEV freight truck adoption targets through the Multi-State MHD ZEV Memorandum of Understanding. Additionally, an inter-agency process¹ has been set up to support the transition to electric trucks. Maryland is in the process of deploying funding, including federal funding, for ZEV freight truck charging facilities. The Maryland Department of Transportation and Maryland Department of the Environment are two of the agencies implementing the multi-state \$249 million Clean Corridor Coalition funding from the U.S. EPA for ZEV freight truck charging infrastructure. Efforts to streamline permitting and zoning processes in local jurisdictions may be critical to enabling this funding to be deployed within the five-year grant implementation timeline.

Varied authority of the county and municipal governments

Maryland consists of 24 main local jurisdictions² including 23 counties and the City of Baltimore. Due to the Home Rule Amendment to the Maryland Constitution, there are three types of municipal government systems within the counties. Maryland counties have varying levels of authority to control zoning, planning, and permitting within their jurisdictions, depending on their classification as charter counties, code counties, or commissioner counties. All counties are required to adhere to state laws. Charter Counties,³ Code Counties⁴, and the City of Baltimore operate under home rule and have broad authority to enact, amend, or repeal local laws related

¹ State legislation passed in 2023 directed the Maryland Department of the Environment, in consultation with the Department of Transportation, the Department of General Services, the Maryland Energy Administration, and the Public Service Commission, to prepare and submit a “needs assessment and deployment plan” which would assess and plan for necessary infrastructure systems for [ZEV MHD] charging and refueling stations. MD Environment Code § 2-1103.1(c)(1) (2024)

² "For much of Maryland, local government typically is county government. Twenty-three counties and Baltimore City make up the twenty-four main local jurisdictions found in Maryland."
<https://msa.maryland.gov/msa/mdmanual/01glance/html/county.html>.

³ Maryland Charter Counties: Anne Arundel, Baltimore, Cecil, Dorchester, Frederick, Harford, Howard, Montgomery, Prince George's, Talbot, and Wicomico.

⁴ Maryland Code Counties (non-Charter Counties with Home Rule): Allegany, Caroline, Charles, Kent, Queen Anne's, and Worcester.

to zoning and planning, subject to the Maryland Constitution and public general Laws, and could therefore pursue the ordinance proposed here. Commissioner Counties,⁵ which have not adopted home rule, may establish planning commissions to develop comprehensive plans and adopt zoning regulations for land use, however their authority is limited to the specific powers granted by the state legislature. For example, Commissioner Counties may face additional restrictions when granting zoning variances.

As part of a broader mission directed by the state legislature to promote zero-emission vehicles and charging infrastructure, the Maryland Zero Emission Electric Vehicle Council (ZEEVIC) has been tasked with supporting the development of streamlined permitting processes for the installation of electric vehicle charging stations and supply equipment.⁶ However, the Council has not yet developed standards for implementation, and additional state legislation would be required for any such standards to be binding on local jurisdictions. Based on discussions with Maryland state agency staff involved in the ZEEVIC, there is a need and significant opportunity for local government action on ZEV freight truck charger zoning and permitting.

Current local government permitting and zoning frameworks for MHD ZEV charging infrastructure

Several jurisdictions in Maryland have attempted to streamline permit processes for ZEV charging stations through ordinances or other processes, but have not specifically addressed MHD trucking charging stations. For example, the Montgomery County Department of Permitting Services published a Commercial EV Charging Guide which outlines the permitting process, including details on required permits, submission plans, and the review and inspection process. However, this charging guide is geared toward passenger cars and light-duty trucks, so it does not include information about MHDZEV charging station equipment or processes, nor does it make specific plan requirements and design guidelines easily accessible.⁷ Similarly, the Prince George's Department of Permitting, Inspections and Enforcement revised guidelines for permitting electric vehicle charging stations in 2024. The guide includes information that is

⁵ Commissioner Counties: Calvert, Carroll, Garrett, St. Mary's, Somerset, and Washington.

⁶ Md. Transportation Code Ann. § 2-113.

⁷ Montgomery County Department of Permitting Services, Commercial EV Charging, <https://www.montgomerycountymd.gov/DPS/Process/combuild/commercial-ev-charging.html>.

required for a permit application, but does not provide information or guidance specific to development of a ZEV freight truck charging facility.⁸

Recommended local jurisdictions for potential implementation

Recommended local jurisdictions for implementation in Maryland target those with major freight facilities likely to see early adoption of electric trucks, including jurisdictions identified for near-term deployment of federal funding for charging stations. Among those, counties with broad authority to implement new ordinances, including charter or code counties and the City of Baltimore have clear authority for implementation.

Connecticut

State laws, targets, and key policies related to ZEV freight truck adoption

Connecticut has taken significant proactive steps to drive MHD ZEV electrification, including setting ZEV freight truck adoption targets through the Multi-State MHD ZEV Memorandum of Understanding. Connecticut established voucher programs to provide funding for zero-emission commercial trucks.⁹ Connecticut is also funding charging infrastructure deployment. The 2024 voucher legislation specifically includes charging infrastructure for medium- and heavy-duty zero-emission vehicles.¹⁰ Additionally, Connecticut is one of the states implementing the \$249 million Clean Corridor Coalition funding from the U.S. EPA for ZEV freight truck charging infrastructure.¹¹ By updating zoning and permitting frameworks for ZEV freight truck charging infrastructure, local governments can enable more efficient and effective deployment of this state funding.

⁸ Prince George's County Department of Permitting, Inspections and Enforcement, Revised Guidelines for Permitting Electric Vehicle Charging Stations, Nov. 25, 2024, https://www.princegeorgescountymd.gov/sites/default/files/media-document/DPIE%20Guidelines%20for%20Permitting%20Electric%20Vehicle%20Charging%20Stations_10.18.23%20F.pdf.

⁹ Conn. Gen. Stat. § 4a-67d. (2024).

¹⁰ Conn. Gen. Stat. § 22a-201e (Supp. 2024).

¹¹ New Jersey Department of Environmental Protection, Clean Corridor Coalition Connecticut Project Details, <https://dep.nj.gov/drivegreen/cprg-ccc-ct/>.

Varied authority of the county and municipal governments

In Connecticut, municipalities are largely responsible for land use planning and regulation. Municipalities are authorized to regulate land use, permitting processes, and zoning ordinances under statutory delegations by the General Assembly.¹² Zoning commissions within municipalities are empowered to enact, amend, and enforce zoning regulations as well as establish special permits or exceptions for certain land uses, provided these uses meet the standards set forth in regulations.¹³ Commissions act in both legislative and administrative capacities, depending on their type of zoning actions, such as adopting regulations or reviewing site plans. Municipal regulations must generally align with state statutes and policies. The Connecticut Department of Public Safety distributed an “Electric Vehicle Charging (EVC) Station Uniform Permit Application” to Municipal Building Officials in 2011.¹⁴ Applicants are meant to use this EVC Station Uniform Permit in addition to a Municipality's individual Building Permit Application when projects involve installing electrical construction support for an EVC.¹⁵ However, this permit is tailored to light-duty personal cars and trucks so it does not address the special equipment necessary for MHDEV charging.¹⁶ Localities will need to enact new ordinances to cover the special needs of MHDEV charging facilities.

Current local government permitting and zoning frameworks for MHD ZEV charging infrastructure

Municipalities in Connecticut have taken several steps to reform zoning and streamline permitting processes for EV charging infrastructure, primarily to support the growing adoption of light-duty passenger EVs. Many towns, such as Brookfield and Danbury, have adopted permitting checklists, incorporated the state's Electric Vehicle Charging Station Uniform Permit Application into their local processes, and updated zoning codes to facilitate residential and commercial EV charger installations.¹⁷ However, these reforms do not account for the distinct

¹² Conn. Gen. Stat. § 8-2.

¹³ Conn. Gen. Stat § 8-2.

¹⁴ Connecticut Dept. of Public Safety, “Electric Vehicle Charging (EVC) Station Uniform Permit Application”, Office of the State Building Inspector, 2011, <https://www.brookfieldct.gov/sites/g/files/vyhlif341/f/uploads/evcstationapp.pdf>.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ Brookfield, Connecticut, Zoning Regulations, https://www.brookfieldct.gov/sites/g/files/vyhlif341/f/uploads/brookfield_zoning_regulations_-_approved_2

needs of MHDV charging infrastructure. Current guidance documents and ordinances typically focus on Level 1 and Level 2 charging systems and do not address the higher power demands, larger vehicle footprints, or unique siting considerations required for commercial truck charging.

Recommended local jurisdictions for potential implementation

Given the broad authority of local jurisdictions in Connecticut to adopt permitting processes and zoning ordinances, the target counties would primarily be those likely to see demand for ZEV freight truck charging station installations. These include municipalities with facilities identified in the National Zero-Emission Freight Corridor Strategy and with roadways identified for state-funded charging station deployments, such as through the Clean Corridor Coalition grant program. Based on these criteria, as well as discussions with Connecticut state agency staff, the priority locations for freight electrification include local jurisdictions along the Interstate 91 corridor from Hartford to the Massachusetts state border.

Maine

State laws, targets, and key policies related to ZEV freight truck adoption

Maine has increasingly prioritized ZEV freight truck adoption through a mix of legislation, programs, and executive actions. In 2020, the state signed the Multi-State MHD ZEV Memorandum of Understanding, a multi-state commitment to deploy MHD ZEVs through state targets, regulations, and complementary policies.¹⁸ Following a directive issued in a 2021 Executive Order, various offices of the Governor collaborated and released the “Clean Transportation Roadmap,” which proposes strategies for decarbonizing the transportation sector, including expanding EV charging infrastructure for trucks.¹⁹ As the state moves forward with strategies to enable ZEV freight truck deployment, local government action to update zoning and permitting frameworks can allow for faster and more effective deployment of charging stations.

[022-sep-2_effective_date.pdf](#); Danbury, Connecticut, Zoning Regulation, <https://www.danbury-ct.gov/DocumentCenter/View/309/Zoning-Regulations-PDF?bidId=>.

¹⁸ Multi-state Medium- and Heavy- duty Zero Emission Vehicle Memorandum of Understanding (2020), <https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf>.

¹⁹ Office of the Governor, An Order to Advance Clean Transportation Solutions for Maine, Executive Order No. 36 (2021); Governor’s Energy Office et. al., Maine Clean Transportation Roadmap, 2021.

Varied authority of the county and municipal governments

In Maine, municipalities are primarily responsible for regulating land use. In unincorporated areas, or “unorganized territories,” the State Land Use Planning Commission is responsible for regulating land use.²⁰ Under Maine’s home rule authority, municipalities can adopt ordinances to regulate land use and zoning, provided such ordinances do not conflict with state law or exceed the limitations set forth by the Legislature.²¹ Municipalities are empowered to adopt zoning ordinances that divide municipalities into districts and prescribe regulations for each district, as long as these ordinances are consistent with a comprehensive plan adopted by the municipal legislative body.²²

Current local government permitting and zoning frameworks for MHD ZEV charging infrastructure

Some municipalities in Maine have begun modernizing zoning and permitting processes to encourage EV infrastructure, though efforts remain narrowly focused on light-duty applications. Jurisdictions like South Portland²³ and Scarborough²⁴ have issued ordinances for inclusion of EV-capable or ready infrastructure in new developments, but they do not address the substantial power demands, spatial needs, and specialized electrical infrastructure required for MHDV charging.

Recommended local jurisdictions for potential implementation

Given the broad authority of local jurisdictions in Maine to adopt permitting processes and zoning ordinances, the target counties would primarily be those likely to see demand for ZEV freight truck charging station installations. These include municipalities with facilities identified in the National Zero-Emission Freight Corridor Strategy.²⁵

²⁰ Me. Rev. Stat. tit. 12, § 685-A.

²¹ Me. Rev. Stat. tit. 30-A, § 4352;

²² Me. Rev. Stat. tit. 30-A, § 4301.

²³ South Portland, Maine, Code, Sec. 27-1558.

²⁴ Scarborough, Maine, Ordinances, ch. 405, Sec. 9 (2025).

²⁵ U.S. Dept. of Energy. *National Zero-Emission Freight Corridor Strategy*. September 2024. <https://driveelectric.gov/files/zef-corridor-strategy-appendix.pdf>

New York

State laws, targets, and key policies related to ZEV freight truck adoption

New York has taken various steps to facilitate the transition to ZEV freight trucking, including through state targets, funding and incentive programs, ‘lead by example’ efforts, and state-approved utility investments in enabling infrastructure. New York State is a signatory to the Multi-State MHD ZEV Memorandum of Understanding, a multi-state commitment to deploy MHD ZEVs.²⁶ New York is also an early leader in providing dedicated funding to ZEV freight trucks, through programs like the New York Truck Voucher Incentive Program. This incentive program offers vouchers to reduce the marginal cost of medium- and heavy-duty zero-emission vehicles.²⁷ New York has also committed to transitioning the state government vehicle fleet to zero-emission vehicles by 2040.²⁸ The state utility regulatory body, the New York Public Service Commission, has approved significant investments in enabling electric grid infrastructure by electric utilities operating in the state to enable MHD ZEV charging.²⁹ With a range of ambitious state-level actions to plan for and enable zero-emission trucks, plus a significant number of freight facilities, New York state has a potential to be an important early-deployment area for ZEV freight truck charging stations. Local governments across the state will have an important role to play to update zoning and permitting frameworks to enable this infrastructure deployment.

Varied authority of the county and municipal governments

Local jurisdictions in New York, particularly municipalities such as towns, cities, and villages, have significant authority to regulate land use, including zoning ordinances and permitting processes. This authority is derived from the state's delegation of police powers to municipalities

²⁶ Multi-state Medium- and Heavy- duty Zero Emission Vehicle Memorandum of Understanding (2020), <https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf>.

²⁷ New York Truck Voucher Incentive Program (NYTVIP)”, New York State Energy Research and Development Authority (NYSERDA), <https://www.nyserda.ny.gov/All-Programs/Truck-Voucher-Program/About-NYTVIP>.

²⁸ New York, Office of the Governor. Executive Order 22 (2022).

²⁹ New York State Public Service Commission, “Commission Approves 29 Infrastructure Projects Valued at \$636.2 Million,” <https://dps.ny.gov/news/psc-oks-critically-needed-infrastructure-projects>.

under the New York Constitution and various enabling statutes.³⁰ The legal framework governing land use regulation in New York includes several statutes, such as sections of the Municipal Home Rule Law, Town Law, General City Law, and Village Law.³¹ These laws collectively empower municipalities to adopt comprehensive plans, zoning ordinances, and other land use regulations. Additionally, municipalities may collaborate with county planning agencies or other municipalities to address regional planning and zoning issues.³² However, counties themselves generally lack the authority to adopt zoning regulations unless specifically provided for in their charters.³³

Current local government permitting and zoning frameworks for MHD ZEV charging infrastructure

Municipalities across New York have begun updating zoning ordinances and streamlining permitting to support light-duty EV charging, however, these efforts largely exclude MHD ZEVs. Jurisdictions like New York City³⁴ have amended zoning regulations to expand EV charger permissions, and Yonkers³⁵ enacted a comprehensive ordinance regulating EV charging stations. These reforms focus almost exclusively on passenger and light-duty vehicles, however, and offer little guidance for the different requirements of MHD ZEV charging.

Recommended local jurisdictions for potential implementation

Given the authority of municipalities in New York State to adopt permitting and zoning ordinances, the target counties would primarily be those likely to see demand for ZEV freight truck charging station installations. These include municipalities with facilities identified in the

³⁰ N.Y. Const. Art. IX, § 2; N.Y. Stat. Law § 10.

³¹ N.Y. Mun. Home Rule Law § 10; N.Y. Town Law Art. 16 Zoning and Planning §§ 260-285; N.Y. Gen. City, Art.3 Official Maps and Planning Boards §§ 26-39; N.Y. Gen. City, Art. 5 Building and Use Districts §§ 81-83, N.Y. Vill., Art. 7 Building Zones §§ 700-742.

³² N.Y. Gen. Mun. Law § 239-c.

³³ See Zoning and Land Use Laws (NY), Robin Kramer, Lexis (2025).

³⁴ The Local Laws of the City of New York, No. 55 (2024) (amending the administrative code of the city of New York and the New York city building code, in relation to electric vehicle supply equipment in open parking lots and parking garages), https://www.nyc.gov/assets/buildings/local_laws/ll55of2024.pdf.

³⁵ Yonkers, New York, The Code, 5 §§ 43.244-252 (2024), <https://ecode360.com/45774057#45783226>.

National Zero-Emission Freight Corridor Strategy³⁶ and those along corridors identified by electric utility National Grid for infrastructure investments in ZEV freight truck charging corridors.

Conclusions

Local governments have an important role to play in freight truck electrification, and updating zoning and permitting processes for ZEV freight truck permitting is a potentially high impact action to enable market transformation. However, in each of the four states considered for analysis, local jurisdiction zoning ordinances and permitting processes do not currently facilitate efficient deployment of ZEV freight truck charging facilities. This is a policy issue that is in early stages of implementation all across the country, but industry practitioners, state agency officials, and NGO experts have each identified this as an important priority. Local jurisdictions in the four states under consideration have an opportunity to be leaders on this topic, particularly jurisdictions with potential for early deployment of electric trucks.

Local jurisdictions may have to consider separate permitting and approval processes for different use cases of truck charging, with the conversion of an existing truck fueling facility having different characteristics than a new development of a dedicated ZEV freight truck charging depot. The recommended ordinance for consideration described in this report – an update to a local jurisdiction zoning framework to clearly define ZEV freight trucks and ZEV freight truck charging facilities, is an action to facilitate the efficient development of dedicated ZEV electric truck charging facilities.

In addition to this primary action of updating zoning definitions and providing clear guidelines for site requirements and permit processes, there are other complementary actions local governments can take to enable truck electrification. This includes the development of guidance materials for truck charging station developers or long-range master plans for truck electrification in the jurisdiction. Several jurisdictions are leading the charge on this issue, including Kern County, California, which released a MHDZEV Infrastructure Blueprint that functions as a regional planning document and resource for fleet and facility owners. Although they fall outside the scope of this memo, these local actions can play an important role along with state and federal policy to accelerate the deployment of ZEV freight trucks and reduce transportation emissions.

³⁶ U.S. Dept. of Energy. *National Zero-Emission Freight Corridor Strategy*. September 2024. <https://driveelectric.gov/files/zef-corridor-strategy-appendix.pdf>

About this Research

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Cover image: Heavy-duty zero-emissions trucks lined up with a charger in the foreground. Shutterstock.