



February 8, 2023

The Honorable Brian J. Feldman, Chair
Education, Energy, and the Environment Committee
Miller Senate Office Building, 2 West
Annapolis, MD 21401

Oppose: SB 224 – Zero-Emissions Medium and Heavy-Duty Vehicles – California Regulations

Dear, Chair Feldman and Committee Members:

The NAIOP Maryland Chapters represent more than 700 companies involved in all aspects of commercial, industrial, and mixed-use real estate. Our membership includes some of the largest operators of warehouses, distribution centers and light industrial buildings in the state. These facilities serve as essential supply chain links in the flow of products to and from our region. NAIOP is concerned that adoption of the California zero emissions standards for medium and heavy-duty vehicles in Maryland is premature and recommends the state continue to progress through the [Multi-State Zero Emission Medium and Heavy-Duty Vehicle Memorandum of Understanding](#) signed by Maryland in July of 2020.

The zero-emission vehicle (ZEV) landscape in California is far more advanced than Maryland.

California level Incentives and policy support have not been put in place to prepare for the transition to medium and heavy-duty ZEVs. Funding for charging stations and make-ready electrical infrastructure has been in place and is expanding. For example, over the next four years California has budgeted \$1.7 billion for medium and heavy-duty ZEV infrastructure – which includes funding for both hydrogen refueling and EV charging. While the federal Infrastructure Investment and Jobs Act provides significant funding to build out a national charging network, the majority of these funds are dedicated to providing charging infrastructure for personal vehicles. Maryland will have to fill the gap with significant funding for electric power upgrades and charging infrastructure to support a heavy-duty ZEV requirement. Maryland also lags in other areas of policy support. For example, the details of siting hundreds of thousands of pieces of infrastructure on private property and in public right of ways can slow review and approval by local governments and utilities. In 2015 California legislated streamlining the permitting of ZEV infrastructure. Eight years later implementation is still in progress.

Electricity supply and demand charges must be addressed.

Electrifying medium and heavy-duty vehicles will require solutions beyond simply scaling up the model used for electric cars and light duty trucks. Charging infrastructure for medium and heavy-duty vehicles requires addressing electric capacity and high demand charges applied to the peak electric loads of commercial utility customers.

Charging one heavy-duty vehicle can use as much power as simultaneously fast-charging 10-20 light-duty vehicles. Warehouses and distribution centers have some of the lowest power requirements per square foot of any building type. Electrification of heavy-duty vehicles will often require bringing far more power to the site than is necessary to run the building. Warehouse and distribution center locations are based on zoning, site conditions, supply chain and logistics needs. Access to high levels of electric power are not necessarily significant factors in siting.

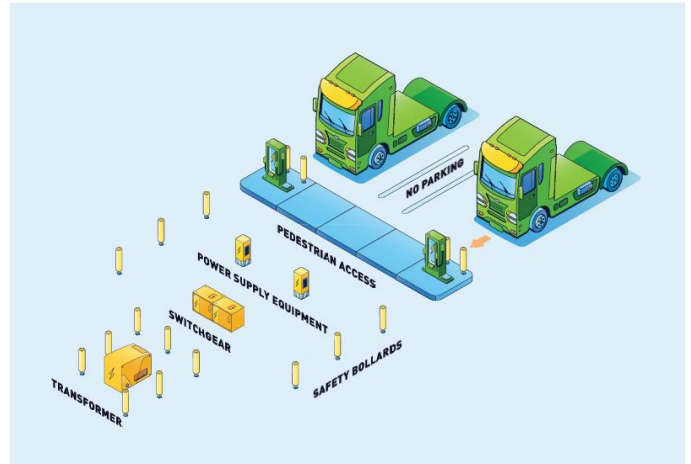
Commercial electricity rates are not conducive to the high-power charging required for heavy-duty vehicle charging. In addition to charges for the energy commodity, commercial utility customers are also assessed demand charges for the maximum power used during a billing cycle. Demand charges are designed to discourage excessive electricity use. Demand charged associated with EV charging can be significantly higher than the energy commodity price. Rate reform is needed to reconcile the mismatch between rate structure and EV charging needs.

Charging of heavy-duty vehicles needs time to be standardized and battery technologies improved.

Reports from the California Energy Commission, The Port of Long Beach and the Northeast States for Coordinated Air Use Management warn that a common charging standard for trucks is needed to avoid stranded assets and minimize the need for future modifications to charging connectors. Manufacturers are working on advances to battery chemistry for heavy-duty trucks that could improve charge times but increase power demands. Early adopters anticipate that expanded electricity supplies and upgraded charging infrastructure will be needed to accommodate changing technologies as electric truck charging technology evolves.

Space requirements and logistics challenges.

Space requirements for equipment and parking of tractor trailers may dictate where and how much charging can take place on any given site. Studies have concluded that 700 square feet per charger and 5,000 square feet for electrical power supply equipment may be necessary. This will require reconfiguring or expanding some sites. The State Highway Administration has warned that the additional weight of electric tractor trailers could exceed limits for some roads and bridges. Weight could also be an issue for paving on warehouse truck courts and access roads.



Gap analysis and resource planning is needed.

Work needs to be done to reconcile, coordinate, prioritize and appropriately sequence the electrification of light and heavy-duty vehicles and the simultaneous electrification of building heat and hot water systems. House Bill 230 would add significant challenges to existing requirements that buildings and light-duty vehicles be electrified. In a letter to the Maryland Department of Environment, the Alliance for Automotive Innovation reported that by 2035 Maryland will need 282,762 charging stations to accommodate light-duty vehicle charging. The number of non-proprietary level two public charging outlets in Maryland is currently 2,557. The state has zero hydrogen fueling stations. Providing that many charging stations would require installation of charging stations at an average rate of 1,900 per month over the next 12 years. Adopting California’s heavy-duty ZEV requirements would represent a substantial increase in deliverables and the level of incentives and policy support needed from state government.

Continue working with the Multi-State MOU.

Before adopting a heavy-duty ZEV sales requirement, Maryland needs to accurately acknowledge and make the public investments and adopt the supportive policies necessary to address the barriers to the deployment of medium and heavy-duty ZEV’s. Maryland should continue laying the foundation for this transition by expanding access to biofuels and continuing to work through the multi-state MOU on medium and heavy-duty ZEVs. Reference has been made to Connecticut’s law. It is important to note that the Connecticut law authorizes but does not require adoption of the California regulations for medium and heavy-duty trucks.

For these reasons, NAIOP respectfully recommends your unfavorable report on Senate Bill 224.

Sincerely,



Tom Ballentine, Vice President for Policy
NAIOP Maryland Chapters -*The Association for Commercial Real Estate*

cc: Education, Energy, and the Environment Committee Members
Nick Manis – Manis, Canning Assoc.