SUBMITTED ELECTRONICALLY

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Serena McIlwain
Secretary, Maryland Department of the Environment
1800 Washington Blvd., Baltimore, MD 21230

Paul Wiedefeld
Secretary, Maryland Department of Transportation
7201 Corporate Center Drive, Hanover, Maryland 21076

Re: Transportation Comments on Maryland's Climate Pathway

Dear Secretaries McIlwain and Wiedefeld,

On behalf of the Environmental Defense Fund (EDF), CALSTART, and Transit Choices, please find the following comments on the transportation sector components of Maryland's Climate Pathway report. EDF and coalition partners have submitted previous comments focusing on on-road transportation strategies. This letter supplements those comments and highlights opportunities at seaports- specifically opportunities at the Port of Baltimore as the state's largest port to bolster Maryland's Climate Pathway.

As a significant freight hub linked to multiple emission sources, the Port can play a critical role in supporting the decarbonization of multiple transportation sectors. The Bipartisan Infrastructure Law and the Inflation Reduction Act also provide unprecedented funding opportunities, which is geared toward improving port and freight operations and should not be missed. As such, **EDF, CALSTART, and Transit Choices encourage the Department of Transportation and the Maryland Port Authority (MPA), in collaboration with the Department of Environment, to pursue the following recommendations:**

- **The Port of Baltimore should provide heavy-duty charging infrastructure to support the Advanced Clean Truck Rule and projected increase in zero-emission (ZE) trucks:** As a magnet for heavy-duty truck emissions, the Port of Baltimore needs to be part of the solution to heavy-duty trucks' transition to zero emission. This means engaging in the planning and provision of appropriate charging and fueling infrastructure to accommodate ZE trucks operating due to the Advanced Clean Truck Rule. As a

primary origin and destination for heavy-duty trucks, the Port of Baltimore should work with others to build the necessary charging and fueling facilities network. One example of such efforts is the Port of Oakland's ongoing study to evaluate the feasibility of public drayage charging and hydrogen fueling facilities on or near the port property in collaboration with the local public power providers and third-party zero-emission truck solutions provider, such as Forum Mobility. Similarly, last year, the Port of San Diego's Board of Commissioners authorized staff's request to begin developing ZE heavy-duty truck infrastructure on the port's property.

- **Transition to zero-emission cargo handling equipment (CHE) to minimize emissions and avoid stranded diesel assets:** Zero and near-zero CHE are technologically and commercially feasible today, and price points continue to decline. These include rubber-tired gantry cranes, side- and top-picks, forklifts, and yard tractors. The Port of Baltimore has done a good job replacing and repowering this equipment; however, almost all[1] equipment at the port continues to be diesel-powered when ZE alternatives are readily available and becoming increasingly affordable, especially with IIJA/IRA funding. As of 2016, less than 1% of forklifts and top loaders at the port are electric, approximately 28% use liquified petroleum gas, and the remaining 71% run on diesel. Continuing to invest in diesel-powered equipment will leave the port and port operators with stranded assets when ZE equipment can be purchased using funding available through multiple federal programs.

- **MDOT and MPA should work with rail operators to accelerate the adoption of battery-electric switcher locomotives and yard equipment:** Emissions from rail account for around half of the total non-road transportation emissions in the state.[2] In particular, the agencies should prioritize efforts on CSX railyards operating in communities that bear disproportionate and cumulative burdens, such as those in Curtis Bay, Baltimore.

- **Invest in shore-power infrastructures to allow ships to use electricity while docked, minimizing GHG and criteria pollution from running auxiliary engines:** The Port of Baltimore does not have shore-power infrastructure. However, shore power technology is well established today, and many ports in the U.S. have shore power programs in place (Ports of New York and New Jersey, Hueneme, and Houston, to name a few). Many shipping fleets are already retrofitted to use shore power, and it would befit the Port of Baltimore to assess the potential demand for shore power by

[1] Maryland Department of Transportation and Maryland Port Administration, *2016 Emissions Inventory from Landside Activities*, Jun. 2018, https://mpa.maryland.gov/greenport/Documents/2016EmissionsInventoryJune2018.pdf (all terminal tractors are diesel powered with more than 20% of tractors using Tier 2 or below engines).
[2] Maryland 2020 GHG Inventory.

fleets that call at the port. Enabling the use of shore power can contribute to meeting Maryland's Climate Pathway targets and provide meaningful health benefits from localized reductions of NOx and PM for at-risk communities around the port.

- **MPA should work with tug operators to apply for upcoming federal funding to upgrade to cleaner engines:** A previous study by the Diesel Technology Forum and the Environmental Defense Fund[3] shows that upgrading tug and switcher engines to the latest clean diesel technology offers some of the most cost-effective options for reducing diesel emissions. We urge the Port of Baltimore to continue working with MDOT, MDE, and operators to seek further funding to replace the older harbor tug engines.

Major companies like IKEA, COSTCO, and Heineken, three of the Port's largest container customers, are prioritizing zero-emission supply chains, and neither Maryland nor the Port can afford to fall behind on this score. Furthermore, to advance Maryland as a leader in climate justice, the communities most affected by port emissions and transport could greatly benefit from the aggressive pursuit of federal resources – shaped by their input - that support on- and off-shore fleet modernization and address longstanding environmental health challenges.

Thank you for the opportunity to comment on Maryland's Climate Pathway report. We hope to have the chance to work further with your departments and the MPA to leverage opportunities at the Port to help meet the climate targets.

Sincerely,

Environmental Defense Fund
CALSTART
Transit Choices

[3] Ramboll, *Impact of Updated Service Life Estimates on Harbor Craft and Switcher Locomotive Emission Forecasts and Cost-Effectiveness,* Prepared for Diesel Technology Forum and Environmental Defense Fund (Jan. 22, 2019), available at https://www.edf.org/media/tug-and-switcher-engine-upgrades-offer-most-cost-effective-option-vw-funds.