USEPA MOBILE SOURCES TECHNICAL REVIEW SUBCOMMITTEE: THE FUTURE OF GOODS MOVEMENT

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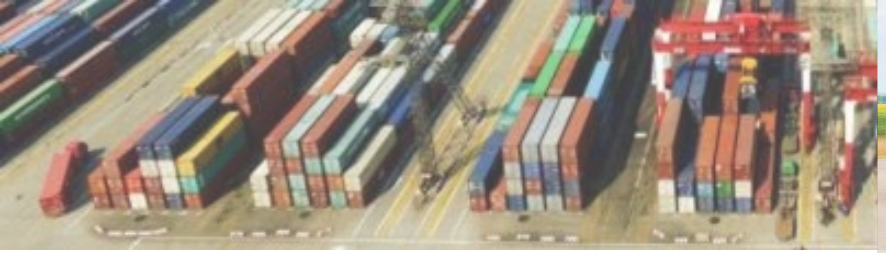


MISSION AND CHARGE OF SUBGROUP

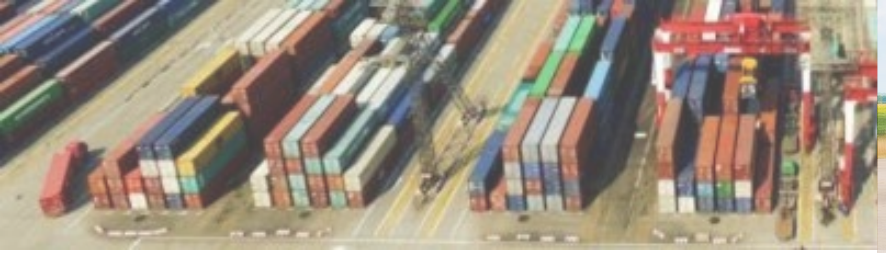
What is needed to deploy technology in a manner that achieves emission reductions most efficiently?

- Consider both overall transportation emissions reductions and sector specific emissions reductions.
- Are there differences in technology applications under the different use cases?
- What could that look like?

What would an efficient low-emissions goods delivery system look like?

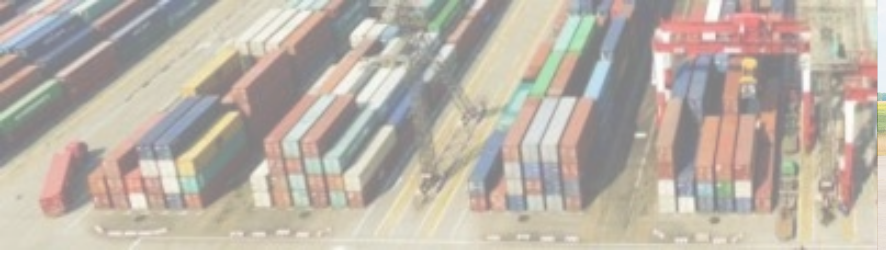
- Who are the major players?
- What is EPA's role in this space?

How can EPA best utilize, or encourage utilization of, data to enable and optimize low emissions deliveries? (e.g., real-time activity info, intelligent routing software, etc.)



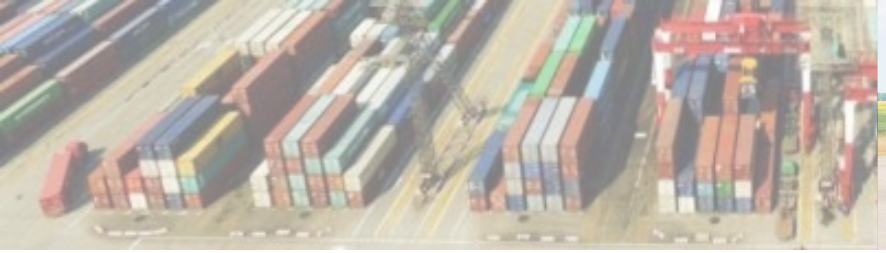
CHALLENGES & ISSUES THAT CAME TO LIGHT

- Cost effectiveness for individual recommendations were not calculated
- No silver bullet in advising on how to harmonize standards (i.e. CA vs EPA)
- May have fallen short in capturing the latest logistical/efficiency strategies and routing/mode shifting
- Defining short vs mid vs long term strategies
- Distinguishing between ideas that EPA could implement as opposed to other federal agencies
- No consensus on the emission standards for locomotives



6 CATEGORIES OF RECOMMENDATIONS FOR EPA

- Develop comprehensive federal strategy for electrification
- Enhance incentive programs
- Identify new and sustainable funding
- Implement regulations to reduce emissions
- Promote sustainability
- Address pollution hotspots and health disparities



DEVELOP COMPREHENSIVE FEDERAL STRATEGY FOR ELECTRIFICATION

- **Establish a Federal Goods Movement Working Group with USDOT & USDOE**
- Work with DOT and DOE through the 21st Century Truck Partnership and SuperTruck to incorporate heavy-duty ZEV and NZEV technology
- **Prioritize EV deployment to goods movement "hotspots"**
- Work with the General Services Administration to implement aggressive MHD ZEV and NZEV federal fleet purchase targets
- Sponsor conferences and technical workshops for public and private sector MHD ZEV and NZEV stakeholders
- **Advocate for creation of an interagency workforce development program**
- Work with the USDOL on educating the workforce on operation and maintenance of EVs and other new technologies
- Lead a cross-agency effort to identify MHD ZEV and NZEV research needs
- Work with DOE to enhance the Alternative Fuels Data Center to collect usage data
- Advocate for single point of contact at DOE to streamline coordination with interagency partners
- **Study MHD ZEV and NZEV electric charging and hydrogen fueling infrastructure needs**

ENHANCE INCENTIVE PROGRAMS

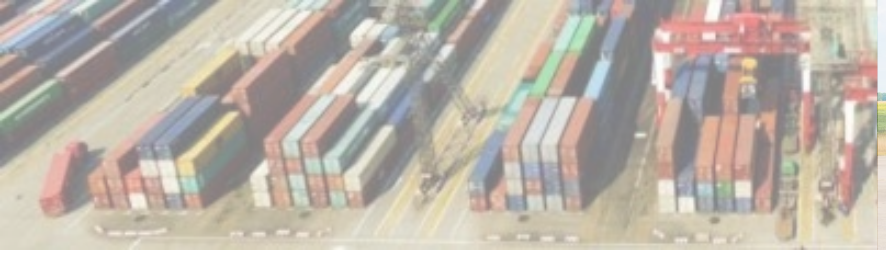
- **Enhance and update SmartWay to include zero and near-zero emissions components**
  - Explore ways to expand SmartWay partnerships
- **Promote truck and bus electrification through the 21st Century Truck Partnership**
- **Develop scoring rubric for federally funded projects that gives greater weight to use of zero or near-zero emissions equipment on the project**
- **Expand Energy Star to DC fast chargers (currently only applies to Level 2)**

SmartWay®

Partnership

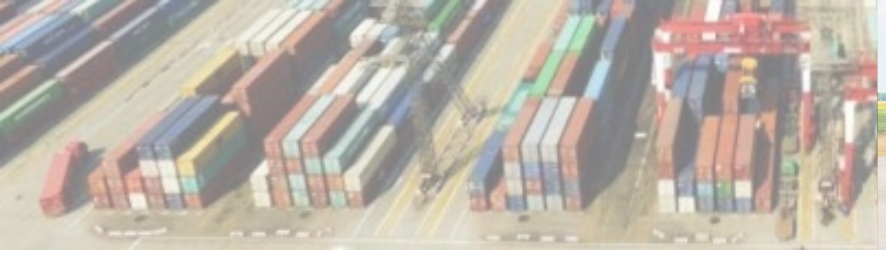
21st CENTURY TRUCK PARTNERSHIP℠

energy ENERGY STAR



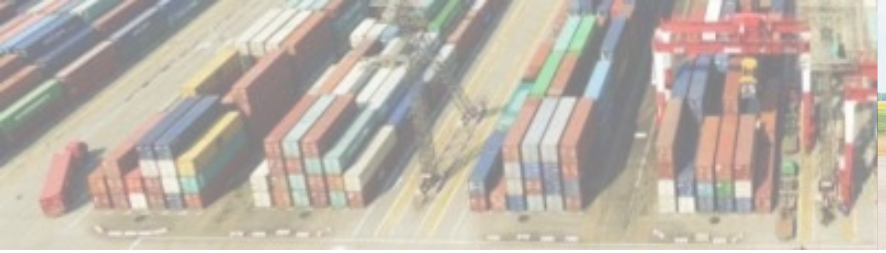
IDENTIFY NEW AND SUSTAINABLE FUNDING

- **Seek a prime role in implementation of the Biden-Harris Administration's "Build Back Better" Plan**
- **Coordinate with Electrify America**
- Explore potential international collaboration and partnerships
- Provide guidance on expanding USDA's Electric Programs
- **Work with DOT and DOE to enhance use of their grants for air quality improvement projects**
- Provide funding for development, commercialization, and implementation of cleaner technologies
- Provide funding for sector-specific technologies
- Ensure incentive programs like DERA and TAG are well funded but not at the expense of funding for grants to state and local air agencies
- Provide voluntary incentives to encourage development and early introduction of new technologies and increase collaboration with key industry organizations
- Fund manufacturers' products validation to ensure reliable and dependable implementation



IMPLEMENT REGULATIONS TO REDUCE EMISSIONS

- **Establish stringent federal nationwide performance-based standards under existing Clean Air Act authority**
  - Align MHD on-highway Low-NOx initiative with existing Phase 2 Regulations (i.e., finalize in 2022 for implementation in 2027)
  - Include new idle and low-load standards and replace in-use NTE with a new approach that includes idle and low load
- **Establish a Phase 3 GHG regulation**
  - Progressively drive greater adoption of ZEV and NZEV technologies in urban and community applications to maximize early benefits
- **Explore opportunities to increase the use of renewable/cleaner fuels**
- **Consider revising nonroad standards**
  - Locomotive, marine, aircraft

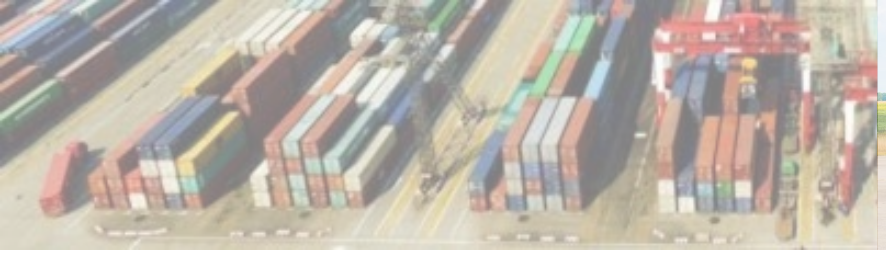


PROMOTE SUSTAINABILITY

- Provide consumers the ability to track the environmental impact of their choice of delivery method
- Serve as a data clearinghouse for improvements made through logistical efficiency/routing, mode shifting etc.
- Characterize the phases of the goods movement sector and identify potential collaboration between key organizations in each sector
- Monitor the role of 5G on the deployment of autonomous transportation, platooning, and drones
- Evaluate how goods movement has changed due to the COVID-19 pandemic

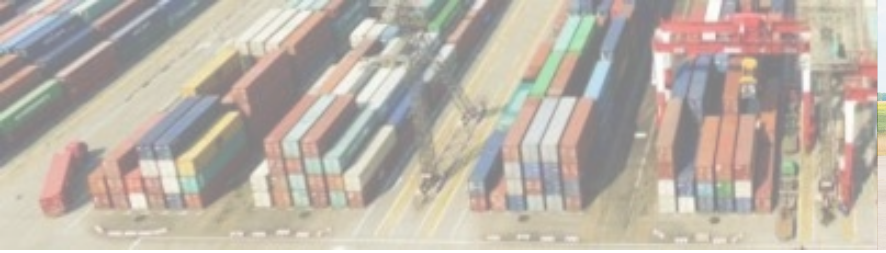
ADDRESS POLLUTION HOTSPOTS AND HEALTH DISPARITIES

- **Prioritize zero-emission projects for areas identified by accepted screening tools as being high priority based on vulnerability or health risk indices. If possible, earmark a certain percentage of DERA funding (e.g., 80%) for mitigation efforts in those areas**
- EPA should develop framework for sustaining and modernizing the national ambient air quality monitoring system to meet the additional information needs of stakeholders
- Coordinate with EPA OAQPS on development and deployment of guidance on how low-cost community monitors may support regulatory monitoring framework
- **Using the definition of ports as adopted in EPA's Port Work Group, EPA should designate ports as stationary sources of pollution and require mitigation for the activities derived from port activities**
- OTAQ should renew efforts to address emissions from borders
- **Maximize the use of Supplemental Environmental Projects to ensure violative emissions are mitigated; develop recommendations for supplemental environmental programs that could be implemented at the state level to support existing EPA opportunities such as DERA**



ADDRESS POLLUTION HOTSPOTS AND HEALTH DISPARITIES, CON'T

- Assess the potential for "local policy matching" requirements akin to financial matching to receive grant funding, demonstrating local policies in place that will assure best practices to reduce exposure to pollution
- **EPA OTAQ should work with EPA OECA to increase enforcement on companies that fail to comply with required engine upgrades and replacements**
- **Conduct emissions mapping of EJ communities and promote the guidance and continued conversation with communities and other stakeholders to enable a better understanding of the impact of goods movement and identification of opportunities to minimize that impact**
- Evaluate least-distance transit policy incentives and incentivize buying/dealing locally to reduce emissions and other impacts by reducing miles traveled
- **Collaborate with state and local air agencies to ensure that rules, policies, and programs related to goods movement achieve emission reductions are sufficient , particularly in overburdened communities**



QUESTIONS?