

Industry Host: U.S. EPA

Problem Title: Assess opportunities to improve dray truck operations at U.S. ports

Challenge:

Develop a method to reduce congestion and pollutant emissions from dray truck operations at ports in order to improve the air quality and health of local communities.

Background:

Many dray trucks are older model tractors (pre-2007 MY) and are independently owned & operated. Local communities are negatively impacted by truck traffic and associated diesel emissions. Many ports authorities recognize the need to improve truck operations in and around ports, but the ability to make changes can be limited and hard to predict with benefits not readily quantified. Similarly, the needs and solutions may vary for different ports.

The movement of goods through America's ports is critical to the economy, expected to increase, and freight activities directly impact local communities in many ways. Many ports rely on trucks to haul freight and/or other goods to and from marine ports or inland ports (such as rail yards). These day truck activities are impacted by traffic, gate checkpoints, security, safety requirements, logistics and other factors. Are there opportunities to incorporate new technologies or services to help the ports accomplish the essential tasks in a more sustainable way?

Boundaries & Considerations:

- Desirable technical thresholds – The challenge is to achieve air quality and traffic congestion improvement for local communities.
- Environmental conditions to consider – Different ports could have dissimilar requirements & limitation.; A promising solution for one port could have limited impacts or consequences at another port.
- Consider the current data and tools that are emerging to improve dray truck operations and assess how to fill any gaps those efforts still leave.
- Develop an environmental impact assessment for solutions offered and when applicable quantify those impacts.