

Port Sustainability & Resilience

Port Department

09.01.2023

Port Authority Priorities: Sustainability

- Agency-wide Sustainability Goals
 - 35% reduction of Port Authority GHG emissions by 2025
 - 50% reduction of Port Authority GHG emissions by 2030
 - Net Zero carbon emissions by 2050
- First public transportation agency to embrace targets of 2018 Paris Climate Accord
- Provide incentives to help partners decrease emissions from operations

Current Initiatives

2023 Update

Update

Clean Vessel Incentive Program

Update

Truck Replacement Program

Update

Cargo Handling Equipment

Clean Vessel Incentive Program

2 Components of the Program:

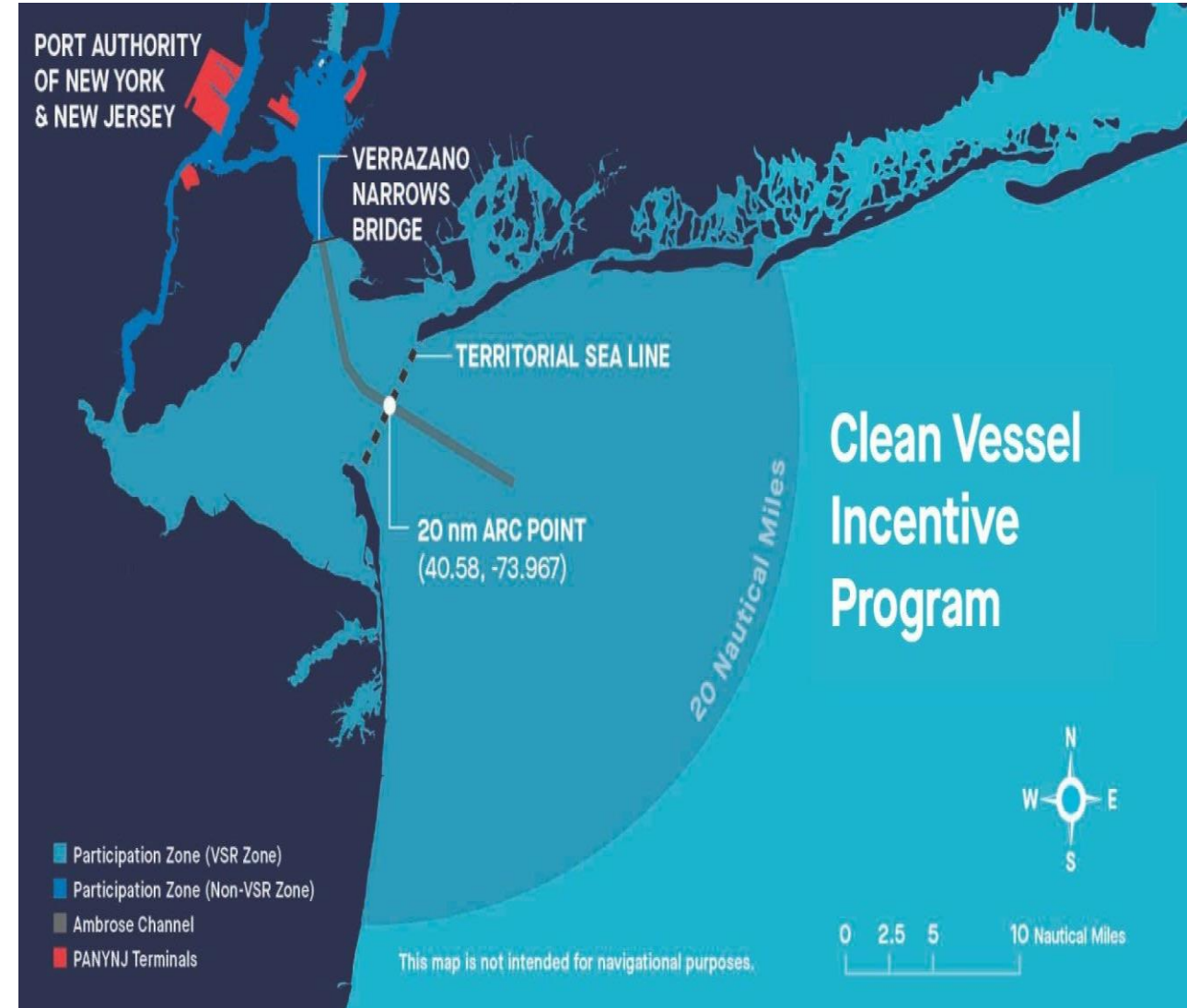
1. Vessel Speed Reduction
2. Registration with the Environmental Ship Index

What's new:

1. Vessels equipped with Tier III engines are arriving with more frequency at our port (total of 24 during 2021)
2. New incentive for Alternative Fuel

Benefits: Emission Reductions

2021 CVI Program reduced 850 tons of NO_x, 8.7 tons of PM and 25,366 tons of CO₂ when compared to baseline conditions (2006)



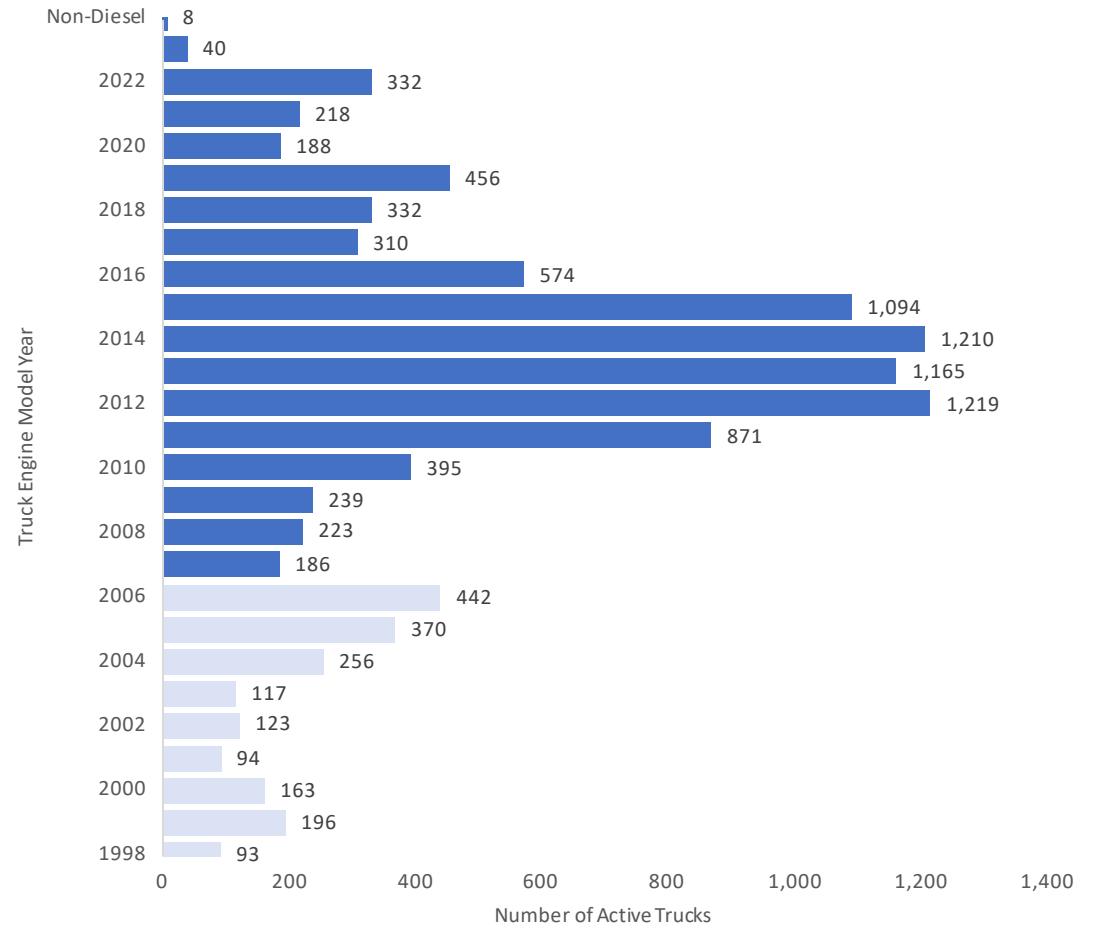
Truck Replacement Program



Trucks

- Total trucks replaced: 935
- Starting July 1, 2023, trucks must be equipped with an engine model year (EMY) 2014 or newer to serve the port
- After July 1, 2023, only trucks equipped with an EMY 1999 or newer will be able to visit the port.

PortTruckPass - April 2023



Cargo Handling Equipment aka Material Handling Equipment

Port Authority Marine Tariff – New Section I

What's Covered?

Material Handling Equipment (MHE) means any motorized equipment utilizing internal combustion engines and/or electric motors, that is used to transport and handle passengers, luggage, ship's stores, provisions, bunkers and cargo, or to perform routine maintenance at marine container and cruise terminals, port facilities, intermodal rail yards, warehouses and bulk facilities.

Deadlines:

1/1/2022 – NEW MHE must meet or exceed Tier 4 emission standard

1/1/2022 – new Ship-to-Shore crane & Rail Mounted Gantry crane added to existing fleet of MHE shall be zero emission

1/1/2025 – new terminal tractor added to existing fleet shall be zero emission subject to market availability & Feasibility Analysis

1/1/2023 – all Primary Terminal or Yard Tractors shall meet or exceed Tier 3 emissions standards

1/1/2023 – all other Primary MHE shall meet or exceed Tier 2 Emission standards.

1/1/2026 – Ship to Shore cranes and Rail Mounted Gantry cranes shall be zero emissions

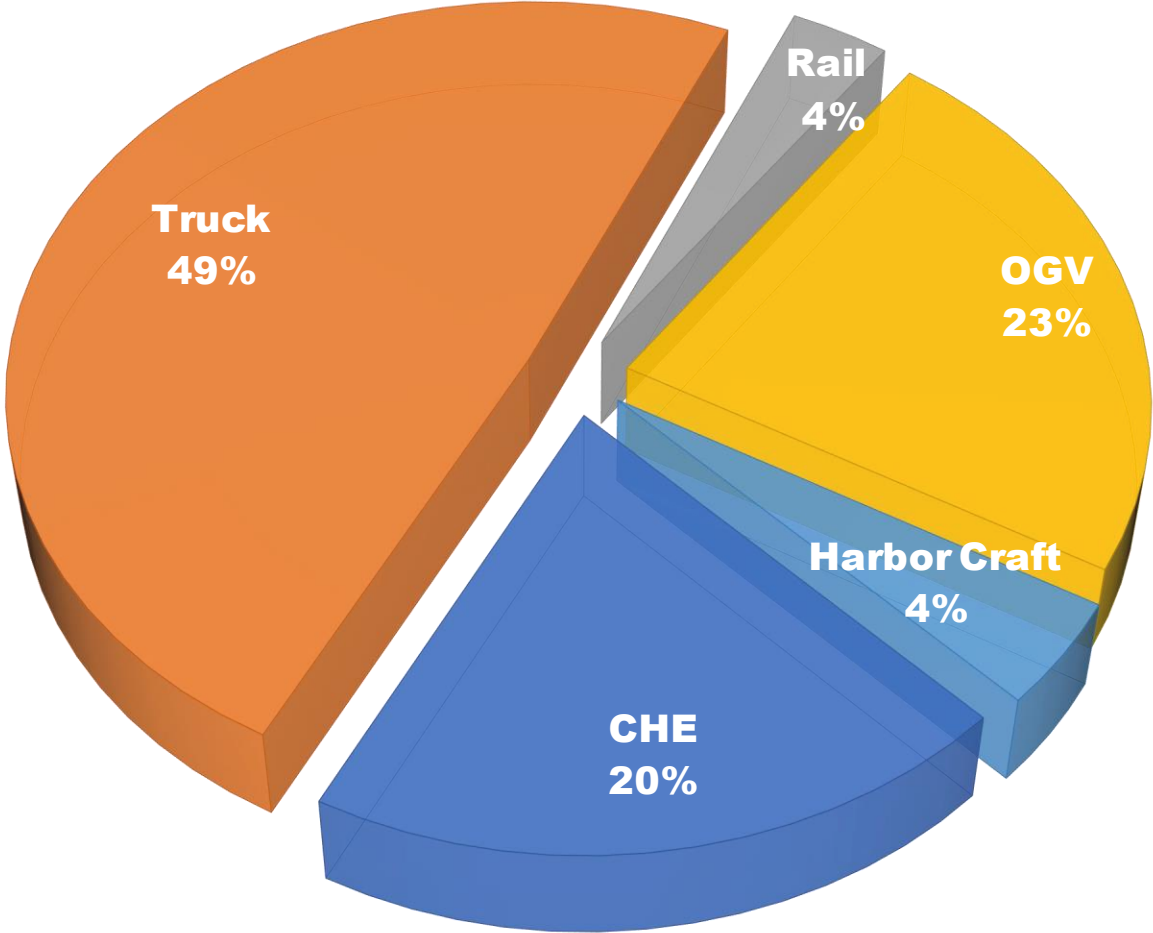
Feasibility Studies

2023 Update

Yard Tractor Electrification Study

Drayage Truck Electrification Study

GHG Emissions at the Port by Source



Feasibilities Studies



Yard Tractor Electrification Study

Analyzed operational conditions and charging opportunities to enable electrification

Drayage Electrification Analysis

Determined feasibility of employing battery operated trucks



Supporting Truck Electrification

Current Initiatives



Public Fast Charging

4 high powered charging stations to be installed at the Port Newark Welcome Center



Thank You!

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