

HISTORY

Multi-Facility Emissions Inventory Finding (2006)

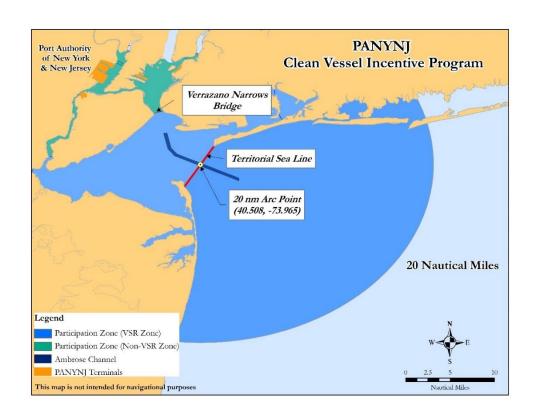
Ocean-going vessels are the highest source of overall air pollutant emissions.

Preliminary Action Taken (2008)

The Port Authority commits to reducing Port-related emissions.

PURPOSE

- Attract Cleaner Vessels to the Port
- Encourage Operational Change To Conserve Fuel
- ➤ Improve Quality of Life
- Support Marine Mammal Protection



FINANCIAL INCENTIVE OPPORTUNITIES

ESI + VSR = CVI Score

VSR (20 points One-Way, 40 Points Round-Trip)

CVI Score 40-54 receives \$1,000

CVI Score 55-64 receives \$2,000

CVI Score ≥ 65 receives \$3,000

Tier III Engine Receives Additional \$5,000

CVI SCORE EXAMPLES (PER CALL)

\$1,000

- ESI Score 25.4
 - Comply with VSR one way, 20 points
 - ESI (25.4) + VSR (20) = CVI Score (45.4)

\$2,000

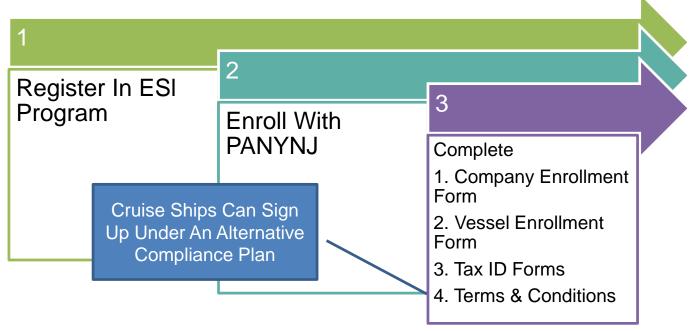
- ESI Score 22.7
 - Comply with VSR both ways, 40 points
 - ESI (22.7) + VSR (40) = CVI Score (62.7)

\$3,000

- ESI Score 60
 - Comply with VSR one way, 20 points
 - ESI (60) + VSR (20) = CVI Score (80)

^{*} Tier III Receives Additional \$5,000

COMPANY ENROLLMENT REQUIREMENTS



Forms Found On Port Authority Website: www.panynj.gov/about/clean-vessel-incentive-program.html

REIMBURSEMENT PROCESS

Consolidation of Qualified Calls, ESI Scores, And VSR Compliance

Collection And Verification Of Quarterly Information



Generation Of Vessel Activity / Draft Invoice

Draft Invoice To Be Sent to Vessel Operators



Vessel Operators Review And Send Invoice with Remittance Information

Port Authority Reviews and Approves

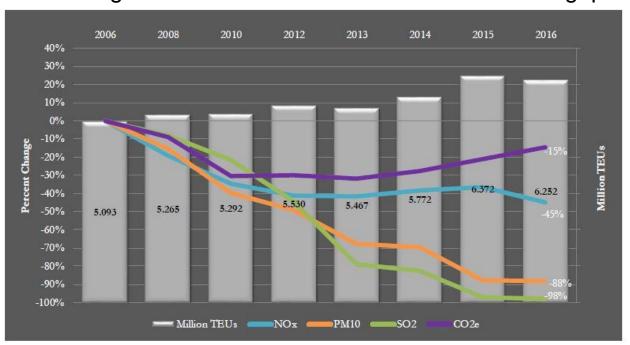


Payment Is Issued Within Corresponding Quarter

Payment Confirmed

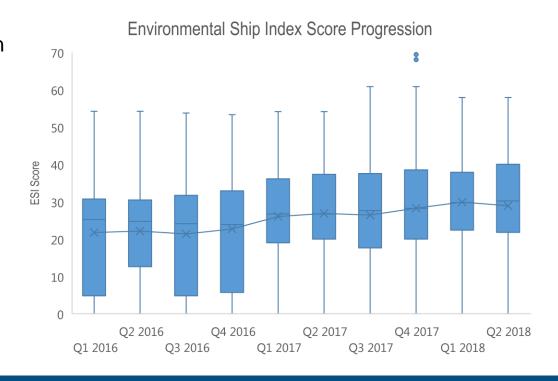
EMISSION REDUCTIONS

Ocean-Going Vessel Emissions Relative To TEU Throughput



CURRENT PARTICIPATION

- ➤ 62% Container Ship Participation
 - Whole Port vs. CVI-Participating
- North Atlantic Right Whale Protection Supported
 - ➤ 1st And 4th Quarters Have Highest Rates of Vessel Speed Reduction
- 22 Participating Companies To-Date



NEXT STEPS

w York / New Jersey

Local / Regional

Increase Program Participation

Encourage Vessel Speed Reduction **National**

Ports

American

North,

Encourage Working With Other Ports

Global

Emission Control Technologies

 Meet Tier III Standards for NOx (80% Reduction)

Efficiency Improvements

- Fuel Efficient Hull and Propeller Designs
- Hull Coatings

International

Exhaust Heat Recovery

Alternative Fuels

 Liquefied Natural Gas To Replace Ultra-Low Sulfur Diesel Fuel

Thank you

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