

Highlights from EPA's Ports Initiative

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Overview

- Background on EPA's Ports Work
- Highlights of Recent Activities
 - Diesel Emission Reduction Act (DERA) Grants
 - Community-Port Capacity Building
 - EPA-Port Everglades Partnership
 - National Port Strategy Assessment
 - Shore Power Assessment



Background

The vision for our ports work

People living and working near ports across the country will breathe cleaner air and live better lives as a result of bold steps taken through a collaboration of industry, government, and communities to improve environmental performance and increase economic prosperity.





Background

*MSTRS Ports Initiative Workgroup Members**

Ports:	Maryland, Charleston, Long Beach, New Orleans, Virginia
Terminals:	Ports America
Shippers:	Cargill, Walmart, HP
Equipment:	Caterpillar, Manufacturers of Emission Controls Association
Marine:	Maersk Line
Rail:	Burlington Northern Santa Fe
Trucking:	Evans Delivery
Port Community Advocates:	East Yard Communities for Environmental Justice, Southeast CARE Coalition, Steps Coalition
Tribes:	Fond du Lac Air Program
NGOs:	Environmental Defense Fund, Natural Resources Defense Council
Research/analysis:	International Council on Clean Transportation
Government:	New Jersey DEP, South Carolina DHEC, MARAD, CMTS
Non-voting:	American Association of Port Authorities, StarCrest (B. Anderson)
EPA support:	Office of Transportation Air Quality , Office of Environmental Justice, 4 Office of Water, Region 1, Region 2, Region 6, Region 9

* MSTRS is the EPA's Clean Air Act Advisory Committee's Mobile Sources Technical Review Subcommittee



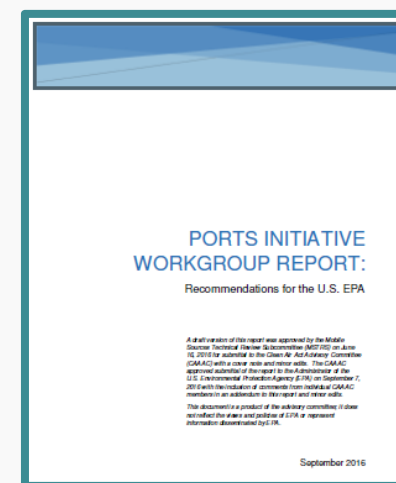
Background

Recommendations from Ports Initiative Workgroup

Overarching recommendation: provide funding, technical resources, and expertise to enable and encourage environmental improvements.

Focal Areas

- Increasing and Targeting Funding
- Community-Port Engagement
- Guidance on Inventories and Metrics
- Guidance on Emission Reduction Strategies
- Coordinating Relevant Government Programs
- Information Clearinghouse and Communications

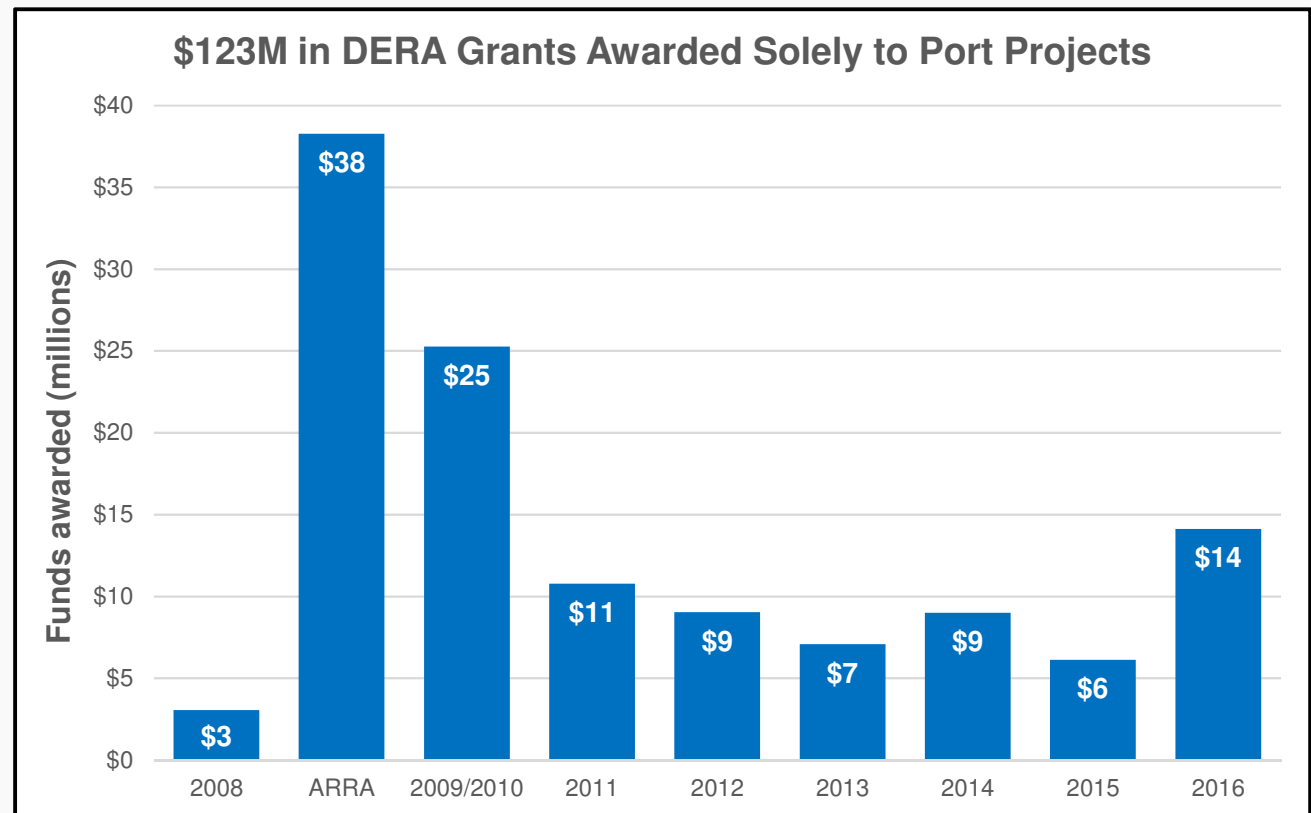


www.epa.gov/caaac



DERA Grant Funds Awarded to Port Projects

- \$123 million in grants awarded to port projects
- Another \$55 million in grants awarded to multi-sector grants that involve ports
 - Not included in chart
- See www.epa.gov/clean-diesel





Community-Port Capacity Building

- Pilot tools/resource materials promoting port/community decision-making
 1. Ports Primer for Communities
 2. Community Action Roadmap
 3. Environmental Justice Primer for Ports
- EPA recently announced the locations for our initial pilot projects to test the collaboratively-developed draft tools:
 - Savannah, GA; New Orleans, LA; and Seattle, WA
 - See www.epa.gov/ports-initiative/pilot-projects-port-and-near-port-community-collaboration



EPA-Port Everglades Partnership





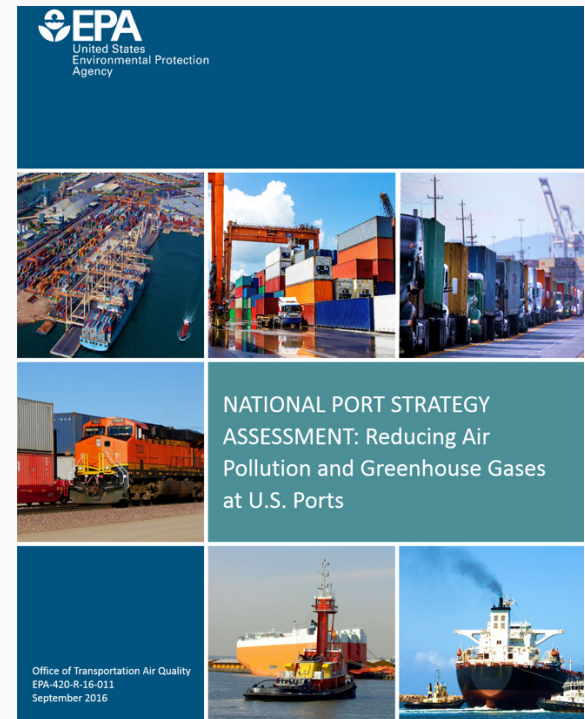
EPA-Port Everglades Partnership

- EPA and Port Everglades are working together to develop:
 - ✓ An activity-based baseline inventory for Port Everglades' facilities and operations
 - Emission reduction scenarios and inventories for future analysis years; and
 - Methods, lessons learned, and practical examples that EPA can share with other ports, related agencies, and stakeholders to support and encourage sustainable development.
- The Port Everglades 2015 Baseline Air Emissions Inventory is available at: www.porteverglades.net/environment/air-quality/air-emissions-inventory
- Also see: www.epa.gov/ports-initiative/epa-partnership-agreement-broward-countys-port-everglades



National Port Strategy Assessment *Overview*

- *National Port Strategy Assessment: Reducing Air Pollution and Greenhouse Gases at U.S. Ports*
- Released September 22, 2016
- Available at: www.epa.gov/ports-initiative/national-port-strategy-assessment





National Port Strategy Assessment

Reducing emissions with effective strategies available today

Sector	Scenario Description
Drayage Trucks	Replace older diesel trucks with trucks that meet cleaner EPA standards and plug-in hybrid electric vehicles.
Rail	Replace older line-haul locomotive engines with cleaner technologies, including electric locomotives.
	Improve fuel economy.
	Replace older switcher locomotive engines with cleaner technologies and Generator Set (GenSet) technology.
Cargo Handling Equipment	Replace older yard truck, crane, and container handling equipment with cleaner technologies, including electric technologies.
Harbor Craft	Replace or repower older tugs and ferries with cleaner technologies, including hybrid electric vessels.
Ocean-going Vessels	Switch to lower sulfur fuel levels that are below EPA's regulatory standards, and liquified natural gas for certain vessel types.
	Utilize shore power to reduce hoteling of container, passenger, and reefer vessels.
	Apply Advanced Marine Emission Control Systems for container and tanker vessels.



National Port Strategy Assessment

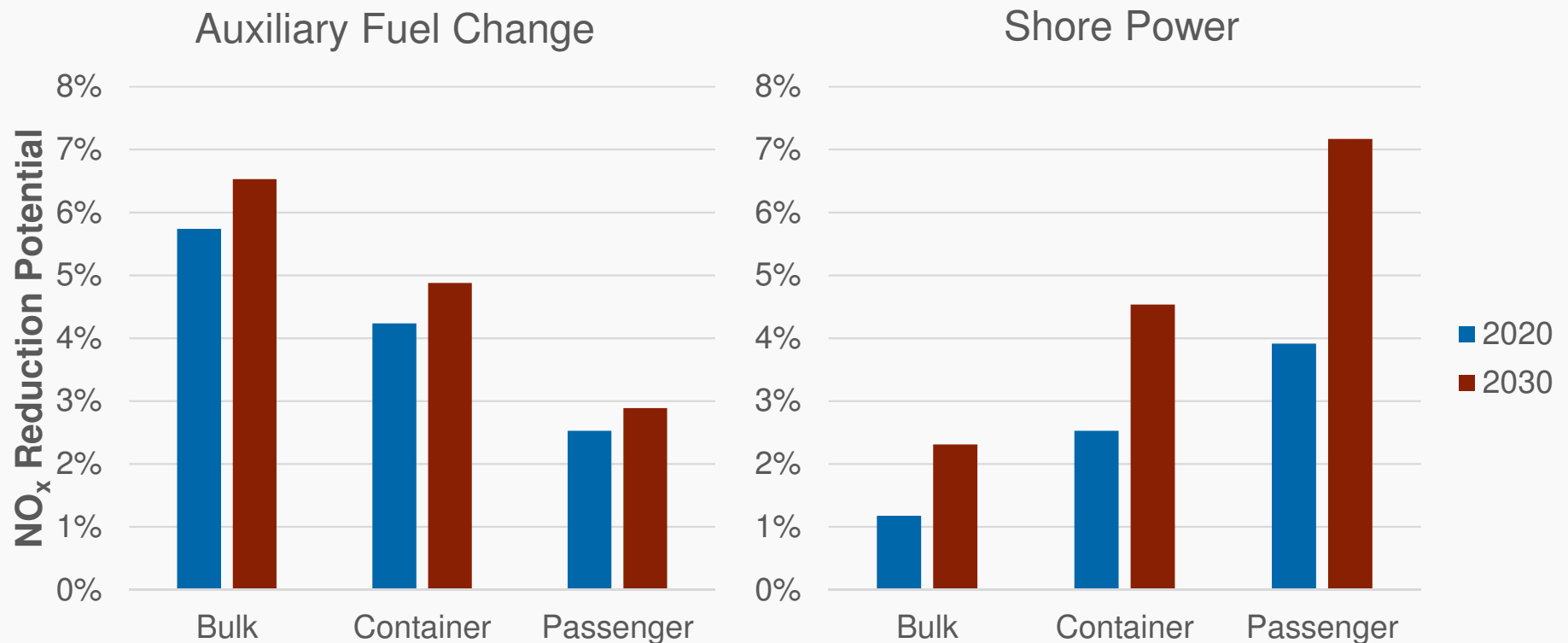
Replace older, dirtier diesel vehicles and equipment first

Strategy Scenario	Percent reduction from BAU			
	NOx		PM _{2.5}	
	2020	2030	2020	2030
Replace older drayage trucks	19–48%	48–60%	43–62%	34–52%
Replace older switcher locomotives	16–34%	17–43%	22–44%	24–47%
Replace older CHE	17–39%	13–25%	18–37%	12–25%
Replace or repower harbor craft	10–24%	25–38%	13–41%	28–37%
Reduce OGV hoteling emissions with shore power	4–9%	7–16%	3–8%	7–16%



National Port Strategy Assessment

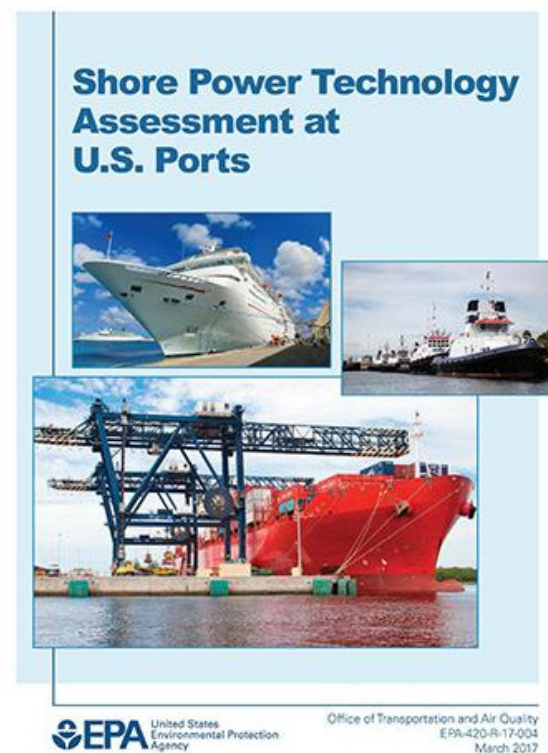
Effective strategies are available for every type and size of port





Shore Power Assessment *Overview*

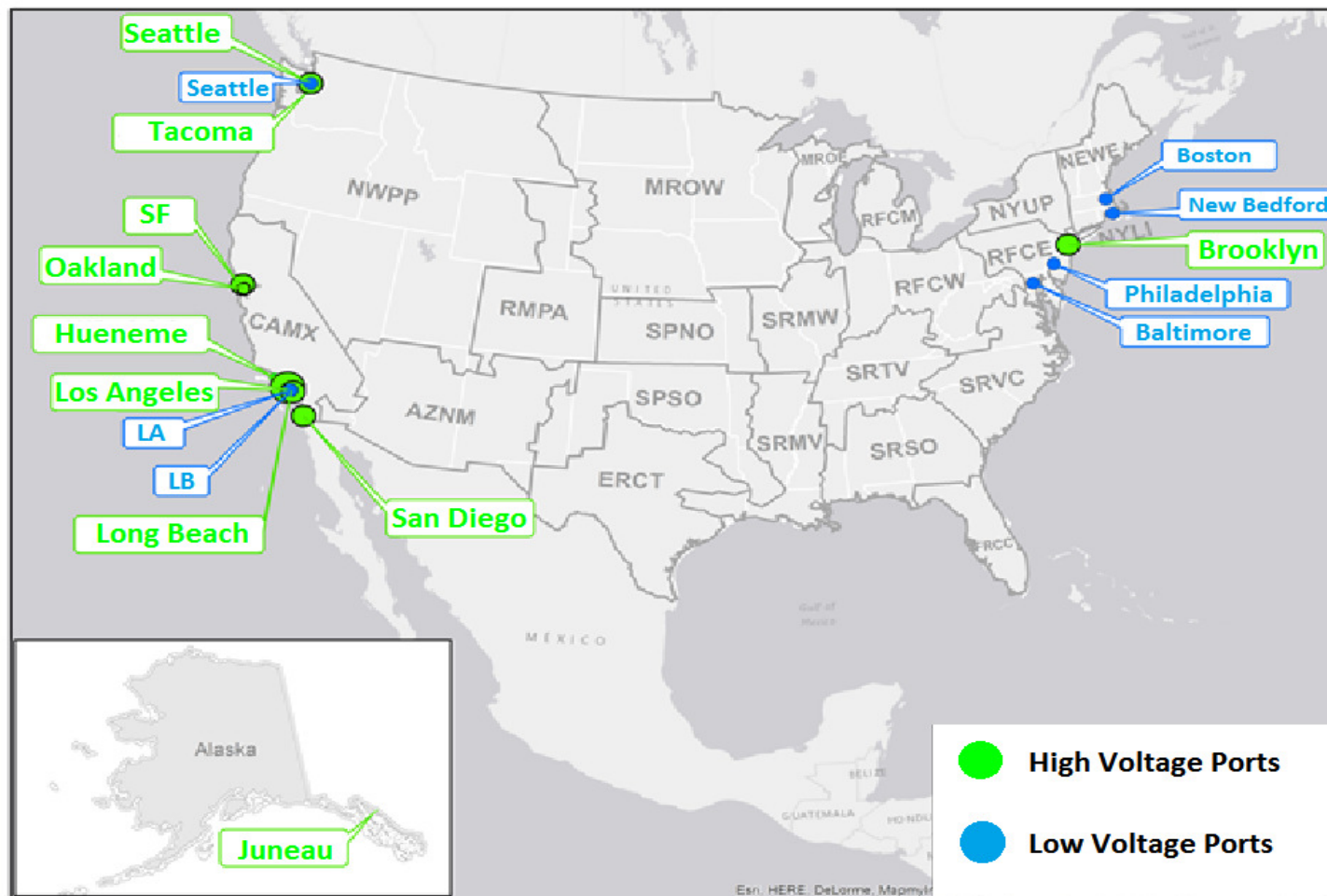
- Characterizes shore power systems at U.S. ports
- Includes a new methodology for calculating emission reduction of shore power systems
- Available at: www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports





Shore Power Assessment

Existing Locations





Thank You | Questions

EPA's Ports Initiative website, including newsletter sign-up:

www.epa.gov/ports-initiative