

Overview of Maritime Emission Reduction Incentives



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Maritime Incentives

- Federal Incentives
- State Incentives
- Port Incentives
- Market Based Incentives

Federal Incentives

- CMAQ
- Coast Guard's Quality Ship Program
- Tax Relief

CMAQ

- Project Funding
 - ⌘ Application to MPO
 - ⌘ Submitted by MPO
 - ⌘ Approved & Funded by FHWA
- Houston Demo Experience
 - ⌘ Cargo Handling Equipment Demo Projects
 - ⌘ FHWA Funding Issues Resolved
 - ⌘ CMAQ Funding Limitations



Coast Guard's Quality Shipping Program

- No Air Quality Component
- PHA Involvement
 - Create Air Quality Component
 - Coordinate with EPA/TNRCC
 - Establish Quality Ship Criteria
- Money



State Incentives

- Carl Moyer Program
- Texas Emission Reduction Program
 - Wide Support from Stakeholders
 - Under Development
 - Based on Components of CMP
 - Program Metric is \$/ton/year
 - Project Caps

Port Incentives

- **Tariff Controls**
 - ¿ Cleaner Ships = Lower Tariffs
 - ¿ Long Term
 - ¿ Ports Pickup Costs
 - ¿ Issues to Overcome
 - ¿ Requires Regional Participation
 - ¿ Certification of Clean Vessel
- **Port Operational Efficiency Measures**

Market-Base Incentives

- **Emissions Trading Options**
 - ¿ ship to shore (trade between mobile and stationary sources)
 - ¿ shipper to shipper (trade between cargo logistics choices)
 - ¿ ship to ship (trade between vessels)

Emission Trading Key Components

- Baseline Emission Standard
- Market Demand/Need
- Emission Reduction Technology
- Quantification

Economic Players in Market Incentives?

- Stationary Source Industries
- Ports
- Vessel Owners/Operators
- Shippers

Policy Options for Trading

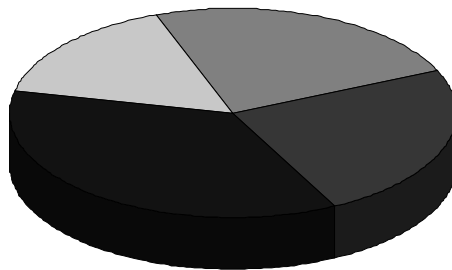
- Single Jurisdiction
 - (e.g., HGA, SouthCoast, SF Bay)
 - ships can qualify in each jurisdiction separately
- Multi Jurisdiction
 - (e.g., Gulf Coast, Westcoast, Northeast states NOx trading)
 - ships meet one regional standard for trading entry



Carnegie Mellon

Token Chart

- What's on People's Minds



- I wish this would end
- What is he talking about??
- If he'd get done I could leave
- If I leave now, maybe I can catch an earlier flight...

Industry, Policy Options

- What certifies a credit?
 - ¿ Monitoring costs plus control costs must be low enough to allow positive trade
 - ¿ Policymakers will need to approve these plans
 - ¿ Life of Credit
 - ¿ Offset for Trading

