



## Energy and Multi-pollutant Prevention 2016 NASEO Annual Meeting



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# Louisiana State Energy Office



Promotes Energy Efficiency in Louisiana Homes, Schools, Industry, Businesses, and Governmental Facilities

Promotes the Responsible Development of All Forms of Energy including Renewables such as Solar, Wind, and Biomass

Works with Partners such as the US Department of Energy, La Public Service Commission, La Dept. of Environmental Quality, La Dept. of Revenue, Clean Cities Coalitions, and various Local Governments

Promotes the use of cleaner alternative motor vehicle fuels such as Natural Gas, Propane, and Electricity

# US Environmental Law



## Clean Air Act

Clean Water Act

Resources Conservation and Recovery Act (RCRA)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

# Key Clean Air Act Provisions



- **National Ambient Air Quality Standards (NAAQS)**
- National Emission Standards for Hazardous Air Pollutants
- New Source Performance Standards
- Acid Rain Program
- Title V Permit Program

# National Ambient Air Quality Standards (NAAQS)



Air Quality Standards have been established for 7 Criteria Pollutants

**When an Area fails to meet the Standard a SIP is Required**

- State Implementation Plan

Who, What, When, & How Standard will be met

- Non-attainment New Source Review
- Emission Offsets

**Energy Efficiency/Alternative Fuel Use can be a part of the Plan & Actions Required for Attainment**

# Energy Efficiency Programs



- 1998: DNR established new energy efficiency programs
- Initially focused on individual homes
  - **Home Energy Rebate Option (HERO)**
- Expanded to include low interest Revolving Loan Program focused on schools (>\$30 Million to date)
- Expanded under ARRA in 2009
  - State Buildings (Lead By Example)
  - Energy Star® Appliance Rebate Program
  - Energy Efficiency and Conservation Block Grant Program (EECBG)
  - Renewable Energy Program

# The HERO Program Example of Environmental Benefits of the Energy Program

Number Rebates Issued = 21,651

Amount of Rebate Money Awarded = \$34,500,145.09

Average Annual Energy Savings per **Existing Home** Participant:

43.3 MMbtu

33.6 pounds SO<sub>x</sub>

7.2 Tons CO<sub>2</sub>

21.6 Pounds NO<sub>x</sub>

Average Annual Energy Savings per **New Home** Participant:

21.9 MMbtu

17 pounds SO<sub>x</sub>

3.9 Tons CO<sub>2</sub>

10.9 Pounds NO<sub>x</sub>

Average Annual Energy Savings per **Small Retrofit Commercial** Participant:

111.2 MMbtu

86.2 pounds SO<sub>x</sub>

19.6 Tons CO<sub>2</sub>

55.4 Pounds NO<sub>x</sub>

## Environmental Benefit

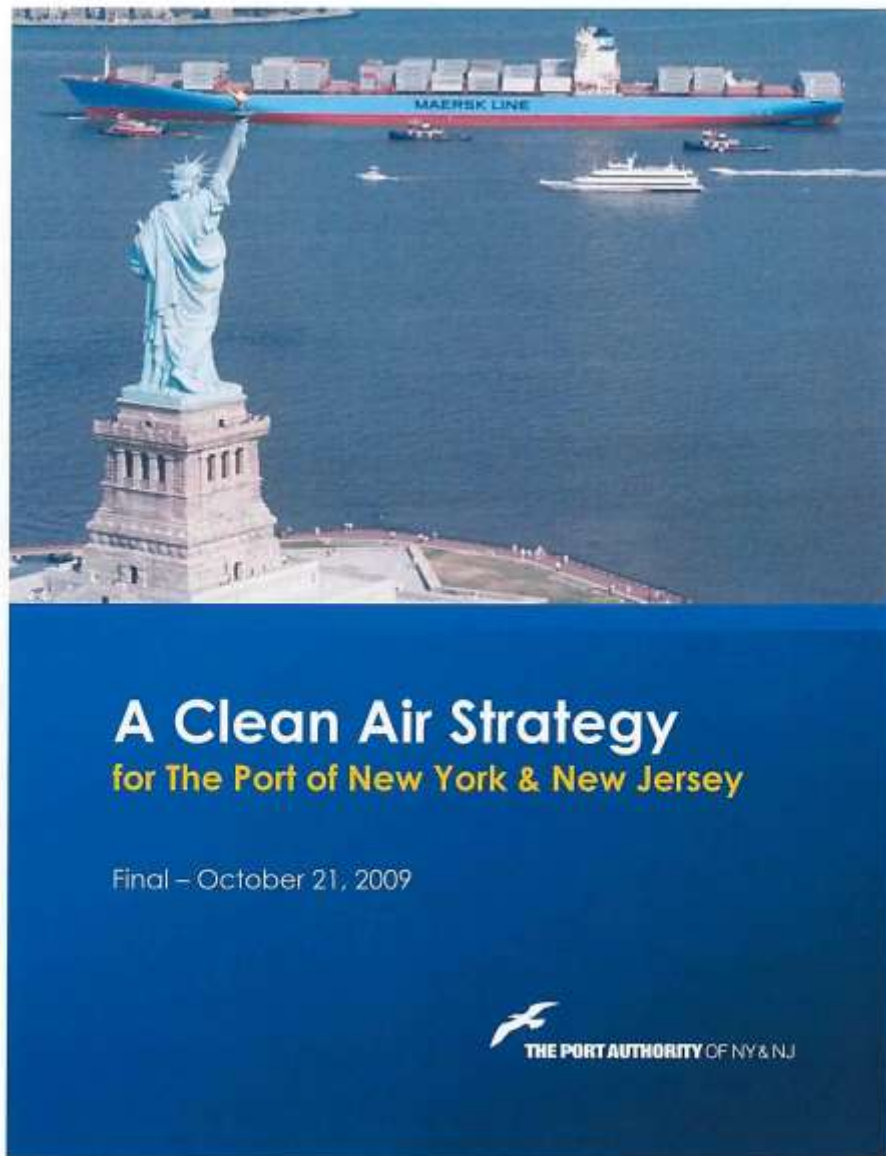
### Emissions Avoided Annually

**Tons CO<sub>2</sub>                      117,000 Tons**

**Tons SO<sub>2</sub>                        266 Tons**

**Tons NO<sub>x</sub>                        171 Tons**

# Example of Using Mobile Source Reductions for meeting CAA Requirements



## A Clean Air Strategy for The Port of New York & New Jersey

Final – October 21, 2009

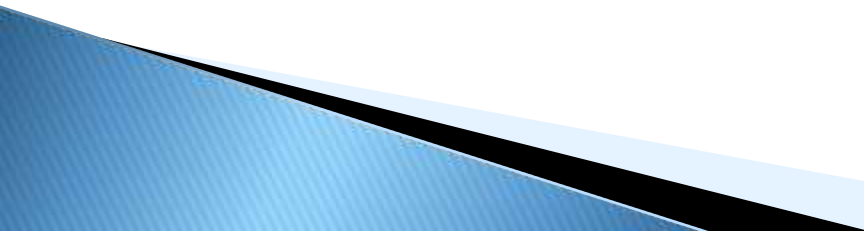
 THE PORT AUTHORITY OF NY & NJ



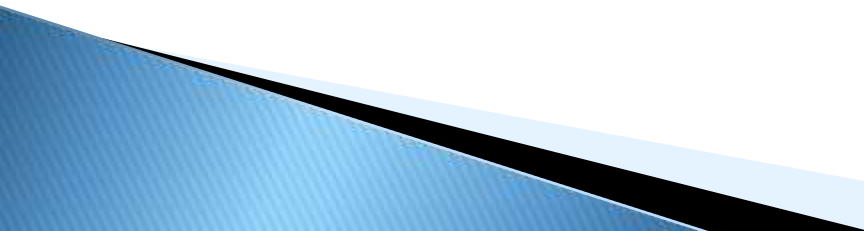
# Northwest Ports Clean Air Strategy



# Examples of Port Emission Reduction Activities

- ▶ Electrification of Cargo Handling Equipment
  - ▶ Use of Alternative Fuels (Ships, Trucks, Equipment)
    - Compressed Natural Gas
    - Ultra-low Sulfur Diesel
    - Propane
    - Electricity
  - ▶ Use of Add-on Emission Controls
    - Diesel Particulate Filter
    - Diesel Oxidation Catalyst
    - Selective Catalytic Reduction (SCR)
  - ▶ Management Controls
    - Idle Reduction by Rail & Truck Equipment
    - Automatic Identification System
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# EPA Diesel Emission Reduction Assistance Program (DERA)

- ▶ School Buses
    - Compressed Natural Gas
    - Propane
  - ▶ Ferry Boat Engines
    - Clean Diesel Technology
    - Liquefied Natural Gas
  - ▶ Rail Yard Idle Reduction Programs
  - ▶ Truck Stop Electrification
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# **New Innovative Strategy to Reduce Ozone and Fine Particulate Pollution and to Mitigate Constraints to Economic Development in the Baton Rouge Nonattainment Area**

**Presentation to**



**EPA Region 6**

by



**Baton Rouge  
CLEAN AIR COALITION**

**June 18, 2015**

## Baton Rouge Air Quality Challenges

Baton Rouge area ozone levels are on a downward trend, and the area has achieved attainment with the old 1-hr ozone standard, the 1997 8-hr ozone standard, and the current 2008 8-hr ozone standard. The area's 2014 ozone design value was 72 ppb. The current ozone design value for 2015 is 70 ppb. However, the area faces some daunting challenges:

- It is expected that, in October, EPA will announce a new ozone standard ranging from 65 to 70 ppb. This will undoubtedly result in the Baton Rouge area falling back into nonattainment status for the ozone standard.
- Only point sources are currently eligible for generation, banking and/or trading of emission reduction credits (ERCs) under current LDEQ rules. After several decades of aggressively reducing emissions of NO<sub>x</sub> and VOCs to mitigate ozone levels, Baton Rouge industries have practically exhausted opportunities for voluntary emission reduction projects and ERCs. Banked ERCs have been depleted and, for all practical purposes, are unavailable for new industries or expansions that would require them to meet offset requirements for air permits. The industrial renaissance that the Baton Rouge area was beginning to enjoy has come to a grinding halt.

## **PROPOSED ERC STRATEGY TO MITIGATE OZONE AND FINE PARTICULATE POLLUTION**

- **ERC generation and banking for point sources remain unchanged.**
- **Mobile sources (i.e. heavy duty diesel vehicles/equipment) that operate in the 5-parish Baton Rouge nonattainment area become eligible for ERC banking projects.**
- **Projects that reduce emissions from area sources (e.g. truck stop electrification) may be deemed eligible for ERC banking on a case-by-case basis.**

## **THE PROPOSED ERC STRATEGY IS NOT UNPRECEDENTED**

- **EPA has a well-established program for diesel emission reduction projects that generate emission reduction credits for use in SIPs and conformity determinations.\***
- **EPA's National Clean Diesel Campaign (NCDC) promotes clean air strategies by working with manufacturers, fleet operators, air quality professionals, environmental and community organizations, and state and local officials to reduce diesel emissions.**
- **On July 2, 1999 EPA approved in the state's SIP LAC 33:III Chapter 6, para. 607B. Eligible sources that may create and bank emission reductions include, but are not limited to, the following permitted and unpermitted source types regardless of the size of the source or the level of emissions:**
  1. **stationary sources, including point sources, fugitive emission sources, and off-shore sources;**
  2. **mobile sources, including on-road and off-road sources and marine vessels; and**
  3. **Area and indirect sources, including non-point sources and agricultural sources.**
- **There are numerous other examples of mobile emission reduction credits being used in SIPs, conformity determinations, and banking for offsets.**

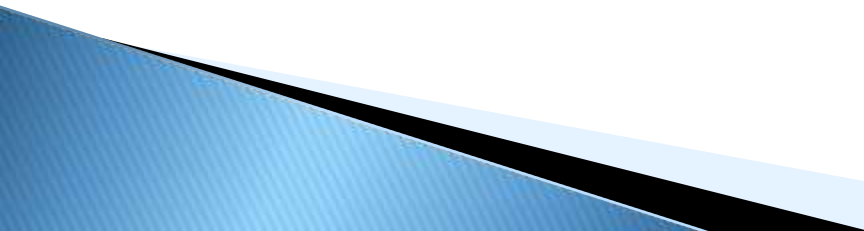
\*EPA. 2014. Diesel Retrofits: Quantifying and Using Their Emission Benefits in SIPs and Conformity EPA-420-B-14-007, February 2014

## The Proposed ERC Strategy is a Win-Win-Win.....

- ERC PROJECTS CAN START REDUCING EMISSIONS AND IMPROVING AIR QUALITY IN A RELATIVELY SHORT PERIOD OF TIME.
- WILL REDUCE EMISSIONS FROM IMPORTANT OZONE PRECURSOR SOURCES NOT EASILY REGULATED BY LDEQ (E.G. MOBILE AND AREA SOURCES).
- ALLOW FOR CONTINUED ECONOMIC AND TRANSPORTATION DEVELOPMENT (INCREASED AVAILABILITY AND LOWER COSTS FOR ERCs).
- FACILITATE OVERALL EMISSIONS REDUCTIONS IN PURSUIT OF ATTAINMENT AND MAINTENANCE OF OZONE AND PM<sup>2.5</sup> NAAQS.
- ALLOW SOME MUCH-NEEDED MARGIN FOR CONFORMITY DETERMINATION UNDER AN EXPECTED NEW MORE STRINGENT OZONE STANDARD.



# Louisiana Department of Environmental Quality Rulemaking Underway

- ▶ Discussions with EPA Region VI on the Program
  - ▶ Initial Rulemaking has begun
  - ▶ Draft Rules to be Published in the State's Official Journal
  - ▶ Links on LDEQ's Website
  - ▶ Public Comment
  - ▶ Legislative Oversight
  - ▶ Final Rules
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