

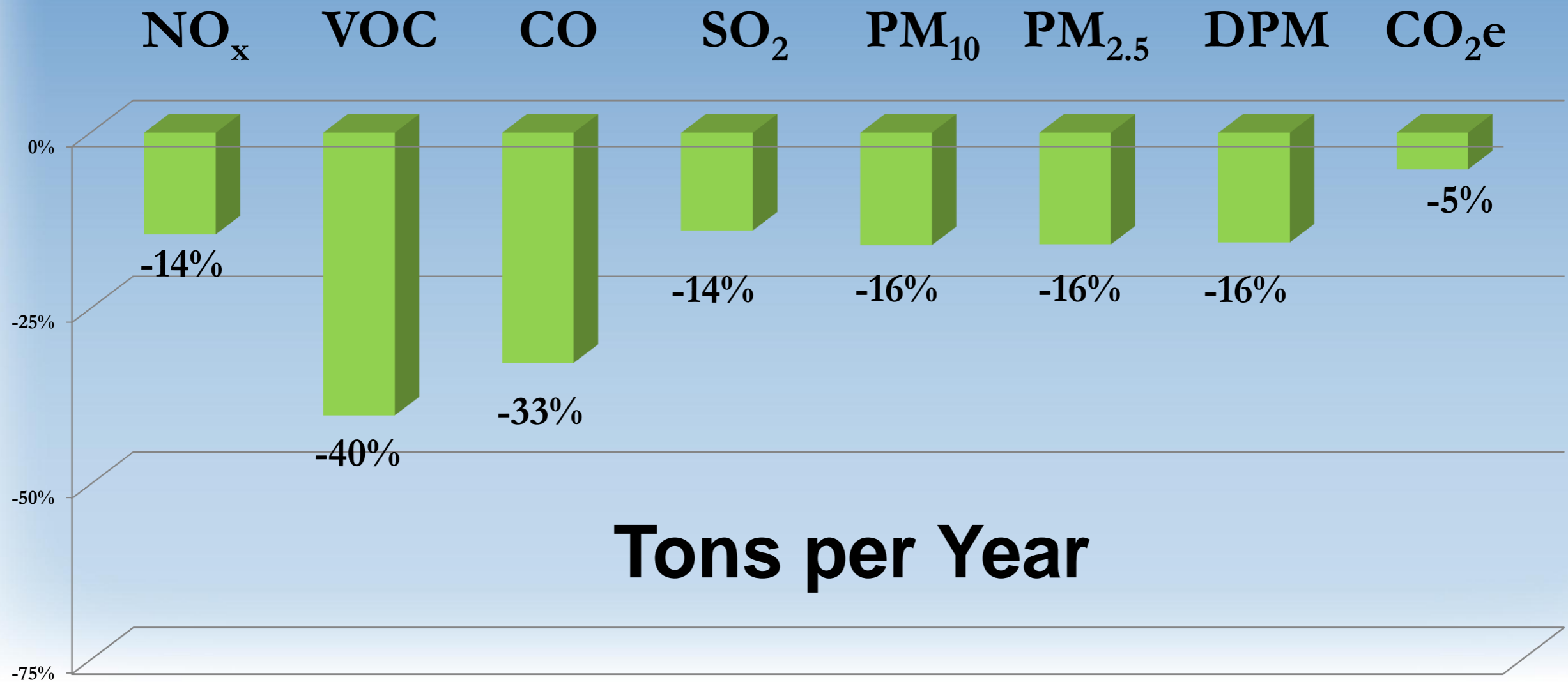


Item No.: ____7aSupp____
Date of Meeting: December 4, 2012

Puget Sound Maritime Air Emissions Inventory Overview

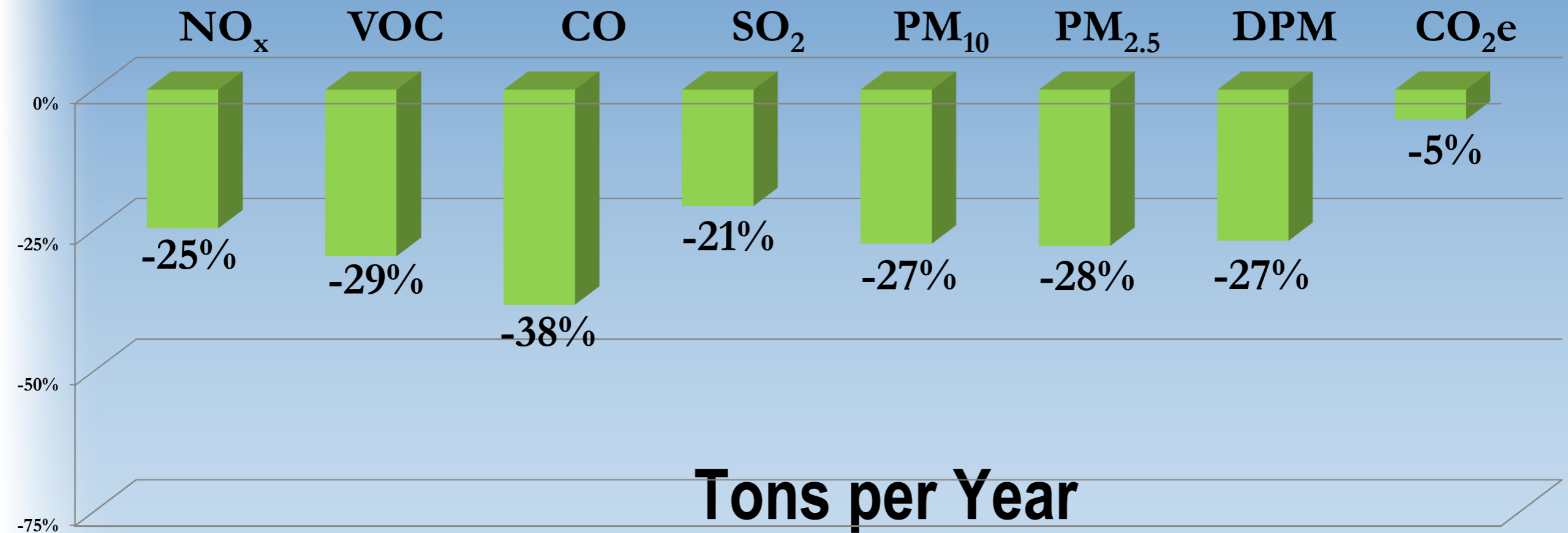


Total Airshed Emission Reductions 2005 – 2011 Puget Sound



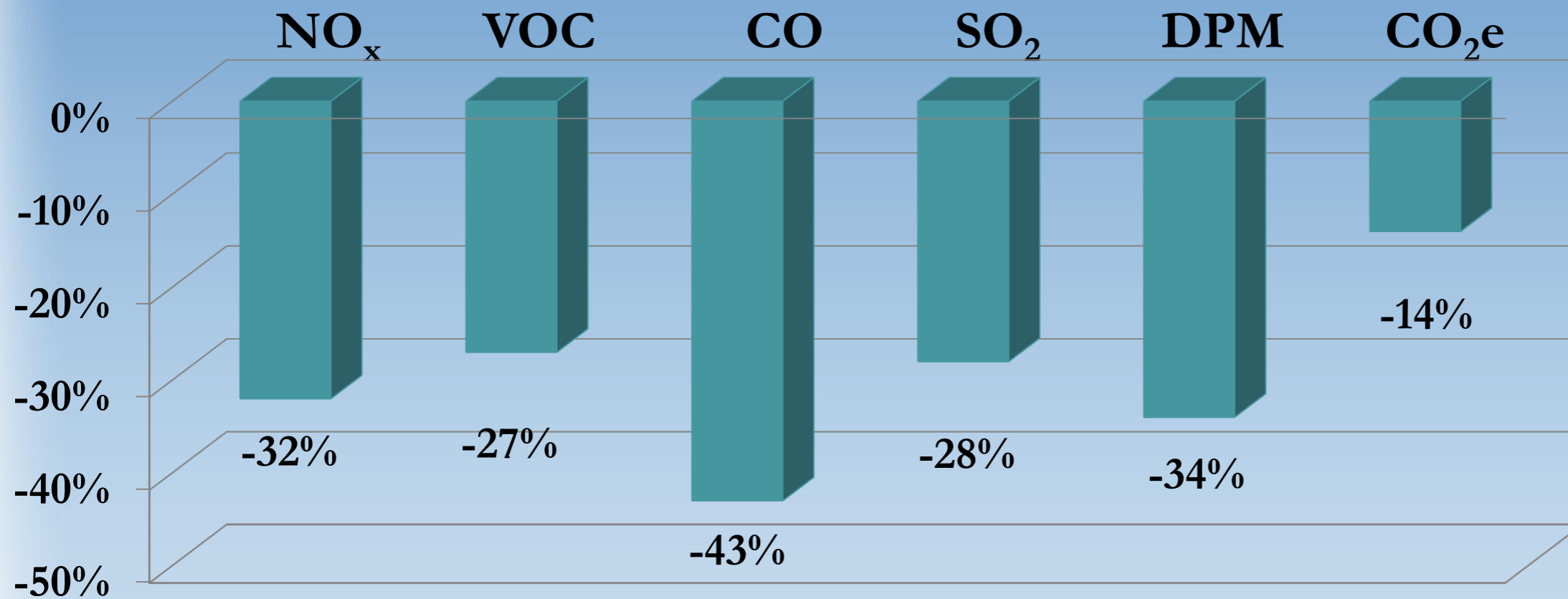
Port of Seattle 2005 - 2011

Emission Reductions – Airshed



Port of Seattle 2005 - 2011

Normalized Emission Reductions – Airshed



Per 10,000 Tons Cargo



Project Overview - Objectives

- **2011 Inventory updates the 2005 baseline Puget Sound Maritime Air Emissions Inventory.**
- **The updated inventory measures 2011 emissions and progress against the 2005 baseline.**
- **Reviews data to implement new reduction strategies.**



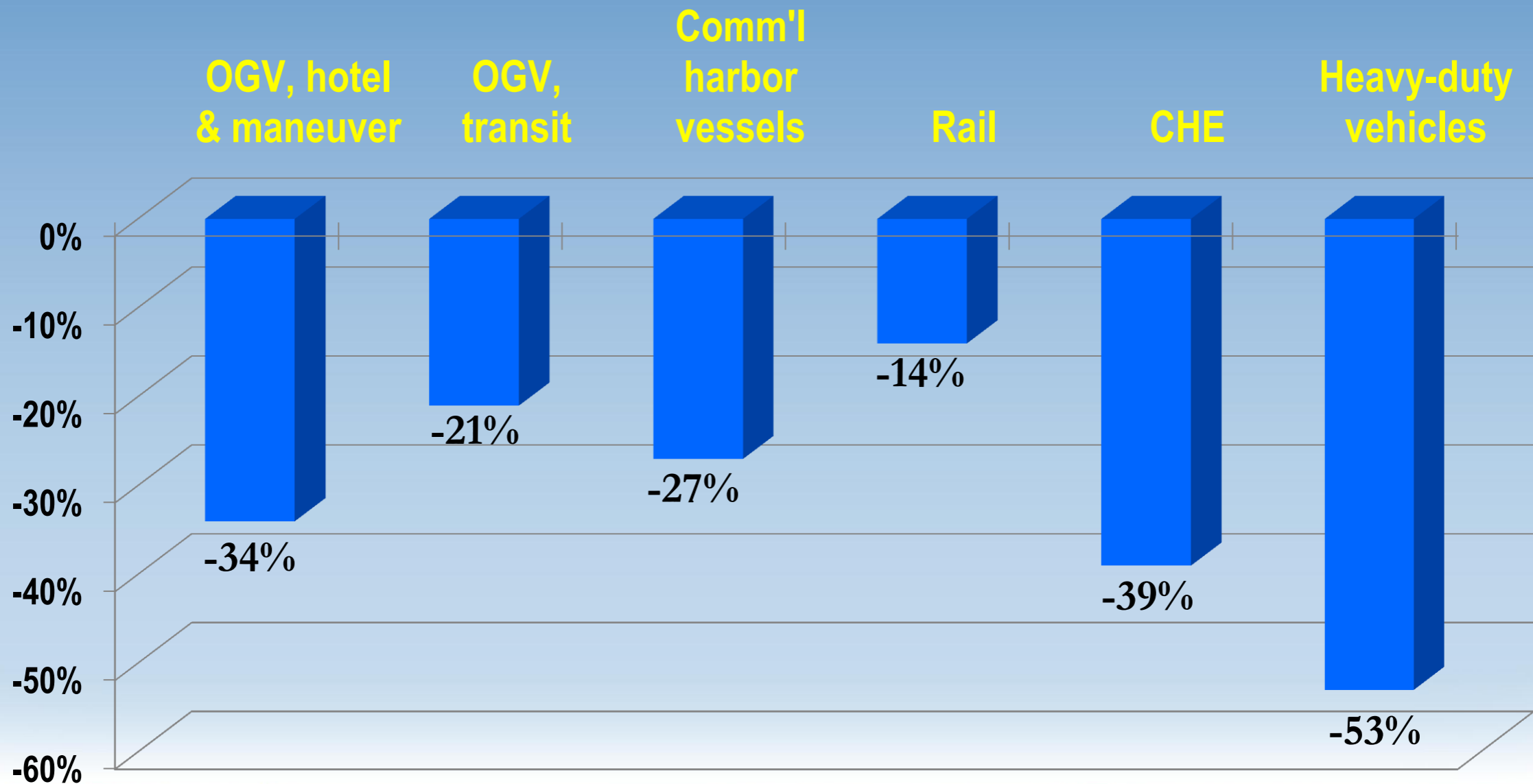
Geographic Boundaries

- U.S. portion of the Puget Sound / Georgia Basin Airshed
- Spans ~140 miles south-to-north; 160 miles west-to-east
- Close coordination with similar inventory for Georgia Basin



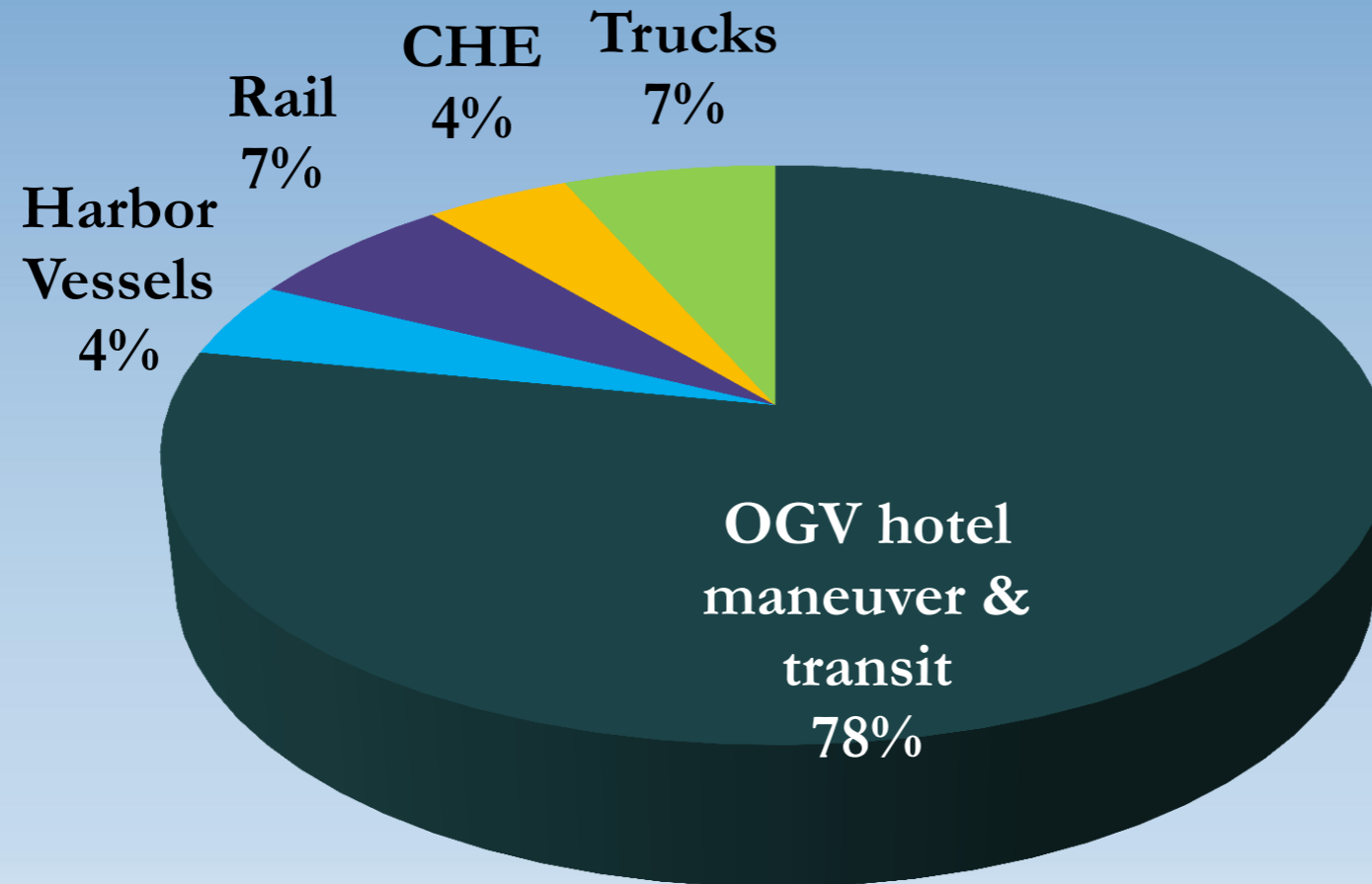
Port of Seattle Emission Reductions

DPM - Airshed

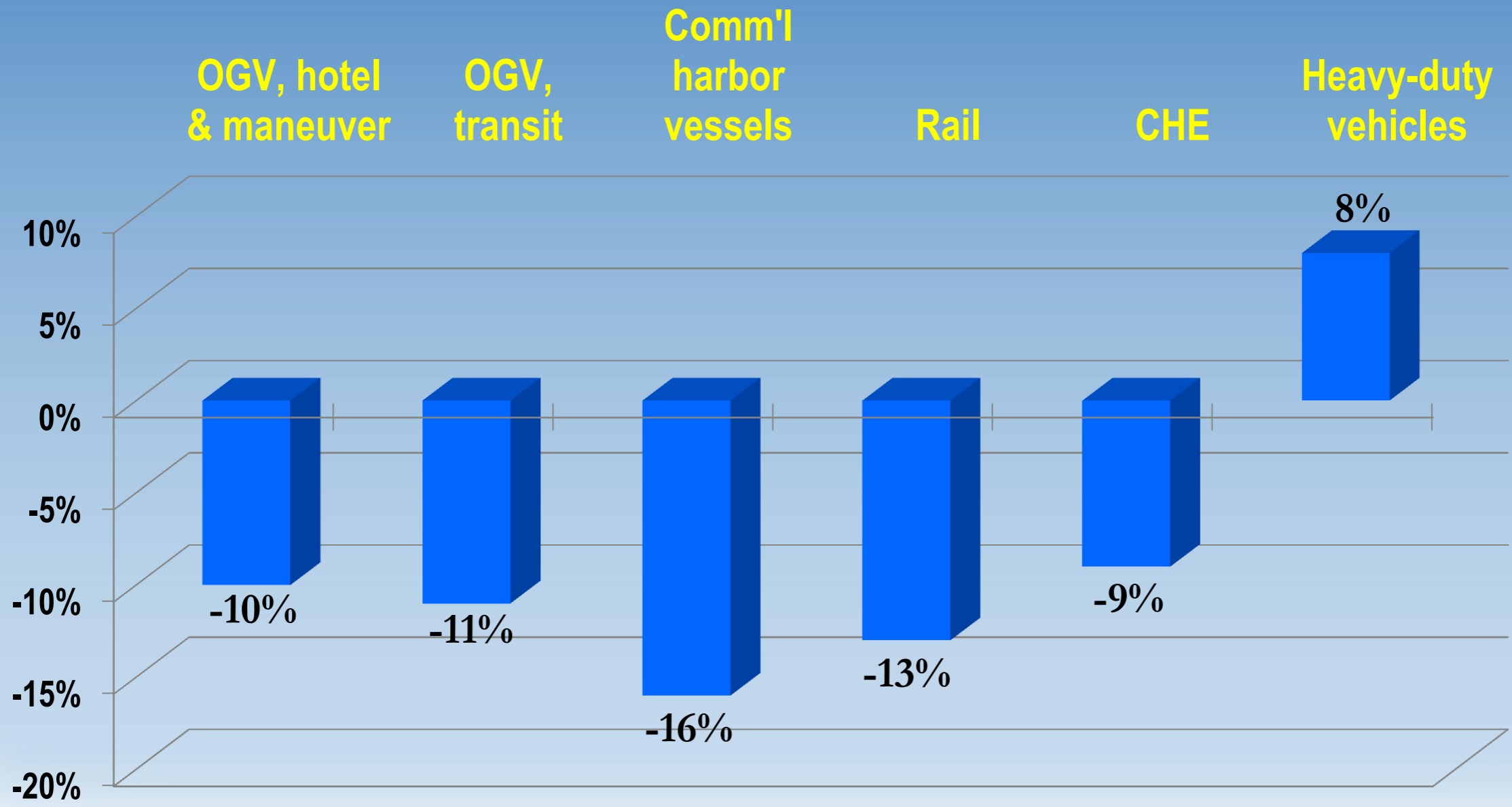


Diesel Particulate Matter 2011 Emissions Sources

Port of Seattle – Airshed

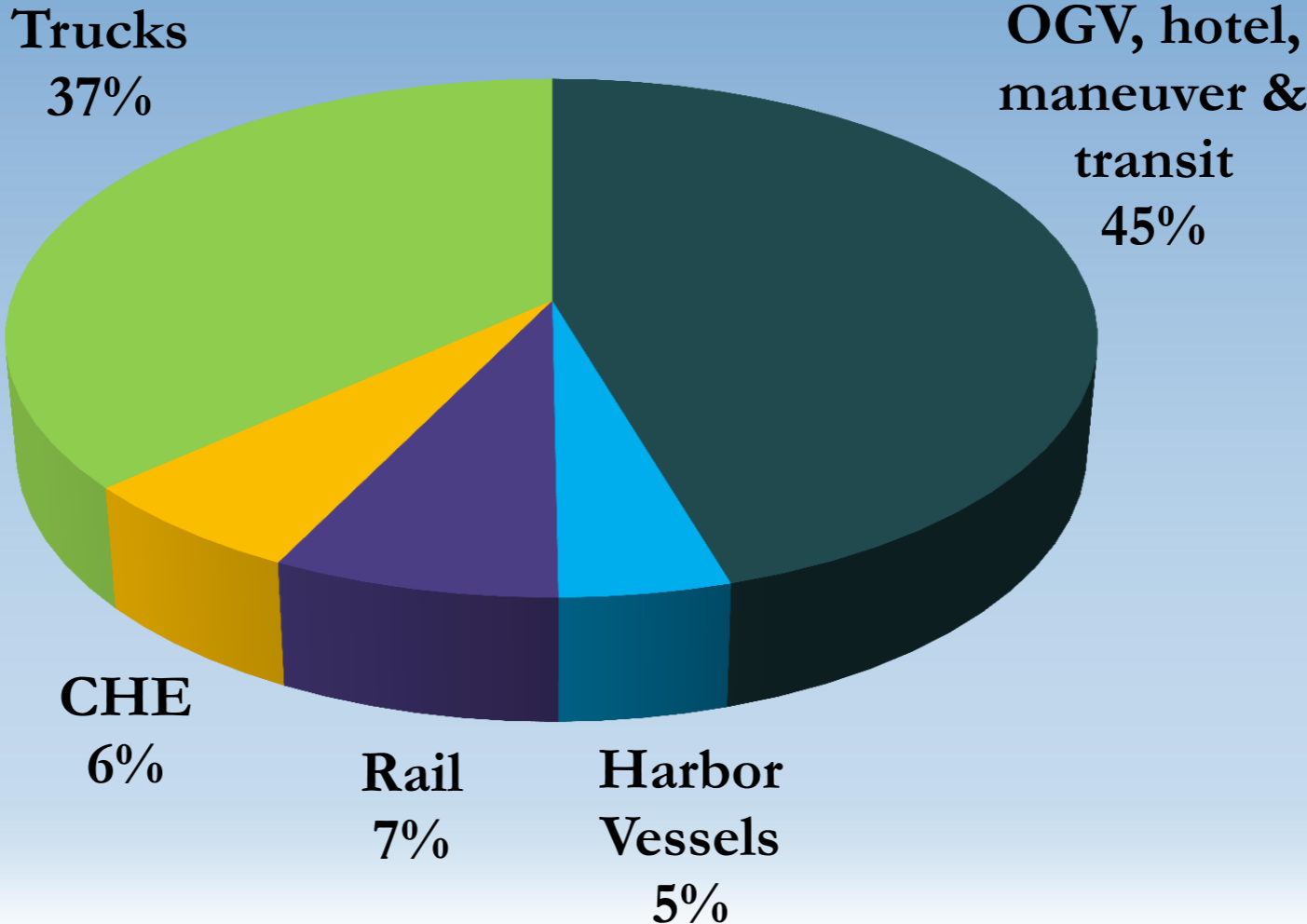


Port of Seattle Emissions Reduction GHG - Airshed



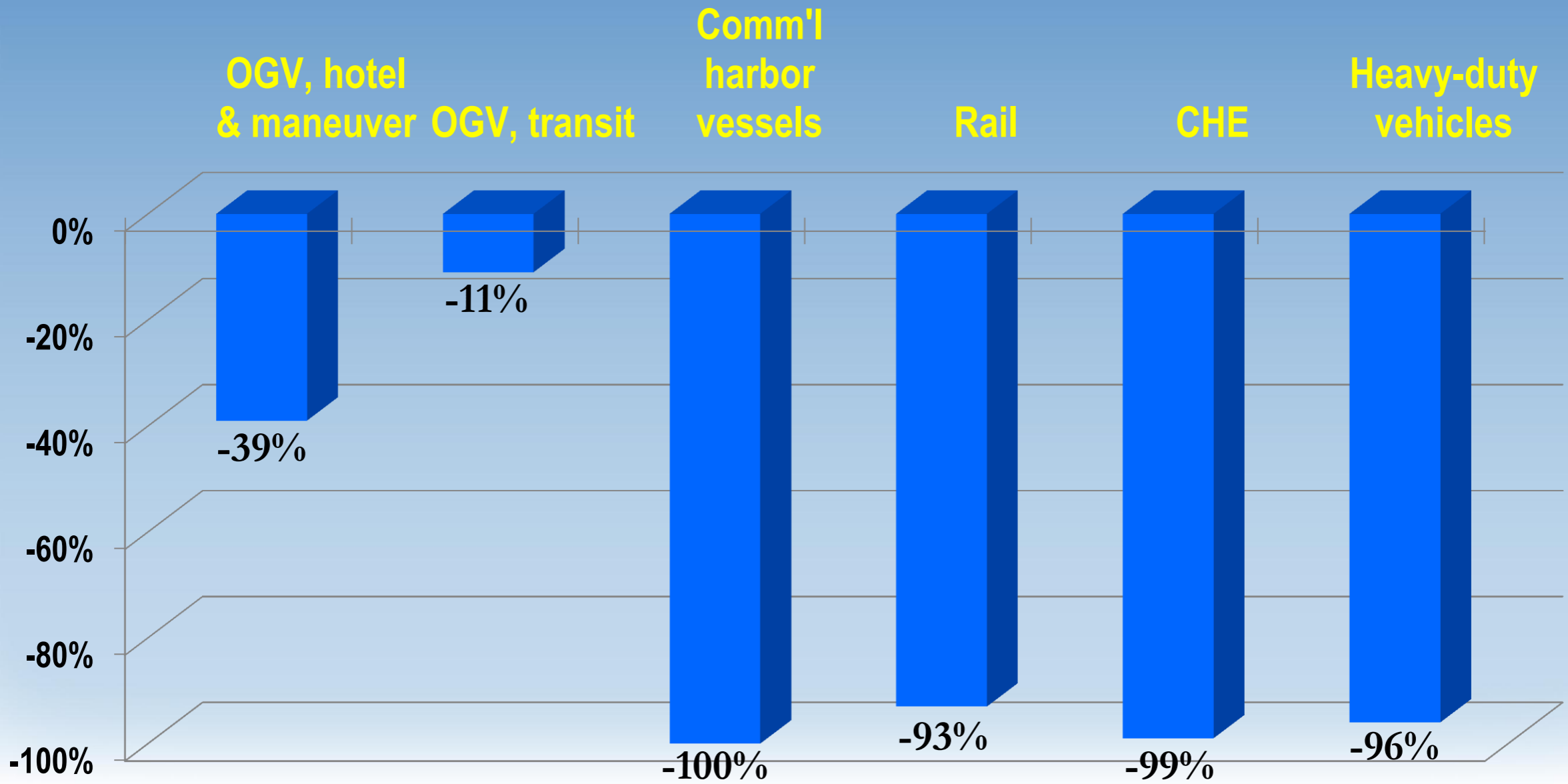
Greenhouse Gas Sources

Port of Seattle Airshed



Port of Seattle Emission Reductions

SO₂ - Airshed



Port of Seattle & Airshed SO₂ 2011 Emissions Sources

Port of Seattle Airshed

Trucks
<1%

OGV hotel,
maneuver &
transit
>99%



Port of Seattle Emission Reduction Programs

- **Shorepower**
- **At-Berth Fuels (ABC) Fuels Program**
- **Cargo Handling Equipment (CHE) exhaust retrofits**
- **Clean Truck Program**



Puget Sound Maritime Air Forum

A voluntary association of private and public organizations



- American Lung Association of Washington
- BNSF Railway
- Northwest Clean Air Agency
- NorthWest and Canadian CruiseShip Association
- Pacific Merchant Shipping Association
- Port of Anacortes
- Port of Everett
- Port of Seattle
- Port of Tacoma
- Puget Sound Clean Air Agency
- U.S. Environmental Protection Agency
- Washington Department of Ecology
- Washington Department of Transportation
- Washington State Ferries
- Western States Petroleum Association



Next Steps

- **Updating the Northwest Ports Clean Air Strategy**
- **Many projects planned or already underway**
 - **Cleaner fuels**
 - **Shore power**
 - **Engine retrofits/replacements**
 - **Phase 2 of Clean Truck Program**
- **Pilot projects testing innovative technologies**



Next Steps

- Refocus ongoing emission reduction efforts based on inventory findings
- Implement cost-effective strategies
- Continue leadership



Questions?

