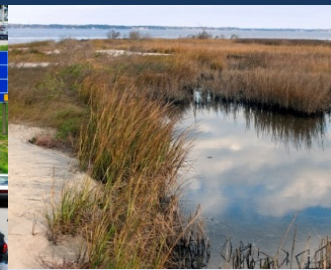


OTC Stakeholder Meeting

September 10th, 2015

Washington, DC

Mobile Source Committee Update



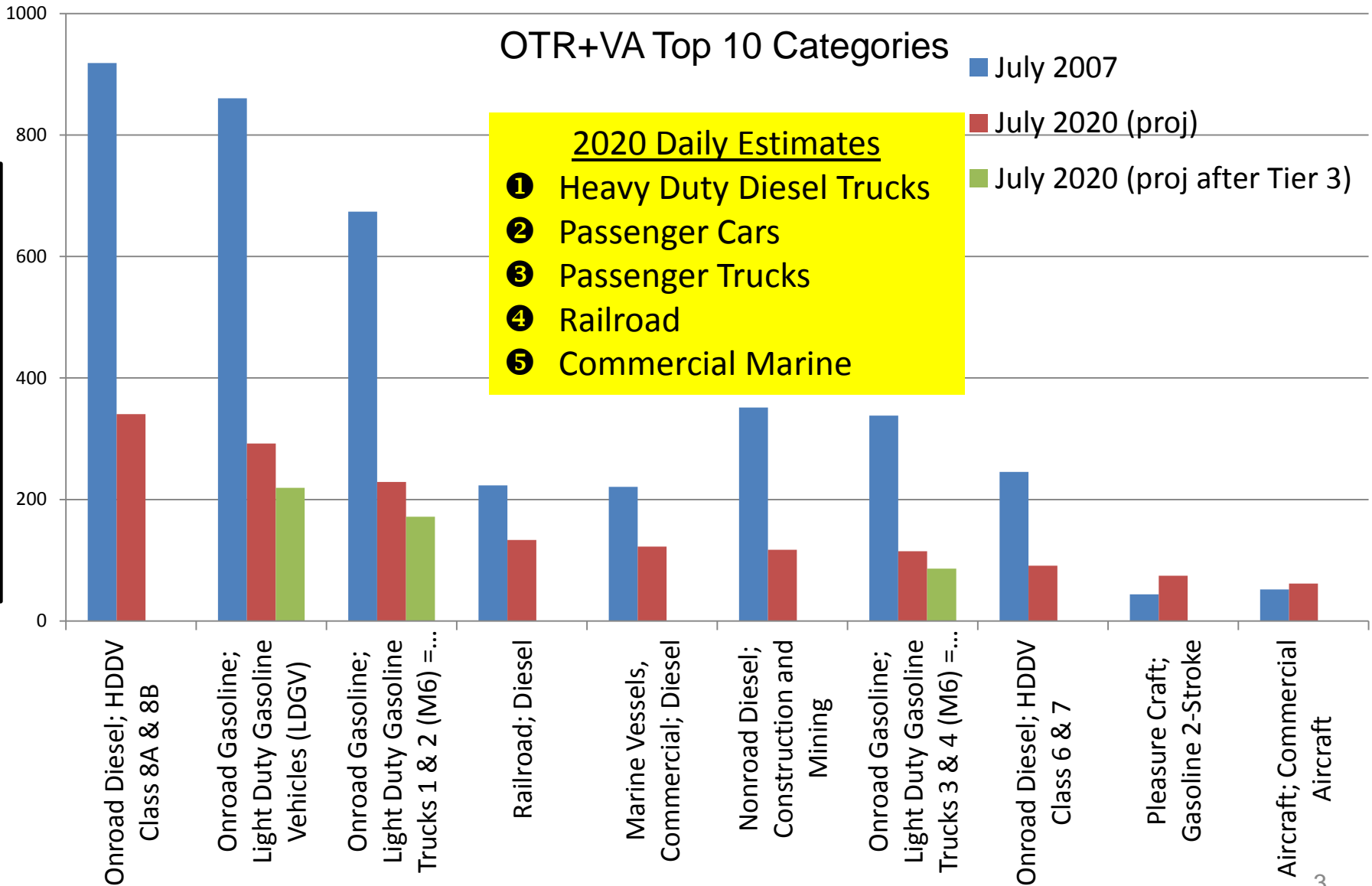
Committee Charge

- Goal: To identify potential strategies for consideration at the 2015 Fall Meeting
- Strategies Include:
 - Sectors of High Emission Reduction Potential
 - Heavy Duty Diesel Trucks
 - Passenger Vehicles
 - Movement of Goods
 - Construction Equipment
 - Pleasure Craft
 - Ports & Petroleum Transfer Activities
 - Diesel I/M & SIP Credit
 - VMT Strategies
 - Additional Transportation Strategies

Avg. Daily July NOx Tons – Old Inventories

Average Daily NOx Tons (July)

OTR+VA Top 10 Categories

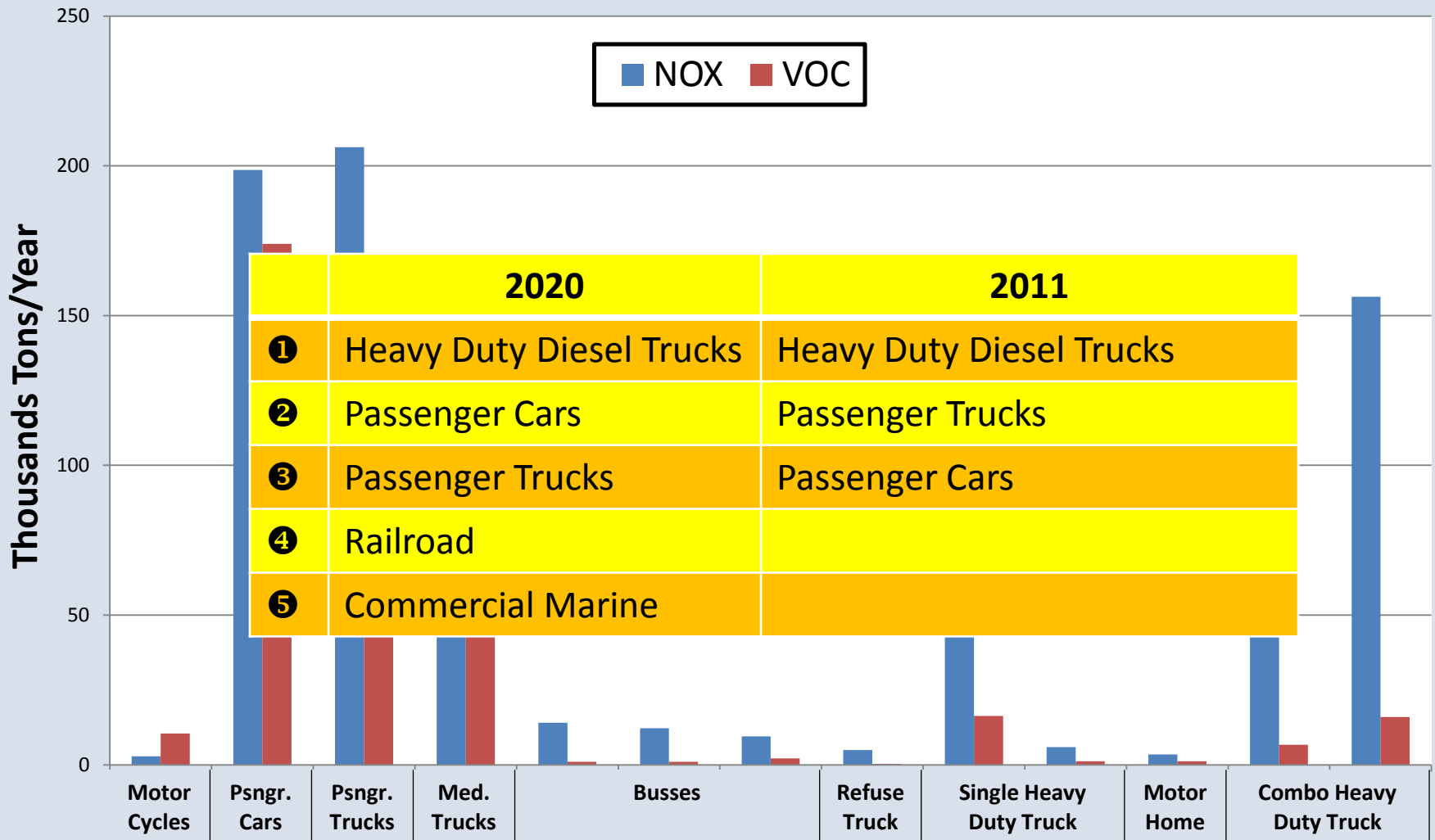


2020 Daily Estimates

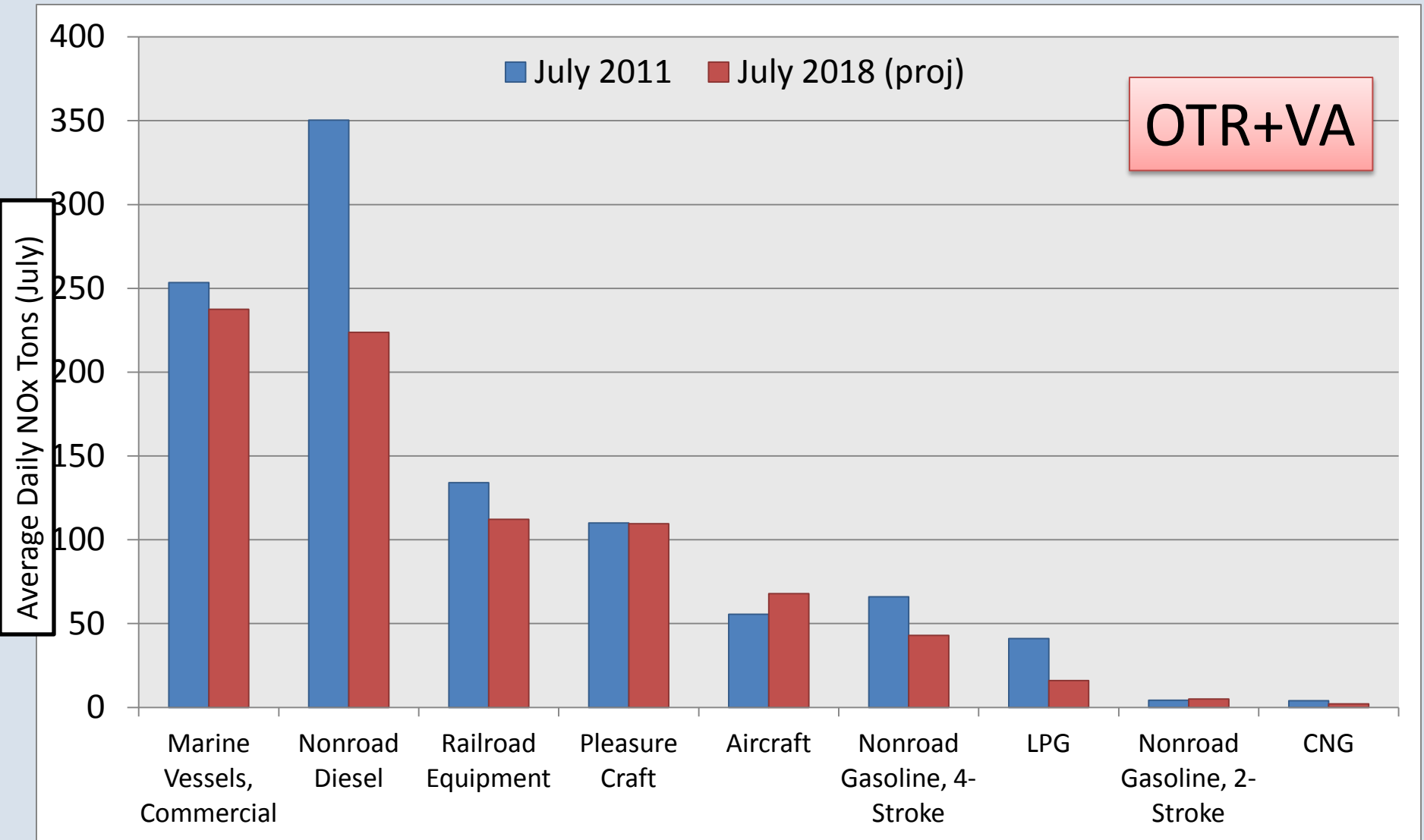
- ① Heavy Duty Diesel Trucks
- ② Passenger Cars
- ③ Passenger Trucks
- ④ Railroad
- ⑤ Commercial Marine

■ July 2007
■ July 2020 (proj)
■ July 2020 (proj after Tier 3)

OTR+VA Onroad Mobile Inventory 2011 - Approximated

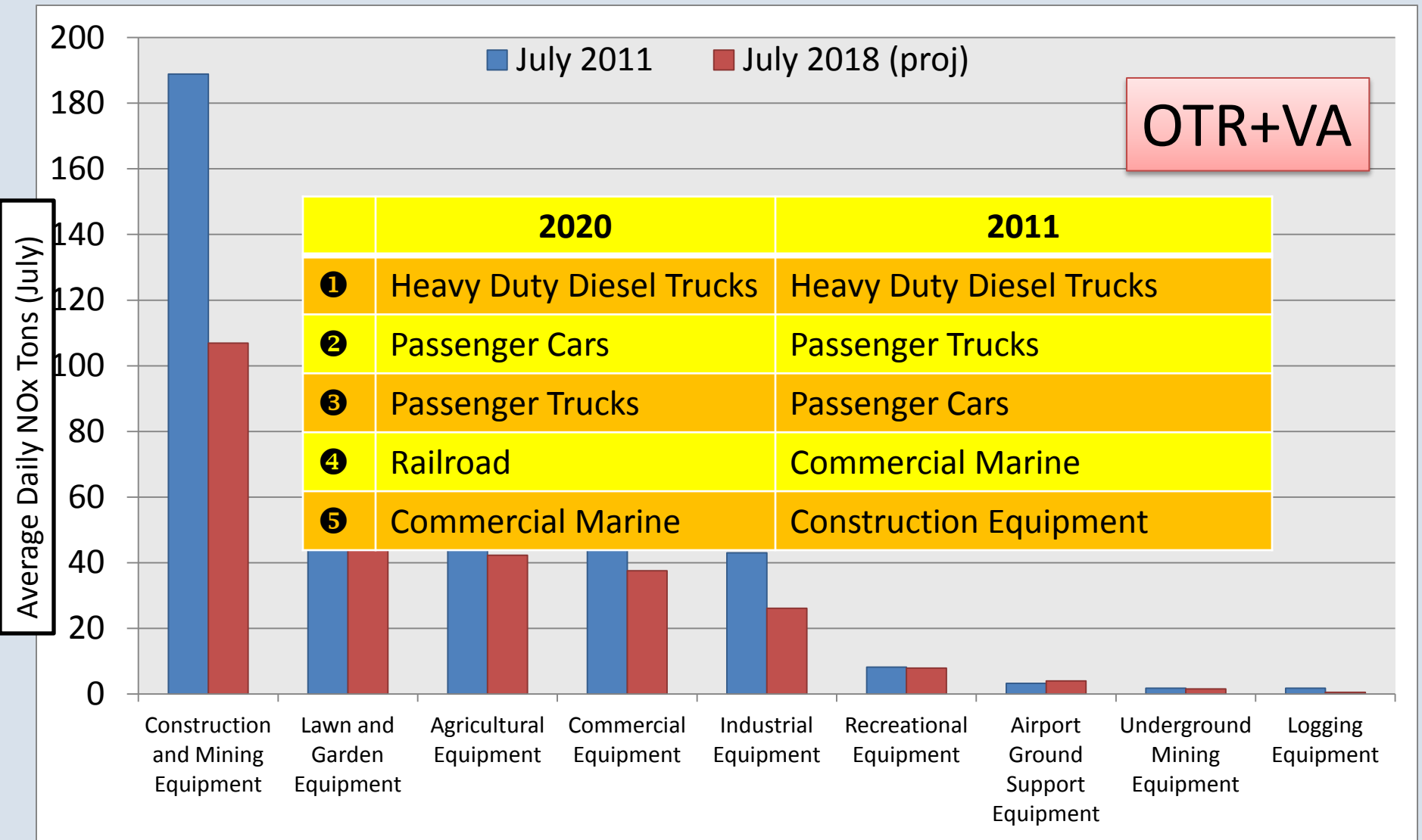


Nonroad Diesel NO_x July Avg. Daily Tons



MARAMA Alpha Inventory based on EPA v2 NEI

Nonroad NO_x July Avg. Daily Tons



Aftermarket Converters Analysis

Workgroup has developed a methodology to incorporate CARB converters into MOVES

Current Status:

- National MOVES runs for 2020 to confirm methodology

Next Steps

- Confirm methodology through model runs
- Reach out to EPA
- Conduct OTR specific MOVES runs

Anti-Idling: Draft Survey of Regulations

Idling Allowable Time Limit by State (excluding exemptions)

	CT	DE	DC	ME	MD	MA	NH	NJ	NY	PA	RI	VT	VA
Diesel Trucks	3	3	3	5	5	5	5	3	5	5	5	5	3
Nonroad Diesel	3		3					3			5		
Other	MA and RI also have Rail idling limits												

- Enforcement Approaches:

- Periodic Sweeps (NJ)
- Mapping High Idling Zones (DC)

- Education Approaches

- Pamphlets/Posters (NJ, PA)
- Tollbooth Wraps (PA)
- Websites (DC, NJ, PA, RI)
- No Idling Pledge (NJ)
- Fake Idling Tickets (NJ)
- School Outreach (DE, NJ)

Next Step: Complete the survey to inform state's approaches to anti-idling



EPA SmartWay® Transport Partnership

Collaboration between government & business



Promote sustainable
Reduce economic
goods movement

- Freight Shippers
- Carriers
- Logistics Companies

supply chain
al costs of





SmartWay® Approach

- EPA provides consistent objective, market-driven tools, approaches and incentives to help businesses to benchmark, track and reduce fuel consumption from supply chain
- Partners save money, cut emissions and achieve recognition

Win for business - Win for the environment



SmartWay® Components

SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption and improve performance annually.

SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies and strategies that save fuel and lower emissions.

SmartWay Vehicles: A [program](#) that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.

SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay® Affiliates Program

Goal: States Affiliates Program

- Affiliates are promoting energy efficiency and water energy through the SmartWay® program
- SmartWay® affiliates are:
 - Promote SmartWay® program
 - Educate their members about the program and its benefits
 - Train members on best practices related to SmartWay® and supply chain efficiency

State	Status
CT	Affiliate
DC	Affiliate
ME	Affiliate
MA	Affiliate
NH	Affiliate
VT	Affiliate

SmartWay®

water energy

transport sector

m



Charge for MSTRS Ports Workgroup

EPA asked MSTRS for recommendations on:

- Development of an EPA-led voluntary environmental port initiative
- How to effectively measure air quality and GHG performance of ports and/or terminals within ports

MSTRS will consider:

- EPA port macro & micro assessments
- Existing port environmental improvement programs
- Ports in the context of broader supply chain

MSTRS Port Workgroup Timeline

1. Develop draft recommendation at MSTRS Port Workgroup Meeting – Oct 2015
2. Present draft recommendation to MSTRS – Dec 2015
3. Final recommendation Spring 2016



Medium & Heavy-Duty GHG Proposal

June of 2015 EPA proposed new GHG gas standards for Medium & Heavy-Duty Diesel Trucks

OTC focus on NO_x in the proposal:

- No NO_x standards in the rule
- NO_x Co-benefits from RIA (depends on scenario)
 - ~7% reduction by 2025
 - ~26% reduction by 2035
- Concerns about APU penetration estimates

Sensitivity Analysis for Additional Emission Reductions

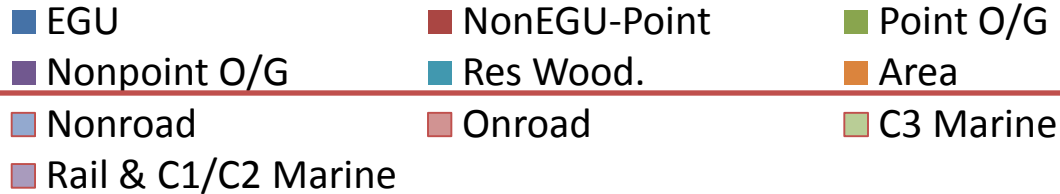
Measures Applied in Modeling Domain	Measures Applied in the OTR
<ul style="list-style-type: none">• Aftermarket Replacement Catalytic Converters• 90% Reduction in new onroad HD Engines beginning in MY2020• SmartWay[®]• Nonroad Retrofits/Replacements	<ul style="list-style-type: none">• ZEV MOU Implementation• Heavy Duty Diesel I/M• Nonroad Idling

2028 - Enable time for fleet turnover

Does not include Beyond OTW SAS measures from EPA Ozone NAAQS RIA

OTR+VA 2028 Mobile Reductions

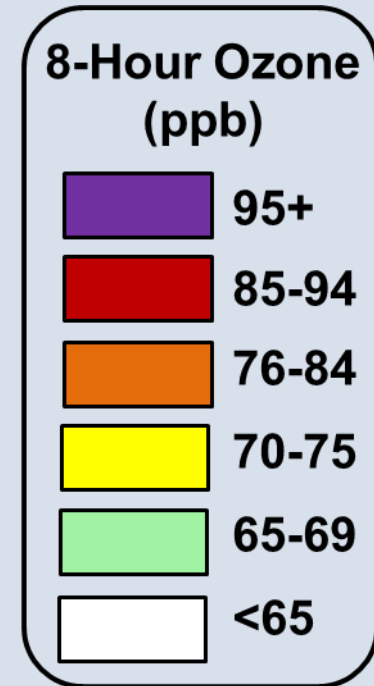
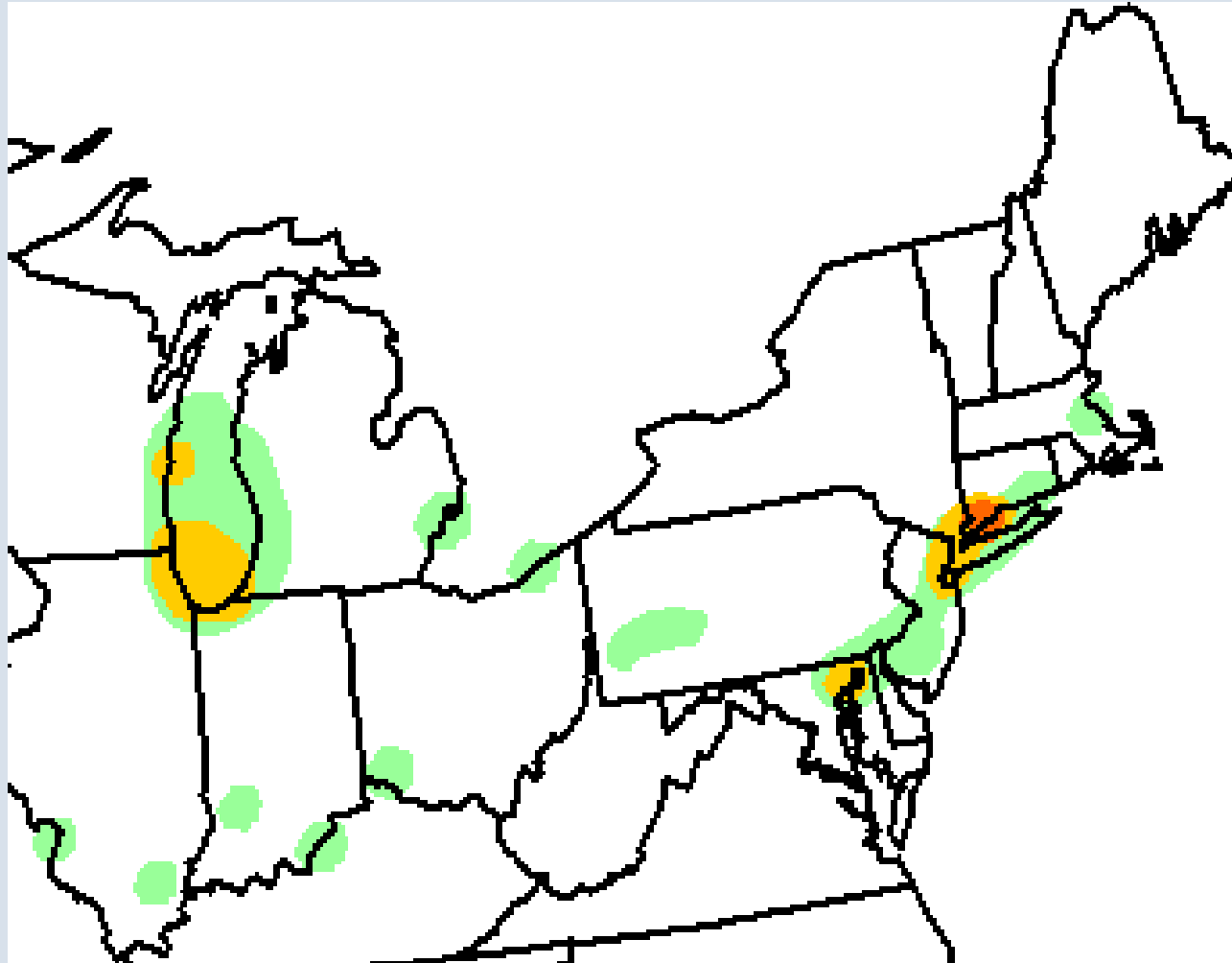
2028 NOx Emissions After Application of Mobile Source Measures



Onroad (tons/year)	NOX	VOC
Aftermarket Catalytic Converters	9,200	800
EV	6,700	1,800
HDDV Duty Diesel I/M	9,300	-
HDDV New Engine Stnds	17,300	-
SmartWay	3,300	-
Sector Total Before Programs	160,000	39,000
Total Reduction	45,800	2,600
Percentage Reduction	29%	7%
Nonroad (tons/year)	NOX	VOC
Nonroad retrofits/replacements	3,200	-
Nonroad Idling	11,000	1,900
Sector Total Before Programs	126,000	239,000
Total Reduction	14,200	1,900
Percentage Reduction	11%	1%

2028 Proxy with Mobile Measures

Does not include Beyond OTW SAS measures from EPA Ozone NAAQS RIA



MARAMA Alpha emission inventories with noted marine vessel emission inventory issue

Next Steps

1. Complete identification of top emitting categories
2. Continue efforts on aftermarket converters
3. Complete anti-idling compilation
4. Follow efforts on emissions from new heavy-duty engines
5. Continue SmartWay efforts
 1. State Participation
 2. Benefit Estimates