

Region Wide Measures

Region Wide Measures

- **Baseline emissions in the Sacramento Region, in 2012**
 - 43.2 tpd ROG
 - 128.0 tpd NOx
- **Affected sources**
 - Light-duty passenger cars and trucks
 - Motorcycles
 - Heavy-duty trucks
 - Off road equipment including construction, agriculture, locomotives

Region Wide Measures—Overview

- Incentive Control Measures
 - Off-Road Compression Ignition (CI) Replacement Incentive
 - Off-Road CI Aftertreatment and Equipment Replacement Incentive
 - Zero Emission Lawn and Garden Incentive
 - SECAT-Like Program (heavy-duty on-road trucks)
 - Light Duty Early Retirement
- Construction Mitigation
- New Construction Operational Indirect Source Rule

Region Wide Measures—tons/day Emission Reductions in 2012

Control Measure	ROG	NOx
Incentive Control Measures: <ul style="list-style-type: none"> • Off-Road Compression Ignition (CI) Replacement Incentive • Off-Road CI Aftertreatment and Equipment Replacement Incentive • Zero Emission Lawn and Garden Incentive Residential • Zero Emission Lawn and Garden Incentive Commercial (2020) • SECAT-Like Program (heavy-duty on-road trucks) • Light Duty Early Retirement 	0.15	1.29
Construction Mitigation	0.046	0.557
New Construction Operational Indirect Source Rule	0.109	0.26

Region Wide Measures— Incentive 1

- Off-Road Compression Ignition (CI) Replacement Incentive
 - Repower equipment with newer, low emission engines (Tier 3 and Interim Tier 4)
- Cost Effectiveness
 - NO_x \$ 14,105 /ton
 - ROG \$ 88,493 /ton
 - NO_x + ROG \$ 12,166 /ton
- Adoption/Implementation Years
 - 2010-2014

Region Wide Measures—Incentive 2

- Off-Road CI Aftertreatment and Equipment Replacement Incentive
 - Retrofit aftertreatment, fleet modernization, and early retirement of equipment
- Cost Effectiveness
 - NO_x \$ 15,440/ton
 - ROG \$ 117,481/ton
 - NO_x + ROG \$ 13,646/ton
- Adoption/Implementation Years
 - Continuing thru 2023

Region Wide Measures—Incentive 3

- Zero Emission Lawn and Garden Incentive for Commercial Equipment
 - Year round incentive program to replace spark ignited equipment with electric powered equipment
- Cost Effectiveness
 - NO_x \$86,650/ton
 - ROG \$ 5,898/ton
 - NO_x + ROG \$ 5,522/ton
- Adoption/Implementation Years
 - 2018 thru 2023

Region Wide Measures—Incentive 4

- Zero Emission Lawn and Garden Incentive for Residential Equipment (“mow down”)
 - Year round incentive program to replace spark ignited equipment with electric powered equipment
- Cost Effectiveness
 - NO_x \$945,859/ton
 - ROG \$ 82,953/ton
 - NO_x + ROG \$ 76,265/ton
- Adoption/Implementation Years
 - Continuing thru 2019

Region Wide Measures—Incentive 5

- SECAT-Like Program (heavy-duty on-road trucks)
 - Incentives for retrofitting aftertreatment, fleet modernization, and early retirement
- Overall Cost Effectiveness
 - NO_x \$ 7,370/ton
 - ROG \$ 146,293/ton
 - NO_x + ROG \$ 7,017/ton
- Adoption/Implementation Years
 - Continuing thru 2023

Region Wide Measures—Incentive 6

- Light Duty Early Retirement
 - Accelerate early retirement of vehicles (>12 yrs) passing smog check program with at least ULEV cert newer, used vehicles (< 4 yrs)
- Overall Cost Effectiveness
 - NO_x \$ 53,099/ton
 - ROG \$ 34,803/ton
 - NO_x + ROG \$ 21,023/ton
- Adoption/Implementation Years
 - 2012 thru 2023

Region Wide Measures—7

- Construction Mitigation
 - Reduces grading emissions by 60% for new land use development (> 40 acres)
- Overall Cost Effectiveness
 - NO_x \$ 15,700/ton
 - ROG \$ 15,700/ton
 - NO_x + ROG \$ 15,700/ton
- Implementation Years
 - Continuing from CEQA implementation today thru 2023

Region Wide Measures—8

- New Development Operational ISR
 - Requires reducing emissions based on housing/development's “fairshare” of need reductions for attainment (Sacramento and Placer)
- Overall Cost Effectiveness
 - NO_x \$ 15,700/ton
 - ROG \$ 15,700/ton
 - NO_x + ROG \$ 15,700/ton
- Implementation Years
 - Building off of Sacramento Co. mitigation program thru 2023

Region Wide Measures

- Emission Reductions, in 2012
 - 0.30 tpd ROG
 - 2.11 tpd NOx
- Emission Reductions, in 2018
 - 0.33 tpd ROG
 - 2.67 tpd NOx
- Emission Reductions, in 2023
 - 0.29 tpd ROG
 - 1.97 tpd NOx

Questions